

**Supplementary Table 1. List of Quantifiable and Non-Quantifiable
Grouped by KOG Category**

Protein ID	Protein name	L/H ratio
INFORMATION STORAGE AND PROCESSING		
KOG category [J] Translation, ribosomal structure and biogenesis		
IPI00217030	RPS4X 40S ribosomal protein S4, X isoform	1.43
IPI00428288	MRPL43 Isoform 4 of 39S ribosomal protein L43, mitochondrial	0.77
IPI00456940	RPL7L1 60S ribosomal protein L7-like 1	0.85
IPI00029731	RPL35A 60S ribosomal protein L35a	0.84
IPI00219155	RPL27 60S ribosomal protein L27	1.3
IPI00783097	GARS Glycyl-tRNA synthetase	2.05
IPI00025050	WARS2 Isoform 1 of Tryptophanyl-tRNA synthetase, mitochondrial	1.15
IPI00031801	CSDA Isoform 1 of DNA-binding protein A	1.72
IPI00048572	PTRH1 Similar to Tetratricopeptide repeat protein 16	1.32
IPI00619930	PUS1 Isoform 1 of tRNA pseudouridine synthase A, mitochondrial	1.01
IPI00334914	TRMT1L Isoform 1 of TRMT1-like protein	0.94
IPI00307409	MRPL9 39S ribosomal protein L9, mitochondrial	1.35
IPI00008485	ACO1 Cytoplasmic aconitate hydratase	1.68
IPI00011077	MRPL32 39S ribosomal protein L32, mitochondrial precursor	2.43
IPI00027443	CARS cysteinyl-tRNA synthetase, cytoplasmic isoform c	1.66
IPI00007175	NIP7 Isoform 1 of 60S ribosome subunit biogenesis protein NIP7 hom 1	
IPI00216587	RPS8;SNORD55 40S ribosomal protein S8	0.84
IPI00013485	RPS2 40S ribosomal protein S2	1.45
IPI00295400	WARS Isoform 1 of Tryptophanyl-tRNA synthetase, cytoplasmic	2.57
IPI00031661	NOC4L Nucleolar complex protein 4 homolog	1.82
IPI00032872	MRPS16 28S ribosomal protein S16, mitochondrial	1.64
IPI00106698	PELO Protein pelota homolog	1.24
IPI00604620	NCL Nucleolin	0.82
IPI00297982	EIF2S3 Eukaryotic translation initiation factor 2 subunit 3	1.53
IPI00873899	ABCF1 Isoform 1 of ATP-binding cassette sub-family F member 1	0.92
IPI00247583	RPL21;SNORD102;SNORA27;RPL21P19 60S ribosomal protein L21	0.74
IPI00062151	Ribosomal protein L15	0.76
IPI00555744	RPL14 Ribosomal protein L14 variant	1.18
IPI00927658	RPL32 Uncharacterized protein	1.14
IPI00219153	RPL22 60S ribosomal protein L22	1.04
IPI00746351	DIS3 Isoform 1 of Exosome complex exonuclease RRP44	1.05
IPI00007144	RPL26L1 60S ribosomal protein L26-like 1	0.84
IPI00009680	MRPL44 39S ribosomal protein L44, mitochondrial	1.03
IPI00215780	RPS19 40S ribosomal protein S19	0.89
IPI00465160	ABCF3 Isoform 1 of ATP-binding cassette sub-family F member 3	1.26
IPI00916503	BZW1 cDNA FLJ55789, highly similar to Rattus norvegicus basic leu	1.3
IPI00550021	SNORD43;RPL3 60S ribosomal protein L3	1.05
IPI00032823	EXOSC1 Exosome complex component CSL4	1.39
IPI00215790	RPL38 60S ribosomal protein L38	0.86
IPI00027096	MRPL19 39S ribosomal protein L19, mitochondrial	0.6
IPI00745433	EIF2C2 Isoform 1 of Protein argonaute-2	1.44
IPI00216237	RPL36 60S ribosomal protein L36	0.92
IPI00219156	RPL30 60S ribosomal protein L30	0.95
IPI00644708	TIAL1 nucleolysin TIAR isoform 2	0.98
IPI00006970	MRPS2 Mitochondrial 28S ribosomal protein S2	0.78
IPI00306290	XPOT Exportin-T	2.06
IPI00549566	RARS2 Probable arginyl-tRNA synthetase, mitochondrial	0.68
IPI00165092	YARS2 Tyrosyl-tRNA synthetase, mitochondrial	1.53
IPI00414860	RPL37A 60S ribosomal protein L37a	0.76
IPI00031691	RPL9 60S ribosomal protein L9	0.83

IPI00795627	MRPL3 cDNA FLJ51883, highly similar to Mitochondrial 39S ribosome	0.71
IPI00090720	QRSL1 Isoform 1 of Glutamyl-tRNA(Gln) amidotransferase subunit A	0.56
IPI00418290	MRPL14 39S ribosomal protein L14, mitochondrial	1.46
IPI00160421	MRPL18 39S ribosomal protein L18, mitochondrial	0.69
IPI00419880	SNORD73A;RPS3A 40S ribosomal protein S3a	0.94
IPI00027270	RPL26 60S ribosomal protein L26	1.34
IPI00015952	EIF4G2 cDNA FLJ59571, highly similar to Eukaryotic translation ini	0.75
IPI00010105	EIF6 Eukaryotic translation initiation factor 6	1.75
IPI00552920	EXOSC8 Exosome complex component RRP43	0.77
IPI00102815	NOC3L Nucleolar complex protein 3 homolog	1.45
IPI00335589	RNMTL1 RNA methyltransferase-like protein 1	1.62
IPI00300074	FARSB Phenylalanyl-tRNA synthetase beta chain	1.29
IPI00006440	MRPS7 28S ribosomal protein S7, mitochondrial	1.24
IPI00181728	BRX1 Ribosome biogenesis protein BRX1 homolog	0.91
IPI00376005	EIF5A Isoform 2 of Eukaryotic translation initiation factor 5A-1	1.44
IPI00306723	CEBPZ CCAAT/enhancer-binding protein zeta	0.82
IPI00411937	SNORD110;SNORD86;NOP56 Nucleolar protein 56	1.5
IPI00217553	MRPL41 39S ribosomal protein L41, mitochondrial	1.33
IPI00465233	EIF3L Uncharacterized protein	0.85
IPI00031820	FARSA Phenylalanyl-tRNA synthetase alpha chain	1.03
IPI00396329	RPF2 Ribosome production factor 2 homolog	0.91
IPI00744211	EIF4E2 Eukaryotic translation initiation factor 4E type 2	1.2
IPI00012750	RPS25 40S ribosomal protein S25	0.84
IPI00790292	MRPL45 cDNA FLJ61100, highly similar to 39S ribosomal protein L	2.22
IPI00006504	EIF2B3 Isoform 1 of Translation initiation factor eIF-2B subunit gam	1.01
IPI00014253	RRS1 Ribosome biogenesis regulatory protein homolog	1.68
IPI00010153	RPL23 60S ribosomal protein L23	1.71
IPI00028083	EIF2B2 Translation initiation factor eIF-2B subunit beta	0.93
IPI00927163	SARS2;FBXO17 seryl-tRNA synthetase, mitochondrial isoform a prec	1.88
IPI00298618	EIF1AD Probable RNA-binding protein EIF1AD	2.2
IPI00983659	EIF2B4 Uncharacterized protein	1.58
IPI00376798	RPL11 Isoform 1 of 60S ribosomal protein L11	1.31
IPI00008530	RPLP0 60S acidic ribosomal protein P0	1.48
IPI00221089	RPS13 40S ribosomal protein S13	1.44
IPI00022613	NOP14 Isoform 1 of Nucleolar protein 14	0.94
IPI00289807	TRNT1 Isoform 1 of CCA tRNA nucleotidyltransferase 1, mitochondr	1.15
IPI00185919	LARP1 Isoform 1 of La-related protein 1	1
IPI00012772	RPL8 60S ribosomal protein L8	1.03
IPI00163851	EIF2AK4 Isoform 1 of Eukaryotic translation initiation factor 2-alpha	1.92
IPI00170935	LRRC47 Leucine-rich repeat-containing protein 47	1.23
IPI00456758	RPL27A 60S ribosomal protein L27a	1.48
IPI00479058	RPS15 40S ribosomal protein S15	3.58
IPI00008437	RSL24D1 Probable ribosome biogenesis protein RLP24	0.87
IPI00154473	GFM1 Isoform 1 of Elongation factor G, mitochondrial	0.86
IPI00411816	MRPL2 39S ribosomal protein L2, mitochondrial	0.81
IPI00956559	EIF4G1 eukaryotic translation initiation factor 4 gamma 1 isoform 6	1.36
IPI00470528	RPL15 60S ribosomal protein L15	1.14
IPI00186290	EEF2 Elongation factor 2	0.8
IPI00719622	RPS28 40S ribosomal protein S28	0.91
IPI00221093	RPS17;RPS17L 40S ribosomal protein S17	1.34
IPI00216951	DARS Aspartyl-tRNA synthetase, cytoplasmic	1.15
IPI00328268	EIF4G3 eukaryotic translation initiation factor 4 gamma 3 isoform 1	4.46
IPI00179026	MCTS1 Isoform 1 of Malignant T cell-amplified sequence 1	1.14
IPI00012462	EIF2A Eukaryotic translation initiation factor 2A	1.2
IPI00021840	RPS6 40S ribosomal protein S6	1.08
IPI00099871	MRPL40 39S ribosomal protein L40, mitochondrial	1.96
IPI00219160	RPL34 60S ribosomal protein L34	0.79

IPI00965726	EIF4E eukaryotic translation initiation factor 4E isoform 2	0.95
IPI00007001	MRPL11 Isoform 1 of 39S ribosomal protein L11, mitochondrial	0.7
IPI00414410	MRPL22 26 kDa protein	0.84
IPI00014198	EXOSC7 Exosome complex component RRP42	0.71
IPI00019463	EIF2AK2 Interferon-induced, double-stranded RNA-activated protein	1.96
IPI00013068	EIF3E Eukaryotic translation initiation factor 3 subunit E	0.79
IPI00021808	HARS Histidyl-tRNA synthetase, cytoplasmic	0.8
IPI00009464	EXOSC10 Isoform 1 of Exosome component 10	1.06
IPI00296563	GUF1 Translation factor GUF1, mitochondrial	1.24
IPI00005948	MRI1 Isoform 1 of Methylthioribose-1-phosphate isomerase	0.63
IPI00644775	EXOSC5 Exosome complex exonuclease RRP46	0.73
IPI00029012	EIF3A Eukaryotic translation initiation factor 3 subunit A	0.88
IPI00790342	RPL6 60S ribosomal protein L6	1.35
IPI00025491	EIF4A1 Eukaryotic initiation factor 4A-I	0.69
IPI00018120	DAP3 28S ribosomal protein S29, mitochondrial	1.24
IPI00745613	EXOSC4 Exosome complex component RRP41	0.86
IPI00216999	C14orf21 Pumilio domain-containing protein C14orf21	1.01
IPI00783197	TRMT61A tRNA (adenine-N(1)-)-methyltransferase catalytic subunit	1.24
IPI00409717	MIR1248;SNORA4;SNORD2;EIF4A2;SNORA81;SNORA63 Isoform	1.22
IPI00009444	MRPL27 39S ribosomal protein L27, mitochondrial	1.06
IPI00023334	MRPL4 Isoform 1 of 39S ribosomal protein L4, mitochondrial	1.67
IPI00014238	KARS Isoform Cytoplasmic of Lysyl-tRNA synthetase	1.02
IPI00006379	NOP58 Nucleolar protein 58	1.05
IPI00024933	RPL12 Isoform 1 of 60S ribosomal protein L12	1.24
IPI00013296	RPS18;RPS18P9 40S ribosomal protein S18	1.05
IPI00299573	RPL7A;SNORD24 60S ribosomal protein L7a	1.1
IPI00746004	RPS27L 40S ribosomal protein S27-like	1.27
IPI00022403	MRPL13 39S ribosomal protein L13, mitochondrial	1.12
IPI00893746	NHP2L1 Uncharacterized protein	1.56
IPI00005038	HRSP12 Ribonuclease UK114	0.91
IPI00412579	RPL10A 60S ribosomal protein L10a	0.89
IPI00032355	PUM1 Uncharacterized protein	1.55
IPI00172591	MRPL17 39S ribosomal protein L17, mitochondrial	0.94
IPI00008438	RPS10 40S ribosomal protein S10	1.19
IPI00221300	EIF2B1 Translation initiation factor eIF-2B subunit alpha	0.86
IPI00169400	MRPS5 Isoform 1 of 28S ribosomal protein S5, mitochondrial	1.05
IPI00014213	LARS2 Probable leucyl-tRNA synthetase, mitochondrial	1.35
IPI00031489	EIF1B Eukaryotic translation initiation factor 1b	2.03
IPI00375824	DPH5 Isoform 5 of Diphthine synthase	0.81
IPI00015956	EXOSC3 Exosome complex component RRP40	1.47
IPI00006935	EIF5A2 Eukaryotic translation initiation factor 5A-2	1.73
IPI00021466	PAIP1 Isoform 1 of Polyadenylate-binding protein-interacting protein	1.12
IPI00221088	RPS9 40S ribosomal protein S9	1.09
IPI00221394	SNORA56;DKC1 H/ACA ribonucleoprotein complex subunit 4	1.9
IPI00012795	EIF3I Eukaryotic translation initiation factor 3 subunit I	0.83
IPI00290461	EIF3J Eukaryotic translation initiation factor 3 subunit J	1.21
IPI00001640	N6AMT1 Isoform 1 of HemK methyltransferase family member 2	1.14
IPI00027445	HARS2 Probable histidyl-tRNA synthetase, mitochondrial	1.55
IPI00014424	EEF1A2 Elongation factor 1-alpha 2	3.03
IPI00853161	SNORA70;RPL10 60S ribosomal protein L10	1.03
IPI00103341	TRUB1 Probable tRNA pseudouridine synthase 1	1.65
IPI00793201	AIMP1 aminoacyl tRNA synthase complex-interacting multifunctiona	1.6
IPI00009328	EIF4A3 Eukaryotic initiation factor 4A-III	0.87
IPI00028955	BOP1 Ribosome biogenesis protein BOP1	1.12
IPI00465176	C2orf15;MRPL30 Isoform 2 of 39S ribosomal protein L30, mitochond	1.41
IPI00412607	RPL35 60S ribosomal protein L35	0.74
IPI00218606	RPS23 40S ribosomal protein S23	1.23

IPI00427330	SBDS Ribosome maturation protein SBDS	1.25
IPI00006099	BMS1 Ribosome biogenesis protein BMS1 homolog	0.99
IPI00514587	SARS Uncharacterized protein	1.58
IPI00005039	MTIF2 Translation initiation factor IF-2, mitochondrial	1.09
IPI00291398	TIA1 Isoform Long of Nucleolysin TIA-1 isoform p40	0.79
IPI00290460	EIF3G Eukaryotic translation initiation factor 3 subunit G	1.09
IPI00000821	MRPL16 39S ribosomal protein L16, mitochondrial	1.37
IPI00550037	MRPS15 28S ribosomal protein S15, mitochondrial	0.93
IPI00103994	LARS Leucyl-tRNA synthetase, cytoplasmic	1.15
IPI00000494	SNORD21;RPL5 60S ribosomal protein L5	0.94
IPI00303944	NSUN4 Isoform 1 of Putative methyltransferase NSUN4	0.76
IPI00017448	RPS21 40S ribosomal protein S21	0.83
IPI00106549	DPH2 Diphthamide biosynthesis protein 2	1.4
IPI00797406	NMD3 Uncharacterized protein	0.71
IPI00003519	EFTUD2 116 kDa U5 small nuclear ribonucleoprotein component	1.52
IPI00031812	YBX1 Nuclease-sensitive element-binding protein 1	1.22
IPI00022305	BZW2 Basic leucine zipper and W2 domain-containing protein 2	0.63
IPI00221092	RPS16 40S ribosomal protein S16	1.19
IPI00219678	EIF2S1 Eukaryotic translation initiation factor 2 subunit 1	0.84
IPI00910513	GSPT1 eukaryotic peptide chain release factor GTP-binding subunit E	0.89
IPI00465361	RPL13 60S ribosomal protein L13	1.16
IPI00029114	ICT1 Peptidyl-tRNA hydrolase ICT1, mitochondrial	0.92
IPI00028390	MRPL34 39S ribosomal protein L34, mitochondrial	1.05
IPI00216260	TSFM Isoform 2 of Elongation factor Ts, mitochondrial	0.84
IPI00073602	EXOSC6 Exosome complex component MTR3	1.26
IPI00655650	RPS26 40S ribosomal protein S26	0.86
IPI00306332	RPL24 60S ribosomal protein L24	0.79
IPI00005050	MRPS14 28S ribosomal protein S14, mitochondrial	1.06
IPI00299254	EIF5B Eukaryotic translation initiation factor 5B	1.69
IPI00647650	EIF3H cDNA FLJ35809 fis, clone TESTI2006016, highly similar to E	0.84
IPI00011898	EIF2B5 Translation initiation factor eIF-2B subunit epsilon	1.35
IPI00011253	RPS3 40S ribosomal protein S3	1.08
IPI00152692	DTD1 D-tyrosyl-tRNA(Tyr) deacylase 1	1.54
IPI00001159	GCN1L1 Translational activator GCN1	1.27
IPI00306960	NARS Asparaginyl-tRNA synthetase, cytoplasmic	1.43
IPI00304612	SNORD32A;RPL13A;SNORD33;SNORD34 60S ribosomal protein L	0.85
IPI00062839	MARS2 Methionyl-tRNA synthetase, mitochondrial	1.88
IPI00037619	RPL39P5 Putative 60S ribosomal protein L39-like 5	2.26
IPI00019195	RPP38 Ribonuclease P protein subunit p38	1.47
IPI00013160	EIF2D Isoform 1 of Eukaryotic translation initiation factor 2D	2.29
IPI01020905	RPL18 Protein	1.39
IPI00061108	MRRF Isoform 1 of Ribosome-recycling factor, mitochondrial	0.81
IPI00329633	TARS Threonyl-tRNA synthetase, cytoplasmic	1.28
IPI01015060	MRPL12;SLC25A10 39S ribosomal protein L12, mitochondrial	
IPI00008527	RPLP1 60S acidic ribosomal protein P1	2.77
IPI00221091	RPS15A 40S ribosomal protein S15a	0.89
IPI00419919	RPL29;RPL29P4 Ribosomal protein L29	1.3
IPI00029697	EXOSC9 Isoform 2 of Exosome complex component RRP45	0.76
IPI00010244	MRPS11 Isoform 1 of 28S ribosomal protein S11, mitochondrial	1.1
IPI00022648	EIF5 Eukaryotic translation initiation factor 5	0.64
IPI00021728	EIF2S2 Eukaryotic translation initiation factor 2 subunit 2	0.91
IPI00642904	PABPC4 polyadenylate-binding protein 4 isoform 1	0.94
IPI00073779	MRPS35 Isoform 1 of 28S ribosomal protein S35, mitochondrial	2.36
IPI00107563	POP5 Ribonuclease P/MRP protein subunit POP5	0.88
IPI00925046	QARS Glutaminyl-tRNA synthetase	1.06
IPI00023086	MRPL15 39S ribosomal protein L15, mitochondrial	1.27
IPI00646839	EIF3C;EIF3CL Uncharacterized protein	0.81

IPI00061245	MRPS10 28S ribosomal protein S10, mitochondrial	0.78
IPI00027442	AARS Alanyl-tRNA synthetase, cytoplasmic	1.46
IPI00015077	EIF1 Eukaryotic translation initiation factor 1	1.22
IPI00917298	RPL31 cDNA FLJ57527, highly similar to 60S ribosomal protein L31	1.31
IPI00429191	ETF1 Eukaryotic peptide chain release factor subunit 1	0.91
IPI00413108	SNORA6;RPSAP15;SNORA62;RPSA 33 kDa protein	1.34
IPI00027107	TUFM elongation factor Tu, mitochondrial precursor	1.7
IPI00644127	IARS Isoleucyl-tRNA synthetase, cytoplasmic	1.21
IPI00013917	RPS12 40S ribosomal protein S12	0.83
IPI00304409	CARHSP1 Calcium-regulated heat stable protein 1	1.74
IPI00232533	EIF1AX Eukaryotic translation initiation factor 1A, X-chromosomal	0.78
IPI00641924	MRPS9 28S ribosomal protein S9, mitochondrial	0.69
IPI00179330	RPS27A Ubiquitin-40S ribosomal protein S27a	1.69
IPI00967202	EIF4E2 Eukaryotic translation initiation factor 4E member 2 variant (0.79
IPI00654777	EIF3F cDNA FLJ36192 fis, clone TESTI2027450, highly similar to E	1.26
IPI00005692	MRPS12 28S ribosomal protein S12, mitochondrial	2.06
IPI00008529	RPLP2 60S acidic ribosomal protein P2	1.07
IPI00878912	TRMT2A Uncharacterized protein	1.19
IPI00008433	RPS5 40S ribosomal protein S5	0.94
IPI00604527	TARS2 Threonyl-tRNA synthetase, mitochondrial	1.31
IPI00394788	AARS2 Alanyl-tRNA synthetase, mitochondrial	1.17
IPI00880048	DIS3L2 Isoform 1 of DIS3-like exonuclease 2	2.5
IPI00293476	MRPL23 39S ribosomal protein L23, mitochondrial	1.34
IPI00396485	EEF1A1 Elongation factor 1-alpha 1	1.05
IPI00876864	RPP30 ribonuclease P protein subunit p30 isoform a	1.47
IPI00302740	RPS4Y1 40S ribosomal protein S4, Y isoform 1	10.22
IPI00008524	PABPC1 Isoform 1 of Polyadenylate-binding protein 1	0.8
IPI00746438	RPL11 Isoform 2 of 60S ribosomal protein L11	1.45
IPI00940410	TSEN34 tRNA-splicing endonuclease subunit Sen34	0.93
IPI00156032	KRR1 KRR1 small subunit processome component homolog	1.65
IPI00006864	MRPL33 39S ribosomal protein L33, mitochondrial	1
IPI00182289	RPS29 40S ribosomal protein S29	1.15
IPI00099311	TRMT6 Isoform 1 of tRNA (adenine-N(1)-)-methyltransferase non-ca	0.92
IPI00013415	RPS7 40S ribosomal protein S7	1.24
IPI00026202	RPL18A 60S ribosomal protein L18a	0.8
IPI00411886	NOC2L Nucleolar complex protein 2 homolog	0.87
IPI00030179	RPL7P32;RPL7 60S ribosomal protein L7	0.91
IPI00026271	RPS14 40S ribosomal protein S14	1.56
IPI00170877	MRPL10 39S ribosomal protein L10, mitochondrial isoform b	0.82
IPI00020508	TRMT1 Isoform 1 of N(2),N(2)-dimethylguanosine tRNA methyltran	1.11
IPI00719752	EIF3B Isoform 2 of Eukaryotic translation initiation factor 3 subunit F	0.86
IPI00302176	GAR1 Isoform 1 of H/ACA ribonucleoprotein complex subunit 1	0.9
IPI00025091	RPS11 40S ribosomal protein S11	0.96
IPI00025329	RPL19 60S ribosomal protein L19	0.79
IPI00006181	EIF3D Eukaryotic translation initiation factor 3 subunit D	0.83

KOG category [A] RNA processing and modification

IPI00102425	RPRD1A Isoform 1 of Regulation of nuclear pre-mRNA domain-cont	1.41
IPI00013070	HNRNPUL1 Isoform 1 of Heterogeneous nuclear ribonucleoprotein U	1.42
IPI00004459	DIMT1 Probable dimethyladenosine transferase	0.92
IPI00394668	ADAR Isoform 4 of Double-stranded RNA-specific adenosine deamin	1.28
IPI00007605	NXT1 NTF2-related export protein 1	0.83
IPI00219306	MAGOH Protein mago nashi homolog	0.97
IPI00010204	SRSF3 Serine/arginine-rich splicing factor 3	3.44
IPI00893746	NHP2L1 Uncharacterized protein	1.56
IPI00646917	NUDT21 Cleavage and polyadenylation specificity factor subunit 5	1.41
IPI00005861	PRPF3 U4/U6 small nuclear ribonucleoprotein Prp3	0.93
IPI00017580	KIN DNA/RNA-binding protein KIN17	

IPI01009595	SRSF2 25 kDa protein	1.14
IPI00464952	SRSF11 Serine/arginine-rich splicing factor 11	1.66
IPI00396435	DHX15 Putative pre-mRNA-splicing factor ATP-dependent RNA heli	0.88
IPI00008557	IGF2BP1 Insulin-like growth factor 2 mRNA-binding protein 1	1.99
IPI00871240	SCAF8 cDNA FLJ56906, highly similar to RNA-binding protein 16	0.87
IPI00019488	IMP3 U3 small nucleolar ribonucleoprotein protein IMP3	1.1
IPI00100151	XRN2 Isoform 1 of 5'-3' exoribonuclease 2	1.59
IPI00000015	SRSF4 Serine/arginine-rich splicing factor 4	2.77
IPI00008485	ACO1 Cytoplasmic aconitate hydratase	1.68
IPI00302281	DDX56 Probable ATP-dependent RNA helicase DDX56	1.29
IPI00915400	ROD1 Isoform 4 of Regulator of differentiation 1	1.83
IPI00003768	PES1 Isoform 1 of Pescadillo homolog	0.91
IPI00215637	DDX3X ATP-dependent RNA helicase DDX3X	0.7
IPI00328840	THOC4 THO complex subunit 4	0.89
IPI00032460	LSM2 U6 snRNA-associated Sm-like protein LSm2	0.77
IPI00012382	SNRPA U1 small nuclear ribonucleoprotein A	1.69
IPI00008575	KHDRBS1 Isoform 1 of KH domain-containing, RNA-binding, signal	1.24
IPI00013721	PRPF4B Serine/threonine-protein kinase PRP4 homolog	1.18
IPI00384028	PAPOLA cDNA FLJ56176, highly similar to Poly(A) polymerase alp1	1.79
IPI00855912	PUF60 Isoform 6 of Poly(U)-binding-splicing factor PUF60	0.75
IPI00984962	CELF1 55 kDa protein	0.95
IPI00930241	EBNA1BP2 probable rRNA-processing protein EBP2 isoform 1	1.49
IPI00106567	WDR33 Isoform 1 of WD repeat-containing protein 33	0.96
IPI00012202	WDR77 Methylosome protein 50	0.89
IPI00005792	PABPN1 Isoform 1 of Polyadenylate-binding protein 2	0.99
IPI00604620	NCL Nucleolin	0.82
IPI00784161	SUPT6H Isoform 1 of Transcription elongation factor SPT6	1.56
IPI00030320	DDX6 Probable ATP-dependent RNA helicase DDX6	1.54
IPI00479191	HNRNPH1 51 kDa protein	1.36
IPI00477971	TBL3 Transducin beta-like protein 3	1.06
IPI00181702	SCAF4 Isoform 1 of Splicing factor, arginine/serine-rich 15	1.61
IPI00176706	RBM17 Splicing factor 45	0.81
IPI00293078	DDX27 Probable ATP-dependent RNA helicase DDX27	1.06
IPI00332428	MAK16 Protein MAK16 homolog	0.82
IPI00071318	LUC7L Isoform 1 of Putative RNA-binding protein Luc7-like 1	0.47
IPI00029267	SNRNPB U2 small nuclear ribonucleoprotein B"	0.74
IPI00017617	DDX5 Probable ATP-dependent RNA helicase DDX5	0.49
IPI00219229	LSM3 U6 snRNA-associated Sm-like protein LSm3	2.55
IPI00026089	SF3B1 Splicing factor 3B subunit 1	1.37
IPI00902991	CSTF2 BetaCstF-64 variant 2	1.4
IPI00164672	DCP1A mRNA-decapping enzyme 1A	1.3
IPI00419531	CPSF2 Cleavage and polyadenylation specificity factor subunit 2	0.98
IPI00020683	DUSP11 RNA/RNP complex-1-interacting phosphatase	0.48
IPI00783271	LRPPRC Leucine-rich PPR motif-containing protein, mitochondrial	0.73
IPI00183626	PTBP1 polypyrimidine tract-binding protein 1 isoform a	1.6
IPI00001146	LSM6 U6 snRNA-associated Sm-like protein LSm6	0.92
IPI00031556	U2AF2 Isoform 1 of Splicing factor U2AF 65 kDa subunit	1.54
IPI00414819	SKIV2L Helicase SKI2W	2.18
IPI00023409	UPF3B Isoform 1 of Regulator of nonsense transcripts 3B	1.05
IPI00654555	NOP2 Uncharacterized protein	0.98
IPI00015195	CSTF3 Cleavage stimulation factor subunit 3	0.92
IPI00165230	DAZAP1 Isoform 1 of DAZ-associated protein 1	1.29
IPI00744858	ISY1-RAB43;ISY1 Isoform 2 of Pre-mRNA-splicing factor ISY1 hom	1.02
IPI00006552	CNOT7 CCR4-NOT transcription complex subunit 7	0.87
IPI00967258	LUC7L3 cDNA FLJ77715, highly similar to Homo sapiens cisplatin r	0.71
IPI00150269	PRPF4 Isoform 1 of U4/U6 small nuclear ribonucleoprotein Prp4	1.27
IPI00007928	PRPF8 Pre-mRNA-processing-splicing factor 8	0.95

IPI00300504	UPF2 Isoform 1 of Regulator of nonsense transcripts 2	1.89
IPI00410110	DHX40 Isoform 1 of Probable ATP-dependent RNA helicase DHX40	1.52
IPI00939523	DDX46 DEAD (Asp-Glu-Ala-Asp) box polypeptide 46, isoform CRA_	0.96
IPI00375462	SREK1 Isoform 2 of Splicing regulatory glutamine/lysine-rich protein	2.51
IPI00294211	DHX38 Pre-mRNA-splicing factor ATP-dependent RNA helicase PRI	0.73
IPI00019918	DDX19A ATP-dependent RNA helicase DDX19A	0.94
IPI00291398	TIA1 Isoform Long of Nucleolysin TIA-1 isoform p40	0.79
IPI00640040	68 kDa protein	12.77
IPI00034049	UPF1 Isoform 1 of Regulator of nonsense transcripts 1	1.09
IPI00644708	TIAL1 nucleolysin TIAR isoform 2	0.98
IPI00152304	RBM46 Probable RNA-binding protein 46	0.76
IPI00003394	SMN2;SMN1 Isoform SMN of Survival motor neuron protein	0.88
IPI00440688	POLDIP3 cDNA FLJ54030, highly similar to Polymerase delta-intera	1.29
IPI00221106	SF3B2 Splicing factor 3B subunit 2	1.42
IPI00152510	DDX54 Isoform 2 of ATP-dependent RNA helicase DDX54	1.13
IPI00006987	DDX24 ATP-dependent RNA helicase DDX24	2.06
IPI00292000	PRPF31 Isoform 1 of U4/U6 small nuclear ribonucleoprotein Prp31	0.79
IPI00430472	ASCC3 Activating signal cointegrator 1 complex subunit 3	0.89
IPI00150963	RPUSD2 RNA pseudouridylate synthase domain-containing protein 2	3.94
IPI00926109	DHX30 Isoform 2 of Putative ATP-dependent RNA helicase DHX30	0.9
IPI00395337	FIP1L1 Isoform 1 of Pre-mRNA 3'-end-processing factor FIP1	1.53
IPI00019380	NCBP1 Nuclear cap-binding protein subunit 1	0.93
IPI00000162	NGDN Isoform 1 of Neuroguidin	1.23
IPI00009032	SSB Lupus La protein	0.88
IPI00465294	CDC5L Cell division cycle 5-like protein	1.71
IPI00034069	TFB2M Dimethyladenosine transferase 2, mitochondrial	2.06
IPI00015924	TFIP11 Isoform 1 of Tuftelin-interacting protein 11	0.82
IPI00015905	EXOSC2 Exosome complex component RRP4	0.65
IPI00033561	RNPS1 Isoform 1 of RNA-binding protein with serine-rich domain 1	1.84
IPI00009755	METTL3 Isoform 1 of N6-adenosine-methyltransferase 70 kDa subun	1.16
IPI00007208	DDX41 Probable ATP-dependent RNA helicase DDX41	0.73
IPI00552073	DHX16 Putative pre-mRNA-splicing factor ATP-dependent RNA heli	0.66
IPI00183500	NCBP2 Isoform 1 of Nuclear cap-binding protein subunit 2	0.88
IPI00303207	ABCE1 ATP-binding cassette sub-family E member 1	1.2
IPI00217157	DDX59 Isoform 1 of Probable ATP-dependent RNA helicase DDX59	2.37
IPI00297900	DDX10 Probable ATP-dependent RNA helicase DDX10	0.62
IPI00017963	SNRPD2 Small nuclear ribonucleoprotein Sm D2	1.57
IPI00010740	SFPQ Isoform Long of Splicing factor, proline- and glutamine-rich	0.99
IPI00032853	NOP10 H/ACA ribonucleoprotein complex subunit 3	0.88
IPI00025176	SMNDC1 Survival of motor neuron-related-splicing factor 30	0.95
IPI00294879	RANGAP1 Ran GTPase-activating protein 1	0.81
IPI00300371	SF3B3 Isoform 1 of Splicing factor 3B subunit 3	0.9
IPI00032791	POP4 Ribonuclease P protein subunit p29	1.41
IPI00011528	CSTF1 Cleavage stimulation factor subunit 1	0.79
IPI00848161	SNORD84;DDX39B Isoform 1 of Spliceosome RNA helicase DDX39 1	
IPI00019195	RPP38 Ribonuclease P protein subunit p38	1.47
IPI00006025	SART3 Isoform 1 of Squamous cell carcinoma antigen recognized by	1.39
IPI00013830	SNW1 SNW domain-containing protein 1	1.69
IPI00647217	SKIV2L2 Superkiller viralicidic activity 2-like 2	1.32
IPI00156005	NOVA2 RNA-binding protein Nova-2	2.13
IPI00297477	SNRPA1 U2 small nuclear ribonucleoprotein A'	1.18
IPI00290952	RRP1B Isoform 1 of Ribosomal RNA processing protein 1 homolog B	0.72
IPI00658000	IGF2BP3 Isoform 1 of Insulin-like growth factor 2 mRNA-binding pro	2
IPI00029266	SNRPE Small nuclear ribonucleoprotein E	0.97
IPI00220528	SNRPF Small nuclear ribonucleoprotein F	0.78
IPI00305545	DBR1 Isoform 1 of Lariat debranching enzyme	0.82
IPI00012340	SRSF9 Serine/arginine-rich splicing factor 9	1.01

IPI00025039	FBL rRNA 2'-O-methyltransferase fibrillarin	1.36
IPI00181116	IMP4 U3 small nucleolar ribonucleoprotein protein IMP4	1.36
IPI00017451	SF3A1 Splicing factor 3A subunit 1	1.01
IPI00029764	SF3A3 Splicing factor 3A subunit 3	0.86
IPI00940237	DDX39A ATP-dependent RNA helicase DDX39A	1.29
IPI00301936	ELAVL1 cDNA FLJ60076, highly similar to ELAV-like protein 1	1.05
IPI00016610	PCBP1 Poly(rC)-binding protein 1	1.62
IPI00012066	PCBP2 poly(rC)-binding protein 2 isoform b	1.79
IPI00005634	TTC37 Tetratricopeptide repeat protein 37	1.14
IPI00015953	DDX21 Isoform 1 of Nucleolar RNA helicase 2	0.84
IPI00294229	RCL1 RNA 3'-terminal phosphate cyclase-like protein	1.03
IPI00009137	CPSF4 Isoform 1 of Cleavage and polyadenylation specificity factor subunit 4	0.63
IPI00411937	SNORD110;SNORD86;NOP56 Nucleolar protein 56	1.5
IPI00220302	WTAP Isoform 1 of Pre-mRNA-splicing regulator WTAP	1.48
IPI00290204	SNRNP70 Isoform 1 of U1 small nuclear ribonucleoprotein 70 kDa	1.32
IPI00303402	PHAX Phosphorylated adapter RNA export protein	1
IPI00023126	WDR46 WD repeat-containing protein 46	1.11
IPI00027415	DHX36 Isoform 1 of Probable ATP-dependent RNA helicase DHX36	0.76
IPI00215884	SRSF1 Isoform ASF-1 of Serine/arginine-rich splicing factor 1	1.01
IPI00400922	PDCD11 Protein RRP5 homolog	1.65
IPI00013877	HNRNPH3 Isoform 1 of Heterogeneous nuclear ribonucleoprotein H3	1.27
IPI00879006	RRP7A Ribosomal RNA-processing protein 7 homolog A	0.96
IPI00041325	NHP2 H/ACA ribonucleoprotein complex subunit 2	2.8
IPI00300078	PWP2 Periodic tryptophan protein 2 homolog	1.19
IPI00009659	RPRD1B Regulation of nuclear pre-mRNA domain-containing protein 1B	1.14
IPI00003881	HNRNPF Heterogeneous nuclear ribonucleoprotein F	0.81
IPI00550766	RRP1 Ribosomal RNA processing protein 1 homolog A	1.08
IPI00016572	SNRPG Small nuclear ribonucleoprotein G	0.8
IPI00017964	SNRPD3 Small nuclear ribonucleoprotein Sm D3	1.02
IPI00003918	RPL4 60S ribosomal protein L4	1.3
IPI00642904	PABPC4 polyadenylate-binding protein 4 isoform 1	0.94
IPI00017339	SF3B4 Splicing factor 3B subunit 4	1.24
IPI00023344	SYMPK Isoform 1 of Symplekin	0.94
IPI00514277	QKI Isoform 1 of Protein quaking	1.28
IPI00026219	CPSF1 Cleavage and polyadenylation specificity factor subunit 1	1.02
IPI01021216	PCBP2 Uncharacterized protein	7.18
IPI00144293	YTHDC1 Isoform 1 of YTH domain-containing protein 1	
IPI00009471	WDR3 WD repeat-containing protein 3	1.12
IPI00304596	NONO Non-POU domain-containing octamer-binding protein	1.23
IPI00478657	GRSF1 G-rich sequence factor 1	1.68
IPI00033153	NXF1 Isoform 1 of Nuclear RNA export factor 1	1.01
IPI00074010	QTRTD1 48 kDa protein	3.86
IPI00297450	C12orf26 Uncharacterized protein C12orf26	0.19
IPI00003377	SRSF7 Isoform 1 of Serine/arginine-rich splicing factor 7	0.82
IPI00844193	ZNF593 Zinc finger protein 593	1.76
IPI00007818	CPSF3 Cleavage and polyadenylation specificity factor subunit 3	1.25
IPI00216746	HNRNPK Isoform 2 of Heterogeneous nuclear ribonucleoprotein K	1.05
IPI00412404	SUPV3L1 ATP-dependent RNA helicase SUPV3L1, mitochondrial	1.62
IPI00032423	DDX52 Probable ATP-dependent RNA helicase DDX52	0.82
IPI00006725	DDX23 Probable ATP-dependent RNA helicase DDX23	1.1
IPI00032830	REXO2 Isoform 1 of Oligoribonuclease, mitochondrial (Fragment)	0.85
IPI00444452	MOV10 Isoform 1 of Putative helicase MOV-10	1.08
IPI00807545	HNRNPK Isoform 3 of Heterogeneous nuclear ribonucleoprotein K	1.46
IPI00295501	CNOT8 CCR4-NOT transcription complex subunit 8	1.02
IPI00006723	SNRNP40 cDNA FLJ56825, highly similar to WD repeat protein 57	1.28
IPI00302850	SNRPD1 Small nuclear ribonucleoprotein Sm D1	1.78
IPI00005613	U2AF1 Splicing factor U2AF 35 kDa subunit	0.84

IPI00003704	RBM4;RBM14;RBM14-RBM4 Isoform 1 of RNA-binding protein 4	0.95
IPI00163084	XAB2 Pre-mRNA-splicing factor SYF1	1.13
IPI00012149	MPHOSPH10 U3 small nucleolar ribonucleoprotein protein MPP10	2.01
IPI00006932	LUC7L2 cDNA FLJ55988, highly similar to RNA-binding protein Lu	0.8
IPI00152695	WDR82 WD repeat-containing protein 82	0.98
IPI00856037	HNRNPR heterogeneous nuclear ribonucleoprotein R isoform 3	1.24
IPI00026230	HNRNPH2 Heterogeneous nuclear ribonucleoprotein H2	1.13
IPI00221327	RTCD1 Isoform 2 of RNA 3'-terminal phosphate cyclase	1.96
IPI00002624	PLRG1 Isoform 1 of Pleiotropic regulator 1	0.94
IPI00305068	PRPF6 Pre-mRNA-processing factor 6	0.98
IPI00782992	SRRM2 Isoform 1 of Serine/arginine repetitive matrix protein 2	2.45
IPI00294955	LSM4 U6 snRNA-associated Sm-like protein LSm4	2.05
IPI00008524	PABPC1 Isoform 1 of Polyadenylate-binding protein 1	0.8
IPI00420014	SNRNP200 Isoform 1 of U5 small nuclear ribonucleoprotein 200 kDa	0.94
IPI00043990	DDX31 Isoform 1 of Probable ATP-dependent RNA helicase DDX31	0.98
IPI00023972	DDX47 Probable ATP-dependent RNA helicase DDX47	1.11
IPI00217862	RRP9 U3 small nucleolar RNA-interacting protein 2	1.19
IPI00106491	MRT04 mRNA turnover protein 4 homolog	1.08
IPI00021417	SART1 U4/U6.U5 tri-snRNP-associated protein 1	1.41
IPI00018140	SYNCRIP Isoform 1 of Heterogeneous nuclear ribonucleoprotein Q	0.83
IPI00301323	DDX18 ATP-dependent RNA helicase DDX18	1.06
IPI00304187	RBM28 RNA-binding protein 28	0.83
IPI00293331	POP1 Ribonucleases P/MRP protein subunit POP1	1.89
IPI00291525	TFB1M Dimethyladenosine transferase 1, mitochondrial	0.46
IPI00187011	ZC3H4 Zinc finger CCCH domain-containing protein 4	4.67
IPI00013396	SNRPC U1 small nuclear ribonucleoprotein C	2.09
IPI00219871	NAA38 N-alpha-acetyltransferase 38, NatC auxiliary subunit	1.04
IPI00377030	SNRNP35 Isoform 2 of U11/U12 small nuclear ribonucleoprotein 35 k	1.4
IPI00012345	SRSF6 Isoform SRP55-1 of Serine/arginine-rich splicing factor 6	0.73
IPI00012074	HNRNPR Isoform 1 of Heterogeneous nuclear ribonucleoprotein R	0.97
IPI00293655	DDX1 ATP-dependent RNA helicase DDX1	1.14
IPI00220493	LSM5 Isoform 1 of U6 snRNA-associated Sm-like protein LSm5	2.88
IPI00217686	FTSJ3 Putative rRNA methyltransferase 3	1.06
IPI00006979	LYRM4 LYR motif-containing protein 4	1.11
IPI00180154	ATXN2 Isoform 1 of Ataxin-2	1.37
IPI00006379	NOP58 Nucleolar protein 58	1.05
IPI00304932	RRP8 Ribosomal RNA-processing protein 8	2.06
IPI00059292	MAGOHB Protein mago nashi homolog 2	0.87
IPI00883857	HNRNPU Isoform Long of Heterogeneous nuclear ribonucleoprotein U	0.9
IPI00030288	DHX35 Probable ATP-dependent RNA helicase DHX35	2.38
IPI00031554	DDX50 ATP-dependent RNA helicase DDX50	0.74
IPI00953576	IGF2BP2 Uncharacterized protein	1.26
IPI00410657	RNMT Isoform 2 of mRNA cap guanine-N7 methyltransferase	1.15
IPI00641359	RPP21 ribonuclease P protein subunit p21 isoform 1	1.81
IPI00004436	LSM1 U6 snRNA-associated Sm-like protein LSm1	0.97

KOG category [K] Transcription

IPI00024802	BTA1F1 TATA-binding protein-associated factor 172	0.94
IPI00300659	CDC73 Parafibromin	0.87
IPI00021692	MBNL1 Isoform 1 of Muscleblind-like protein 1	1.45
IPI00328658	ASH2L Isoform 1 of Set1/Ash2 histone methyltransferase complex su	1.04
IPI00306159	MECR Isoform 1 of Trans-2-enoyl-CoA reductase, mitochondrial	1.35
IPI01015167	MED21 Uncharacterized protein	1.21
IPI00871240	SCAF8 cDNA FLJ56906, highly similar to RNA-binding protein 16	0.87
IPI00409675	MORF4L1 Isoform 1 of Mortality factor 4-like protein 1	2.89
IPI00419473	BTF3 Isoform 2 of Transcription factor BTF3	0.63
IPI00640088	CSNK2B Uncharacterized protein	1.88
IPI00016802	SIRT1 NAD-dependent deacetylase sirtuin-1	7.27

IPI00154451	MMS19 cDNA FLJ55586, highly similar to MMS19-like protein	1.94
IPI00155601	MACROD1 MACRO domain-containing protein 1	1.42
IPI00021305	CCNH Cyclin-H	0.99
IPI00853043	SMARCD2 Isoform 1 of SWI/SNF-related matrix-associated actin-dep	0.81
IPI00002993	TAF9 Transcription initiation factor TFIID subunit 9	1.04
IPI00100791	GTF2H3 General transcription factor IIH subunit 3	0.91
IPI00251989	POLR1E Isoform 1 of DNA-directed RNA polymerase I subunit RPA	0.76
IPI00005223	SMAD9 Isoform A of Mothers against decapentaplegic homolog 9	4.71
IPI00181702	SCAF4 Isoform 1 of Splicing factor, arginine/serine-rich 15	1.61
IPI00009104	RUVBL2 RuvB-like 2	0.94
IPI00016613	CSNK2A1 Uncharacterized protein	1.71
IPI00607584	MYBBP1A Isoform 2 of Myb-binding protein 1A	1.21
IPI00985353	EEF1D Uncharacterized protein	0.88
IPI00164672	DCP1A mRNA-decapping enzyme 1A	1.3
IPI00477686	GTF2F2 General transcription factor IIF subunit 2	1.17
IPI00300341	TCEB1 Transcription elongation factor B polypeptide 1	1.05
IPI00302238	AATF Protein AATF	0.94
IPI00003309	POLR2H DNA-directed RNA polymerases I, II, and III subunit RPAB	0.82
IPI00852816	SMARCD1 Isoform 1 of SWI/SNF-related matrix-associated actin-dep	1.21
IPI00645192	MECP2 Mutant methyl CpG binding protein 2 variant 1	4.64
IPI00815893	CHD2 Isoform 1 of Chromodomain-helicase-DNA-binding protein 2	2.07
IPI00017450	GTF2F1 General transcription factor IIF subunit 1	1.19
IPI00477494	DRAP1 Uncharacterized protein	1.08
IPI00292168	ASF1A Histone chaperone ASF1A	1.46
IPI00003310	POLR2J Uncharacterized protein	1.14
IPI00434390	ASCC1 cDNA FLJ55237, highly similar to Homo sapiens activating s	1.24
IPI00004353	GTF2A2 Transcription initiation factor IIA subunit 2	0.88
IPI00247871	TCERG1 Isoform 1 of Transcription elongation regulator 1	0.91
IPI00641743	HCFC1 Uncharacterized protein	1.11
IPI00299413	GABPA GA-binding protein alpha chain	0.82
IPI00024071	HSF1 Isoform Long of Heat shock factor protein 1	2.34
IPI00908736	YAF2 YY1-associated factor 2 isoform 1	1.9
IPI00101524	SNF8 Isoform 1 of Vacuolar-sorting protein SNF8	1.14
IPI00300333	PAF1 Isoform 1 of RNA polymerase II-associated factor 1 homolog	0.84
IPI00303832	RTF1 RNA polymerase-associated protein RTF1 homolog	1.14
IPI00439194	MBD3 Isoform 1 of Methyl-CpG-binding domain protein 3	0.67
IPI01014355	HELLS 103 kDa protein	0.32
IPI00449049	PARP1 Poly [ADP-ribose] polymerase 1	1.06
IPI00008531	RCOR1 REST corepressor 1	1.71
IPI00289667	POLR3H Isoform 1 of DNA-directed RNA polymerase III subunit RP	1.15
IPI00339381	HLTF Isoform 1 of Helicase-like transcription factor	1.14
IPI00298935	KDM3B Isoform 1 of Lysine-specific demethylase 3B	4.37
IPI00012835	CTBP1 C-terminal-binding protein 1	1.04
IPI00145260	IBA57 Putative transferase CAF17, mitochondrial	2.28
IPI00010141	POLE3 DNA polymerase epsilon subunit 3	1.27
IPI00183171	SIRT3 cDNA FLJ60939, highly similar to NAD-dependent deacetyl	1.3
IPI00008536	YEATS4 YEATS domain-containing protein 4	0.73
IPI00018840	TRIP4 Activating signal cointegrator 1	0.91
IPI00414482	GTF3C1 Isoform 1 of General transcription factor 3C polypeptide 1	1.42
IPI00879210	GTF3C5 Isoform 3 of General transcription factor 3C polypeptide 5	1.28
IPI00005154	SSRP1 FACT complex subunit SSRP1	1.01
IPI00005198	ILF2 Interleukin enhancer-binding factor 2	1.41
IPI00216046	SMARCA1 SWI/SNF related, matrix associated, actin dependent regu	0.84
IPI00647008	BRD7 Isoform 2 of Bromodomain-containing protein 7	1.39
IPI00008439	SS18L2 SS18-like protein 2	1.55
IPI00221222	SUB1 Activated RNA polymerase II transcriptional coactivator p15	1.38
IPI00029728	ERCC2 TFIIF basal transcription factor complex helicase XPD subun	2.47

IPI00002895	SUPT4H1 Transcription elongation factor SPT4	1.47
IPI00174852	MED20 Mediator of RNA polymerase II transcription subunit 20	0.84
IPI00007957	TAF6L TAF6-like RNA polymerase II p300/CBP-associated factor-as	1.14
IPI00014174	MORF4L2 Mortality factor 4-like protein 2	1.33
IPI00218568	PCBD1 Pterin-4-alpha-carbinolamine dehydratase	1.15
IPI00030781	STAT1 Isoform Alpha of Signal transducer and activator of transcript	3.05
IPI00032911	TBPL1 TATA box-binding protein-like protein 1	0.95
IPI00303439	SMARCB1 cDNA FLJ13963 fis, clone Y79AA1001299, highly simil	1.26
IPI00019981	GTF2E2 Transcription initiation factor IIE subunit beta	0.87
IPI00293735	IKBKAP Elongator complex protein 1	0.92
IPI00426640	GTF2H2;GTF2H2C;GTF2H2D General transcription factor IIH subur	1.27
IPI00607848	BRMS1 breast cancer metastasis-suppressor 1 isoform 2	1.11
IPI00022208	CEBPG CCAAT/enhancer-binding protein gamma	1.01
IPI00022820	GTF2B Transcription initiation factor IIB	1.5
IPI00032439	POLR1D Isoform 1 of DNA-directed RNA polymerases I and III subu	1.05
IPI00944951	TAF6 79 kDa protein	1.09
IPI00028122	PSIP1 Isoform 1 of PC4 and SFRS1-interacting protein	1.78
IPI00007948	POLR3C DNA-directed RNA polymerase III subunit RPC3	0.73
IPI00306723	CEBPZ CCAAT/enhancer-binding protein zeta	0.82
IPI00844578	DHX9 ATP-dependent RNA helicase A	1.01
IPI00218895	POLR2G DNA-directed RNA polymerase II subunit RPB7	1.47
IPI00000001	STAU1 Isoform Long of Double-stranded RNA-binding protein Staufi	1.69
IPI00031627	POLR2A DNA-directed RNA polymerase II subunit RPB1	1.64
IPI00465233	EIF3L Uncharacterized protein	0.85
IPI00027808	POLR2B DNA-directed RNA polymerase II subunit RPB2	0.97
IPI00874020	PCBD2 Pterin-4-alpha-carbinolamine dehydratase 2	0.9
IPI00165477	ELP3 Isoform 1 of Elongator complex protein 3	2.33
IPI00024620	ENY2 Enhancer of yellow 2 transcription factor homolog	1.26
IPI00031960	POLR1A DNA-directed RNA polymerase I subunit RPA1	0.83
IPI00099497	MAFF Transcription factor MafF	2.03
IPI00019977	GTF2E1 General transcription factor IIE subunit 1	1.27
IPI00013290	HDGFRP2 Isoform 2 of Hepatoma-derived growth factor-related prote	2.68
IPI00005179	POLR1C Isoform 1 of DNA-directed RNA polymerases I and III subu	0.83
IPI00015806	GTF3C3 Isoform 1 of General transcription factor 3C polypeptide 3	0.88
IPI00784414	STAT3 Isoform 1 of Signal transducer and activator of transcription 3	1.39
IPI00006113	POLR2I DNA-directed RNA polymerase II subunit RPB9	1.1
IPI00926903	CHCHD3 Uncharacterized protein	1.15
IPI00010158	CHRAC1 Chromatin accessibility complex protein 1	1.4
IPI00915022	THOC2 Isoform 1 of THO complex subunit 2	0.98
IPI00007311	MAFG Transcription factor MafG	0.97
IPI00440727	BRD4 Isoform 1 of Bromodomain-containing protein 4	3.35
IPI00967000	CHCHD6 Uncharacterized protein	0.67
IPI00220045	POLR3E Isoform 1 of DNA-directed RNA polymerase III subunit RPC	0.66
IPI00298058	SUPT5H Isoform 1 of Transcription elongation factor SPT5	1.29
IPI00289773	CEBPB CCAAT/enhancer-binding protein beta	1.63
IPI00005648	SAFB2 Scaffold attachment factor B2	1.47
IPI00556494	MED4 Mediator of RNA polymerase II transcription subunit 4	0.87
IPI00922484	cDNA, FLJ79376, highly similar to Protein G10 homolog	1.2
IPI00024163	POLR3A Similar to DNA-directed RNA polymerase	1.31
IPI00002502	ATF3 Isoform 1 of Cyclic AMP-dependent transcription factor ATF-3	0.53
IPI00021570	EDF1 Isoform 1 of Endothelial differentiation-related factor 1	1.52
IPI00016746	CBFB Isoform 1 of Core-binding factor subunit beta	0.66
IPI00163505	RBM39 Isoform 1 of RNA-binding protein 39	0.8
IPI00418497	TIMM50 Isoform 2 of Mitochondrial import inner membrane transloc	1.26
IPI00329088	CHD1L Isoform 1 of Chromodomain-helicase-DNA-binding protein 1	1.63
IPI00020602	CSNK2A2 Casein kinase II subunit alpha'	1.26
IPI00434623	MBD2 Isoform 1 of Methyl-CpG-binding domain protein 2	1.05

IPI00001364	GCFC1 Isoform A of GC-rich sequence DNA-binding factor 1	1.15
IPI00011590	FOSL1 Fos-related antigen 1	6.33
IPI00011698	SAP18 histone deacetylase complex subunit SAP18	0.96
IPI00010136	CTBP2 Isoform 2 of C-terminal-binding protein 2	0.93
IPI00023556	SSU72 Isoform 1 of RNA polymerase II subunit A C-terminal domain	2.26
IPI00514648	SMARCA2 Isoform Long of Probable global transcription activator Sl	1.56
IPI00020956	HDGF Hepatoma-derived growth factor	1.83
IPI00016839	GTF2H4 General transcription factor IIH subunit 4	0.96
IPI01009986	EEF1D Uncharacterized protein	2.07
IPI00007063	HDGFRP3 Hepatoma-derived growth factor-related protein 3	2.72
IPI00024698	PQBP1 Isoform 1 of Polyglutamine-binding protein 1	4.11
IPI00140420	SND1 Staphylococcal nuclease domain-containing protein 1	1.19
IPI00002806	TAF12 Isoform TAFII20 of Transcription initiation factor TFIID subu	0.8
IPI00037599	TFCP2 Isoform 1 of Alpha-globin transcription factor CP2	1.18
IPI00297211	SMARCA5 SWI/SNF-related matrix-associated actin-dependent regul	0.73
IPI00021167	PRKRA Isoform 1 of Interferon-inducible double stranded RNA-depe	1.87
IPI00556645	FOXK1 Isoform 1 of Forkhead box protein K1	2.2
IPI00333215	TCEA1 Isoform 1 of Transcription elongation factor A protein 1	1.37
IPI00291093	POLR2E DNA-directed RNA polymerases I, II, and III subunit RPAB	1.89
IPI01014546	PRMT1 protein arginine N-methyltransferase 1 isoform 1	0.86
IPI00030481	MED10 Mediator of RNA polymerase II transcription subunit 10	1.09
IPI00000685	CDK7 Cyclin-dependent kinase 7	2.16
IPI00178440	SNORA41;EEF1B2 Elongation factor 1-beta	1.2
IPI01020979	TEAD3 TEA domain family member 3	0.78
IPI00007283	POLR2D DNA-directed RNA polymerase II subunit RPB4	1.45
IPI00023322	DPF2 46 kDa protein	1.17
IPI00008991	DR1 Protein Dr1	1.72
IPI00024871	CBFB Isoform 2 of Core-binding factor subunit beta	0.87
IPI00031018	MAFK V-maf musculoaponeurotic fibrosarcoma oncogene homolog K	1.07
IPI00412792	BTF3L4 Transcription factor BTF3 homolog 4	1.7
IPI00003311	POLR2L DNA-directed RNA polymerases I, II, and III subunit RPAB	0.91
IPI00983392	SAFB scaffold attachment factor B1 isoform 1	0.85
IPI00170862	UXT protein UXT isoform 1	1.19
KOG category [L] Replication, recombination and repair		
IPI00025616	POLD2 DNA polymerase delta subunit 2	2.37
IPI00008223	RAD23B UV excision repair protein RAD23 homolog B	1.48
IPI00306667	CNP Isoform CNPII of 2',3'-cyclic-nucleotide 3'-phosphodiesterase	1.35
IPI00290192	RNASEH2A Ribonuclease H2 subunit A	1.3
IPI00013216	ORC2 Origin recognition complex subunit 2	0.84
IPI00299904	MCM7 Isoform 1 of DNA replication licensing factor MCM7	0.77
IPI00029159	MRE11A cDNA FLJ38069 fis, clone CTONG2015434, highly similar	1.21
IPI00290684	PNKP Bifunctional polynucleotide phosphatase/kinase	1.11
IPI00100151	XRN2 Isoform 1 of 5'-3' exoribonuclease 2	1.59
IPI00644712	XRCC6 X-ray repair cross-complementing protein 6	1.04
IPI00017381	RFC4 Replication factor C subunit 4	0.92
IPI00001641	ORC6 Origin recognition complex subunit 6	0.86
IPI00384456	MSH6 Isoform GTBP-N of DNA mismatch repair protein Msh6	1.08
IPI00021700	PCNA;PCNA-AS1 Proliferating cell nuclear antigen	0.68
IPI00154451	MMS19 cDNA FLJ55586, highly similar to MMS19-like protein	1.94
IPI00219179	ERCC4 DNA repair endonuclease XPF	1.12
IPI00021305	CCNH Cyclin-H	0.99
IPI00018349	MCM4 DNA replication licensing factor MCM4	0.67
IPI00793754	PRIM1 DNA primase	0.55
IPI00293464	DDB1 DNA damage-binding protein 1	1.18
IPI00328825	N4BP2 Isoform 1 of NEDD4-binding protein 2	1.14
IPI00647246	ISG20 Isoform 1 of Interferon-stimulated gene 20 kDa protein	6.15
IPI00100791	GTF2H3 General transcription factor IIH subunit 3	0.91

IPI00027705	PRIM2 Isoform 1 of DNA primase large subunit	1.11
IPI00556369	SMG1 411 kDa protein	0.92
IPI00017412	RFC2 Isoform 1 of Replication factor C subunit 2	0.99
IPI00178203	CHTF18 Uncharacterized protein	0.85
IPI00655631	POLD1 DNA polymerase	0.88
IPI00294744	PARN Poly(A)-specific ribonuclease PARN	0.92
IPI00029754	MLH1 DNA mismatch repair protein Mlh1	0.69
IPI00796835	AQR Intron-binding protein aquarius	0.89
IPI00017303	MSH2 DNA mismatch repair protein Msh2	0.97
IPI00549516	TOE1 Target of EGR1 protein 1	0.75
IPI00290314	WRNIP1 Isoform 1 of ATPase WRNIP1	0.99
IPI00032387	GIN51 DNA replication complex GINS protein PSF1	0.58
IPI00031614	GIN54 Isoform 1 of DNA replication complex GINS protein SLD5	0.51
IPI00069084	TRRAP Isoform 1 of Transformation/transcription domain-associated	1.45
IPI00816217	SMC6 Isoform 2 of Structural maintenance of chromosomes protein 6	0.95
IPI00026215	FEN1 Flap endonuclease 1	1.53
IPI00027035	GPN1 GPN-loop GTPase 1 isoform a	0.6
IPI00004859	BLM Bloom syndrome protein	1.61
IPI00647655	POLA1 DNA polymerase	0.57
IPI00298306	ATM Serine-protein kinase ATM	1.15
IPI00375358	RFC1 Isoform 1 of Replication factor C subunit 1	0.87
IPI00018350	MCM5 DNA replication licensing factor MCM5	0.94
IPI00401902	ERCC1 DNA excision repair protein ERCC-1 isoform 1	1.33
IPI00168899	DBF4B Isoform 1 of Protein DBF4 homolog B	18.7
IPI00219538	POLB DNA polymerase beta	0.66
IPI00220834	XRCC5 X-ray repair cross-complementing protein 5	1.12
IPI00296337	PRKDC Isoform 1 of DNA-dependent protein kinase catalytic subunit	1.3
IPI00031410	MTOR Serine/threonine-protein kinase mTOR	2
IPI00031521	RFC3 Replication factor C subunit 3	0.86
IPI00031514	RFC5 Replication factor C subunit 5	1
IPI00549205	RAD50 Isoform 2 of DNA repair protein RAD50	1
IPI00020127	RPA1 Replication protein A 70 kDa DNA-binding subunit	1.01
IPI00449049	PARP1 Poly [ADP-ribose] polymerase 1	1.06
IPI00015143	ORC5 Origin recognition complex subunit 5	0.72
IPI00339381	HLTF Isoform 1 of Helicase-like transcription factor	1.14
IPI00742743	TP53BP1 Isoform 2 of Tumor suppressor p53-binding protein 1	2.46
IPI00016839	GTF2H4 General transcription factor IIH subunit 4	0.96
IPI00374747	ORC3 Isoform 2 of Origin recognition complex subunit 3	1.02
IPI00013214	MCM3 cDNA FLJ55599, highly similar to DNA replication licensing	0.76
IPI00021187	RUVBL1 Isoform 1 of RuvB-like 1	1.18
IPI00012463	TATDN1 Isoform 1 of Putative deoxyribonuclease TATDN1	0.97
IPI00005154	SSRP1 FACT complex subunit SSRP1	1.01
IPI00026087	BANF1 Barrier-to-autointegration factor	0.87
IPI00003647	RAD1 Isoform 1 of Cell cycle checkpoint protein RAD1	1.12
IPI00646762	NUDT5 Uncharacterized protein	1.64
IPI00000685	CDK7 Cyclin-dependent kinase 7	2.16
IPI00413611	TOP1 DNA topoisomerase 1	0.87
IPI00008219	RAD23A UV excision repair protein RAD23 homolog A	2.02
IPI00029728	ERCC2 TFIIH basal transcription factor complex helicase XPD subun	2.47
IPI00215911	APEX1 DNA-(apurinic or apyrimidinic site) lyase	1.76
IPI00184330	MCM2 DNA replication licensing factor MCM2	0.67
IPI00436632	NIPBL Isoform 1 of Nipped-B-like protein	0.74
IPI00329605	MSH3 DNA mismatch repair protein Msh3	1.01
IPI00031517	MCM6 DNA replication licensing factor MCM6	0.73
IPI00426640	GTF2H2;GTF2H2C;GTF2H2D General transcription factor IIH subur	1.27

KOG category [B] Chromatin structure and dynamics

IPI00411559	SMC4 Isoform 1 of Structural maintenance of chromosomes protein 4	0.6
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IPI00642238	HP1BP3 Isoform 1 of Heterochromatin protein 1-binding protein 3	1.67
IPI00005711	HDAC6 cDNA FLJ56474, highly similar to Histone deacetylase 6	1.63
IPI00419833	HIST1H2BK Histone H2B type 1-K	1.07
IPI00018278	H2AFV Histone H2A.V	1.4
IPI00027280	TOP2B Isoform Beta-2 of DNA topoisomerase 2-beta	0.87
IPI00299507	NCAPH Condensin complex subunit 2	0.63
IPI00328658	ASH2L Isoform 1 of Set1/Ash2 histone methyltransferase complex subunit 1	1.04
IPI00216457	HIST2H2AA4;HIST2H2AA3 Histone H2A type 2-A	0.82
IPI00021924	H1FX Histone H1x	1.66
IPI00217465	HIST1H1C Histone H1.2	9.71
IPI00409675	MORF4L1 Isoform 1 of Mortality factor 4-like protein 1	2.89
IPI00020021	DEK Protein DEK	1.08
IPI00023860	NAP1L1 Nucleosome assembly protein 1-like 1	1.04
IPI00007927	SMC2 Isoform 1 of Structural maintenance of chromosomes protein 2	0.68
IPI00003935	HIST2H2BE Histone H2B type 2-E	0.93
IPI00016802	SIRT1 NAD-dependent deacetylase sirtuin-1	7.27
IPI00643722	ARID1A Isoform 1 of AT-rich interactive domain-containing protein 1	1.19
IPI00299524	NCAPD2 Condensin complex subunit 1	0.73
IPI00008422	SMARCAD1 Isoform 2 of SWI/SNF-related matrix-associated actin-depolymerizing factor 1	0.77
IPI00006900	UTP3 Something about silencing protein 10	0.89
IPI00155601	MACROD1 MACRO domain-containing protein 1	1.42
IPI00853043	SMARCD2 Isoform 1 of SWI/SNF-related matrix-associated actin-depolymerizing factor 2	0.81
IPI00386189	NAA15 Isoform 1 of N-alpha-acetyltransferase 15, NatA auxiliary subunit 1	1.24
IPI00165477	ELP3 Isoform 1 of Elongator complex protein 3	2.33
IPI00550239	H1F0 Histone H1.0	1.59
IPI00453473	HIST2H4B;HIST1H4C;HIST1H4J;HIST1H4D;HIST1H4A;HIST2H4A;HIST1H4E	0.88
IPI00013774	HDAC1 Histone deacetylase 1	1.12
IPI00646512	RBBP7 histone-binding protein RBBP7 isoform 1	0.92
IPI00024662	CBX5;MIR3198-1 Chromobox protein homolog 5	0.95
IPI00184884	NSMCE1 Non-structural maintenance of chromosomes element 1 homolog 1	1.54
IPI00216730	HIST2H2AB Histone H2A type 2-B	0.86
IPI00026272	HIST1H2AE;HIST1H2AB;HIST1H2AD;HIST1H2AG;HIST1H2AK;HIST1H2AL	1.44
IPI00069084	TRRAP Isoform 1 of Transformation/transcription domain-associated protein 1	1.45
IPI00852816	SMARCD1 Isoform 1 of SWI/SNF-related matrix-associated actin-depolymerizing factor 1	1.21
IPI00645192	MECP2 Mutant methyl CpG binding protein 2 variant 1	4.64
IPI00012773	MTA1 Isoform Long of Metastasis-associated protein MTA1	1.76
IPI00298306	ATM Serine-protein kinase ATM	1.15
IPI00219037	H2AFX Histone H2A.x	2.49
IPI00332499	NASP Isoform 3 of Nuclear autoantigenic sperm protein	1.07
IPI00292168	ASF1A Histone chaperone ASF1A	1.46
IPI00171798	MTA2 Metastasis-associated protein MTA2	1.22
IPI00017669	SMARCE1 Isoform 1 of SWI/SNF-related matrix-associated actin-depolymerizing factor 1	1.09
IPI00217468	HIST1H1B Histone H1.5	1.18
IPI00010088	HDAC4 Histone deacetylase 4	0.9
IPI00024719	HAT1 Isoform A of Histone acetyltransferase type B catalytic subunit	0.95
IPI00023177	CHAF1A Isoform 1 of Chromatin assembly factor 1 subunit A	1.53
IPI00439194	MBD3 Isoform 1 of Methyl-CpG-binding domain protein 3	0.67
IPI00434623	MBD2 Isoform 1 of Methyl-CpG-binding domain protein 2	1.05
IPI00152695	WDR82 WD repeat-containing protein 82	0.98
IPI00944455	NCAPD2 NCAPD2 protein (Fragment)	1.34
IPI00013789	SMYD5 SET and MYND domain-containing protein 5	0.99
IPI00217466	HIST1H1D Histone H1.3	9.26
IPI00514648	SMARCA2 Isoform Long of Probable global transcription activator SMARCA2	1.56
IPI00234252	SMARCC1 SWI/SNF complex subunit SMARCC1	1.13
IPI00183171	SIRT3 cDNA FLJ60939, highly similar to NAD-dependent deacetylase 3	1.3
IPI01021606	SMARCC2 Uncharacterized protein	1.15
IPI00069817	BAZ1B Isoform 1 of Tyrosine-protein kinase BAZ1B	1.2

IPI00878669	CBX1 Uncharacterized protein	1.06
IPI00005154	SSRP1 FACT complex subunit SSRP1	1.01
IPI00328319	RBBP4 Isoform 1 of Histone-binding protein RBBP4	0.92
IPI00026087	BANF1 Barrier-to-autointegration factor	0.87
IPI00297579	CBX3 Chromobox protein homolog 3	1.28
IPI00217467	HIST1H1E Histone H1.4	0.81
IPI00909569	HDAC7 Isoform 8 of Histone deacetylase 7	9.65
IPI00165357	MTA3 Isoform 1 of Metastasis-associated protein MTA3	1.14
IPI00930174	HIST2H2BF histone H2B type 2-F isoform b	1.06
IPI00640917	TBL1X Isoform 1 of F-box-like/WD repeat-containing protein TBL1X	1.07
IPI00017763	NAP1L4 Uncharacterized protein	1.49
IPI00106495	NCAPG Condensin complex subunit 3	0.6
IPI00170596	SIN3A Paired amphipathic helix protein Sin3a	1.2
IPI00013830	SNW1 SNW domain-containing protein 1	1.69
IPI00014174	MORF4L2 Mortality factor 4-like protein 2	1.33
IPI00455457	Uncharacterized protein	0.93
IPI00436632	NIPBL Isoform 1 of Nipped-B-like protein	0.74
IPI00171611	HIST2H3D;HIST2H3A;HIST2H3C Histone H3.2	0.89
IPI00303439	SMARCB1 cDNA FLJ13963 fis, clone Y79AA1001299, highly similar	1.26
IPI00289601	HDAC2 Histone deacetylase 2	0.96

CELLULAR PROCESSES AND SIGNALING

KOG category [D] Cell cycle control, cell division, chromosome partitioning

IPI00014312	CUL3 Isoform 1 of Cullin-3	1.08
IPI00397904	NUP93 Nuclear pore complex protein Nup93	0.94
IPI00018240	SDAD1 Isoform 1 of Protein SDA1 homolog	0.85
IPI00023876	CASP6 Isoform Alpha of Caspase-6	0.75
IPI00411559	SMC4 Isoform 1 of Structural maintenance of chromosomes protein 4	0.6
IPI00295940	SUN2 cDNA FLJ55508, highly similar to Sad1/unc-84-like protein 2	0.51
IPI00303890	XIAP Baculoviral IAP repeat-containing protein 4	1.02
IPI00152658	NEK7 Isoform 1 of Serine/threonine-protein kinase Nek7	1.49
IPI00299507	NCAPH Condensin complex subunit 2	0.63
IPI00023860	NAP1L1 Nucleosome assembly protein 1-like 1	1.04
IPI00005791	NDC80 Kinetochore protein NDC80 homolog	0.74
IPI00007927	SMC2 Isoform 1 of Structural maintenance of chromosomes protein 2	0.68
IPI00007253	TRAPPC8 Isoform 1 of Trafficking protein particle complex subunit 8	2.63
IPI00640088	CSNK2B Uncharacterized protein	1.88
IPI00893197	PPP2R4 Protein phosphatase 2A, regulatory subunit B' isoform b	1.34
IPI00299524	NCAPD2 Condensin complex subunit 1	0.73
IPI00871851	SEPT2 Isoform 2 of Septin-2	1.52
IPI00745793	CCNB1 G2/mitotic-specific cyclin-B1	0.49
IPI00021305	CCNH Cyclin-H	0.99
IPI00305887	NUF2 Kinetochore protein Nuf2	0.54
IPI00719725	PPP6R3 Isoform 5 of Serine/threonine-protein phosphatase 6 regulatory	0.63
IPI00021175	CDK12 Isoform 1 of Cyclin-dependent kinase 12	4.5
IPI00216675	CASP7 Isoform Alpha' of Caspase-7	2.19
IPI00017596	MAPRE1 Microtubule-associated protein RP/EB family member 1	1.05
IPI00215928	CETN2 Centrin-2	0.97
IPI00240812	PDS5B Uncharacterized protein	1.94
IPI00178203	CHTF18 Uncharacterized protein	0.85
IPI00216674	CASP7 Isoform Beta of Caspase-7	0.73
IPI00016613	CSNK2A1 Uncharacterized protein	1.71
IPI00014456	STRN Isoform 1 of Striatin	1.57
IPI00009943	TPT1 Tumor protein, translationally-controlled 1	1.07
IPI00014310	CUL1 Cullin-1	0.86
IPI00946813	TUT1 speckle targeted PIP5K1A-regulated poly(A) polymerase	5.23

IPI00069084	TRRAP Isoform 1 of Transformation/transcription domain-associated	1.45
IPI00016074	MPHOSPH6 M-phase phosphoprotein 6	0.59
IPI01024808	26 kDa protein	2.1
IPI00414872	PPP6R2 Isoform 1 of Serine/threonine-protein phosphatase 6 regulato	0.94
IPI00015105	CKS2 Cyclin-dependent kinases regulatory subunit 2	0.34
IPI00021277	NUBP1 Isoform 1 of Cytosolic Fe-S cluster assembly factor NUBP1	2.32
IPI00941534	SEPT7 Isoform 1 of Septin-7	2.08
IPI00298306	ATM Serine-protein kinase ATM	1.15
IPI00020008	NEDD8 NEDD8	0.99
IPI00216952	LMNA Isoform C of Prelamin-A/C	1.17
IPI00005822	CDC23 Isoform 1 of Cell division cycle protein 23 homolog	1.63
IPI00332499	NASP Isoform 3 of Nuclear autoantigenic sperm protein	1.07
IPI00177437	CRNKL1 Isoform 1 of Crooked neck-like protein 1	0.79
IPI00168899	DBF4B Isoform 1 of Protein DBF4 homolog B	18.7
IPI00006715	RAD21 Double-strand-break repair protein rad21 homolog	0.96
IPI00030247	CCNT1 Cyclin-T1	1.31
IPI00940737	SUN3 Isoform 2 of SUN domain-containing protein 3	4
IPI00004308	FTSJ1 Isoform 1 of Putative ribosomal RNA methyltransferase 1	0.65
IPI00031521	RFC3 Replication factor C subunit 3	0.86
IPI00940535	MAD1L1 Mitotic spindle assembly checkpoint protein MAD1	0.88
IPI00641743	HCFC1 Uncharacterized protein	1.11
IPI00978953	TPT1 Uncharacterized protein	
IPI00007088	ANAPC10 Anaphase-promoting complex subunit 10	3.53
IPI00009407	DAD1 Dolichyl-diphosphooligosaccharide--protein glycosyltransferas	1.28
IPI00017597	MAPRE3 Isoform 1 of Microtubule-associated protein RP/EB family r	0.67
IPI00644674	NUBP2 Cytosolic Fe-S cluster assembly factor NUBP2	1.76
IPI00470883	STAG2 Isoform 2 of Cohesin subunit SA-2	0.73
IPI00008248	ANAPC7 Isoform 1 of Anaphase-promoting complex subunit 7	0.68
IPI00910694	NSUN5 putative methyltransferase NSUN5 isoform 3	0.87
IPI00020602	CSNK2A2 Casein kinase II subunit alpha'	1.26
IPI00008247	ANAPC5 Isoform 1 of Anaphase-promoting complex subunit 5	0.71
IPI00021405	LMNA Isoform A of Prelamin-A/C	1.19
IPI00944455	NCAPD2 NCAPD2 protein (Fragment)	1.34
IPI00015104	CKS1B Cyclin-dependent kinases regulatory subunit 1	0.62
IPI00384187	SEPT3 Isoform 1 of Neuronal-specific septin-3	1.81
IPI00465294	CDC5L Cell division cycle 5-like protein	1.71
IPI00798193	SNX24 Uncharacterized protein	1.09
IPI00292140	CASP3 Caspase-3	0.64
IPI00301518	MOBK1B Isoform 1 of Mps one binder kinase activator-like 1B	1.7
IPI00294618	PRCC Proline-rich protein PRCC	1.19
IPI00100313	PCID2 Isoform 4 of PCI domain-containing protein 2	1.51
IPI00419273	CUL4A Isoform 1 of Cullin-4A	0.89
IPI00290928	GNA13 Guanine nucleotide-binding protein subunit alpha-13	1.68
IPI00966303	ANAPC4 Uncharacterized protein	0.53
IPI00156032	KRR1 KRR1 small subunit processome component homolog	1.65
IPI00028412	SSSCA1 Sjogren syndrome/scleroderma autoantigen 1	1.11
IPI00046828	CCDC58 Coiled-coil domain-containing protein 58	1.26
IPI00217975	LMNB1 Lamin-B1	0.78
IPI00748145	GNAI2 Isoform 1 of Guanine nucleotide-binding protein G(i) subunit	1.41
IPI00023640	PDCD5 Programmed cell death protein 5	0.86
IPI00219420	SMC3 Structural maintenance of chromosomes protein 3	0.74
IPI00003647	RAD1 Isoform 1 of Cell cycle checkpoint protein RAD1	1.12
IPI00967716	SEPT11 Uncharacterized protein	1.2
IPI00012369	MAD2L1 Mitotic spindle assembly checkpoint protein MAD2A	0.84
IPI00012970	PPP6C Isoform 1 of Serine/threonine-protein phosphatase 6 catalytic	0.93
IPI00291939	SMC1A Structural maintenance of chromosomes protein 1A	0.88
IPI00015838	LYAR Cell growth-regulating nucleolar protein	0.75

IPI00013468	BUB3 Isoform 1 of Mitotic checkpoint protein BUB3	1.39
IPI00441473	PRMT5 Protein arginine N-methyltransferase 5	1.56
IPI00398700	GNAO1 Isoform Alpha-2 of Guanine nucleotide-binding protein G(o)	2.91
IPI00000685	CDK7 Cyclin-dependent kinase 7	2.16
IPI00017763	NAP1L4 Uncharacterized protein	1.49
IPI00220578	GNAI3 Guanine nucleotide-binding protein G(k) subunit alpha	0.91
IPI00033907	ANAPC1 Anaphase-promoting complex subunit 1	1.09
IPI00436705	MORC3 Uncharacterized protein	0.63
IPI00106495	NCAPG Condensin complex subunit 3	0.6
IPI00218095	BIRC5 Isoform 2 of Baculoviral IAP repeat-containing protein 5	6.4
IPI00013122	CDC37 Hsp90 co-chaperone Cdc37	2.84
IPI00746256	KATNB1 Katanin p80 WD40-containing subunit B1	2.3
IPI00337415	GNAI1 Guanine nucleotide-binding protein G(i) subunit alpha-1	1.55
IPI00436632	NIPBL Isoform 1 of Nipped-B-like protein	0.74
IPI00643342	PEA15 cDNA FLJ38560 fis, clone HCHON2003642, highly similar to	1.75
IPI00220726	CASP8 Isoform 9 of Caspase-8	0.95
IPI00607848	BRMS1 breast cancer metastasis-suppressor 1 isoform 2	1.11
KOG category [Y] Nuclear structure		
IPI00293533	NUP62 Nuclear pore glycoprotein p62	0.9
IPI00022744	CSE1L Isoform 1 of Exportin-2	1.01
IPI00398009	IPO4 Isoform 2 of Importin-4	1.19
IPI00640703	XPO5 Exportin-5	1.04
IPI00397571	NSFL1C Isoform 3 of NSFL1 cofactor p47	0.88
IPI00028005	NUP107 Nuclear pore complex protein Nup107	1.03
IPI00855940	XPO7 Uncharacterized protein	1.2
IPI00910194	NUP153 cDNA FLJ60565, highly similar to Nuclear pore complex pr	1.17
IPI00001639	KPNB1 Importin subunit beta-1	1.01
IPI00305374	THOC1 Isoform 1 of THO complex subunit 1	1.02
IPI00306290	XPOT Exportin-T	2.06
IPI00007401	IPO8 Importin-8	0.87
IPI01019011	NUP54 Nucleoporin 54kDa variant (Fragment)	1.04
IPI00021405	LMNA Isoform A of Prelamin-A/C	1.19
IPI00006038	NUP98 Isoform 1 of Nuclear pore complex protein Nup98-Nup96	0.94
IPI00005651	IPO13 Importin-13	1.88
IPI00790530	NUP85 Nuclear pore complex protein Nup85	1.13
IPI00291200	NUP133 Nuclear pore complex protein Nup133	1.08
IPI00007402	IPO7 Importin-7	0.81
IPI00185146	IPO9 Importin-9	1.02
IPI00217975	LMNB1 Lamin-B1	0.78
IPI00288941	NCOA5 Nuclear receptor coactivator 5	1.37
IPI00913938	IPO11 Isoform 2 of Importin-11	1.85
IPI00748807	NUP160 Isoform 1 of Nuclear pore complex protein Nup160	1.34
IPI00298961	XPO1 Exportin-1	1.1
IPI00646361	NUP214 Isoform 5 of Nuclear pore complex protein Nup214	1.81
IPI00220609	SEH1L Isoform B of Nucleoporin SEH1	1.26
IPI00026625	NUP155 Isoform 1 of Nuclear pore complex protein Nup155	1.03
IPI00294879	RANGAP1 Ran GTPase-activating protein 1	0.81
IPI00001738	NUP88 Nuclear pore complex protein Nup88	2.14
IPI00939304	IPO5 Isoform 3 of Importin-5	0.94
IPI00001676	NPLOC4 Isoform 2 of Nuclear protein localization protein 4 homolog	0.84
IPI00216952	LMNA Isoform C of Prelamin-A/C	1.17
IPI00024364	TNPO1 Isoform 1 of Transportin-1	0.94
KOG category [V] Defense mechanisms		
IPI00032134	SERPINB8 Serpin B8	1.16
IPI00216293	TST Thiosulfate sulfurtransferase	1.12
IPI00032139	SERPINB9 Serpin B9	1.36
IPI00924788	NCEH1 neutral cholesterol ester hydrolase 1 isoform a	2.43

IPI00030362	PLP2 Isoform 1 of Proteolipid protein 2	2.91
IPI00647400	RNPEP Uncharacterized protein	2.07
IPI00009210	DUSP12 Dual specificity protein phosphatase 12	1.78
IPI00221233	BCAP29 B-cell receptor-associated protein 29	1.55
IPI00007118	SERPINE1 Plasminogen activator inhibitor 1	4.98
IPI00552587	GADD45GIP1 Growth arrest and DNA damage-inducible proteins-int	1.3
IPI00004970	UTP20 Small subunit processome component 20 homolog	1.09
IPI00014808	PAFAH1B3 Platelet-activating factor acetylhydrolase IB subunit gamma	1.52
IPI00009294	CRIM1 Cysteine-rich motor neuron 1 protein	
IPI00018671	DUSP3 Dual specificity protein phosphatase 3	1.59
IPI00005724	LANCL1 LanC-like protein 1	2.16
IPI00026848	LRPAP1 Alpha-2-macroglobulin receptor-associated protein	1.14
IPI00005707	MRC2 C-type mannose receptor 2	4.05
IPI00465059	RHOT2 Isoform 1 of Mitochondrial Rho GTPase 2	0.79
IPI00217536	RHOT1 Isoform 3 of Mitochondrial Rho GTPase 1	1.14
IPI00006713	DNAJC3 DnaJ homolog subfamily C member 3	0.91
IPI00298547	PARK7 Protein DJ-1	1.4
IPI00032140	SERPINH1 Serpin H1	1.51
IPI00028412	SSSCA1 Sjogren syndrome/scleroderma autoantigen 1	1.11
IPI00910977	MPST 3-mercaptopyruvate sulfurtransferase isoform 1	1.35
IPI00102685	MYADM Myeloid-associated differentiation marker	8.09
IPI00026546	PAFAH1B2 Platelet-activating factor acetylhydrolase IB subunit beta	1.95
IPI00413451	SERPINB6 Serpin B6	1.28
IPI00642211	RNPEP Aminopeptidase B	1.89
IPI00306353	DUSP23 Dual specificity protein phosphatase 23	2.47
IPI00219077	LTA4H Isoform 1 of Leukotriene A-4 hydrolase	1.39
IPI00295209	SNX5 Sorting nexin-5	0.98
IPI00424460	ZFYVE16 Isoform 1 of Zinc finger FYVE domain-containing protein 16	1.6
IPI00027444	SERPINB1 Leukocyte elastase inhibitor	1.35

KOG category [T] Signal transduction mechanisms

IPI00329572	PACSIN3 Protein kinase C and casein kinase substrate in neurons 3, i	1
IPI00015688	GPC1 Glypican-1	2.93
IPI00414289	GPS1 Isoform 2 of COP9 signalosome complex subunit 1	1
IPI00012833	PPP4C Serine/threonine-protein phosphatase 4 catalytic subunit	1.44
IPI00412344	SRPK1 Isoform 2 of Serine/threonine-protein kinase SRPK1	1.07
IPI00639931	CAP1 Isoform 2 of Adenylyl cyclase-associated protein 1	2.85
IPI00554737	PPP2R1A Serine/threonine-protein phosphatase 2A 65 kDa regulatory	1.37
IPI00012497	ADRBK1 Beta-adrenergic receptor kinase 1	0.77
IPI00296434	SLIT1 Isoform 1 of Slit homolog 1 protein	1.37
IPI00893197	PPP2R4 Protein phosphatase 2A, regulatory subunit B' isoform b	1.34
IPI00412672	PKN1 Isoform 2 of Serine/threonine-protein kinase N1	1.79
IPI00301419	COPS7A COP9 signalosome complex subunit 7a	0.86
IPI00003783	MAP2K2 Dual specificity mitogen-activated protein kinase kinase 2	1.34
IPI00020124	PI4K2A Phosphatidylinositol 4-kinase type 2-alpha	1.92
IPI00442073	CSRP1 Cysteine and glycine-rich protein 1	0.9
IPI00411984	STK3 cDNA FLJ16404 fis, clone UTERU2008019, highly similar to	0.72
IPI00004838	CRK Isoform Crk-II of Adapter molecule crk	1.19
IPI00926625	ZYX Zyxin	4.39
IPI00003479	MAPK1 Mitogen-activated protein kinase 1	1.57
IPI00219110	NCS1 Neuronal calcium sensor 1	1.08
IPI00477763	CDC42BPB Serine/threonine-protein kinase MRCK beta	1.26
IPI00016613	CSNK2A1 Uncharacterized protein	1.71
IPI00549204	NUDT10 Diphosphoinositol polyphosphate phosphohydrolase 3-alpha	2.06
IPI00101037	RCN3 Reticulocalbin-3	1.64
IPI00008274	CAP1 Isoform 1 of Adenylyl cyclase-associated protein 1	1.69
IPI00009301	COPS7B Isoform 1 of COP9 signalosome complex subunit 7b	1.5
IPI00298306	ATM Serine-protein kinase ATM	1.15

IPI00029263	FER Isoform 1 of Tyrosine-protein kinase Fer	1.87
IPI00020961	BCL2 Isoform Alpha of Apoptosis regulator Bcl-2	0.79
IPI00011285	CAPN1 Calpain-1 catalytic subunit	1.18
IPI00306406	RIOK2 Serine/threonine-protein kinase RIO2	1.32
IPI00016373	RAB13 Ras-related protein Rab-13	0.99
IPI00152011	ARHGAP29 Isoform 1 of Rho GTPase-activating protein 29	0.35
IPI00333140	DNER Delta and Notch-like epidermal growth factor-related receptor	3.56
IPI00000151	ITGB6 Integrin beta-6	1
IPI00554711	JUP Junction plakoglobin	2.84
IPI00020178	STAM Isoform 1 of Signal transducing adapter molecule 1	2.24
IPI00966770	COPS4 Uncharacterized protein	0.88
IPI00018813	COPS2 Isoform 2 of COP9 signalosome complex subunit 2	0.85
IPI00019983	BCL2L1 Isoform Bcl-X(L) of Bcl-2-like protein 1	1.3
IPI00480028	AB11 Uncharacterized protein	1.25
IPI00027175	SRI Sorcin	1.21
IPI00220158	ADD1 Isoform 3 of Alpha-adducin	1.89
IPI00291007	SCARB1 Isoform 3 of Scavenger receptor class B member 1	0.08
IPI00894409	CPNE1 copine-1 isoform b	1.8
IPI00009319	NCKIPSD Isoform 1 of NCK-interacting protein with SH3 domain	1.21
IPI00294501	DHCR7 7-dehydrocholesterol reductase	3.29
IPI00023939	RABIF Guanine nucleotide exchange factor MSS4	2.06
IPI00024709	IKBKB Isoform 1 of Inhibitor of nuclear factor kappa-B kinase subunit 1	1.26
IPI00032970	OSBPL11 Oxysterol-binding protein-related protein 11	1.68
IPI00019459	TAB1 TGF-beta-activated kinase 1 and MAP3K7-binding protein 1	1.08
IPI00909387	GHITM cDNA FLJ59630, highly similar to Growth hormone-inducible protein 1	0.67
IPI00010080	OXSR1 Serine/threonine-protein kinase OSR1	1.38
IPI01011193	PTK2 Uncharacterized protein	1.1
IPI00384187	SEPT3 Isoform 1 of Neuronal-specific septin-3	1.81
IPI00290110	PDCD4 Programmed cell death protein 4	0.66
IPI00032826	ST13 Hsc70-interacting protein	0.96
IPI00292135	LBR Lamin-B receptor	2.74
IPI00075248	CALM3;CALM2;CALM1 Calmodulin	1.03
IPI00005719	RAB1A Isoform 1 of Ras-related protein Rab-1A	0.98
IPI00218924	CHP Calcium-binding protein p22	0.96
IPI00395654	PRKACB Isoform 1 of cAMP-dependent protein kinase catalytic subunit	2.14
IPI00009342	IQGAP1 Ras GTPase-activating-like protein IQGAP1	1.41
IPI00020898	RPS6KA3 Ribosomal protein S6 kinase alpha-3	1.22
IPI00015161	PDE6D Retinal rod rhodopsin-sensitive cGMP 3',5'-cyclic phosphodiesterase	2.25
IPI00398700	GNAO1 Isoform Alpha-2 of Guanine nucleotide-binding protein G(o)	2.91
IPI00294879	RANGAP1 Ran GTPase-activating protein 1	0.81
IPI00260090	ELMO2 cDNA FLJ60834, highly similar to Engulfment and cell motility protein 2	1.98
IPI00027240	GNG5 Guanine nucleotide-binding protein G(I)/G(S)/G(O) subunit gamma	1.74
IPI00031747	AKT3 Isoform 1 of RAC-gamma serine/threonine-protein kinase	0.99
IPI00448798	CSNK1A1 Isoform 2 of Casein kinase I isoform alpha	1.53
IPI00942869	CTNND1 Isoform 1ABC of Catenin delta-1	0.95
IPI00385987	DAGLB Isoform 1 of Sn1-specific diacylglycerol lipase beta	1.2
IPI00295738	MAP3K7 Isoform 1B of Mitogen-activated protein kinase kinase kinase	1.98
IPI00021267	EPHA2 Ephrin type-A receptor 2	0.93
IPI00902610	FHL1 Uncharacterized protein	1.93
IPI00007641	IRAK4 Isoform 1 of Interleukin-1 receptor-associated kinase 4	0.95
IPI00329441	RAB43 Ras-related protein Rab-43	2.49
IPI00306543	GDF15 Growth/differentiation factor 15	
IPI00025721	COPS3 COP9 signalosome complex subunit 3	0.78
IPI00031836	DRG1 Developmentally-regulated GTP-binding protein 1	1.57
IPI00939159	CAP1 Adenylyl cyclase-associated protein	0.89
IPI00301561	TRIP6 Thyroid receptor-interacting protein 6	1.91
IPI00002538	PDPK1 Isoform 1 of 3-phosphoinositide-dependent protein kinase 1	1.13

IPI00024097	TES Isoform 1 of Testin	2.1
IPI00305551	GNA11 Guanine nucleotide-binding protein subunit alpha-11	1.41
IPI00163849	EPS15L1 cDNA FLJ60624, highly similar to Epidermal growth factor	1.4
IPI00009480	COPS8 COP9 signalosome complex subunit 8	1.24
IPI00009329	UTRN Utrophin	1.09
IPI00329236	PRKCD Protein kinase C delta type	1.14
IPI00019018	TM7SF2 Isoform 1 of Delta(14)-sterol reductase	3.07
IPI00293613	TBK1 Serine/threonine-protein kinase TBK1	1.77
IPI00005777	MAPKAPK3 MAP kinase-activated protein kinase 3	0.8
IPI00102856	SMAP2 Isoform 1 of Stromal membrane-associated protein 2	
IPI00163644	OSBPL8 Oxysterol-binding protein	2
IPI00395627	CACYBP Isoform 1 of Calcyclin-binding protein	0.64
IPI00014978	PPP2R5A Serine/threonine-protein phosphatase 2A 56 kDa regulatory	1.73
IPI00011676	WASL Neural Wiskott-Aldrich syndrome protein	0.95
IPI00012866	AKT1 RAC-alpha serine/threonine-protein kinase	0.89
IPI00065671	UCK2 Isoform 1 of Uridine-cytidine kinase 2	0.94
IPI00008380	PPP2CA Serine/threonine-protein phosphatase 2A catalytic subunit al	0.97
IPI00218236	PPP1CB Serine/threonine-protein phosphatase PP1-beta catalytic subu	1.2
IPI00005104	CHUK Inhibitor of nuclear factor kappa-B kinase subunit alpha	1.13
IPI00144293	YTHDC1 Isoform 1 of YTH domain-containing protein 1	
IPI00219604	MAP2K1 Isoform 1 of Dual specificity mitogen-activated protein kina	1.29
IPI00291412	PPM1F Protein phosphatase 1F	0.91
IPI00386229	BAK1P1;BAK1 Uncharacterized protein	1.49
IPI00033600	PPP1R7 Isoform 1 of Protein phosphatase 1 regulatory subunit 7	1.2
IPI00166680	MINK1 Isoform 3 of Misshapen-like kinase 1	1.39
IPI00798041	PPP2R2A serine/threonine-protein phosphatase 2A 55 kDa regulatory	1.11
IPI00026546	PAFAH1B2 Platelet-activating factor acetylhydrolase IB subunit beta	1.95
IPI00006164	ILKAP Integrin-linked kinase-associated serine/threonine phosphatas	0.84
IPI00018235	PEF1 Peflin	1.01
IPI00218858	MAP2K3 Isoform 2 of Dual specificity mitogen-activated protein kina	0.77
IPI00019904	ADD2;LOC440354 Isoform 1 of Beta-adducin	0.96
IPI00009958	COPS5 COP9 signalosome complex subunit 5	0.84
IPI00333143	DGKA Isoform 1 of Diacylglycerol kinase alpha	2.59
IPI00784414	STAT3 Isoform 1 of Signal transducer and activator of transcription 3	1.39
IPI00016255	PLBD1 Phospholipase B-like 1	0.59
IPI00003815	ARHGDI1 Rho GDP-dissociation inhibitor 1	1
IPI00014264	ACAP2 Arf-GAP with coiled-coil, ANK repeat and PH domain-contai	1.56
IPI00002208	STAMBPL1 Isoform 2 of AMSH-like protease	1.93
IPI00477982	RPS6KA1 Isoform 2 of Ribosomal protein S6 kinase alpha-1	1.74
IPI00001485	BMP15 Bone morphogenetic protein 15	1.22
IPI00103380	ARAP3 Arf-GAP with Rho-GAP domain, ANK repeat and PH domain	0.52
IPI00883896	LIMA1 Isoform 4 of LIM domain and actin-binding protein 1	0.57
IPI00029046	MLEC Malectin	1.65
IPI00013981	YES1 Tyrosine-protein kinase Yes	1.5
IPI00163230	COPS6 COP9 signalosome complex subunit 6	1.03
IPI00307758	PITPNM1 Isoform 1 of Membrane-associated phosphatidylinositol tra	1.5
IPI00289758	CAPN2 Calpain-2 catalytic subunit	1.05
IPI00020602	CSNK2A2 Casein kinase II subunit alpha'	1.26
IPI00024006	PIK3R4 Phosphoinositide 3-kinase regulatory subunit 4	1.07
IPI00024282	RAB8B Ras-related protein Rab-8B	1.57
IPI00290738	PICALM Isoform 1 of Phosphatidylinositol-binding clathrin assembly	0.97
IPI00026848	LRPAP1 Alpha-2-macroglobulin receptor-associated protein	1.14
IPI00025277	PDCD6 Programmed cell death protein 6	1.14
IPI00105620	RRAGA Ras-related GTP-binding protein A	1.8
IPI00009057	G3BP2 Isoform A of Ras GTPase-activating protein-binding protein 2	3.03
IPI00004839	CRKL Crk-like protein	1.97
IPI00290928	GNA13 Guanine nucleotide-binding protein subunit alpha-13	1.68

IPI00012442	G3BP1 Ras GTPase-activating protein-binding protein 1	1.29
IPI00025084	CAPNS1 Calpain small subunit 1	1.3
IPI00013219	ILK Integrin-linked protein kinase	1.56
IPI00748145	GNAI2 Isoform 1 of Guanine nucleotide-binding protein G(i) subunit	1.41
IPI01015350	OSBPL9 Oxysterol-binding protein	0.98
IPI01014546	PRMT1 protein arginine N-methyltransferase 1 isoform 1	0.86
IPI00095891	GNAS Isoform XLas-1 of Guanine nucleotide-binding protein G(s) su	1.55
IPI00305384	NUDT11 Diphosphoinositol polyphosphate phosphohydrolase 3-beta	1.16
IPI00029056	SEPHS1 Selenide, water dikinase 1	1.4
IPI00221231	NUDT2 Bis(5'-nucleosyl)-tetrakisphosphatase [asymmetrical]	1.19
IPI00016906	SEPHS2 Selenide, water dikinase 2	2.52
IPI00294962	SH3KBP1 Isoform 1 of SH3 domain-containing kinase-binding protei	1.24
IPI00014219	SNX17 Sorting nexin-17	3.58
IPI00070643	FAF1 Isoform Long of FAS-associated factor 1	1.09
IPI00032187	NISCH Isoform 1 of Nischarin	0.92
IPI00550746	NUDC Nuclear migration protein nudC	0.89
IPI00917964	MPP6 Uncharacterized protein	1.25
IPI00000030	PPP2R5D Isoform Delta-1 of Serine/threonine-protein phosphatase 2/	1.13
IPI00218268	SIGMAR1 Isoform 1 of Sigma non-opioid intracellular receptor 1	1.15
IPI00412771	CD2AP CD2-associated protein	1.68
IPI00006176	HGS Isoform 1 of Hepatocyte growth factor-regulated tyrosine kinase	1.17
IPI00008964	RAB1B Ras-related protein Rab-1B	1.17
IPI00005264	PKP2 Isoform 2 of Plakophilin-2	1.42
IPI00019148	IGBP1 Immunoglobulin-binding protein 1	1.48
IPI00019169	SH3GL1 endophilin-A2 isoform 1	1.49
IPI00032050	WBP2 WW domain-binding protein 2	1.84
IPI00640088	CSNK2B Uncharacterized protein	1.88
IPI00014340	PPP1R12C Isoform 1 of Protein phosphatase 1 regulatory subunit 12C	1.35
IPI00021327	GRB2 Isoform 1 of Growth factor receptor-bound protein 2	0.85
IPI00009982	TDRKH Tudor and KH domain-containing protein	
IPI00003765	CAPN7 Calpain-7	0.1
IPI00909904	STK24 cDNA FLJ61383, highly similar to Serine/threonine-protein k	1.1
IPI00419979	PAK2;LOC646214 Serine/threonine-protein kinase PAK 2	1.05
IPI00916402	AAK1 Isoform 1 of AP2-associated protein kinase 1	0.94
IPI00002857	MAPK14 Isoform CSBP2 of Mitogen-activated protein kinase 14	1.06
IPI00643259	ARHGEF2 Rho/rac guanine nucleotide exchange factor (GEF) 2, isofc	1.6
IPI00005223	SMAD9 Isoform A of Mothers against decapentaplegic homolog 9	4.71
IPI00789155	CALU calumenin isoform c precuros	1.53
IPI00002824	CSRP2 Cysteine and glycine-rich protein 2	0.59
IPI00021831	PRKAR1A cAMP-dependent protein kinase type I-alpha regulatory su	1.44
IPI00019353	AGK Isoform 1 of Acylglycerol kinase, mitochondrial	2.85
IPI00012795	EIF3I Eukaryotic translation initiation factor 3 subunit I	0.83
IPI00847689	HTATIP2 Isoform 3 of Oxidoreductase HTATIP2	1.9
IPI00069084	TRRAP Isoform 1 of Transformation/transcription domain-associated	1.45
IPI00301058	VASP Vasodilator-stimulated phosphoprotein	1.8
IPI00398828	SH3GLB2 Isoform 2 of Endophilin-B2	2.17
IPI00219774	PRKAR2A cAMP-dependent protein kinase type II-alpha regulatory s	1.1
IPI00643554	RGS10 Isoform 3 of Regulator of G-protein signaling 10	1.38
IPI00328867	SRC Isoform 2 of Proto-oncogene tyrosine-protein kinase Src	1.06
IPI00003369	LIMD1 LIM domain-containing protein 1	2.03
IPI00011875	IK Protein Red	0.82
IPI00396630	PRKACA Isoform 1 of cAMP-dependent protein kinase catalytic subu	1.45
IPI00017292	CTNNB1 Isoform 1 of Catenin beta-1	1.13
IPI00386862	ZFYVE19 Isoform 1 of Zinc finger FYVE domain-containing protein	0.89
IPI00980645	PBK cDNA FLJ58333, highly similar to T-lymphokine-activated kille	0.96
IPI00022150	PIP5K1A Isoform 1 of Phosphatidylinositol-4-phosphate 5-kinase typ	1.81
IPI00012870	AKT2 RAC-beta serine/threonine-protein kinase	0.88

IPI00220031	PXN Isoform Gamma of Paxillin	1.04
IPI00297322	ARFGAP2 ADP-ribosylation factor GTPase-activating protein 2	0.75
IPI00917487	PPP3R1 Uncharacterized protein	1.3
IPI00000070	LDLR Low-density lipoprotein receptor	1.39
IPI00385449	PRKCA Protein kinase C alpha type	2.48
IPI00016513	RAB10 Ras-related protein Rab-10	1.2
IPI00000335	HINT2 Histidine triad nucleotide-binding protein 2, mitochondrial	1.74
IPI00070943	PI4KA Isoform 1 of Phosphatidylinositol 4-kinase alpha	4.53
IPI00013043	TPPP Tubulin polymerization-promoting protein	1.59
IPI00218187	PPP1CC Isoform Gamma-2 of Serine/threonine-protein phosphatase F	0.6
IPI00027009	PACSIN2 Isoform 1 of Protein kinase C and casein kinase substrate ir	0.95
IPI00903328	AGFG1 arf-GAP domain and FG repeats-containing protein 1 isoform	1.15
IPI00289819	IGF2R Cation-independent mannose-6-phosphate receptor	2.59
IPI00015842	RCN1 Reticulocalbin-1	2.12
IPI00018195	MAPK3 Mitogen-activated protein kinase 3	2.15
IPI00064767	ARHGAP17 Isoform 1 of Rho GTPase-activating protein 17	1.3
IPI00220578	GNAI3 Guanine nucleotide-binding protein G(k) subunit alpha	0.91
IPI00658023	PTPN11 Isoform 1 of Tyrosine-protein phosphatase non-receptor type	1.06
IPI00022697	DRG2 Developmentally-regulated GTP-binding protein 2	0.71
IPI00026154	PRKCSH cDNA FLJ59211, highly similar to Glucosidase 2 subunit b	1.41
IPI00221232	GNG12 Guanine nucleotide-binding protein G(I)/G(S)/G(O) subunit ϵ	4.32
IPI00030781	STAT1 Isoform Alpha of Signal transducer and activator of transcript	3.05
IPI00154515	SNIP1 Smad nuclear-interacting protein 1	0.89
IPI00023704	LPP Lipoma-preferred partner	2.38
IPI00023122	PDLIM7 Isoform 1 of PDZ and LIM domain protein 7	2.38
IPI00550451	PPP1CA Serine/threonine-protein phosphatase PP1-alpha catalytic sul	1.05
IPI00026850	TSPO Translocator protein	1.38
IPI00855767	RAP1GDS1 rap1 GTPase-GDP dissociation stimulator 1 isoform 1	1.04
IPI01022298	LETMD1 cDNA FLJ45633 fis, clone CHONS2002419, highly similar	1.21
IPI01018062	SH3GLB1 endophilin-B1 isoform 2	1.21
IPI00010414	PDLIM1 PDZ and LIM domain protein 1	1.49
IPI00009688	PIP4K2A Phosphatidylinositol-5-phosphate 4-kinase type-2 alpha	2.23
IPI00018451	CIB1 Calcium and integrin-binding protein 1	5.42
IPI00419847	SORBS3 Isoform Alpha of Vinexin	0.6
IPI00030389	ABR Isoform Long of Active breakpoint cluster region-related protein	1.25
IPI00828080	ARAP1 Isoform 6 of Arf-GAP with Rho-GAP domain, ANK repeat ar	2.47
IPI00031629	PDCL3 Phosducin-like protein 3	0.55
IPI00410287	PRKAA1 Isoform 2 of 5'-AMP-activated protein kinase catalytic subu	1.04
IPI00021326	SHC1 Isoform 6 of SHC-transforming protein 1	2
IPI00005707	MRC2 C-type mannose receptor 2	4.05
IPI00028481	RAB8A Ras-related protein Rab-8A	1.02
IPI00022542	ROCK1 Rho-associated protein kinase 1	0.96
IPI00157365	NUB1 NEDD8 ultimate buster 1	1.21
IPI00410226	BOLA2B;BOLA2 Isoform 2 of Bola-like protein 2	0.93
IPI00395605	ARHGEF1 Isoform 3 of Rho guanine nucleotide exchange factor 1	0.93
IPI00290542	STAM2 Isoform 1 of Signal transducing adapter molecule 2	3
IPI00003293	DGKE Diacylglycerol kinase epsilon	2.19
IPI00293652	IRAK1 Isoform 1 of Interleukin-1 receptor-associated kinase 1	1.63
IPI00007943	STAMPB STAM-binding protein	1.14
IPI00299263	ARFGAP3 ADP-ribosylation factor GTPase-activating protein 3	1.03
IPI00291607	ITPR3 Inositol 1,4,5-trisphosphate receptor type 3	1.91
IPI00292134	EPS15 Isoform 1 of Epidermal growth factor receptor substrate 15	2.13
IPI00746360	RIC8A Isoform 1 of Synembryn-A	1.3
IPI00399054	CRK Isoform Crk-I of Adapter molecule crk	1.53
IPI00411730	PPP4R1 Isoform 1 of Serine/threonine-protein phosphatase 4 regulato	1.17
IPI00790214	RCN2 Uncharacterized protein	2.79
IPI00020567	ARHGAP1 Rho GTPase-activating protein 1	2.24

IPI00217766	SCARB2 Lysosome membrane protein 2	5.48
IPI00183002	PPP1R12A Isoform 1 of Protein phosphatase 1 regulatory subunit 12A	0.88
IPI00217069	RPS6KB2 Ribosomal protein S6 kinase beta-2	1.71
IPI00009148	NUDT3 Diphosphoinositol polyphosphate phosphohydrolase 1	0.44
IPI00945940	MST4 cDNA, FLJ79036, highly similar to Serine/threonine-protein kinase	1.53
IPI00023530	CDK5 Cyclin-dependent kinase 5	1.1
IPI00152303	PIP4K2C Phosphatidylinositol-5-phosphate 4-kinase type-2 gamma	1.44
IPI00217563	ITGB1 Isoform Beta-1A of Integrin beta-1	2.18
IPI00024403	CPNE3 Copine-3	1.84
IPI00219344	HPCAL1 Hippocalcin-like protein 1	1.79
IPI00297261	PTPN1 Tyrosine-protein phosphatase non-receptor type 1	1.01
IPI00394989	FAIM Isoform 2 of Fas apoptotic inhibitory molecule 1	0.75
IPI00014808	PAFAH1B3 Platelet-activating factor acetylhydrolase IB subunit gamma	1.52
IPI00024705	GIPC1 PDZ domain-containing protein GIPC1	1.56
IPI00008034	RAB23 Ras-related protein Rab-23	1.35
IPI01013306	L1CAM Uncharacterized protein	
IPI00307155	ROCK2 Rho-associated protein kinase 2	1.16
IPI00027342	CAP2 Adenylyl cyclase-associated protein 2	0.51
IPI01015186	HMHA1 HMHA1 protein (Fragment)	3.55
IPI00953461	LARP4B La-related protein 4B	2.1
IPI00002853	PPP2R5E Serine/threonine-protein phosphatase 2A 56 kDa regulatory 1	
IPI00472451	VAV2 Isoform 1 of Guanine nucleotide exchange factor VAV2	0.72
IPI00656138	PAK1 Isoform 1 of Serine/threonine-protein kinase PAK 1	1.4
IPI00002790	SEL1L Isoform 1 of Protein sel-1 homolog 1	1.42
IPI00219861	ACP1 Isoform 1 of Low molecular weight phosphotyrosine protein phosphatase	1.82
IPI00847665	LIMS1 LIM and senescent cell antigen-like-containing domain protein 1	0.99
IPI00218847	ACP1 Isoform 2 of Low molecular weight phosphotyrosine protein phosphatase	1.03
IPI00239077	HINT1 Histidine triad nucleotide-binding protein 1	1.52
IPI00012970	PPP6C Isoform 1 of Serine/threonine-protein phosphatase 6 catalytic subunit	0.93
IPI00552671	PLXNA1 Plexin-A1	1.58
IPI00103142	NUDCD2 NudC domain-containing protein 2	1.15
IPI00848226	GNB2L1 Guanine nucleotide-binding protein subunit beta-2-like 1	0.84
IPI00030328	SRR Serine racemase	1.34
IPI00011488	STK4 Isoform 1 of Serine/threonine-protein kinase 4	1.83
IPI00965234	CAMK2D cDNA FLJ53470, highly similar to Calcium/calmodulin-dependent kinase	1.67
IPI00337415	GNAI1 Guanine nucleotide-binding protein G(i) subunit alpha-1	1.55
IPI00157757	MICAL1 cDNA FLJ56489, highly similar to NEDD9-interacting protein	1.57
IPI00794806	PDP1 [Pyruvate dehydrogenase [acetyl-transferring]]-phosphatase 1, regulatory	2.12
IPI00107831	PTPRF Isoform 1 of Receptor-type tyrosine-protein phosphatase F	1.9
IPI00182180	OTUD6B OTU domain-containing protein 6B	0.95
IPI00032409	LAMTOR2 Isoform 1 of Ragulator complex protein LAMTOR2	1.56
IPI00154645	TBC1D15 Isoform 1 of TBC1 domain family member 15	1.02
IPI00936125	DIAPH1 Diaphanous 1	1.01

KOG category [M] Cell wall/membrane/envelope biogenesis

IPI00003861	UGCG Ceramide glucosyltransferase	3.13
IPI00002790	SEL1L Isoform 1 of Protein sel-1 homolog 1	1.42
IPI00009960	IMMT Isoform 1 of Mitochondrial inner membrane protein	1.14
IPI00000684	UAP1 Isoform AGX2 of UDP-N-acetylhexosamine pyrophosphorylase	0.77
IPI00383581	GANAB cDNA FLJ61290, highly similar to Neutral alpha-glucosidase	8.3
IPI00005181	PLSCR1 Phospholipid scramblase 1	3.22
IPI00007052	FIS1 Mitochondrial fission 1 protein	1.99
IPI00025346	PEX14 Isoform 1 of Peroxisomal membrane protein PEX14	1.12
IPI00100030	PIGT Isoform 1 of GPI transamidase component PIG-T	1.19
IPI00011454	GANAB Isoform 2 of Neutral alpha-glucosidase AB	2.31
IPI00002496	GMPPB Isoform 2 of Mannose-1-phosphate guanyltransferase beta	1.63
IPI00657888	GMPPA Isoform 2 of Mannose-1-phosphate guanyltransferase alpha	2.01
IPI00032002	PIGL N-acetylglucosaminyl-phosphatidylinositol de-N-acetylase	1.4

IPI00005585	TAX1BP3 Tax1-binding protein 3	1.49
IPI00021048	MYOF Isoform 1 of Myoferlin	1.53
IPI00553131	GALE UDP-glucose 4-epimerase	1.97
IPI00217952	GFPT1 Isoform 1 of Glucosamine--fructose-6-phosphate aminotransferase	1.23
IPI00061525	GNPNAT1 Glucosamine 6-phosphate N-acetyltransferase	0.93
IPI00465308	PIGS Isoform 1 of GPI transamidase component PIG-S	1.28

KOG category [N] Cell motility

IPI00019495	DYNLT1 Dynein light chain Tctex-type 1	0.95
IPI00220827	TMSB10 Thymosin beta-10	2.12
IPI00009329	UTRN Utrophin	1.09

KOG category [Z] Cytoskeleton

IPI00013475	TUBB2A Tubulin beta-2A chain	1.47
IPI00021634	KLC2 Kinesin light chain 2	0.95
IPI00019329	DYNLL1 Dynein light chain 1, cytoplasmic	1.15
IPI00329572	PACSIN3 Protein kinase C and casein kinase substrate in neurons 3, isoform 1	1.1
IPI00867509	CORO1C Coronin-1C_i3 protein	1.38
IPI00013455	CLIP1 Isoform 1 of CAP-Gly domain-containing linker protein 1	1.1
IPI00790503	MYH10 Isoform 3 of Myosin-10	1
IPI00639931	CAP1 Isoform 2 of Adenylyl cyclase-associated protein 1	2.85
IPI01019113	TUBB Tubulin beta chain	1.07
IPI00062037	DYNLL2 Dynein light chain 2, cytoplasmic	1.08
IPI00871851	SEPT2 Isoform 2 of Septin-2	1.52
IPI00216135	TPM1 Isoform 3 of Tropomyosin alpha-1 chain	0.44
IPI00304232	WDR12 Ribosome biogenesis protein WDR12	0.98
IPI00220154	MYO5A Isoform 3 of Myosin-Va	0.7
IPI00219468	PFN2 Isoform IIa of Profilin-2	0.7
IPI00017596	MAPRE1 Microtubule-associated protein RP/EB family member 1	1.05
IPI00005162	ARPC3 Actin-related protein 2/3 complex subunit 3	1.64
IPI00442073	CSRP1 Cysteine and glycine-rich protein 1	0.9
IPI00033516	TUBGCP3 Isoform 1 of Gamma-tubulin complex component 3	0.98
IPI00908469	TUBB6 cDNA FLJ52712, highly similar to Tubulin beta-6 chain	1.13
IPI00003269	ACTBL2 Beta-actin-like protein 2	5.34
IPI00002824	CSRP2 Cysteine and glycine-rich protein 2	0.59
IPI00744015	DYNC1I2 Isoform 2A of Cytoplasmic dynein 1 intermediate chain 2	1.81
IPI00029469	ACTR1B Beta-centractin	1.29
IPI00151119	KIFC3 cDNA FLJ56036, highly similar to Homo sapiens kinesin family 13C member 3	0.75
IPI00414554	ARPC5L Actin-related protein 2/3 complex subunit 5-like protein	1.34
IPI00029468	ACTR1A Alpha-centractin	1.01
IPI00010951	EPPK1 Epiplakin	5.24
IPI00008274	CAP1 Isoform 1 of Adenylyl cyclase-associated protein 1	1.69
IPI00216682	CNN3 Calponin-3	1.17
IPI00021753	KIF13B Kinesin-like protein KIF13B	1.3
IPI00306049	MSTO1 Isoform 1 of Protein misato homolog 1	0.92
IPI00028091	ACTR3 Actin-related protein 3	1.9
IPI00930688	TUBA1B Tubulin alpha-1B chain	1.19
IPI00298994	TLN1 Talin-1	1.29
IPI00554711	JUP Junction plakoglobin	2.84
IPI00256861	MACF1 Isoform 2 of Microtubule-actin cross-linking factor 1, isoform 1	1.09
IPI00782965	HIP1 Huntingtin-interacting protein 1	1.08
IPI00382894	TPM3 Uncharacterized protein	0.05
IPI00480028	ABI1 Uncharacterized protein	1.25
IPI00794221	DBN1 Uncharacterized protein	1.09
IPI00789041	PNN Isoform 1 of Pinin	1.09
IPI00295081	TUBG1 Tubulin gamma-1 chain	1.8
IPI00746165	WDR1 Isoform 1 of WD repeat-containing protein 1	1.16
IPI00017292	CTNNB1 Isoform 1 of Catenin beta-1	1.13
IPI00220158	ADD1 Isoform 3 of Alpha-adducin	1.89

IPI00005969	CAPZA1 F-actin-capping protein subunit alpha-1	1.78
IPI00472164	WASF2 Wiskott-Aldrich syndrome protein family member 2	1.27
IPI00220031	PXN Isoform Gamma of Paxillin	1.04
IPI00017597	MAPRE3 Isoform 1 of Microtubule-associated protein RP/EB family r	0.67
IPI00009319	NCKIPSD Isoform 1 of NCK-interacting protein with SH3 domain	1.21
IPI00005161	ARPC2 Actin-related protein 2/3 complex subunit 2	1.02
IPI00180675	TUBA1A Tubulin alpha-1A chain	1.6
IPI00984795	CFL1 Uncharacterized protein	0.88
IPI00014898	PLEC Isoform 1 of Plectin	1.56
IPI00386516	IST1 cDNA FLJ77725	1.1
IPI00336081	MYLK Isoform 1 of Myosin light chain kinase, smooth muscle	1
IPI00003627	ACTL6A Isoform 1 of Actin-like protein 6A	1.94
IPI00384187	SEPT3 Isoform 1 of Neuronal-specific septin-3	1.81
IPI00218782	CAPZB cDNA FLJ60094, highly similar to F-actin capping protein su	0.98
IPI00033494	MYL12B Myosin regulatory light chain 12B	0.88
IPI00027009	PACSIN2 Isoform 1 of Protein kinase C and casein kinase substrate ir	0.95
IPI00007750	TUBA4A Tubulin alpha-4A chain	1.12
IPI00398779	PLEC Isoform 4 of Plectin	1.18
IPI00910593	CNN2 cDNA FLJ52765, highly similar to Calponin-2	0.91
IPI00178150	KIF4A Isoform 1 of Chromosome-associated kinesin KIF4A	0.41
IPI00013508	ACTN1 Isoform 1 of Alpha-actinin-1	1.14
IPI00027253	GABARAP Gamma-aminobutyric acid receptor-associated protein	4.04
IPI00216138	TAGLN Transgelin	0.59
IPI00398002	PLEC Isoform 3 of Plectin	2.14
IPI00216691	PFN1 Profilin-1	1.08
IPI00101968	DBNL Isoform 3 of Drebrin-like protein	1.07
IPI00985452	CORO7-PAM16 CORO7-PAM16 protein	1.65
IPI00007752	TUBB2C Tubulin beta-2C chain	1.17
IPI00012837	KIF5B Kinesin-1 heavy chain	1.02
IPI00031023	FLII Protein flightless-1 homolog	1.71
IPI00333068	ARPC1A Actin-related protein 2/3 complex subunit 1A	0.81
IPI00302690	ACTR10 Actin-related protein 10	1.56
IPI00306400	KIFC1 Kinesin-like protein KIFC1	0.4
IPI00239406	SYNE2 Isoform 2 of Nesprin-2	1.1
IPI00023122	PDLIM7 Isoform 1 of PDZ and LIM domain protein 7	2.38
IPI00302453	DNAH9 Isoform 1 of Dynein heavy chain 9, axonemal	0.73
IPI00848334	KIF2A Isoform 4 of Kinesin-like protein KIF2A	0.95
IPI00435947	WIPF2 Isoform 1 of WAS/WASL-interacting protein family member 2	
IPI00902610	FHL1 Uncharacterized protein	1.93
IPI00151462	MAP1LC3B2 Microtubule-associated proteins 1A/1B light chain 3 be	4.21
IPI00018240	SDAD1 Isoform 1 of Protein SDA1 homolog	0.85
IPI00218343	TUBA1C Tubulin alpha-1C chain	0.88
IPI00216694	PLS3 Plastin-3	0.96
IPI00939159	CAP1 Adenylyl cyclase-associated protein	0.89
IPI00008868	MAP1B Microtubule-associated protein 1B	3.09
IPI00010414	PDLIM1 PDZ and LIM domain protein 1	1.49
IPI00029722	KIF5A Kinesin heavy chain isoform 5A	1.18
IPI00025890	NAA25 Isoform 1 of N-alpha-acetyltransferase 25, NatB auxiliary sub	1.13
IPI00026182	CAPZA2 F-actin-capping protein subunit alpha-2	1.33
IPI00024097	TES Isoform 1 of Testin	2.1
IPI00844215	SPTAN1 Isoform 1 of Spectrin alpha chain, brain	0.94
IPI00009329	UTRN Utrophin	1.09
IPI00473014	DSTN Destrin	0.96
IPI00828080	ARAP1 Isoform 6 of Arf-GAP with Rho-GAP domain, ANK repeat ar	2.47
IPI00550234	ARPC5 Isoform 1 of Actin-related protein 2/3 complex subunit 5	1.2
IPI00816452	MYO6 Isoform 3 of Myosin-VI	1.17
IPI00017704	COTL1 Coactosin-like protein	1.01

IPI00007058	CORO1B Coronin-1B	1.48
IPI00011676	WASL Neural Wiskott-Aldrich syndrome protein	0.95
IPI00219299	TLN2 Talin-2	1.15
IPI00215928	CETN2 Centrin-2	0.97
IPI00065671	UCK2 Isoform 1 of Uridine-cytidine kinase 2	0.94
IPI00024734	DNAL4 Dynein light chain 4, axonemal	2.11
IPI00023006	ACTC1 Actin, alpha cardiac muscle 1	1.5
IPI00009943	TPT1 Tumor protein, translationally-controlled 1	1.07
IPI00003326	ARL2 ADP-ribosylation factor-like protein 2	1.05
IPI00922855	TUBGCP2 Uncharacterized protein	1.46
IPI00019904	ADD2;LOC440354 Isoform 1 of Beta-adducin	0.96
IPI00026358	GABARAPL2 Gamma-aminobutyric acid receptor-associated protein-	4.33
IPI00873991	DNAH8 537 kDa protein	1.72
IPI00470573	ACTR2 actin-related protein 2 isoform a	1.08
IPI00867739	KIF3A cDNA FLJ60533, highly similar to Kinesin-like protein KIF3	1.41
IPI00941534	SEPT7 Isoform 1 of Septin-7	2.08
IPI00011735	IFRD1 Interferon-related developmental regulator 1	0.93
IPI00103380	ARAP3 Arf-GAP with Rho-GAP domain, ANK repeat and PH domain	0.52
IPI00883896	LIMA1 Isoform 4 of LIM domain and actin-binding protein 1	0.57
IPI00020567	ARHGAP1 Rho GTPase-activating protein 1	2.24
IPI00019502	MYH9 Isoform 1 of Myosin-9	0.92
IPI00978953	TPT1 Uncharacterized protein	
IPI00296485	MAP1S Microtubule-associated protein 1S	2.04
IPI00413344	CFL2 Cofilin-2	1.04
IPI00218319	TPM3 Isoform 2 of Tropomyosin alpha-3 chain	0.81
IPI00168849	TRIP10 Isoform 1 of Cdc42-interacting protein 4	1.56
IPI00290435	KIF2C Isoform 1 of Kinesin-like protein KIF2C	0.91
IPI00019642	CLIP2 Isoform 1 of CAP-Gly domain-containing linker protein 2	1.69
IPI00005160	ARPC1B;ARPC1A Actin-related protein 2/3 complex subunit 1B	1.13
IPI00016634	C20orf11 Protein C20orf11	1
IPI00027342	CAP2 Adenylyl cyclase-associated protein 2	0.51
IPI00305289	KIF11 Kinesin-like protein KIF11	0.51
IPI00032304	PLS1 Plastin-1	1.53
IPI00023598	TUBB4 Tubulin beta-4 chain	0.95
IPI00798193	SNX24 Uncharacterized protein	1.09
IPI00647915	TAGLN2 24 kDa protein	1.48
IPI00243742	MYL3 Myosin light chain 3	1.28
IPI00829992	MYO1C Isoform 3 of Myosin-Ic	1.37
IPI00013808	ACTN4 Alpha-actinin-4	0.93
IPI00004655	FRG1 Protein FRG1	0.67
IPI00847665	LIMS1 LIM and senescent cell antigen-like-containing domain protei	0.99
IPI00010779	TPM4 Isoform 1 of Tropomyosin alpha-4 chain	0.88
IPI00956585	APOPT1 Kinesin light chain 1	1.05
IPI00012369	MAD2L1 Mitotic spindle assembly checkpoint protein MAD2A	0.84
IPI00019994	TXLNG Isoform 1 of Gamma-taxilin	1.64
IPI00292496	TUBB8 Tubulin beta-8 chain	1.01
IPI00925052	ARPC4;ARPC4-TTLL3 actin-related protein 2/3 complex subunit 4 is	1.5
IPI00335711	DNAH11 Dynein heavy chain 11, axonemal	1.14
IPI00032498	DCTN5 Dynactin subunit 5	0.98
IPI00166132	VPS52 Vacuolar protein sorting-associated protein 52 homolog	0.98
IPI00646779	TUBB6 TUBB6 protein	0.96
IPI01018712	ACTA2 ACTA2 protein (Fragment)	1.45
IPI00157757	MICAL1 cDNA FLJ56489, highly similar to NEDD9-interacting prot	1.57
IPI00013933	DSP Isoform DPI of Desmoplakin	2.19
IPI00032187	NISCH Isoform 1 of Nischarin	0.92
IPI00936125	DIAPH1 Diaphanous 1	1.01
IPI00022790	MFAP1 Microfibrillar-associated protein 1	2.74

KOG category [W] Extracellular structures		
IPI00306604	ITGA5 Integrin alpha-5	4.81
IPI00290043	ITGA3 Isoform 2 of Integrin alpha-3	4.81
IPI00641172	LAMC3 172 kDa protein	0.78
IPI00217563	ITGB1 Isoform Beta-1A of Integrin beta-1	2.18
IPI00465431	LGALS3 Galectin-3	2.5
IPI00165587	LGALS8 Isoform 2 of Galectin-8	1.82
IPI00550917	TWF2 Twinfilin-2	2.21
IPI00027505	ITGAV Isoform 1 of Integrin alpha-V	1.52
IPI00552587	GADD45GIP1 Growth arrest and DNA damage-inducible proteins-int	1.3
IPI00005264	PKP2 Isoform 2 of Plakophilin-2	1.42
IPI00219219	LGALS1 Galectin-1	1.51
IPI00009505	SNTB2 Isoform 1 of Beta-2-syntrophin	1.06
IPI00296434	SLIT1 Isoform 1 of Slit homolog 1 protein	1.37
IPI00009294	CRIM1 Cysteine-rich motor neuron 1 protein	
IPI00010697	ITGA6 Isoform Alpha-6X1X2B of Integrin alpha-6	1.25
IPI00978910	GMFB Glia maturation factor beta	1.11
IPI00942869	CTNND1 Isoform 1ABC of Catenin delta-1	0.95
IPI00853454	LAMB1 200 kDa protein	0.97
IPI00023549	LGALSL Galectin-related protein	1.09
IPI00183508	TWF1 44 kDa protein	1
IPI00013744	ITGA2 Integrin alpha-2	3.09
IPI00000151	ITGB6 Integrin beta-6	1
IPI00296922	LAMB2 Laminin subunit beta-2	4.36
KOG category [U] Intracellular trafficking, secretion, and vesicular transport		
IPI00022744	CSE1L Isoform 1 of Exportin-2	1.01
IPI00329572	PACSIN3 Protein kinase C and casein kinase substrate in neurons 3, i	1
IPI00215920	ARF6 ADP-ribosylation factor 6	1.22
IPI00398009	IPO4 Isoform 2 of Importin-4	1.19
IPI00006072	SEC61G Protein transport protein Sec61 subunit gamma	1.69
IPI00009225	STX8 Syntaxin-8	1.07
IPI00007401	IPO8 Importin-8	0.87
IPI00218850	SCAMP2 Secretory carrier-associated membrane protein 2	1.49
IPI00002460	ANXA7 Isoform 1 of Annexin A7	0.91
IPI00783559	EXOC2 Exocyst complex component 2	1.37
IPI00026337	RANBP3 Isoform 1 of Ran-binding protein 3	4.93
IPI00015826	ABCB10 ATP-binding cassette sub-family B member 10, mitochondri	1.56
IPI00871851	SEPT2 Isoform 2 of Septin-2	1.52
IPI00032808	RAB3D Ras-related protein Rab-3D	1.15
IPI00291200	NUP133 Nuclear pore complex protein Nup133	1.08
IPI00170796	VPS29 Isoform 1 of Vacuolar protein sorting-associated protein 29	1.49
IPI00414858	COG3 Isoform 1 of Conserved oligomeric Golgi complex subunit 3	1.47
IPI00026969	SEC23IP Isoform 1 of SEC23-interacting protein	0.98
IPI00104128	SEC11A Signal peptidase complex catalytic subunit SEC11A	1.32
IPI00300562	RAB3B Ras-related protein Rab-3B	0.74
IPI00946150	SSR3 cDNA FLJ52061, highly similar to Translocon-associated prote	1.01
IPI00028376	TIMM8A Mitochondrial import inner membrane translocase subunit	1.14
IPI00429633	ERO1LB ERO1-like protein beta	1.2
IPI00744834	STX5 Isoform 1 of Syntaxin-5	0.97
IPI00025974	CHMP4B Charged multivesicular body protein 4b	1.4
IPI00017375	SEC23A Protein transport protein Sec23A	1.34
IPI00646361	NUP214 Isoform 5 of Nuclear pore complex protein Nup214	1.81
IPI00385267	SRPR Signal recognition particle receptor subunit alpha	0.72
IPI00299033	KPNA3 Importin subunit alpha-3	0.68
IPI00101037	RCN3 Reticulocalbin-3	1.64
IPI00945835	SYNJ1 synaptojanin-1 isoform a	1.89
IPI00410590	LSM14A Isoform 2 of Protein LSM14 homolog A	0.7

IPI00001141	TIMM22 Mitochondrial import inner membrane translocase subunit	10.84
IPI00302238	AATF Protein AATF	0.94
IPI00009822	SRP54 Signal recognition particle 54 kDa protein	0.93
IPI00295851	COPB1 Coatomer subunit beta	1.55
IPI00010438	SNAP23 Isoform SNAP-23a of Synaptosomal-associated protein 23	0.79
IPI00186966	BIN1 Isoform IIA of Myc box-dependent-interacting protein 1	1.17
IPI00395694	TNPO3 Isoform 2 of Transportin-3	1.07
IPI00016373	RAB13 Ras-related protein Rab-13	0.99
IPI00014376	RAB31 ras-related protein Rab-31	1.66
IPI00852806	EXOC6B Isoform 1 of Exocyst complex component 6B	2.69
IPI00002149	SAR1B GTP-binding protein SAR1b	1.3
IPI00747764	KPNA6 cDNA FLJ53229, highly similar to Importin alpha-7 subunit	0.82
IPI00215918	ARF4 ADP-ribosylation factor 4	1.03
IPI00006865	SEC22B Vesicle-trafficking protein SEC22b	1.53
IPI00924556	SPCS1 Signal peptidase complex subunit 1	5.06
IPI00023939	RABIF Guanine nucleotide exchange factor MSS4	2.06
IPI00033022	DNM2 Isoform 1 of Dynamin-2	1.27
IPI00306290	XPOT Exportin-T	2.06
IPI00023542	TMED9 Transmembrane emp24 domain-containing protein 9	1.01
IPI00446875	ERGIC3 Uncharacterized protein	2.3
IPI00007756	RAB22A Ras-related protein Rab-22A	1.31
IPI00337667	BICD2 Isoform 2 of Protein bicaudal D homolog 2	1.01
IPI00411426	VPS26A Vacuolar protein sorting-associated protein 26A	1.11
IPI00328932	VPS36 Isoform 1 of Vacuolar protein-sorting-associated protein 36	1.21
IPI00007402	IPO7 Importin-7	0.81
IPI00646857	MTX3 Isoform 1 of Metaxin-3	0.8
IPI00297325	SDHD Succinate dehydrogenase [ubiquinone] cytochrome b small sub	1.02
IPI00873376	VPS13A Isoform 1 of Vacuolar protein sorting-associated protein 13A	0.99
IPI00328913	VPS28 vacuolar protein sorting-associated protein 28 homolog isoform	1.56
IPI00005719	RAB1A Isoform 1 of Ras-related protein Rab-1A	0.98
IPI00656021	VPS53 vacuolar protein sorting-associated protein 53 homolog isoform	0.9
IPI00029447	GOSR1 Golgi SNAP receptor complex member 1	0.92
IPI00032905	VPS33B Vacuolar protein sorting-associated protein 33B	0.95
IPI00743931	GORASP2 cDNA FLJ59712, highly similar to Golgi reassembly-stack	1.62
IPI00167949	MX1 Interferon-induced GTP-binding protein Mx1	4.54
IPI00604599	TMED3 Transmembrane emp24 domain-containing protein 3	0.67
IPI00294472	TMED5 Transmembrane emp24 domain-containing protein 5	1.1
IPI00023191	TOM1 cDNA FLJ54710, highly similar to Target of Myb protein 1	0.78
IPI00021129	AP3B1 Isoform 1 of AP-3 complex subunit beta-1	0.93
IPI00793155	RAB34 ras-related protein Rab-34 isoform 5	1.07
IPI00028051	VPS41 Isoform Long of Vacuolar protein sorting-associated protein 4	1.04
IPI00032831	SNAP29 Synaptosomal-associated protein 29	1.2
IPI00395768	STX3 Isoform A of Syntaxin-3	0.86
IPI00005490	GOLPH3 Golgi phosphoprotein 3	1.01
IPI00102815	NOC3L Nucleolar complex protein 3 homolog	1.45
IPI00940292	AP1B1 Isoform C of AP-1 complex subunit beta-1	1.74
IPI00329441	RAB43 Ras-related protein Rab-43	2.49
IPI00009950	LMAN2 Vesicular integral-membrane protein VIP36	2.13
IPI00304866	TNFAIP2 Tumor necrosis factor alpha-induced protein 2	2.41
IPI00221325	RANBP2 E3 SUMO-protein ligase RanBP2	0.97
IPI00019004	SEC62 Translocation protein SEC62	0.75
IPI00293402	STX10 Isoform 1 of Syntaxin-10	1.76
IPI00001885	SNX8 Sorting nexin-8	1.21
IPI00790248	VAMP2 Uncharacterized protein	1.22
IPI00910194	NUP153 cDNA FLJ60565, highly similar to Nuclear pore complex pr	1.17
IPI00219840	AP2S1 Isoform 1 of AP-2 complex subunit sigma	1.06
IPI00163849	EPS15L1 cDNA FLJ60624, highly similar to Epidermal growth factor	1.4

IPI00748788	MTM1 Myotubularin	2.37
IPI00477489	RAB4B;MIA Isoform 1 of Ras-related protein Rab-4B	1.9
IPI00910882	TBC1D5 TBC1 domain family member 5 isoform a	1.04
IPI01020803	COPZ1 Uncharacterized protein	1.01
IPI00295889	SRP19 Signal recognition particle 19 kDa protein	1.75
IPI00005651	IPO13 Importin-13	1.88
IPI00790530	NUP85 Nuclear pore complex protein Nup85	1.13
IPI00218466	SEC61A1 cDNA FLJ59739, highly similar to Protein transport protein	4.71
IPI00016381	RAB27A Isoform Long of Ras-related protein Rab-27A	1.06
IPI00913938	IPO11 Isoform 2 of Importin-11	1.85
IPI00021985	TM9SF4 Transmembrane 9 superfamily member 4	1.82
IPI00013930	STX6 Syntaxin-6	1.18
IPI00298961	XPO1 Exportin-1	1.1
IPI00219436	SEC11C Signal peptidase complex catalytic subunit SEC11C	1.67
IPI00981241	VPS24 cDNA FLJ58988, highly similar to Charged multivesicular body	0.93
IPI00003326	ARL2 ADP-ribosylation factor-like protein 2	1.05
IPI00300585	RRAGC Ras-related GTP-binding protein C	1.63
IPI00021766	RTN4 Isoform 1 of Reticulon-4	7.21
IPI00102896	RAB2B Ras-related protein Rab-2B	5.94
IPI00026625	NUP155 Isoform 1 of Nuclear pore complex protein Nup155	1.03
IPI00795671	RANP1;RAN Uncharacterized protein	1.11
IPI00892682	TAP2 antigen peptide transporter 2 isoform 1	2.65
IPI00014587	CLTA Isoform Brain of Clathrin light chain A	1.2
IPI00298520	ARCN1 Uncharacterized protein	1.07
IPI00217943	RAB6A Isoform 2 of Ras-related protein Rab-6A	1.21
IPI00941534	SEPT7 Isoform 1 of Septin-7	2.08
IPI00654799	AP1S3 Isoform 2 of AP-1 complex subunit sigma-3	1.22
IPI00165651	ERGIC2 Cd002 protein	1.39
IPI00020436	RAB11B Ras-related protein Rab-11B	1.15
IPI00719051	EXOC5 Exocyst complex component 5	1.14
IPI00140201	COG8 cDNA FLJ55996, highly similar to Conserved oligomeric Golgi	1.2
IPI00216719	ERC1 Isoform 1 of ELKS/Rab6-interacting/CAST family member 1	0.97
IPI00215888	SRP72 Signal recognition particle 72 kDa protein	1
IPI00001985	VPS18 Vacuolar protein sorting-associated protein 18 homolog	2.33
IPI00374657	VAPA Isoform 2 of Vesicle-associated membrane protein-associated protein	1.92
IPI00873472	SEC24A Isoform 1 of Protein transport protein Sec24A	0.75
IPI00005737	SURF4 Isoform 1 of Surfeit locus protein 4	1.27
IPI00001145	AP4S1 Isoform 1 of AP-4 complex subunit sigma-1	1.7
IPI00149849	COG4 conserved oligomeric Golgi complex subunit 4 isoform 1	0.54
IPI00028005	NUP107 Nuclear pore complex protein Nup107	1.03
IPI00029730	STX4 Syntaxin-4	1.81
IPI00024976	TOMM22 Mitochondrial import receptor subunit TOM22 homolog	1.62
IPI00073179	VPS33A Vacuolar protein sorting-associated protein 33A	0.99
IPI00024282	RAB8B Ras-related protein Rab-8B	1.57
IPI00062958	PEX11G Isoform 1 of Peroxisomal membrane protein 11C	1.9
IPI00291928	RAB14 Ras-related protein Rab-14	1.18
IPI00290738	PICALM Isoform 1 of Phosphatidylinositol-binding clathrin assembly	0.97
IPI00009253	NAPA Alpha-soluble NSF attachment protein	1.19
IPI00026848	LRPAP1 Alpha-2-macroglobulin receptor-associated protein	1.14
IPI00215919	ARF5 ADP-ribosylation factor 5	1.02
IPI00090327	VPS45 Vacuolar protein sorting-associated protein 45	1.14
IPI00059279	EXOC4 Exocyst complex component 4	0.9
IPI00414717	GLG1 Isoform 2 of Golgi apparatus protein 1	1.74
IPI00288941	NCOA5 Nuclear receptor coactivator 5	1.37
IPI00021167	PRKRA Isoform 1 of Interferon-inducible double stranded RNA-dependent	1.87
IPI00026940	NUP50 Isoform 1 of Nuclear pore complex protein Nup50	0.72
IPI00910088	AP1M1 AP-1 complex subunit mu-1 isoform 1	1.75

IPI01022922	ARL1 Uncharacterized protein	1.01
IPI00386755	ERO1L ERO1-like protein alpha	1.8
IPI00021978	PEX11B Peroxisomal membrane protein 11B	1.29
IPI00007309	TIMM23 Mitochondrial import inner membrane translocase subunit T	1.78
IPI00023510	RAB5A Ras-related protein Rab-5A	1.2
IPI00550181	CHMP2B Charged multivesicular body protein 2b	1.12
IPI00220527	SNX1 Isoform 1A of Sorting nexin-1	0.88
IPI00014219	SNX17 Sorting nexin-17	3.58
IPI00024661	SEC24C Protein transport protein Sec24C	2.07
IPI00024067	CLTC Isoform 1 of Clathrin heavy chain 1	1.2
IPI00939304	IPO5 Isoform 3 of Importin-5	0.94
IPI00021954	GBF1 Golgi-specific brefeldin A-resistance guanine nucleotide excha	1.04
IPI00177509	TRAPPC5 Trafficking protein particle complex subunit 5	1.16
IPI00003971	RTN1 Isoform RTN1-A of Reticulon-1	1.81
IPI01010055	ANXA11 cDNA FLJ58379, highly similar to Annexin A11	1.38
IPI00306516	TIMM44 Mitochondrial import inner membrane translocase subunit T	1.01
IPI00945633	SSR1 Uncharacterized protein	1.01
IPI00013892	CYTH3 Isoform 1 of Cytohesin-3	2.71
IPI00002214	KPNA2 Importin subunit alpha-2	0.59
IPI00015954	SAR1A GTP-binding protein SAR1a	0.98
IPI00017344	RAB5B Ras-related protein Rab-5B	1.6
IPI00006176	HGS Isoform 1 of Hepatocyte growth factor-regulated tyrosine kinase	1.17
IPI00855940	XPO7 Uncharacterized protein	1.2
IPI00031583	USO1 Isoform 2 of General vesicular transport factor p115	1.13
IPI00008964	RAB1B Ras-related protein Rab-1B	1.17
IPI00292753	GAPVD1 Isoform 6 of GTPase-activating protein and VPS9 domain-c	0.93
IPI00016207	TIMM17A Mitochondrial import inner membrane translocase subunit	1.66
IPI00295098	SRPRB Signal recognition particle receptor subunit beta	1.45
IPI01019011	NUP54 Nucleoporin 54kDa variant (Fragment)	1.04
IPI00002557	CHD3;LOC732272;SNORA69;COPG2 Coatomer subunit gamma-2	1.34
IPI00046057	STXBP1 Isoform 2 of Syntaxin-binding protein 1	1.61
IPI00185146	IPO9 Importin-9	1.02
IPI00009976	TMED1 Transmembrane emp24 domain-containing protein 1	1.2
IPI00646625	TAP1 Antigen peptide transporter 1	5.18
IPI00789155	CALU calumenin isoform c precurosor	1.53
IPI00289876	STX7 Isoform 1 of Syntaxin-7	1.04
IPI01009057	SSR4 translocon-associated protein subunit delta isoform 1 precursor	0.89
IPI00014454	RIN1 Isoform RIN1 of Ras and Rab interactor 1	1.23
IPI00016676	TOMM20 Mitochondrial import receptor subunit TOM20 homolog	2.14
IPI00218918	ANXA1 Annexin A1	0.96
IPI00031127	YIPF4 Protein YIPF4	1.24
IPI00303292	KPNA1 Importin subunit alpha-1	
IPI00793199	ANXA4 annexin A4	1.87
IPI00024364	TNPO1 Isoform 1 of Transportin-1	0.94
IPI00217151	C17orf39 Uncharacterized protein C17orf39	0.85
IPI00815770	SNX3 Isoform 1 of Sorting nexin-3	1.48
IPI00386862	ZFYVE19 Isoform 1 of Zinc finger FYVE domain-containing protein	0.89
IPI00640703	XPO5 Exportin-5	1.04
IPI00022887	ERGIC1 Isoform 1 of Endoplasmic reticulum-Golgi intermediate com	2.36
IPI00001589	TIMM13 Mitochondrial import inner membrane translocase subunit T	1.49
IPI00465132	COPE Coatomer subunit epsilon	1.87
IPI00016513	RAB10 Ras-related protein Rab-10	1.2
IPI00006038	NUP98 Isoform 1 of Nuclear pore complex protein Nup98-Nup96	0.94
IPI00854741	LLGL1 Lethal(2) giant larvae protein homolog 1	2.09
IPI00376195	ISCA2 Iron-sulfur cluster assembly 2 homolog, mitochondrial	1.07
IPI00783982	COPG Coatomer subunit gamma	1.33
IPI01021702	DNM1L 80 kDa protein	0.86

IPI00643591	AP1G1 cDNA FLJ46199 fis, clone TESTI4007965, highly similar to	0.99
IPI00293009	RABEP1 Isoform 1 of Rab GTPase-binding effector protein 1	1.31
IPI00293434	SRP14 Signal recognition particle 14 kDa protein	0.96
IPI00306382	SCAMP3 Isoform 1 of Secretory carrier-associated membrane protein	1.06
IPI00027009	PACSN2 Isoform 1 of Protein kinase C and casein kinase substrate ir	0.95
IPI00006211	VAPB Isoform 1 of Vesicle-associated membrane protein-associated p	1.45
IPI00289819	IGF2R Cation-independent mannose-6-phosphate receptor	2.59
IPI00549343	TNFRSF9;VAMP3 Vesicle-associated membrane protein 3	1.95
IPI00305438	VPS16 Isoform 1 of Vacuolar protein sorting-associated protein 16 ho	1.47
IPI00015178	ARFRP1 ADP-ribosylation factor-related protein 1	1.11
IPI00965105	SEC31A Uncharacterized protein	1.18
IPI00015842	RCN1 Reticulocalbin-1	2.12
IPI00922006	AP1S2 AP-1 complex subunit sigma-2	0.99
IPI01021644	RAB5C Uncharacterized protein	1.59
IPI00871742	DNM1L Isoform 6 of Dynamin-1-like protein	1.7
IPI00974545	ARL6 Isoform 2 of ADP-ribosylation factor-like protein 6	1.25
IPI00916570	SCAMP4 Protein	2.61
IPI00001883	SNX9 Sorting nexin-9	2.56
IPI00220609	SEH1L Isoform B of Nucleoporin SEH1	1.26
IPI00016891	RAB6B Ras-related protein Rab-6B	2.63
IPI00513853	STX12 Uncharacterized protein	1.04
IPI00001541	TIMM9 Mitochondrial import inner membrane translocase subunit Ti	1.01
IPI00480056	RAB4A RAB4A, member RAS oncogene family variant	0.93
IPI00032459	AP3M1 AP-3 complex subunit mu-1	0.92
IPI00299095	SNX2 Sorting nexin-2	1.07
IPI00008569	YKT6 Synaptobrevin homolog YKT6	0.98
IPI00642816	SRP9 Isoform 1 of Signal recognition particle 9 kDa protein	2.13
IPI00024348	PEX13 Peroxisomal membrane protein PEX13	1.46
IPI00909772	AP2M1 cDNA FLJ53069, highly similar to AP-2 complex subunit mu	0.99
IPI00014301	OXA1L Oxidase (Cytochrome c) assembly 1-like	1.01
IPI00023526	RAB6A Isoform 1 of Ras-related protein Rab-6A	0.95
IPI00004324	TRAPPC3 Trafficking protein particle complex subunit 3	1.17
IPI00164251	MOSPD1 Isoform 3 of Motile sperm domain-containing protein 1	3.65
IPI00014053	TOMM40 Isoform 1 of Mitochondrial import receptor subunit TOM40	2.66
IPI00784366	AP2B1 Isoform 2 of AP-2 complex subunit beta	1.07
IPI00168388	SRP68 Isoform 1 of Signal recognition particle 68 kDa protein	0.99
IPI00414127	RANBP1 Ran-specific GTPase-activating protein	1.74
IPI00514550	DNM2 dynamin-2 isoform 2	1.13
IPI00024095	ANXA3 Annexin A3	1.28
IPI00016932	INPPL1 Isoform 1 of Phosphatidylinositol-3,4,5-trisphosphate 5-phos	1.64
IPI00020887	VAMP7 Isoform 1 of Vesicle-associated membrane protein 7	1.1
IPI00002186	ARFGEF2 Brefeldin A-inhibited guanine nucleotide-exchange protei	1.93
IPI00004416	CHMP2A Charged multivesicular body protein 2a	1.42
IPI00413140	DNM1 Isoform 1 of Dynamin-1	1.74
IPI00000001	STAU1 Isoform Long of Double-stranded RNA-binding protein Stauf	1.69
IPI00981087	SEC24B Uncharacterized protein	2.14
IPI00028481	RAB8A Ras-related protein Rab-8A	1.02
IPI00384047	TRAPPC6B Isoform 1 of Trafficking protein particle complex subunit	1.13
IPI00300299	SPCS3 Signal peptidase complex subunit 3	1.68
IPI00221226	ANXA6 Annexin A6	0.94
IPI00010491	RAB27B Ras-related protein Rab-27B	1.95
IPI00027194	STX18 Syntaxin-18	4.49
IPI00216965	GOSR2 Isoform B of Golgi SNAP receptor complex member 2	0.97
IPI00018415	TM9SF2 Transmembrane 9 superfamily member 2	2.73
IPI00001538	FXC1 Mitochondrial import inner membrane translocase subunit Tim	1.77
IPI00017376	SEC23B Protein transport protein Sec23B	1.49
IPI00964886	TIMM8B mitochondrial import inner membrane translocase subunit	10.62

IPI00304577	AP2A1 Isoform A of AP-2 complex subunit alpha-1	1.12
IPI00292134	EPS15 Isoform 1 of Epidermal growth factor receptor substrate 15	2.13
IPI00296259	TMED4 Isoform 1 of Transmembrane emp24 domain-containing prot	1.28
IPI00790214	RCN2 Uncharacterized protein	2.79
IPI00007909	RABAC1 Prenylated Rab acceptor protein 1	3.48
IPI00556553	ABCB7 Isoform 2 of ATP-binding cassette sub-family B member 7, m	0.91
IPI00646493	COPA Isoform 2 of Coatomer subunit alpha	1.07
IPI00215914	ARF1 ADP-ribosylation factor 1	1.06
IPI00023530	CDK5 Cyclin-dependent kinase 5	1.1
IPI00218337	LMAN2L Isoform 2 of VIP36-like protein	1.42
IPI00029403	SNX4 Sorting nexin-4	1.87
IPI00329801	ANXA5 Annexin A5	1.13
IPI00165261	SCFD1 Sec1 family domain-containing protein 1	1.07
IPI00001639	KPNB1 Importin subunit beta-1	1.01
IPI00014589	CLTB Isoform Brain of Clathrin light chain B	1.05
IPI00027178	AP1G2 AP-1 complex subunit gamma-like 2	0.89
IPI00018931	VPS35 Vacuolar protein sorting-associated protein 35	1.18
IPI00028946	RTN3 Isoform 3 of Reticulon-3	1.15
IPI00024705	GIPC1 PDZ domain-containing protein GIPC1	1.56
IPI00016621	AP2A2 Isoform 2 of AP-2 complex subunit alpha-2	1.01
IPI00798193	SNX24 Uncharacterized protein	1.09
IPI00853598	SEC13 cDNA FLJ56334, highly similar to SEC13-related protein	1.04
IPI00063784	VTI1B Isoform Long of Vesicle transport through interaction with t-S	1.06
IPI00220219	COPB2 Coatomer subunit beta'	1.17
IPI00015602	TOMM70A Mitochondrial import receptor subunit TOM70	1.22
IPI00438170	SNX12 Isoform 1 of Sorting nexin-12	1.34
IPI00100796	CHMP5 Charged multivesicular body protein 5	1.04
IPI00924549	BET1 Protein	0.92
IPI00009901	NUTF2 Nuclear transport factor 2	1.54
IPI00297626	STXBP3 Syntaxin-binding protein 3	2.05
IPI00012578	KPNA4 Importin subunit alpha-4	1.96
IPI00748807	NUP160 Isoform 1 of Nuclear pore complex protein Nup160	1.34
IPI00025346	PEX14 Isoform 1 of Peroxisomal membrane protein PEX14	1.12
IPI00028055	TMED10 Transmembrane emp24 domain-containing protein 10	1.29
IPI00031169	RAB2A Ras-related protein Rab-2A	0.93
IPI00016608	TMED2 Transmembrane emp24 domain-containing protein 2	1.13
IPI00002188	ARFGEF1 Brefeldin A-inhibited guanine nucleotide-exchange proteir	1.59
IPI00005129	SCAMP1 Isoform 1 of Secretory carrier-associated membrane protein 1	
IPI00441867	PEX19 Isoform 1 of Peroxisomal biogenesis factor 19	26.68
IPI00023504	RAB3A Ras-related protein Rab-3A	0.75
IPI00418169	ANXA2 Isoform 2 of Annexin A2	0.94
IPI00646963	REEP6 Uncharacterized protein	1.25
IPI00001738	NUP88 Nuclear pore complex protein Nup88	2.14
IPI00001676	NPLOC4 Isoform 2 of Nuclear protein localization protein 4 homolog	0.84
IPI00166132	VPS52 Vacuolar protein sorting-associated protein 52 homolog	0.98
IPI00024684	MX2 Interferon-induced GTP-binding protein Mx2	9.64
IPI00026530	LMAN1 Protein ERGIC-53	1.34
IPI00218288	SEC24D Isoform 2 of Protein transport protein Sec24D	0.52

KOG category [O] Posttranslational modification, protein turnover, chaperones

IPI00017334	PHB Prohibitin	1.21
IPI00165949	ERAP1 Isoform 2 of Endoplasmic reticulum aminopeptidase 1	2.57
IPI00219622	PSMA2 Proteasome subunit alpha type-2	1.34
IPI00007765	HSPA9 Stress-70 protein, mitochondrial	1.25
IPI00025156	STUB1 Isoform 1 of E3 ubiquitin-protein ligase CHIP	1.12
IPI00022543	PIGK GPI-anchor transamidase	1.01
IPI00024502	UBQLN4 Isoform 1 of Ubiquilin-4	1.94
IPI00383581	GANAB cDNA FLJ61290, highly similar to Neutral alpha-glucosidas	8.3

IPI00784090	CCT8 T-complex protein 1 subunit theta	0.9
IPI00012060	UBE2B Ubiquitin-conjugating enzyme E2 B	5.2
IPI00021370	UBE2K Isoform 1 of Ubiquitin-conjugating enzyme E2 K	1.07
IPI00414289	GPS1 Isoform 2 of COP9 signalosome complex subunit 1	1
IPI00010154	GDI1 Rab GDP dissociation inhibitor alpha	2.4
IPI00011229	CTSD Cathepsin D	2.14
IPI00002535	FKBP2 Peptidyl-prolyl cis-trans isomerase FKBP2	2.19
IPI00011250	UCHL3 Ubiquitin carboxyl-terminal hydrolase isozyme L3	1.33
IPI00166749	PMPCA Mitochondrial-processing peptidase subunit alpha	1.02
IPI00003865	HSPA8 Isoform 1 of Heat shock cognate 71 kDa protein	0.76
IPI00479722	PSME1 Proteasome activator complex subunit 1	1.52
IPI00646350	NAE1 Uncharacterized protein	1.62
IPI00011937	PRDX4 Peroxiredoxin-4	2.61
IPI00292499	HSPA14 Heat shock 70 kDa protein 14	2.02
IPI00301419	COPS7A COP9 signalosome complex subunit 7a	0.86
IPI00375380	PSMD13 Isoform 2 of 26S proteasome non-ATPase regulatory subunit 13	0.86
IPI00007343	RNF113A RING finger protein 113A	1.76
IPI00294834	ASPH Isoform 1 of Aspartyl/asparaginyl beta-hydroxylase	1.22
IPI00023919	PSMC5 26S protease regulatory subunit 8	0.92
IPI00910610	UBE2F Isoform 2 of NEDD8-conjugating enzyme UBE2F	2.13
IPI00220373	IDE Insulin-degrading enzyme	0.73
IPI00465308	PIGS Isoform 1 of GPI transamidase component PIG-S	1.28
IPI00302927	CCT4 T-complex protein 1 subunit delta	0.87
IPI00927892	PMPCB Mitochondrial-processing peptidase subunit beta	0.9
IPI00303300	FKBP10 Peptidyl-prolyl cis-trans isomerase FKBP10	1.57
IPI00006197	NVL Isoform 1 of Nuclear valosin-containing protein-like	1.1
IPI00943181	PSME2 Uncharacterized protein	1.19
IPI00022597	UBE2M NEDD8-conjugating enzyme Ubc12	1.03
IPI00219913	USP14 Ubiquitin carboxyl-terminal hydrolase 14	1.68
IPI00029472	ATE1 Isoform ATE1-1 of Arginyl-tRNA--protein transferase 1	2.12
IPI00221012	USP9X Isoform 1 of Probable ubiquitin carboxyl-terminal hydrolase F	1.07
IPI00026813	FNTA Farnesyltransferase, CAAX box, alpha, isoform CRA_a	0.98
IPI00642329	MFN2 Isoform 1 of Mitofusin-2	1.52
IPI00429633	ERO1LB ERO1-like protein beta	1.2
IPI00746451	UBE2A Ubiquitin-conjugating enzyme E2 A	1
IPI00305626	ASPHD1 Aspartate beta-hydroxylase domain-containing protein 1	5.51
IPI00926648	APEH Uncharacterized protein	1.42
IPI00025019	PSMB1 Proteasome subunit beta type-1	1
IPI00030144	PPIAL4C;PPIAL4G;PPIAL4B;PPIAL4A Peptidylprolyl cis-trans isomerase 4	0.84
IPI00009301	COPS7B Isoform 1 of COP9 signalosome complex subunit 7b	1.5
IPI00006475	UBE2D4 Ubiquitin-conjugating enzyme E2 D4	1.29
IPI00290566	TCP1 T-complex protein 1 subunit alpha	1.11
IPI00294610	DNAJA3 Isoform 1 of DnaJ homolog subfamily A member 3, mitochondrial	1.15
IPI00219077	LTA4H Isoform 1 of Leukotriene A-4 hydrolase	1.39
IPI00009949	PSMF1 Proteasome inhibitor PI31 subunit	1.88
IPI00011285	CAPN1 Calpain-1 catalytic subunit	1.18
IPI00216318	YWHAB Isoform Long of 14-3-3 protein beta/alpha	1.03
IPI00000051	PFDN1 Prefoldin subunit 1	0.88
IPI00304306	DNAJC19 Mitochondrial import inner membrane translocase subunit 19	1.53
IPI00643152	HSPA1L cDNA FLJ56386, highly similar to Heat shock 70 kDa protein 1	1.77
IPI00966770	COPS4 Uncharacterized protein	0.88
IPI00018813	COPS2 Isoform 2 of COP9 signalosome complex subunit 2	0.85
IPI00000877	HYOU1 Hypoxia up-regulated protein 1	1.8
IPI00641330	RING1 Isoform 1 of E3 ubiquitin-protein ligase RING1	1.26
IPI00028957	UBE4A Isoform 2 of Ubiquitin conjugation factor E4 A	1.75
IPI00017799	TXN2 cDNA FLJ55158, highly similar to Thioredoxin, mitochondrial	0.69
IPI00013328	TUSC3 Isoform 1 of Tumor suppressor candidate 3	1.49

IPI00423874	AMFR E3 ubiquitin-protein ligase AMFR	
IPI00219005	FKBP4 Peptidyl-prolyl cis-trans isomerase FKBP4	1.08
IPI00020042	PSMC4 Isoform 1 of 26S protease regulatory subunit 6B	0.9
IPI00010860	PSMD9 Isoform p27-L of 26S proteasome non-ATPase regulatory sub	0.96
IPI00002745	CTSZ Cathepsin Z	0.65
IPI00008247	ANAPC5 Isoform 1 of Anaphase-promoting complex subunit 5	0.71
IPI00019927	PSMD7 26S proteasome non-ATPase regulatory subunit 7	1.17
IPI00295741	CTSB Cathepsin B	2.87
IPI00219445	PSME3 Isoform 2 of Proteasome activator complex subunit 3	0.67
IPI00939720	BIRC6 Baculoviral IAP repeat-containing protein 6	1.09
IPI00759832	YWHAB Isoform Short of 14-3-3 protein beta/alpha	0.91
IPI00514593	TTC4 Uncharacterized protein	0.6
IPI00021435	PSMC2 26S protease regulatory subunit 7	0.99
IPI00032826	ST13 Hsc70-interacting protein	0.96
IPI00293073	MFN1 Mitochondrial transmembrane GTPase FZO-2	2.24
IPI00024129	PPIC Peptidyl-prolyl cis-trans isomerase C	1.26
IPI00966303	ANAPC4 Uncharacterized protein	0.53
IPI00005745	SPTLC1 Serine palmitoyltransferase 1	2.16
IPI00985090	CUL2 cullin-2 isoform a	1.07
IPI00022774	VCP Transitional endoplasmic reticulum ATPase	1
IPI00216319	YWHAH 14-3-3 protein eta	0.92
IPI00022348	PML Isoform PML-1 of Protein PML	4.24
IPI00003870	CLPP Putative ATP-dependent Clp protease proteolytic subunit, mitoc	0.96
IPI00003386	RBX1 E3 ubiquitin-protein ligase RBX1	1.62
IPI00099550	UBQLN1 Isoform 1 of Ubiquilin-1	1.01
IPI00006377	POMP Proteasome maturation protein	1.93
IPI00002134	PSMD5 26S proteasome non-ATPase regulatory subunit 5	1.69
IPI00031461	GDI2 cDNA FLJ60299, highly similar to Rab GDP dissociation inhib	1.21
IPI00297779	CCT2 T-complex protein 1 subunit beta	0.84
IPI00339269	HSPA6 Heat shock 70 kDa protein 6	0.93
IPI00185374	PSMD12 26S proteasome non-ATPase regulatory subunit 12	0.93
IPI00013002	UBE2C Ubiquitin-conjugating enzyme E2 C	0.99
IPI00216919	YAP1 Isoform 1 of Yorkie homolog	1.79
IPI00221224	ANPEP Aminopeptidase N	1.67
IPI00030275	TRAP1 Heat shock protein 75 kDa, mitochondrial	0.95
IPI00385987	DAGLB Isoform 1 of Sn1-specific diacylglycerol lipase beta	1.2
IPI00246975	GSTM3 Glutathione S-transferase Mu 3	1.2
IPI00012608	RNF5 E3 ubiquitin-protein ligase RNF5	3.63
IPI00549761	ALG1 Chitobiosyldiphosphodolichol beta-mannosyltransferase	1.89
IPI00003949	UBE2N Ubiquitin-conjugating enzyme E2 N	1.75
IPI00241860	MIPEP Mitochondrial intermediate peptidase	1.27
IPI00025721	COPS3 COP9 signalosome complex subunit 3	0.78
IPI00742872	RNF170 Isoform 1 of RING finger protein 170	2.94
IPI00911039	HSPA1B;HSPA1A cDNA FLJ54408, highly similar to Heat shock 70	1
IPI00982304	PSMC3 Uncharacterized protein	1.07
IPI00299608	PSMD1 Isoform 1 of 26S proteasome non-ATPase regulatory subunit 1	1
IPI00304925	HSPA1B;HSPA1A Heat shock 70 kDa protein 1A/1B	1.35
IPI00100030	PIGT Isoform 1 of GPI transamidase component PIG-T	1.19
IPI00011454	GANAB Isoform 2 of Neutral alpha-glucosidase AB	2.31
IPI00010796	P4HB Protein disulfide-isomerase	1.57
IPI00009480	COPS8 COP9 signalosome complex subunit 8	1.24
IPI00014171	HERPUD1 Isoform 1 of Homocysteine-responsive endoplasmic reticul	8.17
IPI00220642	YWHAG 14-3-3 protein gamma	1.13
IPI00305692	TXNL1 Thioredoxin-like protein 1	1.76
IPI00218466	SEC61A1 cDNA FLJ59739, highly similar to Protein transport protei	4.71
IPI00830108	DNAJC2 Isoform 1 of DnaJ homolog subfamily C member 2	0.78
IPI00000787	PSMB9 Isoform LMP2.L of Proteasome subunit beta type-9	2.1

IPI00018352	UCHL1 Ubiquitin carboxyl-terminal hydrolase isozyme L1	1.29
IPI00465290	DNAJC11 Isoform 1 of DnaJ homolog subfamily C member 11	1.57
IPI00553185	CCT3 T-complex protein 1 subunit gamma	0.92
IPI00955965	USP10 Isoform 2 of Ubiquitin carboxyl-terminal hydrolase 10	1.79
IPI00024175	PSMA7 Isoform 1 of Proteasome subunit alpha type-7	1.03
IPI00784154	HSPD1 60 kDa heat shock protein, mitochondrial	0.99
IPI00000783	PSMB8 Isoform 1 of Proteasome subunit beta type-8	1.87
IPI00032406	DNAJA2 DnaJ homolog subfamily A member 2	0.95
IPI00642374	UCHL5 Ubiquitin carboxyl-terminal hydrolase L5	1.21
IPI00302673	ATPAF1 ATP synthase mitochondrial F1 complex assembly factor 1 i	1.01
IPI00642862	PPIL4 Peptidyl-prolyl cis-trans isomerase-like 4	1
IPI00218775	FKBP5 Peptidyl-prolyl cis-trans isomerase FKBP5	2.41
IPI00895911	CNBP cellular nucleic acid-binding protein isoform 2	0.83
IPI00009958	COPS5 COP9 signalosome complex subunit 5	0.84
IPI00328154	UBA3 Isoform 1 of NEDD8-activating enzyme E1 catalytic subunit	1.35
IPI00003217	PSMB7 Proteasome subunit beta type-7	3.06
IPI00185919	LARP1 Isoform 1 of La-related protein 1	1
IPI00015891	PFDN4 Prefoldin subunit 4	0.98
IPI00020008	NEDD8 NEDD8	0.99
IPI00010252	TRIM33 Isoform Alpha of E3 ubiquitin-protein ligase TRIM33	0.99
IPI00011603	PSMD3 26S proteasome non-ATPase regulatory subunit 3	0.88
IPI00025252	PDIA3 Protein disulfide-isomerase A3	1.77
IPI00025874	RPN1 Dolichyl-diphosphooligosaccharide--protein glycosyltransferase	1.52
IPI00003438	DNAJC8 DnaJ homolog subfamily C member 8	1.2
IPI00299155	PSMA4 Proteasome subunit alpha type-4	0.89
IPI00299149	LOC728825;SUMO2 Small ubiquitin-related modifier 2	0.98
IPI00019600	UBE2V2 Ubiquitin-conjugating enzyme E2 variant 2	4.72
IPI00013847	UQCRC1 Cytochrome b-c1 complex subunit 1, mitochondrial	1.25
IPI00163230	COPS6 COP9 signalosome complex subunit 6	1.03
IPI00024523	DNAJB6 Isoform A of DnaJ homolog subfamily B member 6	4.34
IPI00293260	DNAJC10 Isoform 1 of DnaJ homolog subfamily C member 10	1.49
IPI00027230	HSP90B1 Endoplasmic reticulum chaperone	1.25
IPI00789101	PTGES3 cDNA FLJ40895 fis, clone UTERU2002294, highly similar to	1.02
IPI00009407	DAD1 Dolichyl-diphosphooligosaccharide--protein glycosyltransferase	1.28
IPI00296374	ZFPL1 Zinc finger protein-like 1	1.72
IPI00024821	PSMD14 26S proteasome non-ATPase regulatory subunit 14	1.34
IPI00289758	CAPN2 Calpain-2 catalytic subunit	1.05
IPI00295394	COX11 Cytochrome c oxidase assembly protein COX11, mitochondrial	0.8
IPI00002966	HSPA4 Heat shock 70 kDa protein 4	1.04
IPI00018971	TRIM21 Isoform 1 of E3 ubiquitin-protein ligase TRIM21	3.69
IPI00023647	UBA6 Isoform 1 of Ubiquitin-like modifier-activating enzyme 6	1.05
IPI00152695	WDR82 WD repeat-containing protein 82	0.98
IPI00008821	HERC5 E3 ISG15--protein ligase HERC5	3.02
IPI00216298	TXN Thioredoxin	1.15
IPI00026848	LRPAP1 Alpha-2-macroglobulin receptor-associated protein	1.14
IPI00015361	PFDN5 Prefoldin subunit 5	0.91
IPI00029629	TRIM25 E3 ubiquitin/ISG15 ligase TRIM25	1.04
IPI00006298	PPIG Isoform 1 of Peptidyl-prolyl cis-trans isomerase G	2.41
IPI00008454	DNAJB11 DnaJ homolog subfamily B member 11	2.21
IPI00396203	TBCD Isoform 1 of Tubulin-specific chaperone D	0.79
IPI00031479	PDIA5 Protein disulfide-isomerase A5	2.59
IPI00299299	HSPA13 Heat shock 70 kDa protein 13	1.14
IPI00000816	YWHAE Isoform 1 of 14-3-3 protein epsilon	0.94
IPI01014546	PRMT1 protein arginine N-methyltransferase 1 isoform 1	0.86
IPI00386755	ERO1L ERO1-like protein alpha	1.8
IPI00001914	FKBP7 Isoform 1 of Peptidyl-prolyl cis-trans isomerase FKBP7	1.15
IPI00030371	TRIM4 Isoform Alpha of Tripartite motif-containing protein 4	0.8

IPI01015191	AFG3L2 Similar to AFG3 ATPase family gene 3-like 2 (Fragment)	1.67
IPI00149650	PPWD1 Peptidylprolyl isomerase domain and WD repeat-containing p	0.91
IPI00018146	YWHAQ 14-3-3 protein theta	0.88
IPI00741097	GSTT1 Glutathione S-transferase theta-1	1.37
IPI00472498	TMEM189;UBE2V1;TMEM189-UBE2V1 Isoform 3 of Ubiquitin-con	1.07
IPI00749013	UBE2D3 Isoform 2 of Ubiquitin-conjugating enzyme E2 D3	1.16
IPI00000728	USP15 Isoform 1 of Ubiquitin carboxyl-terminal hydrolase 15	1.19
IPI00927606	GPX1 Glutathione peroxidase 1	7.09
IPI00295849	RABGGTB Geranylgeranyl transferase type-2 subunit beta	0.65
IPI00297113	TRIM32 E3 ubiquitin-protein ligase TRIM32	1.26
IPI00012426	SCPEP1 Isoform 1 of Retinoid-inducible serine carboxypeptidase	0.62
IPI00014877	QPCTL Glutaminyl-peptide cyclotransferase-like protein	2.19
IPI00479306	PSMB5 Isoform 1 of Proteasome subunit beta type-5	0.82
IPI00021594	GPAA1 Isoform 1 of Glycosylphosphatidylinositol anchor attachment	1.29
IPI00023087	UBE2T Ubiquitin-conjugating enzyme E2 T	0.26
IPI00029557	GRPEL1 GrpE protein homolog 1, mitochondrial	1.07
IPI00171525	SEN3 Sentrin-specific protease 3	0.98
IPI00219783	UBE2G1 Ubiquitin-conjugating enzyme E2 G1	0.58
IPI00419249	PSMA3 Isoform 1 of Proteasome subunit alpha type-3	0.81
IPI00014340	PPP1R12C Isoform 1 of Protein phosphatase 1 regulatory subunit 12C	1.35
IPI00003362	HSPA5 78 kDa glucose-regulated protein	1.46
IPI00026519	PPIF Peptidyl-prolyl cis-trans isomerase F, mitochondrial	0.95
IPI00000874	PRDX1 Peroxiredoxin-1	1.45
IPI00465432	NOMO2 Isoform 1 of Nodal modulator 2	2.21
IPI00162563	RNF40 Isoform 1 of E3 ubiquitin-protein ligase BRE1B	0.77
IPI00012268	PSMD2 26S proteasome non-ATPase regulatory subunit 2	1.11
IPI00293126	TBCB Tubulin-folding cofactor B	1.19
IPI00402231	DNAJC5 Isoform 1 of DnaJ homolog subfamily C member 5	2.44
IPI00003765	CAPN7 Calpain-7	0.1
IPI00009904	PDIA4 Protein disulfide-isomerase A4	1.95
IPI01012733	HSPA4L Uncharacterized protein	1.47
IPI00015947	DNAJB1 DnaJ homolog subfamily B member 1	1.49
IPI00030915	USP8 Ubiquitin carboxyl-terminal hydrolase 8	0.31
IPI00031755	RCE1 CAAX prenyl protease 2	3.58
IPI00003894	RNF11 RING finger protein 11	2.67
IPI00013723	PIN1 Peptidyl-prolyl cis-trans isomerase NIMA-interacting 1	0.8
IPI00028006	PSMB2 Proteasome subunit beta type-2	1.06
IPI00028004	PSMB3 Proteasome subunit beta type-3	0.93
IPI00411356	VPS4A Vacuolar protein sorting-associated protein 4A	2.46
IPI00074870	DNAJC1 DnaJ homolog subfamily C member 1	2.23
IPI00019755	GSTO1 Glutathione S-transferase omega-1	1.55
IPI00026216	NPEPPS Puromycin-sensitive aminopeptidase	1.33
IPI00219757	GSTP1 Glutathione S-transferase P	1.39
IPI00220835	SEC61B Protein transport protein Sec61 subunit beta	2.83
IPI00642211	RNPEP Aminopeptidase B	1.89
IPI00297492	STT3A Dolichyl-diphosphooligosaccharide--protein glycosyltransfera	2.09
IPI00011126	PSMC1 26S protease regulatory subunit 4	1.44
IPI00655754	UFD1L Isoform Long of Ubiquitin fusion degradation protein 1 homo	1.07
IPI00005822	CDC23 Isoform 1 of Cell division cycle protein 23 homolog	1.63
IPI00939471	BRCC3 Isoform 2 of Lys-63-specific deubiquitinase BRCC36	0.98
IPI00297084	DDOST Dolichyl-diphosphooligosaccharide--protein glycosyltransfer	1.17
IPI00382470	HSP90AA1 Isoform 2 of Heat shock protein HSP 90-alpha	0.98
IPI00024915	PRDX5 Isoform Mitochondrial of Peroxiredoxin-5, mitochondrial	2.81
IPI00024157	FKBP3 Peptidyl-prolyl cis-trans isomerase FKBP3	1.19
IPI00399307	PRCP lysosomal Pro-X carboxypeptidase isoform 2 preproprotein	1.67
IPI00086909	Similar to 14-3-3 protein epsilon	0.82
IPI00056504	UBE2E3 Ubiquitin-conjugating enzyme E2 E3	1.2

IPI00022462	TFRC Transferrin receptor protein 1	1.74
IPI00022664	RABGGTA Geranylgeranyl transferase type-2 subunit alpha	0.91
IPI00923547	60 kDa chaperonin (Fragment)	1.26
IPI00020984	CANX cDNA FLJ55574, highly similar to Calnexin	2.02
IPI00640525	CTSA lysosomal protective protein isoform a precursor	0.73
IPI00449049	PARP1 Poly [ADP-ribose] polymerase 1	1.06
IPI00026991	GALNT6 Polypeptide N-acetylgalactosaminyltransferase 6	2.11
IPI00022759	PGGT1B Isoform 1 of Geranylgeranyl transferase type-1 subunit beta	1.41
IPI00787827	PITRM1 Isoform 2 of Presequence protease, mitochondrial	1.45
IPI00438229	TRIM28 Isoform 1 of Transcription intermediary factor 1-beta	0.88
IPI00022386	TXNDC9 Thioredoxin domain-containing protein 9	0.78
IPI00472442	PSMA1 Isoform Long of Proteasome subunit alpha type-1	0.95
IPI00414676	HSP90AB1 Heat shock protein HSP 90-beta	0.76
IPI00291922	PSMA5 Proteasome subunit alpha type-5	0.92
IPI00435433	RNF185 Isoform 1 of RING finger protein 185	5.01
IPI00419869	COX15 Isoform 1 of Cytochrome c oxidase assembly protein COX15	1.07
IPI00182728	VPS4B Vacuolar protein sorting-associated protein 4B	1.15
IPI00005657	PFDN6 Prefoldin subunit 6	0.96
IPI00307017	LNPEP Isoform 1 of Leucyl-cystinyl aminopeptidase	2.45
IPI00549672	PSMD13 HSPC027	0.88
IPI00006451	NSF Vesicle-fusing ATPase	0.93
IPI00003588	EEF1E1 Eukaryotic translation elongation factor 1 epsilon-1	1.03
IPI00465261	ERAP2 Isoform 1 of Endoplasmic reticulum aminopeptidase 2	1.86
IPI00020539	PGPEP1 Pyroglutamyl-peptidase 1	4.58
IPI00555956	PSMB4 Proteasome subunit beta type-4	1.66
IPI00023234	UBA2 SUMO-activating enzyme subunit 2	1.18
IPI00301202	MAGT1 magnesium transporter protein 1	1.29
IPI00549666	GRPEL2 GrpE protein homolog 2, mitochondrial	0.68
IPI00005715	UBE4B Isoform 1 of Ubiquitin conjugation factor E4 B	
IPI00334159	VBP1 von Hippel-Lindau binding protein 1, isoform CRA_b	0.81
IPI00020599	CALR Calreticulin	1.31
IPI00021346	UBE2E1 Ubiquitin-conjugating enzyme E2 E1	0.39
IPI00220566	TXNRD2 Isoform 1 of Thioredoxin reductase 2, mitochondrial	2.7
IPI00033907	ANAPC1 Anaphase-promoting complex subunit 1	1.09
IPI00243221	NRD1 nardilysin isoform a	0.71
IPI00251559	RNF20 E3 ubiquitin-protein ligase BRE1A	0.81
IPI00939163	HSPH1 Isoform Alpha of Heat shock protein 105 kDa	0.74
IPI00006592	MSRA Isoform 1 of Mitochondrial peptide methionine sulfoxide reductase	1.42
IPI00024664	USP5 Isoform Long of Ubiquitin carboxyl-terminal hydrolase 5	1.83
IPI00027626	CCT6A T-complex protein 1 subunit zeta	0.89
IPI00216192	CLPB Isoform 2 of Caseinolytic peptidase B protein homolog	0.73
IPI00893541	PDIA3 14 kDa protein	1.34
IPI00936141	AKTIP Isoform 2 of AKT-interacting protein	3.11
IPI00645078	UBA1 Ubiquitin-like modifier-activating enzyme 1	1.44
IPI00329583	SPATA5 Isoform 1 of Spermatogenesis-associated protein 5	2.64
IPI00014301	OXA1L Oxidase (Cytochrome c) assembly 1-like	1.01
IPI00301364	SKP1 Isoform 1 of S-phase kinase-associated protein 1	1.45
IPI00100748	HSPBP1 cDNA FLJ55382, highly similar to Hsp70-binding protein 1	0.73
IPI00216003	CUL5 Cullin-5	1.33
IPI00964791	SIL1 Uncharacterized protein	1.15
IPI00023406	HCCS Cytochrome c-type heme lyase	1.12
IPI00032871	MSRB2 Similar to Methionine-R-sulfoxide reductase B2, mitochondrial	2.11
IPI00027350	PRDX2 Peroxiredoxin-2	1.72
IPI00646304	PPIB Peptidyl-prolyl cis-trans isomerase B	1.24
IPI00793381	PSMD6 Uncharacterized protein	1.08
IPI00003985	BCS1L Mitochondrial chaperone BCS1	1
IPI00375631	ISG15 Ubiquitin-like protein ISG15	10.35

IPI00647400	RNPEP Uncharacterized protein	2.07
IPI00027933	PSMB10 Proteasome subunit beta type-10	3.36
IPI00657888	GMPPA Isoform 2 of Mannose-1-phosphate guanyltransferase alpha	2.01
IPI00013894	STIP1 Stress-induced-phosphoprotein 1	1.1
IPI00031608	SPATA5L1 Isoform 1 of Spermatogenesis-associated protein 5-like pr	1.75
IPI00514173	PPIE peptidyl-prolyl cis-trans isomerase E isoform 4	1
IPI00604464	UBE3C Isoform 1 of Ubiquitin-protein ligase E3C	1.06
IPI00033130	SAE1 SUMO-activating enzyme subunit 1	1.12
IPI00028635	RPN2 Dolichyl-diphosphooligosaccharide--protein glycosyltransferase	1.49
IPI00430812	CNBP Isoform 1 of Cellular nucleic acid-binding protein	0.73
IPI00157365	NUB1 NEDD8 ultimate buster 1	1.21
IPI00006800	ATG5 Isoform Long of Autophagy protein 5	1.3
IPI00419585	PPIA Peptidyl-prolyl cis-trans isomerase A	1.04
IPI00294701	MNAT1 CDK-activating kinase assembly factor MAT1	1.03
IPI00420070	ADAM15 Isoform 1 of Disintegrin and metalloproteinase domain-con	8.56
IPI00022810	CTSC Isoform 1 of Dipeptidyl peptidase 1	0.62
IPI00414463	LCMT1 Isoform 2 of Leucine carboxyl methyltransferase 1	1.34
IPI00000811	PSMB6 Proteasome subunit beta type-6	1.29
IPI00005158	LONP1 Lon protease homolog, mitochondrial	2.01
IPI00328161	FKBP8 cDNA FLJ56370, highly similar to Homo sapiens FK506 bind	2.23
IPI00010720	CCT5 T-complex protein 1 subunit epsilon	0.83
IPI00013241	UBL5 Ubiquitin-like protein 5	0.76
IPI00018465	CCT7 T-complex protein 1 subunit eta	0.93
IPI00001663	HTRA2 Isoform 1 of Serine protease HTRA2, mitochondrial	2.76
IPI00015809	OSGEP Probable tRNA threonylcarbamoyladenosine biosynthesis pro	1.59
IPI00020965	UBE2H Ubiquitin-conjugating enzyme E2 H	1.69
IPI00022239	METAP1 Methionine aminopeptidase 1	1.21
IPI00793209	UBL7 Ubiquitin-like 7 (Bone marrow stromal cell-derived), isoform C	0.93
IPI00021263	YWHAZ 14-3-3 protein zeta/delta	1.02
IPI00332376	UBE2D2 Ubiquitin-conjugating enzyme E2 D2	1.12
IPI00294943	ARIH1 E3 ubiquitin-protein ligase ARIH1	1.06
IPI00219025	GLRX Glutaredoxin-1	2.5
IPI00183002	PPP1R12A Isoform 1 of Protein phosphatase 1 regulatory subunit 12A	0.88
IPI00012535	DNAJA1 DnaJ homolog subfamily A member 1	0.78
IPI00019924	TBCC Tubulin-specific chaperone C	
IPI00011609	UBE3A Isoform II of Ubiquitin-protein ligase E3A	0.83
IPI00922443	TBCE cDNA FLJ59210, highly similar to Tubulin-specific chaperone	1.31
IPI00026993	RNF2 E3 ubiquitin-protein ligase RING2	0.9
IPI00003565	PSMD10 26S proteasome non-ATPase regulatory subunit 10	1.18
IPI00007088	ANAPC10 Anaphase-promoting complex subunit 10	3.53
IPI00514424	PPT1 Uncharacterized protein	1.54
IPI00027252	PHB2 Prohibitin-2	1.1
IPI00008248	ANAPC7 Isoform 1 of Anaphase-promoting complex subunit 7	0.68
IPI00157375	DNAJC30 DnaJ homolog subfamily C member 30	1.19
IPI00024524	PNO1 RNA-binding protein PNO1	1.21
IPI00105598	PSMD11 Proteasome 26S non-ATPase subunit 11 variant (Fragment)	0.82
IPI00008552	GLRX3 Glutaredoxin-3	1.31
IPI00419250	GSTT2 Glutathione S-transferase theta-2	1.42
IPI00018798	DNAJC17 DnaJ homolog subfamily C member 17	1.25
IPI00003927	PPID Peptidyl-prolyl cis-trans isomerase D	1.4
IPI00418603	UBE2R2 Ubiquitin-conjugating enzyme E2 R2	1.64
IPI00033132	RNF7 Isoform 1 of RING-box protein 2	2.35
IPI00024776	CLGN Calmegin	1.54
IPI00216247	PSMD4 Uncharacterized protein	0.98
IPI00006052	PFDN2 Prefoldin subunit 2	0.94
IPI00220362	HSPE1 10 kDa heat shock protein, mitochondrial	0.87
IPI00152540	CD109 Isoform 1 of CD109 antigen	2.13

IPI00002790	SEL1L Isoform 1 of Protein sel-1 homolog 1	1.42
IPI00025512	HSPB1 Heat shock protein beta-1	2.98
IPI00299571	PDIA6 Isoform 2 of Protein disulfide-isomerase A6	1.63
IPI00007019	PP1L1 Peptidyl-prolyl cis-trans isomerase-like 1	1.62
IPI00022373	NOB1 RNA-binding protein NOB1	1.09
IPI00409659	UBQLN2 Ubiquilin-2	2.41
IPI00025346	PEX14 Isoform 1 of Peroxisomal membrane protein PEX14	1.12
IPI00018398	PSMC3 26S protease regulatory subunit 6A	1.63
IPI00045946	YME1L1 Isoform 1 of ATP-dependent zinc metalloprotease YME1L1	0.83
IPI00852960	USP22 Isoform 1 of Ubiquitin carboxyl-terminal hydrolase 22	1.61
IPI01024911	PSMA6 28 kDa protein	0.98
IPI00329629	DNAJC7 DnaJ homolog subfamily C member 7	0.62
IPI00074605	NGLY1 Isoform 1 of Peptide-N(4)-(N-acetyl-beta-glucosaminy)aspar:	1.08
IPI00479793	MSRB3 Isoform 2 of Methionine-R-sulfoxide reductase B3	1.77
IPI00003965	USP7 Ubiquitin carboxyl-terminal hydrolase 7	1.65
IPI00024919	PRDX3 Thioredoxin-dependent peroxide reductase, mitochondrial	1.23
IPI00220656	CCT6B T-complex protein 1 subunit zeta-2	1.46
IPI00152377	STT3B Dolichyl-diphosphooligosaccharide--protein glycosyltransferase	2.14
IPI00014361	TSTA3 GDP-L-fucose synthase	0.82
IPI00007346	PPIH Peptidyl-prolyl cis-trans isomerase H	1.45
IPI00640197	TPP2 Uncharacterized protein	1.92
IPI00926977	PSMC6 26S protease regulatory subunit 10B	0.87
IPI00182180	OTUD6B OTU domain-containing protein 6B	0.95

METABOLISM

KOG category [C] Energy production and conversion

IPI00478410	ATP5C1 Isoform Liver of ATP synthase subunit gamma, mitochondri	0.94
IPI00218848	ATP5I ATP synthase, H ⁺ transporting, mitochondrial F0 complex, su	0.87
IPI00852927	SLC25A1 Plasma membrane citrate carrier	1.77
IPI00983296	ACLY Uncharacterized protein	1.44
IPI00307334	MTRR Isoform A of Methionine synthase reductase	0.49
IPI00470674	CYB5R1 NADH-cytochrome b5 reductase 1	2.77
IPI00007812	ATP6V1B2 V-type proton ATPase subunit B, brain isoform	1.74
IPI00300886	SLC25A32 Mitochondrial folate transporter/carrier	1.62
IPI00922223	ATP6V0D1 Uncharacterized protein	1.89
IPI00384643	TP5I3 Isoform 1 of Quinone oxidoreductase PIG3	1.03
IPI00007682	ATP6V1A V-type proton ATPase catalytic subunit A	1.3
IPI00306159	MECR Isoform 1 of Trans-2-enoyl-CoA reductase, mitochondrial	1.35
IPI00394758	ALDH3A2 Isoform 2 of Fatty aldehyde dehydrogenase	1.57
IPI00033034	DLST;DLSTP1 Alpha-ketoglutarate dehydrogenase complex dihydrol	3.33
IPI00305383	UQCRC2 Cytochrome b-c1 complex subunit 2, mitochondrial	1.64
IPI00011201	ME2 NAD-dependent malic enzyme, mitochondrial	1.26
IPI00784119	ATP6AP1 V-type proton ATPase subunit S1	1.95
IPI00299719	TCIRG1 Isoform Long of V-type proton ATPase 116 kDa subunit a is	2.21
IPI00894154	NDUFA10 Uncharacterized protein	1.27
IPI00219682	STOM Erythrocyte band 7 integral membrane protein	3.91
IPI00024742	UQCRQ Cytochrome b-c1 complex subunit 8	1.73
IPI00654820	MT-ATP6 ATP synthase subunit a	1.16
IPI00334190	STOML2 Stomatin-like protein 2	1.87
IPI00005966	NDUFA12 13kDa differentiation-associated protein variant (Fragmen	1.23
IPI00021793	COX6A1 Cytochrome c oxidase subunit 6A1, mitochondrial	16.61
IPI00008215	ME1 NADP-dependent malic enzyme	1.48
IPI00007611	ATP5O ATP synthase subunit O, mitochondrial	1.5
IPI00255052	NDUFB9 NADH dehydrogenase [ubiquinone] 1 beta subcomplex sub	3.45
IPI00096066	SUCLG2 Succinyl-CoA ligase [GDP-forming] subunit beta, mitochon	1.5
IPI00219772	NDUFB7 NADH dehydrogenase [ubiquinone] 1 beta subcomplex sub	1.19

IPI00027448	ATP5L ATP synthase subunit g, mitochondrial	1.01
IPI00006579	COX4I1 Cytochrome c oxidase subunit 4 isoform 1, mitochondrial	2.27
IPI00464979	SUCLA2 Isoform 1 of Succinyl-CoA ligase [ADP-forming] subunit beta	1.03
IPI00220416	UQCRB Cytochrome b-c1 complex subunit 7	1.28
IPI00004902	ETFB Isoform 1 of Electron transfer flavoprotein subunit beta	2.05
IPI00028520	NDUFV1 Isoform 1 of NADH dehydrogenase [ubiquinone] flavoprotein	1.7
IPI00013968	COX7C Cytochrome c oxidase subunit 7C, mitochondrial	1.6
IPI00022442	NDUFAB1 Acyl carrier protein, mitochondrial	1.48
IPI00974102	BCKDHA cDNA FLJ45695 fis, clone FEBRA2013570, highly similar	1.08
IPI00420108	DLST;DLSTP1 Dihydrolipoyllysine-residue succinyltransferase component	2.16
IPI00025796	NDUFS3 NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial	1.82
IPI00946714	ATP6V1F V-type proton ATPase subunit F isoform 2	1.61
IPI00646556	NDUFV2 Uncharacterized protein	1.3
IPI00014440	SLC25A17 Peroxisomal membrane protein PMP34	1.2
IPI00291467	SLC25A6 ADP/ATP translocase 3	0.81
IPI00294911	SDHB Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial	1.58
IPI00291006	MDH2 Malate dehydrogenase, mitochondrial	1.35
IPI00790739	ACO2 Uncharacterized protein	2.2
IPI00219381	NDUFA2 NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit	1.99
IPI00022386	TXNDC9 Thioredoxin domain-containing protein 9	0.78
IPI00376195	ISCA2 Iron-sulfur cluster assembly 2 homolog, mitochondrial	1.07
IPI00892784	ATP6V0A1 V-type proton ATPase 116 kDa subunit a isoform 1 isoform	2.68
IPI00844050	UQCC Isoform 1 of Ubiquinol-cytochrome c reductase complex chaperone	1.55
IPI00028068	SLC25A19 Mitochondrial thiamine pyrophosphate carrier	1.83
IPI00554681	NDUFA5 NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit	1.66
IPI00220063	NDUFS5 NADH dehydrogenase [ubiquinone] iron-sulfur protein 5	1.44
IPI00297325	SDHD Succinate dehydrogenase [ubiquinone] cytochrome b small subunit	1.02
IPI00029133	ATP5F1 ATP synthase subunit b, mitochondrial	1.02
IPI00945153	NDUFA6 NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit	2.19
IPI00215777	SLC25A3 Isoform B of Phosphate carrier protein, mitochondrial	1.62
IPI00003856	ATP6V1E1 V-type proton ATPase subunit E 1	1.42
IPI00296191	ATP6V1H Isoform 1 of V-type proton ATPase subunit H	2.59
IPI00219385	NDUFB6 NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit	1.61
IPI00026964	UQCRCF1 Cytochrome b-c1 complex subunit Rieske, mitochondrial	1.23
IPI00000792	CRYZ Quinone oxidoreductase	1.69
IPI00007814	ATP6V1C1 V-type proton ATPase subunit C 1	1.44
IPI00215878	ATP5E ATP synthase subunit epsilon, mitochondrial	0.75
IPI00015018	PPA1 Inorganic pyrophosphatase	1.58
IPI00022891	SLC25A4 ADP/ATP translocase 1	1.45
IPI00015911	DLD Dihydrolipoyl dehydrogenase, mitochondrial	1.65
IPI00947127	LDHA L-lactate dehydrogenase A chain isoform 3	1.06
IPI00024920	ATP5D ATP synthase subunit delta, mitochondrial	1.14
IPI00168884	ATP6AP2 Renin receptor	2.16
IPI00021338	DLAT Dihydrolipoyllysine-residue acetyltransferase component of pyruvate	1.38
IPI00156689	VAT1 Synaptic vesicle membrane protein VAT-1 homolog	4.41
IPI00025285	ATP6V1G1 V-type proton ATPase subunit G 1	1.33
IPI00456008	ATP5J ATP synthase-coupling factor 6, mitochondrial isoform b precursor	1.94
IPI00220487	ATP5H Isoform 1 of ATP synthase subunit d, mitochondrial	2.01
IPI00465315	CYCS Cytochrome c	0.68
IPI00023406	HCCS Cytochrome c-type heme lyase	1.12
IPI00479877	ALDH9A1 4-trimethylaminobutyraldehyde dehydrogenase	1.17
IPI00927647	POR NADPH--cytochrome P450 reductase	1.38
IPI00219383	NDUFB3 NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit	1.8
IPI00001568	ATP6V1D V-type proton ATPase subunit D	1.34
IPI00003925	PDHB Isoform 1 of Pyruvate dehydrogenase E1 component subunit beta	1.28
IPI00022977	CKB Creatine kinase B-type	0.94
IPI00296053	FH Isoform Mitochondrial of Fumarate hydratase, mitochondrial	1.81

IPI00947328	NDUFB5 Protein	1.55
IPI00965327	SDHA Uncharacterized protein	1.14
IPI00037448	GRHPR Glyoxylate reductase/hydroxypyruvate reductase	0.97
IPI00797738	COX6B1 Cytochrome c oxidase subunit 6B1	1.39
IPI00026663	ALDH1A3 Aldehyde dehydrogenase family 1 member A3	1.72
IPI00009634	SQRDL Sulfide:quinone oxidoreductase, mitochondrial	1.87
IPI00003004	SLC25A22 Mitochondrial glutamate carrier 1	0.97
IPI00006663	ALDH2 Aldehyde dehydrogenase, mitochondrial	1.6
IPI00010810	ETFA Electron transfer flavoprotein subunit alpha, mitochondrial	1.84
IPI00219217	LDHB L-lactate dehydrogenase B chain	0.8
IPI00298423	PDHX Pyruvate dehydrogenase protein X component, mitochondrial	1.52
IPI00025344	NDUFS6 NADH dehydrogenase [ubiquinone] iron-sulfur protein 6, m	1.25
IPI00027233	SCO1 Protein SCO1 homolog, mitochondrial	1.44
IPI00303476	ATP5B ATP synthase subunit beta, mitochondrial	1.16
IPI00019326	FDX1 Adrenodoxin, mitochondrial	1.01
IPI01022198	NDUFA12 Uncharacterized protein	1.22
IPI01024808	26 kDa protein	2.1
IPI00604664	NDUFS1 NADH-ubiquinone oxidoreductase 75 kDa subunit, mitocho	1.79
IPI00303954	CYB5B cytochrome b5 type B precursor	1.41
IPI00025239	NDUFS2 NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, m	1.57
IPI00296022	UQCRH Cytochrome b-c1 complex subunit 6, mitochondrial	0.99
IPI00336008	ALDH5A1 succinate-semialdehyde dehydrogenase, mitochondrial iso	1.76
IPI00964764	SDHA cDNA FLJ55072, highly similar to Succinate dehydrogenase (u	1.28
IPI00032633	COQ6 Ubiquinone biosynthesis monooxygenase COQ6	3.39
IPI00306301	PDHA1 pyruvate dehydrogenase E1 component subunit alpha, somati	1.55
IPI01018162	PRKAG1 5'-AMP-activated protein kinase subunit gamma-1 isoform	1.31
IPI00954806	CYB5R3 NADH-cytochrome b5 reductase 3 isoform 3	2.2
IPI00028883	NDUFB8 NADH dehydrogenase [ubiquinone] 1 beta subcomplex sub	3.89
IPI00440493	ATP5A1 ATP synthase subunit alpha, mitochondrial	1.16
IPI00025086	COX5A Cytochrome c oxidase subunit 5A, mitochondrial	1.35
IPI00299402	PC Pyruvate carboxylase, mitochondrial	2.78
IPI00219729	SLC25A11 Mitochondrial 2-oxoglutarate/malate carrier protein	1.36
IPI00219034	NDUFA8 NADH dehydrogenase [ubiquinone] 1 alpha subcomplex sul	1.98
IPI00103467	ALDH1B1 Aldehyde dehydrogenase X, mitochondrial	1.87
IPI01009519	NDUFS7 NADH dehydrogenase [ubiquinone] iron-sulfur protein 7, m	1
IPI00010845	NDUFS8 NADH dehydrogenase [ubiquinone] iron-sulfur protein 8, m	1.21
IPI00003968	NDUFA9 NADH dehydrogenase [ubiquinone] 1 alpha subcomplex sul	1.27
IPI00014458	SCO2 Protein SCO2 homolog, mitochondrial	0.57
IPI00029558	NDUFC2 NADH dehydrogenase [ubiquinone] 1 subunit C2	3.6
IPI00438923	CRYZL1 Quinone oxidoreductase-like protein 1	0.93
IPI00872762	SUCLG1 Succinyl-CoA ligase [GDP-forming] subunit alpha, mitocho	1.04
IPI00007188	SLC25A5 ADP/ATP translocase 2	0.75
IPI00296999	ATPAF2 ATP synthase mitochondrial F1 complex assembly factor 2	0.66
IPI00008234	CYB5R2 Isoform 1 of NADH-cytochrome b5 reductase 2	2.53
IPI00025366	CS Citrate synthase, mitochondrial	1.64
IPI00000425	ATP6V0A2 V-type proton ATPase 116 kDa subunit a isoform 2	5.78
IPI00452731	NDUFA7 NADH dehydrogenase [ubiquinone] 1 alpha subcomplex sul	1.94
IPI00029264	CYC1 Cytochrome c1, heme protein, mitochondrial	1.26
IPI00930710	SLC25A13 calcium-binding mitochondrial carrier protein Aralar2 iso	1.94
IPI00013957	SLC25A20 Mitochondrial carnitine/acylcarnitine carrier protein	2.4
IPI00017895	GPD2 Isoform 1 of Glycerol-3-phosphate dehydrogenase, mitochondri	2.06
IPI00032959	GPD1L Glycerol-3-phosphate dehydrogenase 1-like protein	1.17
IPI00021785	COX5B Cytochrome c oxidase subunit 5B, mitochondrial	3.48
IPI00470502	PPA2 Isoform 2 of Inorganic pyrophosphatase 2, mitochondrial	1.95
IPI00011217	NDUFS4 NADH dehydrogenase [ubiquinone] iron-sulfur protein 4, m	1.35
IPI00027223	IDH1 Isocitrate dehydrogenase [NADP] cytoplasmic	1.3
IPI00167639	ATP6V0D2 V-type proton ATPase subunit d 2	2.02

KOG category [G] Carbohydrate transport and metabolism		
IPI00744692	TALDO1 Transaldolase	1.06
IPI00383581	GANAB cDNA FLJ61290, highly similar to Neutral alpha-glucosidase	8.3
IPI00908881	GPI Glucose-6-phosphate isomerase	1.28
IPI00027851	HEXA cDNA FLJ53927, highly similar to Beta-hexosaminidase alpha	0.62
IPI00024990	ALDH6A1 Methylmalonate-semialdehyde dehydrogenase [acylating]	5.94
IPI00012833	PPP4C Serine/threonine-protein phosphatase 4 catalytic subunit	1.44
IPI00921849	cDNA FLJ57046, highly similar to Lysosomal alpha-glucosidase	3.68
IPI00293088	GAA Lysosomal alpha-glucosidase	1.37
IPI00550364	PGM2 Phosphoglucomutase-2	1.08
IPI00011454	GANAB Isoform 2 of Neutral alpha-glucosidase AB	2.31
IPI00657888	GMPPA Isoform 2 of Mannose-1-phosphate guanyltransferase alpha	2.01
IPI01018161	PKM2 pyruvate kinase isozymes M1/M2 isoform c	2.25
IPI00783313	PYGL Glycogen phosphorylase, liver form	1.45
IPI00009790	PFKP 6-phosphofructokinase type C	1.09
IPI00006907	C12orf5 Probable fructose-2,6-bisphosphatase TIGAR	0.95
IPI00219525	PGD 6-phosphogluconate dehydrogenase, decarboxylating	1.04
IPI00332371	PFKL Isoform 1 of 6-phosphofructokinase, liver type	1.37
IPI00102864	HK2 Hexokinase-2	1.09
IPI00216008	G6PD Isoform Long of Glucose-6-phosphate 1-dehydrogenase	1.97
IPI00551024	DAK Bifunctional ATP-dependent dihydroxyacetone kinase/FAD-AM	1.78
IPI00305010	CPPED1 Isoform 1 of Calcineurin-like phosphoesterase domain-conta	1.49
IPI00220766	GLO1 Isoform 1 of Lactoylglutathione lyase	1.07
IPI00418262	ALDOC Fructose-bisphosphate aldolase	3.02
IPI00908404	GNS cDNA FLJ51188, highly similar to N-acetylglucosamine-6-sulfa	1.92
IPI00012989	MAN2B1 Lysosomal alpha-mannosidase	0.49
IPI00000138	MGAT1 Alpha-1,3-mannosyl-glycoprotein 2-beta-N-acetylglucosamin	1.43
IPI00021807	GBA cDNA FLJ56157, highly similar to Glucosylceramidase	3.23
IPI00219018	GAPDH Glyceraldehyde-3-phosphate dehydrogenase	1.17
IPI00335280	LOC729020;RPE Isoform 1 of Ribulose-phosphate 3-epimerase	2.35
IPI00169383	PGK1 Phosphoglycerate kinase 1	1.58
IPI00029997	PGLS 6-phosphogluconolactonase	2.15
IPI00922751	SLC2A14 cDNA FLJ56136, highly similar to Solute carrier family 2,	3.38
IPI00292228	GSK3A Glycogen synthase kinase-3 alpha	3.19
IPI00024466	UGGT1 Isoform 1 of UDP-glucose:glycoprotein glucosyltransferase 1	1.28
IPI00414323	SMEK2 Isoform 1 of Serine/threonine-protein phosphatase 4 regulato	1.07
IPI00479186	PKM2 Isoform M2 of Pyruvate kinase isozymes M1/M2	1.14
IPI00465248	ENO1 Isoform alpha-enolase of Alpha-enolase	1.15
IPI00796919	GLB1 Beta-galactosidase	1.62
IPI00554481	SLC3A2 Isoform 4 of 4F2 cell-surface antigen heavy chain	3.61
IPI00873223	UGP2 cDNA FLJ56155, highly similar to UTP--glucose-1-phosphate	1.24
IPI00027497	GPI Glucose-6-phosphate isomerase	0.83
IPI00219825	PSAP Uncharacterized protein	3.82
IPI00465179	PFKM 6-phosphofructokinase, muscle type isoform 1	1.01
IPI00290279	ADK Isoform Long of Adenosine kinase	1.2
IPI00107722	MCEE Methylmalonyl-CoA epimerase, mitochondrial	2
IPI00911064	APIP cDNA FLJ58961, highly similar to APAF1-interacting protein	1.34
IPI00643920	TKT cDNA FLJ54957, highly similar to Transketolase	1.95
IPI00926925	OGDH Uncharacterized protein	1.65
IPI00220194	SLC2A1 Solute carrier family 2, facilitated glucose transporter memb	1.68
IPI00216725	PHKA1 Uncharacterized protein	1.24
IPI00796333	ALDOA 45 kDa protein	1.03
IPI00011656	B4GALT5 Beta-1,4-galactosyltransferase 5	2.21
IPI00219526	PGM1 Isoform 1 of Phosphoglucomutase-1	1.37
IPI00216171	ENO2 Gamma-enolase	1.65
IPI00012585	HEXB Beta-hexosaminidase subunit beta	1.2
IPI00645172	CARKD Isoform 2 of Carbohydrate kinase domain-containing protein	5.22

IPI00004358	PYGB Glycogen phosphorylase, brain form	1.51
IPI00328170	MOGS Mannosyl-oligosaccharide glucosidase	1.71
IPI00030116	PGM3 phosphoacetylglucosamine mutase isoform 1	1.12
IPI00016968	SDHC Isoform 1 of Succinate dehydrogenase cytochrome b560 subunit	1.66
IPI00014361	TSTA3 GDP-L-fucose synthase	0.82
IPI00019383	GALK1 cDNA FLJ56840, highly similar to Galactokinase	0.97
IPI00027745	GUSB Isoform Long of Beta-glucuronidase	1.6
IPI00184363	GLTP Glycolipid transfer protein	0.79
IPI00549725	PGAM1 Phosphoglycerate mutase 1	1.27
IPI00465028	TPI1;TPI1P1 triosephosphate isomerase isoform 2	1.16

KOG category [E] Amino acid transport and metabolism

IPI00165949	ERAP1 Isoform 2 of Endoplasmic reticulum aminopeptidase 1	2.57
IPI00549467	NIT2 Omega-amidase NIT2	1.87
IPI00031557	CTH Isoform 1 of Cystathionine gamma-lyase	4.06
IPI00024990	ALDH6A1 Methylmalonate-semialdehyde dehydrogenase [acylating]	5.94
IPI00001734	PSAT1 Phosphoserine aminotransferase	2.1
IPI00101652	SCLY selenocysteine lyase	1.77
IPI00647400	RNPEP Uncharacterized protein	2.07
IPI00554541	ILVBL Isoform 1 of Acetolactate synthase-like protein	2.43
IPI00220267	ASL Argininosuccinate lyase	1.28
IPI00215687	GLS Isoform 3 of Glutaminase kidney isoform, mitochondrial	1.2
IPI00983406	BCAT1 branched-chain-amino-acid aminotransferase, cytosolic isoform	2.01
IPI00011604	GCSH Glycine cleavage system H protein, mitochondrial	1.07
IPI00387077	SLC12A9 Isoform 1 of Solute carrier family 12 member 9	1.57
IPI00005102	SMS Isoform 1 of Spermine synthase	1.55
IPI00009923	P4HA1 Isoform 1 of Prolyl 4-hydroxylase subunit alpha-1	2.62
IPI00024580	MCCC1 Methylcrotonoyl-CoA carboxylase subunit alpha, mitochondrial	1.35
IPI00646105	PYCR1 pyrroline-5-carboxylate reductase 3	0.59
IPI00554777	ASNS Asparagine synthetase [glutamine-hydrolyzing]	1.24
IPI00019178	PSPH Phosphoserine phosphatase	2.33
IPI00784044	MCCC2 Isoform 1 of Methylcrotonoyl-CoA carboxylase beta chain, mitochondrial	1.79
IPI00011200	PHGDH D-3-phosphoglycerate dehydrogenase	1.72
IPI00027728	SLC7A1 High affinity cationic amino acid transporter 1	2.46
IPI00917456	ASNSD1 Uncharacterized protein	7.23
IPI00003128	P4HA2 Isoform IIb of Prolyl 4-hydroxylase subunit alpha-2	1.85
IPI00026216	NPEPPS Puromycin-sensitive aminopeptidase	1.33
IPI00642211	RNPEP Aminopeptidase B	1.89
IPI00419596	MOXD1 Isoform 1 of DBH-like monooxygenase protein 1	1.57
IPI00019407	NSDHL Sterol-4-alpha-carboxylate 3-dehydrogenase, decarboxylating	1.51
IPI00470610	PYCR2 Pyrroline-5-carboxylate reductase 2	0.98
IPI00292020	SRM Spermidine synthase	1.19
IPI00219077	LTA4H Isoform 1 of Leukotriene A-4 hydrolase	1.39
IPI00456664	NIT1 Isoform 4 of Nitrilase homolog 1	1.24
IPI00177728	CNDP2 Isoform 1 of Cytosolic non-specific dipeptidase	1.73
IPI00465160	ABCF3 Isoform 1 of ATP-binding cassette sub-family F member 3	1.26
IPI01011873	XPNPEP1 xaa-Pro aminopeptidase 1 isoform 1	1.72
IPI00410034	SLC38A2 Isoform 1 of Sodium-coupled neutral amino acid transporter	2.85
IPI00871279	SLC38A1 Uncharacterized protein	2.64
IPI00550882	PYCR1 Pyrroline-5-carboxylate reductase	1.1
IPI00718888	PRPS2 Isoform 2 of Ribose-phosphate pyrophosphokinase 2	0.73
IPI00103884	OVCA2 Ovarian cancer-associated gene 2 protein	0.8
IPI00018206	GOT2 Aspartate aminotransferase, mitochondrial	1.11
IPI00016801	GLUD1 Glutamate dehydrogenase 1, mitochondrial	1.37
IPI00030702	IDH3A Isoform 1 of Isocitrate dehydrogenase [NAD] subunit alpha, nuclear	1.3
IPI00250297	AASDHPPT L-aminoadipate-semialdehyde dehydrogenase-phosphoprotein	0.93
IPI00219029	GOT1 Aspartate aminotransferase, cytoplasmic	1.96
IPI00640525	CTSA lysosomal protective protein isoform a precursor	0.73

IPI00026970	SUPT16H FACT complex subunit SPT16	0.92
IPI00247063	MME Neprilysin	2.13
IPI00002478	ECE1 Isoform B of Endothelin-converting enzyme 1	2.14
IPI00790739	ACO2 Uncharacterized protein	2.2
IPI00982108	DNPEP cDNA FLJ56420, highly similar to Aspartyl aminopeptidase	2.44
IPI00396258	BCAT2 Isoform A of Branched-chain-amino-acid aminotransferase, n	1.69
IPI00010090	GCLM Glutamate--cysteine ligase regulatory subunit	1.06
IPI00295240	NFS1 Isoform Mitochondrial of Cysteine desulfurase, mitochondrial	1.08
IPI00002520	SHMT2 Serine hydroxymethyltransferase, mitochondrial	0.87
IPI00217871	ALDH4A1 Delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondri	3
IPI00038378	ENOPH1 Isoform 1 of Enolase-phosphatase E1	1.17
IPI00304417	IDH3B Isocitrate dehydrogenase [NAD] subunit beta, mitochondrial p	1.09
IPI00024317	GCDH Isoform Long of Glutaryl-CoA dehydrogenase, mitochondrial	0.9
IPI00002324	MAT2B Isoform 1 of Methionine adenosyltransferase 2 subunit beta	1.06
IPI00307017	LNPEP Isoform 1 of Leucyl-cystinyl aminopeptidase	2.45
IPI00465261	ERAP2 Isoform 1 of Endoplasmic reticulum aminopeptidase 2	1.86
IPI00008986	SLC7A5 Large neutral amino acids transporter small subunit 1	3.22
IPI00009268	ACY1;ABHD14A cDNA FLJ60317, highly similar to Aminoacylase-	2.15
IPI00022334	OAT Ornithine aminotransferase, mitochondrial	1.11
IPI00002519	SHMT1 Isoform 1 of Serine hydroxymethyltransferase, cytosolic	0.94
IPI00220150	IDH3G Isocitrate dehydrogenase [NAD] subunit gamma, mitochondri	1.16
IPI00030328	SRR Serine racemase	1.34
IPI00219616	PRPS1 Ribose-phosphate pyrophosphokinase 1	0.82
IPI00152432	GPT2 Isoform 1 of Alanine aminotransferase 2	0.95
IPI00033217	AASS Alpha-aminoadipic semialdehyde synthase, mitochondrial	2
IPI00221224	ANPEP Aminopeptidase N	1.67
IPI00789848	IVD isovaleryl-CoA dehydrogenase, mitochondrial isoform 1 precurs	1
IPI00030182	GAMT Guanidinoacetate N-methyltransferase	1.72

KOG category [F] Nucleotide transport and metabolism

IPI00465256	AK3 GTP:AMP phosphotransferase, mitochondrial	2.32
IPI00640817	AK1 Uncharacterized protein	1.26
IPI00003923	UMPS Isoform 1 of Uridine 5'-monophosphate synthase	1.05
IPI00016568	AK4;LOC100507855 Adenylate kinase isoenzyme 4, mitochondrial	2.66
IPI00556376	CRMP1 dihydropyrimidinase-related protein 1 isoform 1	2.21
IPI00218693	APRT Adenine phosphoribosyltransferase	1.81
IPI00029534	PPAT Amidophosphoribosyltransferase	0.98
IPI00845319	EPN3 cDNA FLJ54010, highly similar to Epsin-3	0.87
IPI00027139	INPP1 Inositol polyphosphate 1-phosphatase	1.03
IPI00024462	DHODH Dihydroorotate dehydrogenase (quinone), mitochondrial	1.54
IPI00007722	AMPD2 Adenosine monophosphate deaminase 2	1.51
IPI00013871	RRM1 Ribonucleoside-diphosphate reductase large subunit	0.34
IPI00718888	PRPS2 Isoform 2 of Ribose-phosphate pyrophosphokinase 2	0.73
IPI00645702	CTPS2 CTP synthase 2	0.97
IPI00873506	GDA Guanine aminohydrolase	3.34
IPI00900260	ARHGEF7 Isoform 5 of Rho guanine nucleotide exchange factor 7	1.09
IPI00013862	DTYMK Thymidylate kinase	0.85
IPI00011876	MTAP cDNA FLJ59758, highly similar to S-methyl-5-thioadenosine j	1.64
IPI00017672	PNP cDNA FLJ25678 fis, clone TST04067, highly similar to PURINE	1.54
IPI00964123	PAICS Uncharacterized protein	0.81
IPI00289499	ATIC Bifunctional purine biosynthesis protein PURH	1.18
IPI00647389	EPN1 Isoform 2 of Epsin-1	2.22
IPI00410214	BPNT1 Isoform 1 of 3'(2'),5'-bisphosphate nucleotidase 1	1.21
IPI00375015	DUT Isoform 2 of Deoxyuridine 5'-triphosphate nucleotidohydrolase, i	2.55
IPI00029079	GMPS GMP synthase [glutamine-hydrolyzing]	0.93
IPI00009456	NT5E 5'-nucleotidase	2.24
IPI00375527	IMPDH1 inosine-5'-monophosphate dehydrogenase 1 isoform a	0.71
IPI01009463	NME6 nucleoside diphosphate kinase 6	1.12

IPI00942092	ADSL Isoform 1 of Adenylosuccinate lyase	1.07
IPI00291510	IMPDH2 Inosine-5'-monophosphate dehydrogenase 2	1.21
IPI00218729	DLG1 Isoform 2 of Disks large homolog 1	1.36
IPI00815732	PAICS Isoform 2 of Multifunctional protein ADE2	0.83
IPI00883655	DPYSL2 dihydropyrimidinase-related protein 2 isoform 1	2.46
IPI00294997	NME7 Isoform 1 of Nucleoside diphosphate kinase 7	1.88
IPI00026833	ADSS Adenylosuccinate synthetase isozyme 2	0.89
IPI00219953	CMPK1 UMP-CMP kinase isoform a	1.58
IPI00903024	MTAP Uncharacterized protein	0.8
IPI00296441	ADA Adenosine deaminase	0.88
IPI00215901	AK2 Isoform 1 of Adenylate kinase 2, mitochondrial	1.86
IPI00022388	DPYSL4 Dihydropyrimidinase-related protein 4	2.03
IPI00012315	NME3 Nucleoside diphosphate kinase 3	1.43
IPI00290142	CTPS CTP synthase 1	1.05
IPI00219616	PRPS1 Ribose-phosphate pyrophosphokinase 1	0.82
IPI00642176	C9orf95 Uncharacterized protein	3.05
IPI00032879	TAF9 Isoform 1 of Adenylate kinase isoenzyme 6	2.36
IPI00290614	ENDOG Endonuclease G, mitochondrial	0.92
IPI00158280	ALDH1L1 Formyltetrahydrofolate dehydrogenase isoform a variant	5.29
IPI00554705	DCTD Isoform 2 of Deoxycytidylate deaminase	0.79
IPI00335509	DPYSL5 Dihydropyrimidinase-related protein 5	0.94
IPI00644488	GUK1 guanylate kinase isoform a	1.2
IPI00018783	ITPA Inosine triphosphate pyrophosphatase	1.25
IPI00910128	FDXR cDNA FLJ59457, highly similar to NADPH:adrenodoxin oxid	1.56
IPI00375531	NME1;NME2;NME1-NME2 Isoform 2 of Nucleoside diphosphate kir	0.94
IPI00298308	ALDH1L2 Isoform 1 of Aldehyde dehydrogenase family 1 member L2	1.67
IPI00011118	RRM2 ribonucleoside-diphosphate reductase subunit M2 isoform 1	0.51

KOG category [H] Coenzyme transport and metabolism

IPI00954806	CYB5R3 NADH-cytochrome b5 reductase 3 isoform 3	2.2
IPI00030357	DHFRP1;DHFR Dihydrofolate reductase	0.68
IPI00008234	CYB5R2 Isoform 1 of NADH-cytochrome b5 reductase 2	2.53
IPI00031357	PPOX Protoporphyrinogen oxidase	1.82
IPI00007404	ATG7 Isoform 1 of Ubiquitin-like modifier-activating enzyme ATG7	1.61
IPI00306689	NADSYN1 Glutamine-dependent NAD(+) synthetase	1.05
IPI00470674	CYB5R1 NADH-cytochrome b5 reductase 1	2.77
IPI00009726	NMNAT1 Nicotinamide mononucleotide adenylyltransferase 1	0.96
IPI00301489	UROD Uroporphyrinogen decarboxylase	1.58
IPI00028160	HMBS Isoform 1 of Porphobilinogen deaminase	1.5
IPI00001734	PSAT1 Phosphoserine aminotransferase	2.1
IPI00442121	ALAD Isoform 2 of Delta-aminolevulinic acid dehydratase	1.09
IPI00013004	PDXK Isoform 1 of Pyridoxal kinase	1.25
IPI00099995	RFK cDNA, FLJ96841	1.92
IPI00011307	MTHFD2 Bifunctional methylenetetrahydrofolate dehydrogenase/cycl	1.8
IPI00220567	MTHFS 5-formyltetrahydrofolate cyclo-ligase	0.95
IPI00794900	MTHFD1 cDNA FLJ56016, highly similar to C-1-tetrahydrofolate syr	0.93
IPI00093057	CPOX Coproporphyrinogen-III oxidase, mitochondrial	1.51
IPI00554541	ILVBL Isoform 1 of Acetolactate synthase-like protein	2.43
IPI00250297	AASDHPPT L-aminoadipate-semialdehyde dehydrogenase-phosphop	0.93
IPI00456965	COQ5 Isoform 1 of 2-methoxy-6-polyprenyl-1,4-benzoquinol methyl	1.25
IPI00012007	AHCY Adenosylhomocysteinase	0.87
IPI00215768	GCLC Glutamate--cysteine ligase catalytic subunit	1.46
IPI00182938	AHCYL1 Isoform 1 of Putative adenosylhomocysteinase 2	1.83
IPI00914566	FDPS Farnesyl pyrophosphate synthase	1.2
IPI00010157	MAT2A S-adenosylmethionine synthase isoform type-2	1.13
IPI00032633	COQ6 Ubiquinone biosynthesis monooxygenase COQ6	3.39
IPI00418414	COQ3 Hexaprenyldihydroxybenzoate methyltransferase, mitochondri	1.87
IPI00018272	PNPO Pyridoxine-5'-phosphate oxidase	1.44

IPI00980776	RFK Conserved hypothetical protein	1.19
KOG category [I] Lipid transport and metabolism		
IPI00016457	CRAT Isoform 1 of Carnitine O-acetyltransferase	2.85
IPI00299468	SCD Acyl-CoA desaturase	3.95
IPI00550377	ACBD5 Isoform 3 of Acyl-CoA-binding domain-containing protein 5	1.07
IPI00017802	AUH Isoform 1 of Methylglutaconyl-CoA hydratase, mitochondrial	1.77
IPI00009747	LSS Lanosterol synthase	2.02
IPI00300567	ECI1 Isoform 1 of Enoyl-CoA delta isomerase 1, mitochondrial	1.39
IPI00031522	HADHA Trifunctional enzyme subunit alpha, mitochondrial	1.35
IPI00296907	ACOX1 Isoform 1 of Peroxisomal acyl-coenzyme A oxidase 1	1.34
IPI00647400	RNPEP Uncharacterized protein	2.07
IPI00924713	PCYT1A Uncharacterized protein	0.71
IPI00298406	HADH Isoform 2 of Hydroxyacyl-coenzyme A dehydrogenase, mitoch	1.48
IPI00001539	ACAA2 3-ketoacyl-CoA thiolase, mitochondrial	1.43
IPI00019018	TM7SF2 Isoform 1 of Delta(14)-sterol reductase	3.07
IPI00748788	MTM1 Myotubularin	2.37
IPI00019169	SH3GL1 endophilin-A2 isoform 1	1.49
IPI00010415	ACOT7 Isoform 1 of Cytosolic acyl coenzyme A thioester hydrolase	1.25
IPI00024971	OSBP Oxysterol-binding protein 1	1.45
IPI00852983	C8orf38 Isoform 1 of UPF0551 protein C8orf38, mitochondrial	1.9
IPI00910962	ELOVL5 cDNA FLJ52813, highly similar to Homo sapiens ELOVL f	0.54
IPI00216088	CRABP2 Cellular retinoic acid-binding protein 2	3.37
IPI00464993	AGPAT2 1-acylglycerol-3-phosphate O-acyltransferase 2	0.04
IPI00022229	APOB Apolipoprotein B-100	3.84
IPI00010182	DBI Isoform 1 of Acyl-CoA-binding protein	0.89
IPI00019899	MSMO1 C-4 methylsterol oxidase	1
IPI00478260	NMT2 Glycylpeptide N-tetradecanoyltransferase	3.11
IPI00024580	MCCC1 Methylcrotonoyl-CoA carboxylase subunit alpha, mitochon	1.35
IPI00003807	ACP2 Lysosomal acid phosphatase	3.98
IPI00396015	ACACA Isoform 4 of Acetyl-CoA carboxylase 1	1.4
IPI00024993	ECHS1 Enoyl-CoA hydratase, mitochondrial	1.38
IPI00026969	SEC23IP Isoform 1 of SEC23-interacting protein	0.98
IPI00021147	DEGS1 Sphingolipid delta(4)-desaturase DES1	3.92
IPI00003861	UGCG Ceramide glucosyltransferase	3.13
IPI00291419	ACAT2 cDNA FLJ53975, highly similar to Acetyl-CoA acetyltransfer	2.5
IPI00784044	MCCC2 Isoform 1 of Methylcrotonoyl-CoA carboxylase beta chain, m	1.79
IPI00027032	LYPLA2 Acyl-protein thioesterase 2	1.34
IPI00030363	ACAT1 Acetyl-CoA acetyltransferase, mitochondrial	1.88
IPI00293590	MGLL monoglyceride lipase isoform 1	1.86
IPI00007676	HSD17B12 Estradiol 17-beta-dehydrogenase 12	1.34
IPI00003293	DGKE Diacylglycerol kinase epsilon	2.19
IPI00329692	NMT1 Isoform Long of Glycylpeptide N-tetradecanoyltransferase 1	1.72
IPI00028338	EPT1 Ethanolaminephosphotransferase 1	3.07
IPI00030090	ETNK1 Ethanolamine kinase 1	
IPI00019353	AGK Isoform 1 of Acylglycerol kinase, mitochondrial	2.85
IPI00020226	ACOX3 Isoform 1 of Peroxisomal acyl-coenzyme A oxidase 3	1.58
IPI00908804	ABCD3 cDNA FLJ53353, highly similar to ATP-binding cassette sub	1.19
IPI00329410	DOLPP1 Dolichyldiphosphatase 1	2.21
IPI00011970	HSD17B7 Isoform 1 of 3-keto-steroid reductase	1.54
IPI00784076	PNPLA8 Isoform 1 of Calcium-independent phospholipase A2-gamm	1.14
IPI00333143	DGKA Isoform 1 of Diacylglycerol kinase alpha	2.59
IPI00642211	RNPEP Aminopeptidase B	1.89
IPI00012728	ACSL1 Isoform 1 of Long-chain-fatty-acid--CoA ligase 1	1.45
IPI00216164	EHHADH Peroxisomal bifunctional enzyme	2.49
IPI00019407	NSDHL Sterol-4-alpha-carboxylate 3-dehydrogenase, decarboxylating	1.51
IPI00026781	FASN Fatty acid synthase	1.3
IPI00219077	LTA4H Isoform 1 of Leukotriene A-4 hydrolase	1.39

IPI00478838	FAR1 Fatty acyl-CoA reductase 1	0.83
IPI00412147	SLC27A4 Long-chain fatty acid transport protein 4	2.23
IPI00549569	ISYNA1 Isoform 1 of Inositol-3-phosphate synthase 1	1.05
IPI00419802	HIBCH Isoform 1 of 3-hydroxyisobutyryl-CoA hydrolase, mitochondri	1.33
IPI00024623	ACADSB Short/branched chain specific acyl-CoA dehydrogenase, mi	1.25
IPI00221393	SLC44A1 Isoform 1 of Choline transporter-like protein 1	
IPI00218465	PLAA Phospholipase A-2-activating protein	1.37
IPI00549564	ACSS2 acetyl-coenzyme A synthetase, cytoplasmic isoform 2	1.48
IPI00022442	NDUFAB1 Acyl carrier protein, mitochondrial	1.48
IPI00031397	ACSL3 Long-chain-fatty-acid--CoA ligase 3	2.24
IPI00646015	ACOT9 Isoform 4 of Acyl-coenzyme A thioesterase 9, mitochondrial	0.99
IPI00022275	SACM1L Phosphatidylinositide phosphatase SAC1	1.37
IPI00219825	PSAP Uncharacterized protein	3.82
IPI00307758	PITPNM1 Isoform 1 of Membrane-associated phosphatidylinositol tra	1.5
IPI00514424	PPT1 Uncharacterized protein	1.54
IPI00294501	DHCR7 7-dehydrocholesterol reductase	3.29
IPI00028491	AGPAT5 1-acyl-sn-glycerol-3-phosphate acyltransferase epsilon	1.21
IPI00012912	CPT2 Carnitine O-palmitoyltransferase 2, mitochondrial	1.5
IPI00032038	CPT1A Isoform 1 of Carnitine O-palmitoyltransferase 1, liver isoform	1.7
IPI00026848	LRPAP1 Alpha-2-macroglobulin receptor-associated protein	1.14
IPI00005107	NPC1 Niemann-Pick C1 protein	2.2
IPI00005677	GNPAT Dihydroxyacetone phosphate acyltransferase	3.72
IPI00008599	EBP 3-beta-hydroxysteroid-Delta(8),Delta(7)-isomerase	4.9
IPI00926253	CYP20A1 cDNA FLJ59248, highly similar to Homo sapiens cytochro	1.4
IPI00217272	AACS Isoform 1 of Acetoacetyl-CoA synthetase	1.46
IPI00002324	MAT2B Isoform 1 of Methionine adenosyltransferase 2 subunit beta	1.06
IPI00292135	LBR Lamin-B receptor	2.74
IPI00029737	ACSL4 Isoform Long of Long-chain-fatty-acid--CoA ligase 4	1.42
IPI00015388	PAFAH2 Platelet-activating factor acetylhydrolase 2, cytoplasmic	1.99
IPI00028040	FADS3 Fatty acid desaturase 3	4.52
IPI00019141	AGPAT1 1-acyl-sn-glycerol-3-phosphate acyltransferase alpha	2.69
IPI00419194	IAH1 Isoamyl acetate-hydrolyzing esterase 1 homolog	2.45
IPI00022793	HADHB Trifunctional enzyme subunit beta, mitochondrial	1.55
IPI00010400	PLCB3 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase be	1.07
IPI00784651	FADS1 fatty acid desaturase 1	2.75
IPI00028031	ACADVL cDNA FLJ56425, highly similar to Very-long-chain specifi	1.4
IPI00012828	ACAA1 3-ketoacyl-CoA thiolase, peroxisomal	2.41
IPI00001891	AUP1 Isoform Long of Ancient ubiquitous protein 1	0.83
IPI00513827	ACADM Putative uncharacterized protein DKFZp686M24262	1.41
IPI00023359	MCAT Isoform 1 of Malonyl-CoA-acyl carrier protein transacylase, n	1.63
IPI00789848	IVD isovaleryl-CoA dehydrogenase, mitochondrial isoform 1 precurs	1
IPI00010187	ELOVL1 Elongation of very long chain fatty acids protein 1	
IPI00152981	ACAD9 Acyl-CoA dehydrogenase family member 9, mitochondrial	0.94
IPI00385987	DAGLB Isoform 1 of Sn1-specific diacylglycerol lipase beta	1.2
IPI00027701	ACADS Short-chain specific acyl-CoA dehydrogenase, mitochondrial	1.27
IPI00171459	HSDL1 Inactive hydroxysteroid dehydrogenase-like protein 1	1.21
IPI00006092	PMM2 Phosphomannomutase 2	0.88
IPI00059762	LYPLAL1 Isoform 1 of Lysophospholipase-like protein 1	1.82
IPI00007321	LYPLA1 cDNA FLJ60607, highly similar to Acyl-protein thioesterase	1.85

KOG category [P] Inorganic ion transport and metabolism

IPI00007061	GOLT1B Vesicle transport protein GOT1B	5.54
IPI00014236	SLC39A14 Isoform 1 of Zinc transporter ZIP14	3.71
IPI00034277	ATP13A1 Isoform A of Probable cation-transporting ATPase 13A1	1.9
IPI00640276	EFHA1 EF-hand domain-containing family member A1	1.81
IPI00982850	ATOX1 Uncharacterized protein	0.96
IPI00554521	FTH1 Ferritin heavy chain	3.21
IPI00013466	ASNA1 ATPase ASNA1	2.17

IPI00747849	ATP1B1 Isoform 1 of Sodium/potassium-transporting ATPase subunit	1.33
IPI00002483	SLC30A1 Zinc transporter 1	5.65
IPI01014563	FTL Ferritin light chain	2.28
IPI00216308	VDAC1 Voltage-dependent anion-selective channel protein 1	1.18
IPI00021695	ATP2B1 Isoform D of Plasma membrane calcium-transporting ATPase	2.88
IPI00022462	TFRC Transferrin receptor protein 1	1.74
IPI00008750	MT1H Metallothionein-1H	1.66
IPI00031558	NUDT9 Isoform 1 of ADP-ribose pyrophosphatase, mitochondrial	1.63
IPI00006482	ATP1A1 Isoform Long of Sodium/potassium-transporting ATPase subunit	1.86
IPI00008616	SLC12A7 Isoform 1 of Solute carrier family 12 member 7	2.87
IPI00921961	ATP2C1 calcium-transporting ATPase type 2C member 1 isoform 2a	2.7
IPI00218733	SOD1 Superoxide dismutase [Cu-Zn]	1.96
IPI00021057	SLC12A4 Isoform 1 of Solute carrier family 12 member 4	1.8
IPI00025340	PDXP Pyridoxal phosphate phosphatase	1.49
IPI00008167	ATP1B3 Sodium/potassium-transporting ATPase subunit beta-3	2.11
IPI00003021	ATP1A2 Sodium/potassium-transporting ATPase subunit alpha-2	1.42
IPI00216026	VDAC2 Isoform 3 of Voltage-dependent anion-selective channel protein	1.46
IPI00477468	CTR9 RNA polymerase-associated protein CTR9 homolog	1.25
IPI00026824	HMOX2 Heme oxygenase 2	1.49
IPI00219078	ATP2A2 Isoform 1 of Sarcoplasmic/endoplasmic reticulum calcium ATPase	1.23
IPI00465436	CAT Catalase	1.2
IPI00302605	SLC30A7 Zinc transporter 7	4.21
IPI00001960	CLIC4 Chloride intracellular channel protein 4	2.14
IPI00165506	POLDIP2 Polymerase delta-interacting protein 2	1.28
IPI00215893	HMOX1 Heme oxygenase 1	7.32
IPI00031804	VDAC3 Isoform 1 of Voltage-dependent anion-selective channel protein	1.37
IPI00022314	SOD2 Superoxide dismutase [Mn], mitochondrial	3.39
IPI00022649	SLC12A2 Isoform 1 of Solute carrier family 12 member 2	1.26
IPI00010896	CLIC1 Chloride intracellular channel protein 1	1.67
IPI00004795	CLNS1A Methylosome subunit pICln	0.73
IPI00926820	SLC4A7 Solute carrier family 4 sodium bicarbonate cotransporter member 4	4.3
IPI00909057	SLC12A1 cDNA FLJ51969, highly similar to Solute carrier family 12 member 1	0.17
IPI00293425	FXN Isoform 1 of Frataxin, mitochondrial	1.21

KOG category [Q] Secondary metabolites biosynthesis, transport and catabolism

IPI00010706	GSS Glutathione synthetase	1.14
IPI00016862	GSR Isoform Mitochondrial of Glutathione reductase, mitochondrial	2.53
IPI00029015	KDSR 3-ketodihydrosphingosine reductase	1.74
IPI00216057	SORD Sorbitol dehydrogenase	0.83
IPI00550165	DHRS7B Dehydrogenase/reductase SDR family member 7B	1.96
IPI00011284	COMT Isoform Membrane-bound of Catechol O-methyltransferase	2.73
IPI00177940	RDH14 Retinol dehydrogenase 14	1.79
IPI00295386	CBR1 Carbonyl reductase [NADPH] 1	1.11
IPI00017469	SPR Sepiapterin reductase	1.22
IPI00020226	ACOX3 Isoform 1 of Peroxisomal acyl-coenzyme A oxidase 3	1.58
IPI00006675	ABCC4 Isoform 1 of Multidrug resistance-associated protein 4	1.46
IPI00873506	GDA Guanine aminohydrolase	3.34
IPI00295772	CYP51A1 lanosterol 14-alpha demethylase isoform 1	1.22
IPI00290462	CBR3 Carbonyl reductase [NADPH] 3	0.95
IPI00025341	BDH1 D-beta-hydroxybutyrate dehydrogenase, mitochondrial	1.01
IPI00166860	DHRSX Dehydrogenase/reductase SDR family member on chromosome X	1.13
IPI00642041	COMTD1 Catechol O-methyltransferase domain-containing protein 1	1.34
IPI00719178	ABCC1 Isoform 9 of Multidrug resistance-associated protein 1	2.01
IPI00022442	NDUFAB1 Acyl carrier protein, mitochondrial	1.48
IPI00220014	IDI1 Isoform 2 of Isopentenyl-diphosphate Delta-isomerase 1	1.21
IPI00339384	RDH11 Isoform 1 of Retinol dehydrogenase 11	1.24
IPI00746777	ADH5;ADH5P4 Alcohol dehydrogenase class-3	1.25
IPI00006957	DHRS7 Isoform 1 of Dehydrogenase/reductase SDR family member 7	2.12

IPI00329598	HSD17B11 Estradiol 17-beta-dehydrogenase 11	1.13
IPI00926253	CYP20A1 cDNA FLJ59248, highly similar to Homo sapiens cytochro 1.4	

POORLY CHARACTERIZED

KOG category [R] General function prediction only

IPI00027166	TIMP2 Metalloproteinase inhibitor 2	5.92
IPI00306043	YTHDF2 Isoform 1 of YTH domain family protein 2	1.05
IPI00654682	CCNL1 Isoform 1 of Cyclin-L1	
IPI00074893	ZNF512B Zinc finger protein 512B	
IPI00024502	UBQLN4 Isoform 1 of Ubiquilin-4	1.94
IPI00018300	IFIT1 Interferon-induced protein with tetratricopeptide repeats 1	7.84
IPI00013455	CLIP1 Isoform 1 of CAP-Gly domain-containing linker protein 1	1.1
IPI00299526	SUZ12 Polycomb protein SUZ12	1.36
IPI00384643	TP53I3 Isoform 1 of Quinone oxidoreductase PIG3	1.03
IPI00300096	RAB35 Ras-related protein Rab-35	1.07
IPI00008557	IGF2BP1 Insulin-like growth factor 2 mRNA-binding protein 1	1.99
IPI00024254	IFIT3 Interferon-induced protein with tetratricopeptide repeats 3	10.26
IPI00023138	RAC3 Ras-related C3 botulinum toxin substrate 3	1.3
IPI00411614	WDHD1 WD repeat and HMG-box DNA-binding protein 1	0.83
IPI00301994	FAHD2B Fumarylacetoacetate hydrolase domain-containing protein 2	2.38
IPI00796864	DPM1 Uncharacterized protein	1.42
IPI00658045	SLC2A13 Proton myo-inositol cotransporter	1.76
IPI00015973	EPB41L2 Band 4.1-like protein 2	1.66
IPI00023987	PPCS Phosphopantothenate--cysteine ligase	1.22
IPI00015922	INTS6 Isoform 1 of Integrator complex subunit 6	0.78
IPI00013909	AIFM2 Isoform 1 of Apoptosis-inducing factor 2	2.31
IPI00018098	PRPF38B Isoform 1 of Pre-mRNA-splicing factor 38B	1.42
IPI00413293	TOR1A cDNA FLJ56343, highly similar to Torsin A	1.11
IPI00013860	HIBADH 3-hydroxyisobutyrate dehydrogenase, mitochondrial	1.8
IPI00856008	HIGD1A Isoform 2 of HIG1 domain family member 1A	1.68
IPI00382733	LRRFIP1 Isoform 3 of Leucine-rich repeat flightless-interacting protei	1.28
IPI00005270	KDELC1 KDEL motif-containing protein 1	0.72
IPI00301263	CAD CAD protein	1.09
IPI00031030	APLP2 Isoform 1 of Amyloid-like protein 2	4.53
IPI00641990	LAS1L Isoform 1 of Protein LAS1 homolog	1.66
IPI00060181	EFHD2 EF-hand domain-containing protein D2	1.08
IPI00008998	PTPLAD1 3-hydroxyacyl-CoA dehydratase 3	2.91
IPI00937477	WDR43 WD repeat-containing protein 43	2.17
IPI00169430	STRBP Isoform 1 of Spermatid perinuclear RNA-binding protein	0.9
IPI00871780	RBM12B RNA-binding protein 12B	0.8
IPI00219365	MSN Moesin	1.1
IPI00945572	REPIN1 replication initiator 1 isoform 3	1.45
IPI00385042	GTPBP4 Nucleolar GTP-binding protein 1	0.86
IPI01015542	RND2 Uncharacterized protein	0.16
IPI00412713	SAMM50 Sorting and assembly machinery component 50 homolog	1.57
IPI00003348	GNB2 Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit be	1.27
IPI00217477	HMGB3 High mobility group protein B3	1.51
IPI00654731	DDX58 Isoform 1 of Probable ATP-dependent RNA helicase DDX58	6.64
IPI00009607	RAP2C Ras-related protein Rap-2c	1.98
IPI00305283	SIAH2 E3 ubiquitin-protein ligase SIAH2	
IPI00306406	RIOK2 Serine/threonine-protein kinase RIO2	1.32
IPI00429538	YPEL5 Protein yippee-like 5	1.61
IPI00012756	IFIT5 Interferon-induced protein with tetratricopeptide repeats 5	1.41
IPI00012512	RRAS2 cDNA FLJ61162, highly similar to Ras-related protein R-Ras	0.95
IPI00019988	SGSH N-sulphoglucosamine sulphohydrolase	2.14
IPI00025244	ZNF259 Zinc finger protein ZPR1	1.34

IPI00016346	PROSC Proline synthetase co-transcribed homolog (Bacterial), isoform 1	1.23
IPI00020883	HIGD2A HIG1 domain family member 2A	3.42
IPI00980410	MTCH2 Uncharacterized protein	3.2
IPI00334587	HNRNPAB Isoform 2 of Heterogeneous nuclear ribonucleoprotein A1	0.86
IPI00290184	METTL1 tRNA (guanine-N(7)-)-methyltransferase	1.7
IPI00018298	IFIT2 Interferon-induced protein with tetratricopeptide repeats 2	3.04
IPI00412741	SFXN4 Isoform 1 of Sideroflexin-4	2.5
IPI00033022	DNM2 Isoform 1 of Dynammin-2	1.27
IPI00396131	YTHDF3 cDNA FLJ56221, highly similar to YTH domain protein 3	0.93
IPI00023101	RQCD1 Cell differentiation protein RCD1 homolog	1.13
IPI00007811	CDK4 Cyclin-dependent kinase 4	1.83
IPI00008351	SELT Selenoprotein T	3.98
IPI00015148	RAP1B Ras-related protein Rap-1b	1.15
IPI00018627	NAA50 Isoform 1 of N-alpha-acetyltransferase 50, NatE catalytic subunit	1.39
IPI00015011	FBXL12 Isoform 1 of F-box/LRR-repeat protein 12	1.6
IPI01015840	UTP18 U3 small nucleolar RNA-associated protein 18 homolog	1.42
IPI00332278	TMEM55B Isoform 2 of Transmembrane protein 55B	2.35
IPI00102059	SCYL1 Isoform 1 of N-terminal kinase-like protein	1.36
IPI00005202	PGRMC2 membrane-associated progesterone receptor component 2	2.36
IPI00183938	TTC27 Tetratricopeptide repeat protein 27	0.7
IPI00419258	HMGB1 High mobility group protein B1	1.22
IPI00099550	UBQLN1 Isoform 1 of Ubiquilin-1	1.01
IPI00607799	BDH2 Isoform 1 of 3-hydroxybutyrate dehydrogenase type 2	3.69
IPI00020418	RRAS Ras-related protein R-Ras	2.44
IPI00029444	C12orf10 UPF0160 protein MYG1, mitochondrial	2
IPI00164610	TBC1D1 TBC1 domain family member 1	1.05
IPI00299000	PA2G4 Proliferation-associated protein 2G4	0.84
IPI00169325	WDR36 WD repeat-containing protein 36	1.09
IPI00215965	HNRNPA1 Isoform A1-B of Heterogeneous nuclear ribonucleoprotein A1	0.74
IPI00167949	MX1 Interferon-induced GTP-binding protein Mx1	4.54
IPI01008793	RBM10 RNA-binding protein 10 isoform 5	0.83
IPI00011274	HNRPDL Isoform 1 of Heterogeneous nuclear ribonucleoprotein D-like	0.89
IPI00000792	CRYZ Quinone oxidoreductase	1.69
IPI00004337	ZBTB11 Zinc finger and BTB domain-containing protein 11	1.46
IPI00013297	PDAP1 28 kDa heat- and acid-stable phosphoprotein	1.18
IPI00026268	GNB1 Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta	1.17
IPI00550308	RBM12 RNA-binding protein 12	0.91
IPI01018135	SAMM50 cDNA FLJ39696 fis, clone SMINT2011033, highly similar to SAMM50	2.4
IPI00018364	RAP2B Ras-related protein Rap-2b	1.32
IPI00938079	PDCD6IP programmed cell death 6-interacting protein isoform 2	1.04
IPI00216172	LAMP2 lysosome-associated membrane glycoprotein 2 isoform C precursor	4.11
IPI00167638	GTPBP10 Isoform 1 of GTP-binding protein 10	2.39
IPI00216592	HNRNPC Isoform C1 of Heterogeneous nuclear ribonucleoproteins C1	0.79
IPI00017342	RHOG Rho-related GTP-binding protein RhoG	1.43
IPI00156689	VAT1 Synaptic vesicle membrane protein VAT-1 homolog	4.41
IPI00003933	HAGH Isoform 1 of Hydroxyacylglutathione hydrolase, mitochondrial	1.22
IPI00383046	CMBL Carboxymethylglutaminase homolog	0.78
IPI00013949	SGTA Small glutamine-rich tetratricopeptide repeat-containing protein	1.36
IPI00020530	ACOT13 Acyl-coenzyme A thioesterase 13	2.19
IPI00215997	CD9 CD9 antigen	1.66
IPI00902610	FHL1 Uncharacterized protein	1.93
IPI00178072	SPECC1L Cytospin-A	0.79
IPI00303890	XIAP Baculoviral IAP repeat-containing protein 4	1.02
IPI00002525	NENF Neudesin	1.24
IPI00009931	HDHD3 Haloacid dehalogenase-like hydrolase domain-containing protein	2.24
IPI00743862	PAAF1 Isoform 1 of Proteasomal ATPase-associated factor 1	1.02
IPI00642370	MPV17L2 Isoform 1 of Mpv17-like protein 2	1.06

IPI00016610	PCBP1 Poly(rC)-binding protein 1	1.62
IPI00152875	ZNF384 Isoform 1 of Zinc finger protein 384	0.62
IPI00024097	TES Isoform 1 of Testin	2.1
IPI00419373	HNRNPA3 Isoform 1 of Heterogeneous nuclear ribonucleoprotein A3	0.84
IPI00007189	CDC42 Isoform 1 of Cell division control protein 42 homolog	0.91
IPI00026262	RASA1 Isoform 1 of Ras GTPase-activating protein 1	0.92
IPI00396378	HNRNPA2B1 Isoform B1 of Heterogeneous nuclear ribonucleoprotein	0.79
IPI00013891	TRA2A Isoform Long of Transformer-2 protein homolog alpha	0.8
IPI00010833	ZNF148 Zinc finger protein 148	0.8
IPI01013834	PPME1 44 kDa protein	0.94
IPI00001437	RND3 Rho-related GTP-binding protein RhoE	0.68
IPI00012451	GNB4 Guanine nucleotide-binding protein subunit beta-4	1.13
IPI00604759	FAHD1 fumarylacetoacetate hydrolase domain-containing protein 1 is	2.49
IPI00293946	UBXN4 UBX domain-containing protein 4	2.32
IPI00293748	MINPP1 Isoform 1 of Multiple inositol polyphosphate phosphatase 1	1.4
IPI00829865	TMTC3 Isoform 1 of Transmembrane and TPR repeat-containing pro	3.83
IPI00033036	METAP2 Methionine aminopeptidase 2	1.02
IPI00386258	MTCH1 Isoform 1 of Mitochondrial carrier homolog 1	3.1
IPI00218236	PPP1CB Serine/threonine-protein phosphatase PP1-beta catalytic sub	1.2
IPI01021216	PCBP2 Uncharacterized protein	7.18
IPI00239815	CIRH1A Isoform 1 of Cirhin	1.26
IPI00029513	NOL10 Isoform 1 of Nucleolar protein 10	1.49
IPI00099986	FN3KRP Ketosamine-3-kinase	1.3
IPI00878815	CHCHD8 Isoform 1 of Coiled-coil-helix-coiled-coil-helix domain-con	1.46
IPI00107039	ABHD6 Monoacylglycerol lipase ABHD6	1.41
IPI00748151	ERLEC1 Isoform 1 of Endoplasmic reticulum lectin 1	1.75
IPI00019812	PPP5C Serine/threonine-protein phosphatase 5	0.83
IPI00376317	EDC4 Isoform 1 of Enhancer of mRNA-decapping protein 4	1.08
IPI00061680	CCDC101 SAGA-associated factor 29 homolog	0.82
IPI00029605	GALNS N-acetylgalactosamine-6-sulfatase	2.17
IPI00427242	FCF1 rRNA-processing protein FCF1 homolog	0.83
IPI00170924	HINT3 Histidine triad nucleotide-binding protein 3	1.92
IPI00003482	DECR1 2,4-dienoyl-CoA reductase, mitochondrial	1.54
IPI00007174	NAA20 N-alpha-acetyltransferase 20, NatB catalytic subunit	0.91
IPI00015101	C9orf167 Torsin family protein C9orf167	2.18
IPI00028888	HNRNPD Isoform 1 of Heterogeneous nuclear ribonucleoprotein D0	0.81
IPI00290979	ABHD5 1-acylglycerol-3-phosphate O-acyltransferase ABHD5	
IPI00220152	BCCIP Isoform 2 of BRCA2 and CDKN1A-interacting protein	0.83
IPI00177381	CWC22 Pre-mRNA-splicing factor CWC22 homolog	1.29
IPI00004308	FTSJ1 Isoform 1 of Putative ribosomal RNA methyltransferase 1	0.65
IPI00464999	HEATR6 HEAT repeat-containing protein 6	4.17
IPI00788907	PGAM5 Isoform 1 of Serine/threonine-protein phosphatase PGAM5,	10.88
IPI00001618	RAB39 Ras-related protein Rab-39A	0.88
IPI00470533	TMEM120A Isoform 1 of Transmembrane protein 120A	1.79
IPI00217357	CCAR1 Isoform 1 of Cell division cycle and apoptosis regulator protei	3.08
IPI00016669	RHEB GTP-binding protein Rheb	1.18
IPI00003704	RBM4;RBM14;RBM14-RBM4 Isoform 1 of RNA-binding protein 4	0.95
IPI00878209	GTPBP5 GTP-binding protein 5	
IPI00031647	PDCD2L Programmed cell death protein 2-like	1.28
IPI00746301	CDKL5 Cyclin-dependent kinase-like 5	1.05
IPI00292548	RHPN2 Rhophilin-2	1.42
IPI00418316	ZMYND8 cDNA FLJ55380, highly similar to Protein kinase C-bindin	1.98
IPI00025341	BDH1 D-beta-hydroxybutyrate dehydrogenase, mitochondrial	1.01
IPI00399089	MESDC2 LDLR chaperone MESD	1.53
IPI00290305	TP53RK TP53-regulating kinase	1.77
IPI00438923	CRYZL1 Quinone oxidoreductase-like protein 1	0.93
IPI00900366	KIAA0564 Isoform 1 of Uncharacterized protein KIAA0564	

IPI00151358	CLPTM1L Isoform 1 of Cleft lip and palate transmembrane protein 1-	1.63
IPI00847285	MTG1 Uncharacterized protein	0.82
IPI00423570	KRAS Isoform 2B of GTPase KRas	1.16
IPI00394767	CA13 Carbonic anhydrase 13	2.24
IPI00032827	SF3B14 Pre-mRNA branch site protein p14	0.88
IPI00221002	PXMP2 Peroxisomal membrane protein 2	1.78
IPI00939707	KIAA0664 Protein KIAA0664	0.77
IPI00298547	PARK7 Protein DJ-1	1.4
IPI00020512	ALG13 Isoform 2 of UDP-N-acetylglucosamine transferase subunit A	0.85
IPI00418313	ILF3 interleukin enhancer-binding factor 3 isoform d	1.08
IPI00293336	MBLAC2 Isoform 1 of Metallo-beta-lactamase domain-containing prc	1.16
IPI00023529	CDK6 Cyclin-dependent kinase 6	0.89
IPI00292326	SPAG1 Sperm-associated antigen 1	2.76
IPI01022946	CHERP 105 kDa protein	0.91
IPI00217882	SORT1 Sortilin	1.22
IPI00604624	NIF3L1 Isoform 1 of NIF3-like protein 1	0.95
IPI00056499	ZNF622 Zinc finger protein 622	1.81
IPI00980853	RHOC Uncharacterized protein	1.1
IPI00217686	FTSJ3 Putative rRNA methyltransferase 3	1.06
IPI00014219	SNX17 Sorting nexin-17	3.58
IPI00154614	ZCRB1 Zinc finger CCHC-type and RNA-binding motif-containing protein 1	
IPI00647082	TBC1D13 Isoform 1 of TBC1 domain family member 13	2.05
IPI00017367	RDX Uncharacterized protein	0.9
IPI00167098	PQLC3 PQ-loop repeat-containing protein 3	2.37
IPI00143753	U2SURP Isoform 1 of U2 snRNP-associated SURP motif-containing p	0.92
IPI00014577	RAB18 Ras-related protein Rab-18	1.07
IPI00294073	COQ7 Isoform 1 of Ubiquinone biosynthesis protein COQ7 homolog	1.71
IPI00953576	IGF2BP2 Uncharacterized protein	1.26
IPI00009111	TPBG Trophoblast glycoprotein	4.32
IPI00300094	LSG1 Large subunit GTPase 1 homolog	1.26
IPI00013184	NAA10 N-alpha-acetyltransferase 10, NatA catalytic subunit	0.87
IPI00016372	RAB9A Ras-related protein Rab-9A	1.9
IPI00154588	SPPL2A Signal peptide peptidase-like 2A	3.9
IPI00455210	CHD4 Isoform 2 of Chromodomain-helicase-DNA-binding protein 4	0.94
IPI00018768	TSN Translin	1.11
IPI00300805	LRSAM1 Isoform 1 of E3 ubiquitin-protein ligase LRSAM1	2.52
IPI00008800	MAZ Similar to Serum amyloid A activating factor 2	2.16
IPI00410693	SERBP1 SERPINE1 mRNA binding protein 1, isoform CRA_d	0.7
IPI00103654	PPP4R2 Isoform 1 of Serine/threonine-protein phosphatase 4 regulato	1.05
IPI00031679	C3orf26 Uncharacterized protein C3orf26	1.23
IPI00024320	RBM3 Putative RNA-binding protein 3	0.99
IPI00100160	CAND1 Isoform 1 of Cullin-associated NEDD8-dissociated protein 1	1.2
IPI00016560	ASB6 Ankyrin repeat and SOCS box protein 6	0.88
IPI00005474	LHPP Isoform 1 of Phospholysine phosphohistidine inorganic pyropho	1.77
IPI00916940	AARSD1 Uncharacterized protein	0.85
IPI00016912	TTC1 Tetratricopeptide repeat protein 1	1.16
IPI00219675	RAC1 Isoform B of Ras-related C3 botulinum toxin substrate 1	1.32
IPI00020928	TFAM Transcription factor A, mitochondrial	0.99
IPI00300127	NAT10 N-acetyltransferase 10	1.03
IPI01014295	RBM7 31 kDa protein	1.32
IPI00019269	WDR61 WD repeat-containing protein 61	0.99
IPI00171421	C8orf55 UPF0670 protein C8orf55	1.21
IPI00074587	SRSF10;LOC100505793 Isoform 1 of Serine/arginine-rich splicing fa	0.76
IPI00026317	ZBTB7A Zinc finger and BTB domain-containing protein 7A	1.39
IPI00068506	ABCF2 ATP-binding cassette sub-family F member 2 isoform b	0.61
IPI00027251	STK38 Serine/threonine-protein kinase 38	0.98
IPI00003706	RBMS2 RNA-binding motif, single-stranded-interacting protein 2	0.62

IPI00006103	CD2BP2 CD2 antigen cytoplasmic tail-binding protein 2	0.96
IPI00021626	RBM42 Isoform 1 of RNA-binding protein 42	4.72
IPI00015897	CHORDC1 Isoform 1 of Cysteine and histidine-rich domain-containing protein 1	0.82
IPI00102069	EIF3M Eukaryotic translation initiation factor 3 subunit M	0.91
IPI00014263	EIF4H Isoform Long of Eukaryotic translation initiation factor 4H	0.97
IPI00000041	RHOB Rho-related GTP-binding protein RhoB	2.49
IPI00143921	KDEL2 Isoform 1 of KDEL motif-containing protein 2	1.32
IPI00908804	ABCD3 cDNA FLJ53353, highly similar to ATP-binding cassette subfamily 1 member 3	1.19
IPI00010190	DECR2 Isoform 1 of Peroxisomal 2,4-dienoyl-CoA reductase	2.07
IPI00478230	RBBP5 cDNA FLJ59722, highly similar to Retinoblastoma-binding protein 5	1.1
IPI00293167	SDF2 Stromal cell-derived factor 2	1.64
IPI00798277	GBP3 Guanylate-binding protein 3	2.67
IPI00783874	HDHD2 Isoform 1 of Haloacid dehalogenase-like hydrolase domain-containing protein 2	1.98
IPI00018924	HMG20A Isoform 1 of High mobility group protein 20A	1.45
IPI00004397	RALB cDNA FLJ55177, highly similar to Ras-related protein Ral-B	1.65
IPI00106913	DHRS4 Isoform 1 of Dehydrogenase/reductase SDR family member 4	1.44
IPI00028564	GBP1 Interferon-induced guanylate-binding protein 1	3.09
IPI00011913	HNRNPA0 Heterogeneous nuclear ribonucleoprotein A0	0.97
IPI00069734	ZMAT2 Zinc finger matrin-type protein 2	0.65
IPI00000005	NRAS GTPase NRas	1
IPI00001564	CDKN2C Cyclin-dependent kinase 4 inhibitor C	1.63
IPI00029733	AKR1C1 Aldo-keto reductase family 1 member C1	10.18
IPI00022254	ATG3 Isoform 1 of Ubiquitin-like-conjugating enzyme ATG3	1.62
IPI00016112	PXDN Isoform 1 of Peroxidase homolog	3.05
IPI00061623	SGTB Small glutamine-rich tetratricopeptide repeat-containing protein 1	0.83
IPI00478499	ZNF728 zinc finger protein 208	1.77
IPI00009815	METTL18 Histidine protein methyltransferase 1 homolog	0.68
IPI00305423	CHMP6 Charged multivesicular body protein 6	0.98
IPI00399307	PRCP lysosomal Pro-X carboxypeptidase isoform 2 preproprotein	1.67
IPI00396627	ELAC2 Isoform 1 of Zinc phosphodiesterase ELAC protein 2	1.28
IPI00020510	CISD1 CDGSH iron-sulfur domain-containing protein 1	1.77
IPI00022462	TFRC Transferrin receptor protein 1	1.74
IPI00014513	YY1 Transcriptional repressor protein YY1	2.16
IPI00414661	LARP6 La-related protein 6	5.76
IPI01010979	ZC3H15 Uncharacterized protein	1.55
IPI00306057	RBM38 Isoform 1 of RNA-binding protein 38	1.58
IPI00787827	PITRM1 Isoform 2 of Presequence protease, mitochondrial	1.45
IPI00184311	ENPP1 Ectonucleotide pyrophosphatase/phosphodiesterase family member 1	1.65
IPI00027831	GRWD1 Glutamate-rich WD repeat-containing protein 1	1.65
IPI00171573	MCU Isoform 1 of Calcium uniporter protein, mitochondrial	1.25
IPI00641026	CXXC1 Isoform 2 of CpG-binding protein	11.16
IPI00788879	TBC1D23 Isoform 1 of TBC1 domain family member 23	2.8
IPI00003327	ARL3 ADP-ribosylation factor-like protein 3	0.95
IPI00016702	RABGAP1 Isoform 1 of Rab GTPase-activating protein 1	1.72
IPI01021702	DNM1L 80 kDa protein	0.86
IPI01025117	CDK2 39 kDa protein	1.64
IPI00419237	LAP3 Isoform 1 of Cytosol aminopeptidase	1.69
IPI00015808	GNL2 Nucleolar GTP-binding protein 2	0.69
IPI00013043	TPPP Tubulin polymerization-promoting protein	1.59
IPI00218187	PPP1CC Isoform Gamma-2 of Serine/threonine-protein phosphatase F0.6	0.6
IPI00014533	UBTF Isoform UBF1 of Nucleolar transcription factor 1	1.46
IPI00064193	TMX3 Isoform 1 of Protein disulfide-isomerase TMX3	1.17
IPI00006952	LACTB2 Beta-lactamase-like protein 2	1.11
IPI00009922	SLIRP SRA stem-loop-interacting RNA-binding protein, mitochondrial	0.66
IPI00033030	ADRM1 Proteasomal ubiquitin receptor ADRM1	1.15
IPI00171856	DOHH Deoxyhypusine hydroxylase	1.2
IPI00871742	DNM1L Isoform 6 of Dynamin-1-like protein	1.7

IPI00299063	STIM1 Stromal interaction molecule 1	2.47
IPI00443909	CNPY2 Isoform 1 of Protein canopy homolog 2	1.75
IPI00293746	C1orf35 Isoform 1 of Multiple myeloma tumor-associated protein 2	0.99
IPI00884105	LAMP1 Lysosome-associated membrane glycoprotein 1	3.69
IPI00107246	GTPBP8 Isoform 1 of GTP-binding protein 8	
IPI00043564	SFXN2 Sideroflexin-2	2.62
IPI00291064	ZFAND1 Isoform 1 of AN1-type zinc finger protein 1	0.78
IPI00027180	ZMPSTE24 CAAX prenyl protease 1 homolog	1.54
IPI00184135	E4F1 Transcription factor E4F1	1.34
IPI00009946	TOMM34 Mitochondrial import receptor subunit TOM34	1.57
IPI00026689	CDK1 Putative uncharacterized protein DKFZp686L20222	0.86
IPI00329385	MTMR6 Isoform 1 of Myotubularin-related protein 6	1.15
IPI00107357	CLPTM1 Isoform 2 of Cleft lip and palate transmembrane protein 1	3.32
IPI00410666	SCRIB Isoform 3 of Protein scribble homolog	1.2
IPI00843975	EZR Ezrin	0.89
IPI00478231	RHOA Transforming protein RhoA	1.02
IPI00156005	NOVA2 RNA-binding protein Nova-2	2.13
IPI00004968	PRPF19 Pre-mRNA-processing factor 19	1.24
IPI00872292	IFT27 Isoform 1 of Intraflagellar transport protein 27 homolog	2.11
IPI00550451	PPP1CA Serine/threonine-protein phosphatase PP1-alpha catalytic subunit	1.05
IPI00163496	PPFIA1 Isoform 1 of Liprin-alpha-1	1.24
IPI00097492	ZNF512 Zinc finger protein 512	1.3
IPI00658000	IGF2BP3 Isoform 1 of Insulin-like growth factor 2 mRNA-binding protein 2	
IPI00746655	ESYT1 Isoform 2 of Extended synaptotagmin-1	1.71
IPI00010349	AGPS Alkyldihydroxyacetonephosphate synthase, peroxisomal	1.41
IPI00744627	PECR Peroxisomal trans-2-enoyl-CoA reductase	1.56
IPI00871988	SFXN3 cDNA FLJ58980, highly similar to Sideroflexin-3	2.2
IPI00306280	DENR Density-regulated protein	1.19
IPI00011511	CECR5 Isoform 2 of Cat eye syndrome critical region protein 5	1.32
IPI00375631	ISG15 Ubiquitin-like protein ISG15	10.35
IPI00000686	RBM19 Probable RNA-binding protein 19	0.78
IPI00514550	DNM2 dynamin-2 isoform 2	1.13
IPI00012066	PCBP2 poly(rC)-binding protein 2 isoform b	1.79
IPI00413140	DNM1 Isoform 1 of Dynamin-1	1.74
IPI01022506	EIF4B cDNA FLJ54492, highly similar to Eukaryotic translation initiation factor 4B	1.04
IPI00217519	RALA Ras-related protein Ral-A	1.01
IPI00011268	RALY cDNA FLJ77422, highly similar to Homo sapiens RNA binding protein 1	0.91
IPI00010873	WRB Tryptophan-rich protein	3.03
IPI00020128	UTP6 U3 small nucleolar RNA-associated protein 6 homolog	0.91
IPI00019345	RAP1A Ras-related protein Rap-1A	1.11
IPI00328847	NAA40 N-alpha-acetyltransferase 40, NatD catalytic subunit	0.96
IPI00301503	TRA2B Isoform 1 of Transformer-2 protein homolog beta	0.74
IPI00219097	HMGB2 High mobility group protein B2	1.57
IPI00909484	cDNA FLJ54776, highly similar to Cell division control protein 42 homolog 2	2.94
IPI00032533	WDR18 WD repeat-containing protein 18	1.04
IPI00550440	C2orf18 Transmembrane protein C2orf18	4.05
IPI00003766	ETHE1 Protein ETHE1, mitochondrial	1.29
IPI00005492	WDR5 WD repeat-containing protein 5	1.53
IPI00060031	ARL8A ADP-ribosylation factor-like protein 8A	3.09
IPI00413641	AKR1B1 Aldose reductase	2.89
IPI00395462	C15orf63 Isoform 2 of Huntingtin-interacting protein K	0.84
IPI00925806	ZDHHC3 Uncharacterized protein	2.74
IPI00003833	MTCH2 Mitochondrial carrier homolog 2	2.19
IPI00102580	MTMR9 Myotubularin-related protein 9	0.99
IPI00220271	AKR1A1 Alcohol dehydrogenase [NADP+]	2.19
IPI00306380	SNORD19B;GNL3 Isoform 1 of Guanine nucleotide-binding protein-10.87	
IPI00793209	UBL7 Ubiquitin-like 7 (Bone marrow stromal cell-derived), isoform C	0.93

IPI00930718	ZMYND11 zinc finger MYND domain-containing protein 11 isoform	1.38
IPI00000948	TBL2 Transducin beta-like protein 2	0.89
IPI00549389	METTL11A Conserved hypothetical protein	1.34
IPI00220739	PGRMC1 Membrane-associated progesterone receptor component 1	2.36
IPI00024255	GPKOW G patch domain and KOW motifs-containing protein	2.47
IPI00216746	HNRNPK Isoform 2 of Heterogeneous nuclear ribonucleoprotein K	1.05
IPI00001757	RBM8A Isoform 1 of RNA-binding protein 8A	0.69
IPI00297723	RBM6 RNA-binding protein 6	0.69
IPI00215999	CDK11B Isoform SV9 of Cyclin-dependent kinase 11B	1.14
IPI00217069	RPS6KB2 Ribosomal protein S6 kinase beta-2	1.71
IPI00217240	WDR75 WD repeat-containing protein 75	0.87
IPI00165026	SETD3 Isoform 1 of Histone-lysine N-methyltransferase setd3	0.86
IPI00061528	KTI12 Protein KTI12 homolog	1.46
IPI00154590	MKI67IP MKI67 FHA domain-interacting nucleolar phosphoprotein 1	1
IPI00012235	NDFIP1 Isoform 1 of NEDD4 family-interacting protein 1	11.11
IPI00807545	HNRNPK Isoform 3 of Heterogeneous nuclear ribonucleoprotein K	1.46
IPI00005132	GNL3L Guanine nucleotide-binding protein-like 3-like protein	0.83
IPI00007755	RAB21 Ras-related protein Rab-21	1.21
IPI00012336	ZFX ZFX protein	0.7
IPI00215890	ZNF22 Zinc finger protein 22	0.86
IPI00009841	EWSR1 RNA-binding protein EWS isoform 1	1.08
IPI00018208	TTC33 Tetratricopeptide repeat protein 33	0.87
IPI00294426	TAF15 Isoform Long of TATA-binding protein-associated factor 2N	0.76
IPI00016703	DHCR24 Delta(24)-sterol reductase	3.66
IPI00179415	PPP3CA Isoform 1 of Serine/threonine-protein phosphatase 2B catalytic	1.08
IPI00019642	CLIP2 Isoform 1 of CAP-Gly domain-containing linker protein 2	1.69
IPI00375144	SRRT Isoform 1 of Serrate RNA effector molecule homolog	0.95
IPI00102752	RBM15 Isoform 1 of Putative RNA-binding protein 15	1.43
IPI00640818	PNPLA6 neuropathy target esterase isoform a	2.14
IPI00019046	RBM22 Isoform 1 of Pre-mRNA-splicing factor RBM22	1.26
IPI00306661	KCMF1 E3 ubiquitin-protein ligase KCMF1	1.27
IPI00000006	HRAS Isoform 1 of GTPase HRas	1
IPI00514619	MEMO1;MEMO1P1 Uncharacterized protein	1.41
IPI00306749	SLC4A1AP Kanadaptin	0.75
IPI00031612	UTP23 Isoform 1 of rRNA-processing protein UTP23 homolog	0.91
IPI00470498	SERBP1 Isoform 3 of Plasminogen activator inhibitor 1 RNA-binding	0.5
IPI00007089	NSA2 Ribosome biogenesis protein NSA2 homolog	0.82
IPI00396387	GNL1 Isoform 1 of Guanine nucleotide-binding protein-like 1	1.9
IPI00306689	NADSYN1 Glutamine-dependent NAD(+) synthetase	1.05
IPI00234793	KCTD15 cDNA FLJ61112, highly similar to BTB/POZ domain-containing	0.86
IPI00046828	CCDC58 Coiled-coil domain-containing protein 58	1.26
IPI00012448	CLN3 Isoform 1 of Battenin	1.11
IPI00409659	UBQLN2 Ubiquilin-2	2.41
IPI00940864	PHF10 Isoform 1 of PHD finger protein 10	1
IPI00169267	ATL2 Isoform 1 of Atlantin-2	2.86
IPI00027988	CTCF Transcriptional repressor CTCF	1.12
IPI00060569	ABHD12 Isoform 2 of Monoacylglycerol lipase ABHD12	2.08
IPI00306087	WRAP53 Telomerase Cajal body protein 1	1.3
IPI00218095	BIRC5 Isoform 2 of Baculoviral IAP repeat-containing protein 5	6.4
IPI00165616	SENPA8 Sentrin-specific protease 8	1.93
IPI00974191	FYCO1 Uncharacterized protein	1.48
IPI00006608	APP Isoform APP770 of Amyloid beta A4 protein (Fragment)	4.13
IPI00219446	PEBP1 Phosphatidylethanolamine-binding protein 1	2.05
IPI00293350	TSNAX Translin-associated protein X	1.03
IPI00024684	MX2 Interferon-induced GTP-binding protein Mx2	9.64
IPI00916847	OLA1 47 kDa protein	1.65
IPI00872352	HDHC2 Isoform 1 of HD domain-containing protein 2	1.18

KOG category	[S] Function unknown	
IPI00016532	C4orf27 UPF0609 protein C4orf27	0.96
IPI00020515	USE1 Isoform 1 of Vesicle transport protein USE1	0.94
IPI00413817	SERINC1 Serine incorporator 1	3.85
IPI00011702	TTI1 TEL2-interacting protein 1 homolog	0.7
IPI00032849	NOP16 Nucleolar protein 16	1.29
IPI00059912	SKA1 Isoform 1 of Spindle and kinetochore-associated protein 1	0.4
IPI00410091	C11orf73 Uncharacterized protein C11orf73	1.49
IPI00549239	PUS7L Pseudouridylate synthase 7 homolog-like protein	0.91
IPI00014298	PWP1 Periodic tryptophan protein 1 homolog	0.99
IPI00031651	C7orf50 Uncharacterized protein C7orf50	2.88
IPI00009009	CWC15 Protein CWC15 homolog	1.04
IPI00307547	C9orf46 Transmembrane protein C9orf46	1.46
IPI00166130	PPPDE2 PPPDE peptidase domain-containing protein 2	0.78
IPI00001710	C11orf2 Isoform 1 of Protein fat-free homolog	1.01
IPI00026307	CDC40 Pre-mRNA-processing factor 17	1.02
IPI00075081	FANCD2 Isoform 1 of Fanconi anemia group D2 protein	0.71
IPI00307572	TMEM165 Transmembrane protein 165	
IPI00245135	RNASEH2B Uncharacterized protein	1.5
IPI00828125	SMPD4 Isoform 4 of Sphingomyelin phosphodiesterase 4	1.16
IPI00006606	MRPS26 28S ribosomal protein S26, mitochondrial	0.9
IPI00394809	APOOL Apolipoprotein O-like	1.84
IPI00290085	CDH2 Cadherin-2	1.37
IPI00168479	APOA1BP cDNA FLJ56357, highly similar to Homo sapiens apolipoprotein A1	4.43
IPI00607651	FAM40B Family with sequence similarity 40, member B	0.91
IPI00024167	ESF1 ESF1 homolog	0.7
IPI00383163	THYN1 Isoform 1 of Thymocyte nuclear protein 1	1.48
IPI00163381	LEPRE1 Isoform 1 of Prolyl 3-hydroxylase 1	1.57
IPI00003318	ZNHIT2 Zinc finger HIT domain-containing protein 2	1.13
IPI00301421	ZC3HC1 Isoform 1 of Nuclear-interacting partner of ALK	0.75
IPI00555597	PTRH2 cDNA FLJ32471 fis, clone SKNMC2000322, highly similar to PTRH1	1.25
IPI00514311	CTTNBP2NL CTTNBP2 N-terminal-like protein	1.97
IPI00007024	FAM96B Mitotic spindle-associated MMXD complex subunit MIP18	2.27
IPI00927731	AAMP Uncharacterized protein	1.75
IPI00005670	CDC123 Cell division cycle protein 123 homolog	0.68
IPI00101600	CWF19L1 Isoform 1 of CWF19-like protein 1	1.06
IPI00290410	DNTTIP2 Deoxynucleotidyltransferase terminal-interacting protein 2	0.79
IPI00042580	APOO Isoform 1 of Apolipoprotein O	1.92
IPI00022277	CCDC56 Coiled-coil domain-containing protein 56	1.43
IPI00329600	SCCPDH Probable saccharopine dehydrogenase	2.24
IPI00783359	CISD3 CDGSH iron-sulfur domain-containing protein 3, mitochondrial	1.93
IPI00014149	TTC35 Tetratricopeptide repeat protein 35	1.1
IPI00550191	C9orf78 Uncharacterized protein C9orf78	0.64
IPI00953712	KIAA1715 Uncharacterized protein	2.49
IPI00024283	WDFY1 WD repeat and FYVE domain-containing protein 1	4.87
IPI00872492	C3orf75 Isoform 1 of UPF0405 protein C3orf75	1.41
IPI00646689	TXNDC17 Thioredoxin domain-containing protein 17	1.22
IPI00063729	THOC3 THO complex subunit 3	0.82
IPI00549540	PAK1IP1 p21-activated protein kinase-interacting protein 1	0.79
IPI00002270	C6orf211 UPF0364 protein C6orf211	2.44
IPI00292894	TSR1 Pre-rRNA-processing protein TSR1 homolog	1.36
IPI00016046	ROMO1 Isoform 1 of Reactive oxygen species modulator 1	5.62
IPI00783781	NUP205 Nuclear pore complex protein Nup205	0.96
IPI00968228	OSTCP1;OSTC Uncharacterized protein	4.46
IPI00024618	C3orf37 UPF0361 protein C3orf37	
IPI00328306	LOC441155;ZC3H11A Zinc finger CCCH domain-containing protein 2	2.84
IPI00007166	IER3IP1 Immediate early response 3-interacting protein 1	1.41

IPI00031655	VPS25 Vacuolar protein-sorting-associated protein 25	1.08
IPI00018192	WDR74 Isoform 1 of WD repeat-containing protein 74	2.3
IPI00299417	THOC5 THO complex subunit 5 homolog	0.65
IPI00166483	C17orf61 UPF0451 protein C17orf61	1.89
IPI00165361	DCUN1D5 DCN1-like protein 5	0.99
IPI00025718	WDR4 Isoform 1 of tRNA (guanine-N(7)-)-methyltransferase subunit	1.36
IPI00017592	LETM1 Isoform 1 of LETM1 and EF-hand domain-containing proteir	1.13
IPI00032561	CAB39 Calcium-binding protein 39	0.83
IPI00007730	C14orf1 Probable ergosterol biosynthetic protein 28	2.91
IPI00761082	CENPV Isoform 1 of Centromere protein V	1.12
IPI00943357	GOLGA2 Isoform 1 of Golgin subfamily A member 2	0.95
IPI00549236	CCDC90B Isoform 1 of Coiled-coil domain-containing protein 90B, n	1.45
IPI00034010	RWDD1 RWD domain-containing protein 1	1.14
IPI00297241	URB1 Nucleolar pre-ribosomal-associated protein 1	0.97
IPI00007004	RRP15 RRP15-like protein	1.08
IPI00478450	NDUFB11 Isoform 2 of NADH dehydrogenase [ubiquinone] 1 beta su	1.66
IPI00855954	INO80C INO80 complex subunit C isoform 1	1.04
IPI00152441	HM13 Isoform 1 of Minor histocompatibility antigen H13	2.84
IPI00149375	FAM160A2 Isoform 2 of FTS and Hook-interacting protein	1.74
IPI00299084	TMEM33 Transmembrane protein 33	1.12
IPI00152890	NOL6 Isoform 1 of Nucleolar protein 6	2.09
IPI00444371	WDR44 Isoform 1 of WD repeat-containing protein 44	1.98
IPI00022832	BRP44 Brain protein 44	2.09
IPI00152998	LRRC40 Leucine-rich repeat-containing protein 40	1.65
IPI00002926	VPS37B Vacuolar protein sorting-associated protein 37B	1.37
IPI00022002	MRPS27 cDNA FLJ54536, highly similar to Mitochondrial 28S riboso	1.03
IPI00183657	ZNF706 Zinc finger protein 706	0.79
IPI00072044	C11orf54 Isoform 1 of Ester hydrolase C11orf54	4.24
IPI00031106	PSMG3 Proteasome assembly chaperone 3	1.62
IPI00179019	MRPL35 Isoform 1 of 39S ribosomal protein L35, mitochondrial	1.09
IPI00064739	THEM4 Thioesterase superfamily member 4	0.83
IPI00335385	DCPS Scavenger mRNA-decapping enzyme DcpS	1.23
IPI00305296	C12orf44 Autophagy-related protein 101	0.4
IPI00412785	BRP44L Brain protein 44-like protein	0.93
IPI00154915	PARD3 Isoform 1 of Partitioning defective 3 homolog	2.33
IPI00024642	CCDC47 Isoform 1 of Coiled-coil domain-containing protein 47	1.04
IPI00178750	FAM192BP;FAM192A Protein FAM192A	0.57
IPI00030985	FAM96A MIP18 family protein FAM96A	1.08
IPI00291893	DCUN1D1 DCN1-like protein 1	0.9
IPI00009542	MAGED2 Isoform 1 of Melanoma-associated antigen D2	0.99
IPI00010427	TMEM93 Transmembrane protein 93	1.88
IPI00004290	DIEXF Digestive organ expansion factor homolog	0.97
IPI00651738	ADI1 Isoform 1 of 1,2-dihydroxy-3-keto-5-methylthiopentene dioxyge	0.68
IPI00177428	CHCHD4 Isoform 2 of Mitochondrial intermembrane space import an	0.78
IPI00032848	CCDC53 WASH complex subunit CCDC53	1.13
IPI00005667	N4BP1 NEDD4-binding protein 1	9.62
IPI00889000	NCDN Isoform 3 of Neurochondrin	1.19
IPI00010219	SPC25 Kinetochore protein Spc25	0.73
IPI00013195	MRPL49 39S ribosomal protein L49, mitochondrial	1.22
IPI00186721	GOPC Isoform 1 of Golgi-associated PDZ and coiled-coil motif-contai	1.17
IPI00218728	PAFAH1B1 Isoform 1 of Platelet-activating factor acetylhydrolase IB	1.48
IPI00168567	TMEM188 Isoform 2 of Transmembrane protein 188	3.41
IPI00016559	THG1L Probable tRNA(His) guanylyltransferase	1.63
IPI00747787	NCAPD3 Condensin-2 complex subunit D3	0.95
IPI00877014	GDAP1 Isoform 1 of Ganglioside-induced differentiation-associated p	1.81
IPI00744558	C19orf63 28 kDa protein	1.22
IPI00555703	TMEM41B Isoform 1 of Transmembrane protein 41B	2.92

IPI00640902	ZBTB8OS cDNA FLJ75987, highly similar to Homo sapiens zinc fing	1.53
IPI00807498	CCDC6 CCDC6 protein (Fragment)	1.31
IPI00478758	MCMBP Isoform 1 of Mini-chromosome maintenance complex-bindin	0.62
IPI00007607	YIF1A Protein YIF1A	2.39
IPI00024551	C15orf24 UPF0480 protein C15orf24	2.03
IPI00383684	PPPDE1 Isoform 1 of PPPDE peptidase domain-containing protein 1	2.14
IPI00016014	ITM2C Isoform 1 of Integral membrane protein 2C	4.15
IPI00031581	WDR83 WD repeat domain-containing protein 83	0.81
IPI00030706	AHSA1 Activator of 90 kDa heat shock protein ATPase homolog 1	1.35
IPI00299387	TIMMDC1 Translocase of inner mitochondrial membrane domain-co	1.14
IPI00007673	CHCHD2 Coiled-coil-helix-coiled-coil-helix domain-containing prote	1.52
IPI00939419	NLE1 cDNA FLJ58655, highly similar to Notchless homolog 1	0.66
IPI00304264	DERL2 Derlin-2	10.39
IPI00218962	C20orf43 Uncharacterized protein	1.26
IPI00010404	SF3B5 Splicing factor 3B subunit 5	0.79
IPI00925918	CCDC12 coiled-coil domain-containing protein 12	1.12
IPI00005511	PHF5A PHD finger-like domain-containing protein 5A	0.95
IPI00107113	UTP14A Isoform 1 of U3 small nucleolar RNA-associated protein 14	1.39
IPI00020472	TMEM111 Isoform 1 of Transmembrane protein 111	1.81
IPI00419575	GET4 Uncharacterised protein family UPF0363 protein	0.93
IPI00007067	GLIPR2 Golgi-associated plant pathogenesis-related protein 1	2.82
IPI00174442	FAM98A Isoform 1 of Protein FAM98A	0.85
IPI00030098	FAM50A Protein FAM50A	1
IPI00154668	CCDC93 Coiled-coil domain-containing protein 93	1.13
IPI00642584	KIAA0090 Isoform 1 of Uncharacterized protein KIAA0090	2.19
IPI00306439	C18orf55 TIM21-like protein, mitochondrial	0.97
IPI00023064	NDUFAF4 NADH dehydrogenase [ubiquinone] 1 alpha subcomplex a	1.26
IPI00642611	COG6 cDNA FLJ56431, highly similar to Conserved oligomeric Golg	1.29
IPI00025753	DSG1 Desmoglein-1	
IPI00376478	CMC1 COX assembly mitochondrial protein homolog	2.1
IPI00003527	SLC9A3R1 Na(+)/H(+) exchange regulatory cofactor NHE-RF1	1.83
IPI00001661	RCC1 Isoform 2 of Regulator of chromosome condensation	0.92
IPI00013271	DERL1 Isoform 1 of Derlin-1	1.38
IPI00641523	PDZD11 Isoform 2 of PDZ domain-containing protein 11	4.93
IPI00550995	PIH1D1 PIH1 domain-containing protein 1	0.82
IPI00740961	INTS1 DKFZP586J0619 protein	1.05
IPI00550069	RNH1 Ribonuclease inhibitor	1.68
IPI00742682	TPR Nucleoprotein TPR	0.9
IPI00018196	NLE1 Isoform 1 of Notchless protein homolog 1	0.81
IPI00103554	GATAD2B Transcriptional repressor p66-beta	0.95
IPI00002408	RPAP3 Isoform 1 of RNA polymerase II-associated protein 3	0.69
IPI00009346	TMEM14C Transmembrane protein 14C	2.32
IPI00059944	RNF25 E3 ubiquitin-protein ligase RNF25	0.85
IPI00009364	ORMDL1 ORM1-like protein 1	4.12
IPI00031615	LLPH Protein LLP homolog	2.37
IPI00029175	KIAA0196 WASH complex subunit strumpellin	2.15
IPI00025178	BCAS2 Pre-mRNA-splicing factor SPF27	0.77
IPI00063219	NAF1 H/ACA ribonucleoprotein complex non-core subunit NAF1	1.05
IPI00915263	C6orf203 hypothetical protein LOC51250 isoform b	1.14
IPI00217362	TPRKB Isoform 3 of TP53RK-binding protein	1.07
IPI00006754	DCAF7 DDB1- and CUL4-associated factor 7	1.73
IPI00295066	MRPL48 39S ribosomal protein L48, mitochondrial	0.8
IPI00867714	LSM12 Isoform 2 of Protein LSM12 homolog	1.37
IPI00413659	ALKBH5 Isoform 2 of Probable alpha-ketoglutarate-dependent dioxyg	1.83
IPI00060627	CCDC124 Coiled-coil domain-containing protein 124	1.02
IPI00797537	NUDCD1 Isoform 1 of NudC domain-containing protein 1	1.28
IPI00641124	DCUN1D4 cDNA FLJ55777, highly similar to DCN1-like protein 4	1.05

IPI00009335	FAM203A Protein FAM203A	2.48
IPI00550689	C22orf28 tRNA-splicing ligase RtcB homolog	1.4
IPI00026111	TMCO1 Isoform 1 of Transmembrane and coiled-coil domain-contain	3.97
IPI00018026	BSDC1 Isoform 3 of BSD domain-containing protein 1	0.93
IPI00180454	UTP11L Probable U3 small nucleolar RNA-associated protein 11	0.86
IPI00028931	DSG2 Desmoglein-2	3.85
IPI00411705	SPRYD7 Isoform 1 of SPRY domain-containing protein 7	1.3
IPI00549664	TEX10 Testis-expressed sequence 10 protein	1.81
IPI00045939	ADO 2-aminoethanethiol dioxygenase	2
IPI00060107	CHCHD1 Coiled-coil-helix-coiled-coil-helix domain-containing prote	1.69
IPI00844214	CTNBL1 Isoform 1 of Beta-catenin-like protein 1	0.96
IPI00045764	TMEM209 Isoform 1 of Transmembrane protein 209	1.96
IPI00893067	EML4 Uncharacterized protein	1.71
IPI00893172	GIN3 DNA replication complex GINS protein PSF3 isoform a	0.5
IPI00157215	C19orf52 Uncharacterized protein C19orf52	1.38
IPI00006547	ITFG1 T-cell immunomodulatory protein	1.61
IPI00007146	GIN2 DNA replication complex GINS protein PSF2	0.96
IPI01019005	ATXN10 Ataxin-10	0.79
IPI00217918	ELMOD2 ELMO domain-containing protein 2	1.19
IPI00009010	TRMT112 tRNA methyltransferase 112 homolog	1.43
IPI00300060	WDR70 WD repeat-containing protein 70	0.99
IPI00170786	WBP11 WW domain-binding protein 11	2.41
IPI00217104	NDNL2 Melanoma-associated antigen G1	0.77
IPI00329591	RMND1 Isoform 1 of Required for meiotic nuclear division protein 1	2.36
IPI00748502	CRTAP Cartilage-associated protein	0.98
IPI00418229	C9orf114 Uncharacterized protein	0.67
IPI00030274	NSRP1 Nuclear speckle splicing regulatory protein 1	0.65
IPI00101186	RRP12 Isoform 1 of RRP12-like protein	1.12
IPI00009320	TMEM85 Isoform 1 of Transmembrane protein 85	1.36
IPI00298991	KIAA1033 KIAA1033 protein	1.56
IPI00063334	TMEM41A Transmembrane protein 41A	3.02
IPI00477040	NUP188 Isoform 1 of Nucleoporin NUP188 homolog	1.05