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Identification of a short, single site matriglycan that maintains neuromuscular function in the mouse

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Abstract:

Matriglycan (-1,3-β-glucuronic acid-1,3-α-xylose-) is a polysaccharide that is synthesized on α-dystroglycan, where it functions as a high-affinity glycan receptor for extracellular proteins, such as laminin, perlecan and agrin, thus anchoring the plasma membrane to the extracellular matrix. This biological activity is closely associated with the size of matriglycan. Using high-resolution mass spectrometry and site-specific mutant mice, we show for the first time that matriglycan on the T317/T319 and T379 sites of α-dystroglycan are not identical. T379-linked matriglycan is shorter than the previously characterized T317/T319-linked matriglycan, although it maintains its laminin binding capacity. Transgenic mice with only the shorter T379-linked matriglycan exhibited mild embryonic lethality, but those that survived were healthy. The shorter T379-linked matriglycan exists in multiple tissues and maintains neuromuscular function in adult mice. In addition, the genetic transfer of α-dystroglycan carrying just the short matriglycan restored grip strength and protected skeletal muscle from eccentric contraction-induced damage in muscle-specific dystroglycan knock-out mice. Due to the effects that matriglycan imparts on the extracellular proteome and its ability to modulate cell-matrix interactions, our work suggests that differential regulation of matriglycan length in various tissues optimizes the extracellular environment for unique cell types.

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INTRODUCTION

Glycosylation is carbohydrate modification found on biological macromolecules including nucleotides (*1*), lipids (*2*, *3*) and especially proteins (*4*, *5*). Protein glycosylation has been the target of extensive research efforts because glycan modifications not only modulate the functions of the proteins but also act as receptors/ligands for their lectin counterparts. The glycan-lectin interactions are associated with numerous biological processes, such as quality control of protein folding (*6*), cellular growth and migration (*7*), host-pathogen/microbiome interaction (*8*), transmembrane signaling (*9*), and more. One of the best functionally characterized glycan receptors is a unique matriglycan found on dystroglycan (DG). DG is encoded by the DAG1 gene (*10*) which is widely expressed in different tissues and is conserved among various organisms. DAG1 is transcribed into a single mRNA, but the translated DG polypeptide post-translationally cleaves into DG N-terminus (DG-Nt) (*11*), α- and β-DG (*10*). The α subunit has a heavily *O*-glycosylated mucin-like domain that harbors the matriglycan, and a C-terminal domain (DG-Ct) that forms a complex with the transmembrane β-DG. Matriglycan serves as the carbohydrate receptor for extracellular matrix (ECM) proteins containing laminin G-like (LG) domain (*12*, *13*), such as laminin (*10*, *14*), agrin (*15*), and perlecan (*12*); while α- and β-DG are sub-units of a dystrophin-glycoprotein complex (DGC) (*16*) that anchors to cytoskeletal actin fibers (**Fig. 1a**). Therefore, matriglycan plays a central role of bridging the ECM to the plasma membrane, thus mediating cell-matrix interactions in different tissues including skeletal muscle and the central nervous system.

Matriglycan is a polymer of [1,3-β-glucuronic acid (GlcA)-1,3-α-xylose (Xyl)-] repeating disaccharide (*17*) and its biological activities almost solely depend on its length: longer matriglycans exhibit drastically higher affinity to laminin than shorter ones (*18*). Matriglycan is

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synthesized on a β-GlcA-1,4-β-Xyl-1,2-ribitol-1-phosphate (RboP)-5-RboP adaptor (*19–24*) (**Fig. 1b**) by the bi-functional glycosyltransferases LARGE1 or LARGE2 (*17*, *25–27*). The adaptor is attached to phosphorylated coreM3 (*28–32*) [coreM3(P)] forming the matriglycan precursor. Multiple enzymes are required for proper matriglycosylation, and an interruption of the process leads to a group of disorders in muscle and the central nervous systems, which are called α-dystroglycanopathies (*33*). α-dystroglycanopathy can range in phenotypic expression from Limb-Girdle Muscular Dystrophy (LGMD) to Congenital Muscular Dystrophy to Muscle Eye Brain Disease and Walker-Warburg Syndrome (WWS) in order of increasing disease severity. Disease severity hinges on the ability of matriglycan to bind ECM ligands which in turn depends on the expression and length of matriglycan. A complete absence of matriglycan leads to mammalian embryonic lethality. Normally, dystroglycanopathy patients carry matriglycan, but they are drastically reduced and insufficient to maintain normal cell-matrix interactions (*34*, *35*)

The mucin-like domain of α-DG that harbors the matriglycan contains roughly 50 potential *O*-glycosylation sites, but the coreM3(P) was merely found on three threonine residues (T317, T319, and T379), and matriglycan was only found on a T317/T319 motif before (*23*, *24*, *32*, *36*, *37*). It was reported that T379 can receive LARGE-mediated matriglycosylation under the LARGE over-expression condition (*38*). In the present work, we established an ultra-high resolution and sensitivity mass spectrometric method mapping matriglycosylation sites of α-DG. We confirmed T379 as a secondary matriglycosylation site harboring a short matriglycan without LARGE over-expression and existing in multiple organs. Although the short matriglycan led to embryonic lethality in mice, it appeared to be completely functional in adult skeletal muscle. Simultaneous mutations of the two matriglycosylation sites led to muscular pathology, while neuromuscular junction (NMJ) integrity required modification at both matriglycan sites. In

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addition, cellular proteomics indicated that matriglycan can modulate the ECM proteome possibly by altering its size or switching matriglycan sites.

RESULTS

Matriglycosylation site(s) on α-DG

Our research started with the question of whether there are more than one matriglycan motif on α-DG. We infected HEK293 cells with an adenoviral vector expressing Fc-tagged α-DG (DG-Fc) protein with or without T317A/T319A site-directed mutations. A laminin overlay assay strongly suggests the T317A/T319A mutation fails to eliminate laminin binding (**Fig. s1a**). Because DG-Fc showed significantly lower electrophoretic migration, we performed laminin overlay guided in-gel digestion and mass spectrometry (MS) based proteomics to verify DG-Fc as the main protein in the 250 KDa bands (**Table s1** and **2**).

These data indicated additional matriglycosylation site(s) without LARGE over-expression and drove us to establish a nano-flow liquid chromatography (nanoLC) MS method to map matriglycosylation sites. Matriglycosylated peptides are extraordinarily challenging targets for electrospray ionization (ESI) MS, and to date, there are no published ESI-MS data identifying matriglycosylated peptides. We expressed a $DAG1_{749}$ recombinant protein in HEK293F cells, which mimics the extracellular region of human pro-dystroglycan with R311A/R312A mutations (**Fig. 1b**, amino acid 28-749, DG-Nt attached). *O*-glycomics showed the protein carried multiple mucin-type *O*-glycans and *O*-mannose glycans, indicating proper glycosylation and secretion by our cell model (**Fig. s1b**). We then used a glycosidase mixture (β-hexosaminidase, β-1,4-galactosidase, fucosidase, sialidase, and *O*-glycosidase, see Materials and Methods) to reduce the sample complexity caused by numerous glycoforms. Previous analytical efforts normally introduced a lysine residue for Lys-C digestion so that truncated matriglycopeptides can be

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enriched by ion exchange chromatography and characterized by matrix-laser desorption/ionization time-of-flight (MALDI-TOF) MS (*23*). A similar strategy was used to collect high-resolution ESI-Orbitrap data on truncated DG glycopeptides carrying the precursor of matriglycan (*24*). Our approach keeps longer peptide backbones to generate comprehensive information on *O*-mannosylation and to facilitate electrospray ionization for ESI-Orbitrap to achieve ultra-high resolution and sensitivity. The addition of RboP and GlcA-Xyl residues was shown to delay glycopeptides LC elution (*24*). Therefore, we eluted the LC column with a more concentrated acetonitrile solution to compensate for the possible ion-paring effect.

Our optimized MS strategy detected the canonical T317/T319 motif containing glycopeptide with an amino acid sequence of VAAQIHA**T**P**T**PVTAIGPPTTAIQEPPSR (note the R to A mutations in **Fig. s1c-f**). This glycopeptide carries the matriglycan precursor, five mannose, and one hexNAc, giving rise to an MS signal at *m/z* 1305.55^{4+}. We were able to get a glycopeptide with a nearly native sequence analyzed, and our data are consistent with previous research identifying T317/T319 as a matriglycan motif. We were also able to detect matriglycan on the secondary T379/T381 site in a glycopeptide with a sequence of GAIIQ**T**P**T**LGPIQPTR. This is supported by two MS signals at *m/z* 1124.46^{3+} and 1227.15^{3+} which correspond to the glycopeptides carrying the two mannoses plus the matriglycan precursor and one matriglycan disaccharide elongation, respectively (**Fig. s1g-m**). This is the first time that a matriglycosylated peptide has been successfully analyzed by nanoLC-ESI-MS, and our data indicate all three previously mapped coreM3 can be elongated into matriglycans under normal physiological conditions.

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Confirmation of matriglycosylation on T317/T319 and T379/T381 two motifs

As crystallographic research has revealed that matriglycans with two disaccharide repeats strongly bind to the laminin LG4 domain (*13*), we next sought to better characterize matriglycosylated peptides for both motifs. The excessive peptide and glycopeptide MS signals detected in the $DAG1_{749}$ sample could have suppressed MS signals of matriglycosylated peptides, so we expressed a shorter His-tagged DG390 protein with HEK293F cells. DG390 is designed based on the rabbit DAG1 sequence (see **Fig 1b. native rbt DG**), covering both matriglycan motifs identified on $DAG1_{749}$. DG390 was also subjected to *O*-glycomic analysis, and the detected mucin-type and *O*-mannose *O*-glycans proved this much shorter construct was heavily glycosylated (**Fig. s2a** and **b**). In addition, MALDI-TOF also detected sodiated permethylated $(GlcA\text{-}Xyl)_n$-Rbo glycan released by mild hydrofluoric acid (HF) hydrolysis from DG390 (**Fig. s2c**). The MS detected matriglycan repeats up to two times, and the MS peak intensities of the matriglycan decreased as the matriglycan got longer. The longer matriglycans are expected to show even lower intensities and might not be detected because of a reduced sensitivity when extensive chemical reactions are implemented before MS analysis. Subsequent MALDI-TOF/TOF analysis of the glycans confirmed their sharing of a linear architecture (**Fig. 2d-f**).

The DG390 was enzymatically de-glycosylated (**Fig. s2b**), tryptically digested, and subjected to nanoLC-ESI-MS-based glycoproteomics. A representative MS peak at *m/z* 1415.04^{4+} (**Fig. 2b**) corresponds to a T317/T319 glycopeptide with a sequence of QIHATPTPVTAIGPPTTAIQEPPSR carrying two matriglycan repeats on the precursor, five hexoses, one hexNAc, and an extra phosphate or sulfate (**Fig. 2a** and **Fig. s3**). As DG390 does not bear any mutation, the peptide backbone is slightly shorter than its counterpart found in $DAG1_{749}$. The glycan composition indicates all serine and threonine residues are modifiable by

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O-mannoses, and one mannose in the T317/T319 motif is further synthesized to mature matriglycans (**Fig. 2a**). Further MS/MS analysis confirmed our structural annotation (**Fig. 2c**). First, we found fragment ions at *m/z* 632.14^{+}, 940.21^{+} and 1248.28^{+} showing the matriglycan assembled on the RboP-containing adaptor. Secondly, the molecular ion of the peptide backbone was detected at *m/z* 1282.18^{2+}, and two peptide fragment ions were observed at *m/z* 456.26^{+} (y4) and 647.35^{2+} (y12). An addition of mannose-phosphate (242.02 Da) shifts the peptide molecular ion from 1282.18^{2+} to 1403.19^{2+}, to which more mannose is added, forming glycopeptide ions with *m/z* of 1484.21^{2+}, 1565.25^{2+}, 1646.27^{2+}, and 1727.29^{2+}. This proves at least five out of six *O*-glycosylation sites in the peptides are *O*-mannosylated. No fragment ion corresponds to a HexNAc addition to the peptide backbone, indicating all six *O*-glycosylation sites are *O*-mannosylated.

The T379/T381 motif is in the GAIIQ**T**P**T**LGPIQPTR glycopeptide (also see **Fig. s4**), which is the same as in $DAG1_{749}$. In addition to the MS signals at *m/z* 1124.46^{3+} and 1227.15^{3+}, we were able to find a representative signal at *m/z* 1356.50^{3+} (**Fig. 2e**) corresponding to the peptide with two matriglycan repeats on the precursor with two hexoses, one HexNAc and an extra phosphate or sulphate (**Fig. 2d**). The glycan composition again suggests that all three *O*-glycosylation sites are modified by *O*-mannoses and one of them was biosynthesized into the matriglycan. MS/MS analysis (**Fig. 2f**) detected matriglycan fragments at *m/z* 632.14^{+}, 940.21^{+}, and 1556.36^{+}, and the molecular ion of the peptide backbone at *m/z* 831.98^{2+}. The peptide is partially sequenced by fragment ions at *m/z* 242.15^{+} (b3), 355.23^{+} (b4), 483.29^{+} (b5), and 584.34^{+} (b6), and y ions at m/z 1079.62^{+} (y10) and 711.41^{2+} (y13). A combination of the presence of fragment ions at *m/z* 952.99^{2+} (addition of a ManP), 1034.02^{2+} (addition of man,

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HexP), and 1115.04^{2+} (addition of 2Man, ManP) and absence of 933.52^{2+} ion further confirms all three potential *O*-glycosylation sites are *O*-mannosylated.

To verify our MS observation that there are two matriglycan motifs among the roughly 50 *O*-glycosylation sites, we infected DG KO HEK293 cells with adenoviral vectors encoding WT DG and DG-bearing T-to-A mutations in the MS-characterized matriglycan motifs (**Fig. 2g**). When both motifs get mutated (4X mut.), no matriglycan was detected by both immunoblots and laminin overlay despite an over-expression of dystroglycan backbone. This confirms there are only two matriglycan motifs on α-DG. α-DG with T317/T319 matriglycan exhibited lower electrophoretic migration in polyacrylamide gels than with T379/T381 matriglycan, indicating the former matriglycan is considerably longer than the latter when the protein is expressed in HEK293F cells.

T379 carries a matriglycan repeating for at least nine disaccharide units

Previous research has revealed both T317 and T319 can carry matriglycan (*37*). To pinpoint the exact site for matriglycosylation in the T379/T381 motif, we performed electron-transfer dissociation (ETD) on the T379/T381 glycopeptides (**Fig. 3a-c**). We found a series of C7 ions at *m/z* 1346.60^{+}, 1560.62^{+}, and 1774.63^{+}, proving the T379 residue carries a coreM3(P) that can be synthesized towards matriglycan. These MS spectra determine T379 as a major carrier of the matriglycan in the motif.

We next measured the length of matriglycan on the T379/T381 motif. Note that we deliberately attached a His-tag to DG390 when designing it, and this plays a critical role in the nanoLC-MS analysis of longer matriglycans. The poly-histidine tag has two functions: first, it normalizes the nanoLC retention of matriglycosylated peptides (**Fig. s5c** and **d**) and second, it greatly facilitates positive ESI of matriglycosylated peptides (**Fig. s5e** and **f**). We found the

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T379/T381 motif carrying matriglycans up to nine GlcA-Xyl repeats (**Fig. 3d-e**) and the biggest observed matriglycosylated peptide had a molecular weight of around 8 KDa. Structural annotations of the dominant MS signals were verified by MS/MS analysis (**Fig. s5g-j**), but some MS intensities for longer matriglycan get too low to analyze.

Consistent with matriglycans released by mild HF hydrolysis, deconvoluted MS spectra strongly suggested MS intensities of matriglycosylated peptides drop rapidly as the matriglycan length increases (**Fig. s5k**). This phenomenon is also observed with our matriglycan *in vitro* biosynthesis assay (**Fig. 3f**). The synthesized matriglycan can only get up to 10 repeats after 48 hours of incubation with excessive LARGE1, and such length is comparable with our DG390 results. MALDI-TOF detected matriglycans terminated by both GlcA and xylose, but GlcA-terminated matriglycans are considerably more abundant than xylose-terminated ones. In addition, MS intensities of the matriglycans decrease as they get longer just like the T379 matriglycan synthesized in HEK293 cells.

Collectively, the data suggest that matriglycan synthesized on T379 in HEK293 cells is roughly nine to ten units long; and a longer matriglycan corresponds to the lower amount. Matriglycan synthesis could be rate-determined by the xylosyltransferase activity. Previous MALDI-TOF analysis indicated that T317/T319 matriglycan repeats 17 times (*23*), which is considerably longer than the T379 matriglycan that is characterized in this research. This means the two matriglycan motifs are not necessarily functionally identical, as the matriglycan length is important for its receptor binding affinity.

Termination of matriglycan elongation can be achieved by sulphate and hexose capping

MS signals for both T317/T319 and T379/T381 glycopeptides imply an extra modification of roughly 79.96-79.97 Da mass (**Fig. 2 a-f**), which matches the mass of a sulphate

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or phosphate group. This group can be found on all dominant polymeric matriglycans on the T379/T381 motif (**Fig. 3d** and **e**), although uncapped polymeric matriglycans were also observed at considerably lower intensities. We luckily found a single MS/MS spectrum showing the 79.97 Da modification directly linked to the matriglycan fragments (**Fig. 3g** and **h**). The extremely labile modification was kept on glycans most likely due to the long peptide backbone dispersing the fragmentation energy during the MS/MS processes. Our MS analysis cannot directly determine if the group is a sulphate or phosphate, but we attributed the extra mass to a sulphate cap because of two reasons. First, previous research identified HNK-1 as a sulfotransferase that caps the matriglycan (*38*, *39*). Secondly, MS/MS analysis of matriglycosylated peptides with the extra 79.97 Da did not detect fragment ions corresponding to glycopeptides carrying two mannose-phosphate (**Fig. s5i**) that were easily detected in non-matriglycosylated peptides (**Fig. s5n-o**). In addition to the presumable sulphate caps, we found a small fraction of the matriglycan precursors are capped by a hexose residue. We are not able to determine if the hexose modification is a consequence of enzymatic catalysis or chemical ligation. However, we only found the matriglycan precursor capped by the hexose, indicating that the hexose cap can compete with LARGE to prevent the matriglycan biosynthesis from the very beginning if the process is enzymatically catalyzed.

SLC35A1 serves as a RboP transporter

The characterization of the T379/T381 matriglycosylation provided us with a platform to explore the functions of all genes involved in matriglycan biosynthesis. Since the T379/T381 matriglycopeptides exist in far simpler glycoforms than the T317/T319 glycopeptides, we can use a series of representative MS signals at *m/z* 879.41^{3+}, 950.76^{3+}, 1022.10^{3+}, 1124.46^{3+}, and 1227.15^{3+} (their extracted ion chromatograms in **Fig. s6a**) to monitor glycan structures along the

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matriglycan biosynthesis in cell models. Therefore, we applied the MS strategy to characterize two novel pathological genes, *SLC35A1* encoding a CMP-sialic acid transporter, and *POMGnT1* encoding an *O*-mannose β-1,2-GlcNAc transferase. Both activities are not directly associated with the matriglycosylation pathway, but their mutations have previously been reported to cause human muscular disorders resembling dystroglycanopathies (*40–42*).

We first tried to knockout (KO) *SLC35A1* in our HEK293F bioreactor (**Fig. s6b**) with a CRISPR/Cas9 system. Although sialylation is significantly reduced, we were still able to glycomically observe sialylated N-glycans. Further analysis indicated nearly all sialylation is absent on the secreted DG390 (**Fig. s6c**), whereas a highly intense MS signal is present for the glycopeptide carrying the precursor of matriglycan (**Fig. s6d**). To eliminate the possible effects of residual activity of SLC35A1 and/or other similar-function transporters in the HEK cells, we infected HAP1 *SLC35A1* KO cells (**Fig. s6e**) with an adenoviral vector expressing DG390 and were able to detect the matriglycosylation pathway halted before RboP (FKTN activity) by MS (**Fig. 4a)**, as the relative intensity of one and two RboP containing glycopeptides reduced by about 70% and 97%, respectively. Only a trace amount of matriglycan precursor was observed and matriglycan was nearly undetectable (**Fig. s6f** and **g**). This is consistent with immuno- and laminin blots, which also support a sharp downregulation of matriglycan (**Fig. 4b**). The *SLC35A1* and *ISPD* (encoding a CDP-ribitol synthase) gene transfer can rescue the phenotype independently (**Fig. 4c**), indicating *SLC35A1* could be involved in CDP-Rbo transport. These observations provide MS evidence for recently published research showing *SLC35A1* is involved in the translocation of RboP (*43*).

We next infected HAP1 *POMGnT1* KO cells with the same viral vector and detected all the representative ions of matriglycosylation. The MS signal at *m/z* 1124.45^{3+} corresponding to

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the T379 glycopeptides carrying the precursor of matriglycosylation is very strong. The MS signal at *m/z* 1227.15^{3+} characteristic of matriglycosylation is low (**Fig. s6g** and **h**), but it unambiguously proves the existence of matriglycan. This is partially contrary to previously reported immunoblotting results (*44*), where no or very little matriglycan signal was observed.

Both matriglycans exist and are functional in vivo

After the comprehensive MS analysis of matriglycosylation based on cell models, we set out to create transgenic mice carrying T315A/T317A and T377A/T379A mutations for further interrogating the MS-determined matriglycan motifs *in vivo*. Note that murine DG is two amino acids shorter within its sequence signal than the human and rabbit versions (**Fig. 1b**), so the amino acid number is different. Despite both DG T315A/T317A and T377A/T379A mice are viable, the former mice suffer mild embryonic lethality: of 220 liveborn mice only 22 were T315A/T317A homozygous, giving a birth rate of 10% that fails the $\chi 2$ Goodness of Fit Test (**Table s3** and **4**); while the rate was 22% for T377A/T379A homogeneous mice (53 out of 239). Considering *Large*^{myd}/*Large*^{myd} (*myd*) mice also show a reduced birth rate, our observation indicates the long T315/T317 matriglycan is important for mice reproduction and/or embryonic development. We were unable to generate live mice carrying both T315A/T317A and T377A/T379A mutations (4X mut.). This is not surprising because the 4X mutation in theory eliminates functions of both LARGE1 and 2, and this observation supports there are only two matriglycan motifs *in vivo*.

We first tested for matriglycans' presence and function in skeletal muscle, in our various mouse models. Being consistent with the cell models, immunoblotting confirmed matriglycosylation in skeletal muscle of both T315A/T317A and T377A/T379A mice (**Fig. 5c**), and the former motif carries a longer matriglycan (**Fig. 5a**). Immunofluorescence and

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hematoxylin and eosin (H&E) staining further supported that matriglycans exist in both mice models. Skeletal muscle from both mouse models shows normal morphology (**Fig. 5b**) but losing one matriglycan site seems to slightly reduce fiber size (**Fig. 5c**). When compared to WT controls, extensor digitorum longus (EDL) from both mouse models shows similar absolute and specific tentative forces (**Fig. 5d** and **f**) and similar susceptibility to injuries induced by eccentric contractions (ECCs, **Fig. 5g**), which indicates a single matriglycan, even relatively short, is sufficient to maintain healthy muscle in adult mice. The only observed difference is slightly altered cross-sectional areas (CSA) in the T315A/T317A EDL muscle (**Fig. 5e**).

To further compare the two matriglycosylation motifs, we rescued muscle-specific DAG1 KO mice with gene transfer mediated by adeno-associated viruses (AAV) encoding T315A/T317A and T377A/T379A DG. Although the m*yf5*-*Cre* system cannot eliminate dystroglycan in muscle stem cells, most matriglycan signals detected by immunoblotting are from the AAV-induced DG (**Fig. s7c**). Muscle rescued by AAV encoding T377A/T379A DG showed a mildly higher absolute tetanic force (F_0) and specific force (sF_0) than AAV encoding T315A/T317A DG. T315A/T317A DG rescued EDL are also more susceptible to ECC-induced injuries. These data indicate longer matriglycan is superior in terms of rescuing dystroglycanopathy-related muscle pathology (also check **Fig. s7a** and **b**).

We then characterized the two matriglycan motifs in the brain, the kidney, and the heart (**Fig. 5l**). Matriglycan length varies in different tissues. For example, matriglycan in the heart and skeletal muscle is a lot longer than that in the brain. However, T315/T317 matriglycan is consistently longer than T377/T379 matriglycan. In addition, the length of the two matriglycans is individually regulated in different tissues. In skeletal muscle and brain, the T315/T317 matriglycan is far longer than the T377/T379, whereas these two matriglycans are similar in size

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when synthesized in the kidney, suggesting that there are tissue-specific factors that regulate site specific matriglycan length.

Skeletal muscle pathophysiology emerges when both matriglycan motifs are mutated

Next, we wanted to know what happens when both matriglycan motifs are mutated. Since direct breeding of heterozygous mice did not generate any 4X mutant mice, we created heterozygous mice whose one allele encodes a floxed WT DAG1 and another allele encodes a DAG1 4X mutant (**Fig. 6a**). Immunoblotting shows that there is no matriglycan present in skeletal muscle when one copy of WT *DAG1* is removed by breeding the heterozygous 4x mutant DG mice with *Pax7-Cre* mice or by injecting AAV-*CMV-Cre* (**Fig. 6b**). This indicates that there are only two matriglycan sites on DG and enables us to pinpoint the neuromuscular functions of matriglycan in the mouse models. The skeletal muscles of 4X mutant mice showed fibers with central nuclei, adipose tissue infiltration, and fibrosis (**Fig. 6c**), which resembles the muscular phenotypes of the *myd* mice (*45*). AAV encoding 4X mutant DG lost its ability to rescue grip strength (**Fig. 6d**). The 4X mutant mice consistently show lower forelimb grip strength and F_0 than WT mice (**Fig. 6e-h, j-l**). They are also much more susceptible to ECC-induced injuries (**Fig. 6i** and **m**). In addition, NMJs in tibialis anterior (TA), EDL, and soleus (SOL) muscles from *Pax7-Cre* 4X mutant mice are more fragmented than WT mice and mice with a single matriglycan (**Fig. 6n** and **o**). Interestingly, NMJs from mice possessing only one matriglycan show a low degree of irregularity, which indicates the existence of two matriglycans is critical for NMJ integrity. These data once again highlight the function of matriglycan as an ECM receptor and strongly support that there are at least two matriglycan motifs in skeletal muscle *in vivo*.

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ECM proteome is modulated by the length of matriglycan

We initially expected the mice with only the T377/T379 matriglycan to show severe pathologic phenotypes as the matriglycan is short compared to the T315/T317 matriglycan. In the brain, the matriglycosylated T315A/T317A α-DG smear shows less apparent molecular weight than the smear corresponding to mucin-type *O*-glycosylated α-DG (**Fig.5l**). Surprisingly, not only are the transgenic DG T315A/T317A mice generally healthy, but even the AAV encoding DG T315A/T317A can rescue DG KO mice to nearly healthy conditions. We speculated that other ECM proteins might compensate for the effect of the reduced matriglycosylation. We sought to tackle the question with label-free, quantitative shotgun proteomics. We first performed a "quality control" experiment on LARGE1 over-expressed HEK cells to confirm the reproducibility of our proteomic workflow and to make sure we can identify LARGE1 over-expression (**Fig. s8a** and **Table s6**).

Considering one of the major secretors of ECM proteins is the fibroblast cell, and matriglycans are differentially downregulated in human patients suffering different types of dystroglycanopathies, we decided to compare the proteome of cultured primary fibroblast cells from a WWS patient carrying an ISPD mutation and LGMD patients carrying FKRP mutations. The ISPD mutation can severely truncate the matriglycan, so the WWS dystroglycan was selected to resemble the glycan found in the DG T315A/T317A mice. Similarly, the downregulation of matriglycan caused by the FKRP was selected to resemble the DG T377A/T379A mutation. We performed the same workflow on fibroblast cells from three different WWS patients and three different LGMD patients and quantified 3582 (**Fig. s8b** and **c,** and **Fig. 7a**) out of 4235 detected proteins at 1% cut-off false discovery rate (FDR) of both proteins and peptides. Principle component analysis (PCA) accurately separated WWS from

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LGMD samples (**Fig. 7b**), while unsupervised hierarchical clustering analysis (HCA) robustly segregated their proteomes (**Fig. s8d**). Although certain collagens are mildly upregulated, most detected fibroblast biomarkers including many collagens, integrins, and vimentin were not that differently expressed (**Fig. s8e**), so they should not be used for separating the two groups. On the contrary, WWS cells are characterized by ECM and membrane proteins such as THBS2, COL18A1, FBN2, and HLA-A, while LGMD cells are better characterized by cytosolic and nucleus proteins such as CUL7, RIF1, and KMT2A (**Fig. 7c**).

Further analysis screened out 25 differentially expressed protein groups (**Fig. 7d**). While the proteins with higher expression in LGMD cells did not show any apparent features, half of the 12 proteins increased in WWS cells are ECM proteins (THBS2, COL18A1, HTRA1, FBN2, NAGLU, and ADAMTSL1). The 25 altered proteins were further manually scrutinized against the single-cell RNA sequencing database on the Human Protein Atlas website (https://www.proteinatlas.org/) to pinpoint proteins mainly expressed by fibroblast cells in skeletal muscle (**Fig. 7e**). The proteins upregulated in LGMD cells were mostly filtered out and six out of seven remaining targets, which are mostly upregulated in WWS cells, belong to the ECM proteome, and the left one is an enzyme related to ECM degradation (*46*, *47*). Meanwhile, HCA also leads to the clustering of the WWS samples characterized by upregulated ECM region proteins (**Fig. s8f**). Collectively, our data indicate the ECM proteome is directly modulated by the matriglycan and shorter matriglycan tends to upregulate ECM proteins. The modulation can be achieved by directly altering the secretion protein profile of fibroblasts.

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Discussion:

The optimized MS strategy facilitates characterization of "negatively charged" high molecular weight glycoconjugates

The nanoLC-ESI-MS technique has become the most important tool for protein PTM investigations due to its high throughput, ultrahigh sensitivity, and wide compatibility with all modifications. However, glycopeptides carrying long sugars modified by acidic groups, such as phosphate and sulphate, are inherently challenging for existing glycoproteomic methods because both their high molecular weight carbohydrate moieties and the modification groups can hinder ionization. This severely limits the application of MS in characterizing glycosylation processes including glycosaminoglycans, matriglycans, and sometimes sulphated mucin-type *O*-glycans. Here, we provide a nanoLC-ESI-MS-based solution for analyzing matriglycosylated peptides. Instead of inserting additional protease sites to digest big glycopeptides into shorter, more manageable, parts, we selected to maintain the peptide backbone and added a hexa-histidine tag to aid the ionization. The resulting His-tagged peptides get ionized into ions with multiple charges, comfortably fitting the mass range of modern MS instruments. More importantly, their big sizes stabilize fragile groups and keep protein modifications intact when collisional energy is imposed during MS/MS experiments. This is especially beneficial to characterize sulphated and phosphorylated carbohydrates. In addition, even when we used an LC elution program with more concentrated acetonitrile, the sulphate modification still delays matriglycopeptides to very late retention times, which happens to be compensated by adding His-tags to glycopeptides (**Fig. s5c** and **d**). All these experimental considerations and designs facilitated a routine detection of nearly intact matriglycans in a positive ion mode bottom-up shotgun glycoproteomic setup. Our MS

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strategy might contribute to further research on glycosaminoglycans and sulphated mucin-type *O*-glycans, which are attracting more and more biological research interests.

Elongation of matriglycans is potentially regulated by two mechanisms

Our MS methods and data provide new insights into matriglycan elongation, although being limited by the DG over-expression model. The biosynthesis of matriglycan might not be the most efficient, considering only a very small portion of matriglycan precursor eventually gets matriglycosylated (**Fig.s6a**). When the matriglycan reaches about 10 disaccharide units during its elongation process, it tends to dissociate from LARGE. The matriglycan might bind to LARGE again for another round of elongation but it can also be capped by sulphate or a hexose group by other enzymes. At least in our cell models, LARGE xylosyltransferase activity tends to be lower than its GlcA transferase activity, it might be outcompeted by capping enzymes. As a result, the matriglycans tend to get capped and their elongation processes are terminated. More interestingly, capping reactions can happen on the adaptor of matriglycan (**Fig. 3g-j**), which might stop matriglycosylation at the very beginning. This partially explains why the amount of matriglycosylated peptides is so small. The sulphation process mediated by HNK-1 explained why matriglycans in brains are a lot shorter, but it seems that a similar mechanism exists in other tissues, such as the kidney. As such, our model provides a possible mechanism for the postnatal regulation of matriglycan elongation in different tissues.

LARGE1 activity may be increased by molecular recognition of DG-Nt and the phosphate on coreM3, thereby explaining the existence of very long matriglycans (*11*, *48*, *49*). If the observed 80 Da modification corresponds to a phosphate on an *O*-mannose (see **Fig.2**), it is likely the extra mannose-phosphate can further boost LARGE activity. We speculate the T317/T319 matriglycan represents the boosted LARGE1 activity whereas the T379/T381

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matriglycan is the product of LARGE1 without other chaperones. T377A/T379A α-DG exhibited considerably higher electrophoretic migration than the WT. This indicates both matriglycosylation sites can be simultaneously occupied, although the T-to-A mutation also affects mucin-type *O*-glycosylation. We have not elucidated the reason why two matriglycans are required, but our limited evidence indicates this is important for the integrity of NMJ. In addition, we noticed both matriglycan motifs from α-DG can be completely deglycosylated by the glycosidases that remove mucin-type *O*-glycans. This indicates α-DG exists in more than one glycoform carrying only the long, the short, or both matriglycans. Two different matriglycan motifs might provide another straightforward mechanism to combinatorially regulate the length of matriglycan tissue-specifically, during development and muscle regeneration.

Matriglycans modulates ECM proteome

We found that mice with only the short matriglycan suffer mild embryonic lethality. This reveals the critical roles of the elongation of matriglycan during mammalian embryonic development. However, our data very strongly indicate that if the mice survived the developmental stage, they grew into healthy adults. More surprisingly, it is evident that the T377/T379 motif carrying the shorter matriglycan is more capable of restoring grip strength. This means α-DG with only shorter matriglycan maintains cell-matrix interactions well at least in mice after development. The phenotypical comparison, especial for the fiber size (**Fig.5c**) and NMJ morphology (**Fig.6o**), between the DG T315A/T317A and T377A/T379A mice needs further validation because the current data are limited by a small number of mice available for experiments.

We tried to address these physiological observations by performing label-free proteomic quantification on fibroblast cells that are known to secrete ECM proteins directly related to

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muscular functions. Comparative proteomics previously revealed muscular dystrophy caused by mutations in dystrophin leads to an upregulation of ECM proteins such as collagen and fibronectin (*43*). We identified a few upregulated proteins in WWS cells with truncated matriglycans including THBS2 which was reported to stabilize muscle membranes (*50*), and ADAMTSL1 was shown to help muscle regeneration (*51*). The tendency of ECM protein upregulation in matriglycan truncated cells is also supported by HCA. We propose the upregulation of these proteins might compensate for the "side effect" of reduced matriglycan, which explains why mice with shorter matriglycans can be postnatally healthy. Notably, this ECM "rescue effort" is likely ineffective during embryonic development, which highlights the essential role of matriglycan in mammalian development. We plan to apply our proteomic approach in analyzing the brain and skeletal muscle, which should be more physiologically relevant. Meanwhile, such experiments will likely provide more biochemical insights on functions of the two matriglycans.

MATERIALS AND METHODS

Viral vectors

DAG1 WT, T315A/T317A, T377A/T379A, T315A/T317A/T377A/T379A (4X mut.) viral vectors

Sequences encoding mouse WT and site-mutated DAG1 were synthesized (GenScript, Piscataway, NJ) and cloned into adeno-associated virus 2/9 (AAV2/9) backbones under the transcriptional control of the ubiquitous CMV promoter (University of Iowa Viral Vector Core Facility). The advantages of the AAV2/9 vector were previously described (*1*). Briefly, the vectors show improved muscle transduction efficiency and altered tropism. The plasmid was also used for making adenoviral vectors for infecting HEK293F cells.

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DG390 TevHis6 (DG390) adenoviral vector

The adenoviral vector was previously reported (*2*). Briefly, FseI-x-390 AAs-TEV-6xHis-NotI was obtained using pcDNA3rbtDG as a PCR template and ligated into the pcDNA3DG340TEVHis digested with FseI and NotI to construct DG390TEVHis, which includes 1–390 AAs of rabbit DG, TEV site, and 6x Histidine. The construct was inserted in the pacAd shuttle plasmid from the University of Iowa Viral Vector Core Facility to generate the vector. E1-deficient recombinant adenoviruses were generated by the University of Iowa Viral Vector Core using the RAPAd system. The vectors were used to infect HAP1 cells for the investigation of SLC35A1 and POMGnT1 functions.

Genetically modified cell lines

HEK293F bioreactor constitutively expressing DG390TevHis6

HEK293F cells were stably transfected (XtremeGENETM 9 DNA transfection reagent) according to the manufacturer's protocol with pcDNA3 encoding DG390TevHis6. The cells were cultured with a serum-free culture medium and were constantly selected by neomycin.

DAG1 KO HEK293 cells

The cells were purchased from Abcam (ab266263). Knockout achieved by using CRISPR/Cas9, homozygous: 1 bp insertion in exon 2.

SLC35A1 knockout (KO) HAP1 cells

HAP1 cells bearing a 2 bp deletion of exon 2 of SLC35A1, generated using the CRISPR/Cas9 system, were purchased from Horizon Discovery (HZGHC010158c010). The sequence of guide RNA is TTCTGTGATACACAACGGCTG. SLC35A1 KO was confirmed by Horizon Discovery via PCR amplification and Sanger sequencing. PCR primers used for DNA sequencing are SLC35A1 Forward CACGTATTTCCAGACAATGTCACT, and SLC35A1

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Reverse ACAAATACCCTCACCAGGTAGAAAA. The KO was further functionally confirmed by mass spectrometry-based glycomics. To generate DG390 proteins for MS analyses, HAP1 cells were grown in IMDM with 10% FBS and 1% penicillin/streptomycin on p150 plates. When plates were 80% confluent, cells were washed twice with DPBS, media changed to serum-free IMDM with 1% penicillin/streptomycin (Invitrogen), and cells infected at high MOI (250–1000) of adenovirus expressing DG390TEVHis. The culture media were harvested after 72 hours and stored at 4 □C.

POMGnT1 knockout (KO) HAP1 cells

HAP1 cells bearing an 8 bp deletion of exon 2 of POMGnT1, generated using the CRISPR/Cas9 system, were purchased from Horizon Discovery (HZGHC000747c012). The sequence of guide RNA is AGCGGAGCTGGTACCTTACC. POMGnT1 KO was confirmed by Horizon Discovery via PCR amplification and Sanger sequencing. PCR primers used for DNA sequencing are SLC35A1 Forward TATAGGGACATGACACATAGAGGTC, and SLC35A1 Reverse ATCAGACTTTGGGAGGAGCATCTTA.

Proteins expression and purification

DG390TevHis6 (DG390)

DG390 secreted by HEK293F, WT HAP1, and SLC35A1 KO HAP1 cells was purified by HisPur™ Ni-NTA Resin (Thermo Fisher Scientific, US). The nickel resin was eluted by 300 mM imidazole, which was removed by extensive dialysis against a 50 mM ammonium bicarbonate buffer. The sample is lyophilized before being stored at -20°C.

Dystroglycan protein DAG1$_{28–749}^{R311A/R312A}$ (DG749)

DG749 purification was previously described (*3*). Briefly, HEK293F cells were stably transfected (XtremeGENE^{TM} 9 DNA transfection reagent; Sigma-Aldrich) according to the

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manufacturer's protocol with pcDNA3.1 + encoding human dystroglycan residues 1–749 with a mutation in the furin cleavage site (R311A/R312A). The secreted dystroglycan protein $DAG1_{28–749}^{R311A/R312A}$ was purified using His60 Ni IMAC resin (Takara) and subjected to anion exchange using DEAE resin. The sample is lyophilized before being stored at -20°C.

DG-Fc

DG-Fc protein was reported (*4*, *5*), and it was purified by protein G beads from cell culture media.

LARGE1dTM

Pure recombinant LARGE proteins were obtained as previously described (*1*). Briefly, LARGE1dTM secreted by stably transfected HEK293F cells were purified from the media using TALON resin. The eluate was dialyzed against 50 mM ammonium bicarbonate before lyophilization and stored at -20°C.

Genetically modified mice

myf5Cre/+; Dag1fl/fl (myf5-Cre/DAG1 KO)

Mice homozygous for floxed DG, in which loxP sites flank exon 2 of Dag1, were crossed with transgenic mice expressing a cre-mediated recombination system (007845; The Jackson Laboratory). This recombination system was driven by the Myf5 promoter. Male offspring heterozygous for the floxed Dag1 and Cre-positive were crossed with female mice heterozygous for the floxed Dag1 allele. When bred to mice with a cre recombinase gene under the control of the Myf5 promoter of interest, exon 2 of the Dag1 gene is deleted in skeletal muscle.

Matriglycosylation motif mutant transgenic mice

The transgenic mice were generated by using a CRISPR-Cas9 system according to previous publications (*6*).

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C57BL/6J mice were purchased from The Jackson Laboratory (000664; Bar Harbor, ME). Male mice older than 8 weeks were used to breed with 3-5 weeks old super-ovulated females to produce zygotes for electroporation. Female ICR (Envigo; Hsc:ICR(CD-1)) mice were used as recipients for embryo transfer. All animals were maintained in a climate-controlled environment at 25°C and a 12/12 light/dark cycle. Animal care and procedures conformed to the standards of the Institutional Animal Care and Use Committee of the Office of Animal Resources at the University of Iowa.

Chemically modified CRISPR-Cas9 crRNAs and CRISPR-Cas9 tracrRNAs were purchased from IDT (Alt-R® CRISPR-Cas9 crRNA; Alt-R® CRISPR-Cas9 tracrRNA (Cat# 1072532)). The crRNAs and tracrRNA were suspended in T10E0.1 and combined to 1 µg/µl (~29.5 µM) final concentration in a 1:2 (weight-to-weight) ratio. The RNAs were heated at 98°C for 2 minutes and allowed to cool slowly to 20°C in a thermal cycler. The annealed cr:tracrRNAs were aliquoted to single-use tubes and stored at -80°C.

Cas9 nuclease was also purchased from IDT (Alt-R® S.p. HiFi Cas9 Nuclease). Individual Cr:tracr:Cas9 ribonucleoprotein complexes were made by combining Cas9 protein and cr:tracrRNA in Opti-MEM (Gibco; 31985062; final concentrations: 1 µg/µl (~6.2 uM) Cas9 protein and 0.6 µg/µl (~17.7 µM) cr:tracrRNA). The Cas9 protein and annealed RNAs were incubated at 37°C for 10 minutes. The RNP complex was mixed with repair oligo (IDT ultramer) resulting in final concentrations of 100 ng/ul (~0.62 µM) Cas9 protein and 60 ng/ul (~1.8 µM) cr:tracrRNA and 0.5 µg/µl donor oligo.

Pronuclear-stage embryos were collected using described methods (*6*). Embryos were collected in KSOM media (Millipore; MR101D) and washed 3 times to remove cumulous cells. The embryos were treated for 10 seconds in acid Tyrode's solution (Sigma; T1788) to weaken

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the zona. The embryos were then washed 5 times with Opti-MEM and 25-30 were aligned between the electrodes of a slide glass plate electrode with a 1 mm gap and platinum leads. The acid-treated embryos were overlayed with the electroporation mix and electroporated for 7 cycles at 30V (3 msec on:100 msec off). Electroporation was performed using an ECM830 square wave electroporator (BTX). Embryos were immediately implanted into pseudo-pregnant ICR females.

PCR-genotyping and Sanger sequencing was done to identify founders with the intended DAG1 mutations.

Dag1_T377A_T379A_CrA ATTATTCAGACCCCAACTCT

Dag1_T377A_T379A_CrB CAGAGTTGGGGTCTGAATAA

Dag1_T315A_T317A_CrX CCAATGGCAGTAACAGGTGT

Dag1_T315A_T317A_CrY GGCAGTAACAGGTGTAGGTG

Dag1_T377A_T379A_601 TAGTGCCTACGCCTACATCT

Dag1_T377A_T379A_602 GGACACTCGTGGCTTCTTT

Dag1_T315A_T317A_901 GCTGCTCCTTGAACCAGAATA

Dag1_T315A_T317A_902 TGCAATGGCTGGAGATGTAG

Dag1_T377A_T379A_Donor

AGGGATCCTGTTCCAGGGAAGCCCACGGTCACCATTCGGACGCGAGGTGCCATTATTCAGGCTCCTGCACTCGGCCCTATCCAGCCTACTCGGGTGTCAGAAGCTGGTACCACGGTTCCTGGCCAGATTCGC

Dag1_T315A_T317A_Donor

ACATTGCCAATAAGAAGCCCACTCTCCCCAAACGACTCCGGAGGCAGATCCACGCAGCACCTGCACCTGTTACTGCCATTGGACCCCCAACCACGGCCATTCAGGAGCCACCATCGCGGA

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Mass spectrometry-based glycan and glycopeptide analysis

Glycosidases Treatment

DG390 was deglycosylated by a mixture of β (1-3,4)-Galactosidase, β-N-Acetylhexosaminidase, O-glycanase, α (1-2,3,4,6) fucosidase and Sialidase A (all enzymes were purchased from Glyko/ProZyme, Inc.) in 100 mM ammonium acetated buffer (pH = 5.5) containing 1X MS-SAFE Protease and Phosphatase Inhibitor. Deglycosylated DG390 was lyophilized before further experiments.

Reductive Elimination

O-glycans were reductively eliminated from DG390 proteins and purified on a 50 W Dowex column according to published methods (*7*, *8*). Briefly, lyophilized DG390 was resuspended in 55 mg/mL potassium borohydride in 1 mL of a 0.1 M potassium hydroxide solution. The mixture was incubated overnight at 45 □C and quenched by adding 5-6 drops of acetic acid. The sample was loaded on the Dowex column and eluted with 5% acetic acid. The collected solution was concentrated and lyophilized before excessive borates were removed with 10% methanolic acetic acid under a stream of nitrogen.

Permethylation and deutero-permethylation

Three to five pellets per sample of sodium hydroxide were crushed in 3 mL dry dimethyl sulfoxide. The resulting slurry (0.75 mL) as well as iodomethane or iodomethane-d3 (500 µL) were added to the sample. The mixture was agitated for 60 minutes before quenched by adding 2 mL ultrapure water with shaking. Derivatized glycans were extracted with chloroform (2 mL) and washed with ultrapure water two more times before it was dried down under a stream of nitrogen.

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Before MS analysis, the derivatized glycans were dissolved in 50% methanol and loaded onto a preconditioned C18 Sep-Pak cartridge (Waters). The cartridge was washed with 5 mL ultrapure water and 3 mL of 15% acetonitrile before eluting by 3 mL of 50% acetonitrile. The purified glycans were lyophilized and dissolved in 10 µL of methanol. One µL of the solution was mixed with 1 µL of 20 mg/mL 3,4-diaminobenzophenone and analyzed by a Bruker ultrafleXtreme MALDI-TOF/TOF.

Glycoproteomics

Twenty µg of lyophilized deglycosylated DG390 was digested by 1 µg MS grade trypsin (Promega) in a 50 mM ammonium bicarbonate buffer (pH=8.4) for 8-10 hours at 37°C. The buffer was lyophilized before the tryptic peptides were dissolved in 10-20 µL of 0.1% formic acid. 1 µL of the solution was injected into an UltiMate™ NCS-3500 nanoLC (Thermo Fisher Scientific, US) coupled to an orbitrap Fusion Lumos mass spectrometer (Thermo Fisher Scientific, US). A two-solution (solution A: 0.1% formic acid; solution B: 80% acetonitrile, 0.1% formic acid) gradient was used to elute an Acclaim™ PepMap™ 100 C18 LC Columns (25 cm, 2 µm, 100Å, 75 µm, Thermo Fisher Scientific, US): 0-1% B in 8 minutes, 1-5% B in 1 minute, 5-60% B in 90 minutes and kept at 60% for another 6 minutes. The solution B was then elevated to 95% to wash the column for 5 minutes before coming back to 0%. The LC flow rate was 300 nL/minute, and a guard column was used to further desalt the samples. The column temperature was 45 □C.

MS methods were slightly modified for different samples according to instrumental status. Detailed methods are included in each raw data file. General methods used for routinely analysis are below. For MS, the mass spectrometer was operated under the positive mode. The spray voltage is 1900 V. The ion transfer line temperature is 275°C. MS resolution was set to 120K

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and the mass range was 400-2000 Da. The maximum injection time was 72 ms. The AGC target was 400000. S-lens RF level was 60. MS was active from 8 to 120 minutes.

For MS/MS, higher-energy collision dissociation (HCD) triggered collision-induced dissociation (CID), CID triggered electron transfer dissociation (ETD), EThcD triggered HCD, and HCD triggered MS3 modes were used. High resolution ETD dissociation was also tested but the data are of lower quality than EThcD. The trigger ions include 204.087, 366.140, 274.092, 163.094, 940.213, 632.134, and 418.110. The initial MS/MS were recorded by the orbitrap (resolution set to 30K), while triggered MS/MS were recorded by the ion trap. All MS/MS started recording from 100 Da. Isolation for Orbitrap was all set to quadrupole. Two microscans were accumulated to generate initial MS/MS spectra, while four were accumulated to generate triggered MS/MS spectra. For HCD triggered CID, HCD maximum injection time was 150 ms and the AGC target was 150000. A stepped HCD collision set to 26%, 28%, and 30% was used to dissociate glycopeptides. Triggered CID has an AGC target of 5000 and maximum injection of 75 ms. Activation time was 10 ms and Q value was 0.25. Stepped CID collisional energy was set to 33%, 35% and 48%. For CID triggered ETD, the maximum injection time for CID analysis was 150 ms, and the AGC target was 150000. A stepped CID collision was set to 33%, 35% and 37%. For the ETD, EThcD was active to facilitate fragmentation. AGC target was set to 10000 and maximum injection was 75 ms. For EThcD triggered HCD, EThcD MS/MS resolution was 200 ms and the AGC target was 200000. A hcD collision energy at 15% was used to facilitate ETD fragmentation. For the triggered HCD, a stepped HCD collision was set to 26%, 28% and 33%.

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Extracted ion chromatograms were generated by Skyline software. Protein deconvolution was done by Byonic Intact Mass software. All shown MS signals were found by a manual inspection of raw MS data.

Mass spectrometry-based proteomics

Protein in-gel digestion

Proteins were separated by 10-20% tris-tricine gel and in-gel digested according to a previous published protocol with modifications (*9*).

Briefly, gel pieces containing proteins were cut, transferred, and mashed into small pieces. The pieces were incubated in 500 µL of acetonitrile for 10 minutes until they shrunk. The shrunken pieces were incubated in 50 mM dithiothreitol (Roche) in 50 mM ammonium bicarbonate at 56°C for 30 minutes, washed with 500 µL acetonitrile, incubated in 100 mM iodoacetamide in dark at room temperature for 20 minutes, and washed with 500 µL acetonitrile.

The gel pieces were then incubated with 60 µL of a 50 mM ammonium bicarbonate solution of trypsin (MS grade, Promega) at 4°C for 90 minutes and incubated at 37°C overnight. The protease to protein ratio is roughly 1:50. The liquid in the tubes were collected before gel pieces were eluted by 100 µL of 66.6% acetonitrile in 0.1% formic acid. The solutions were combined and concentrated with a SpeedVac (Thermo Fisher Scientific, US).

Filter-aided sample preparation for proteomics of human fibroblasts

Human fibroblasts were cultured in Dulbecco's Modified Eagles Medium (DMEM, Thermo Fisher Scientific, US) supplemented with 20% fetal bovine serum (FBS, Thermo Fisher Scientific, US), 2% L-glutamine (Thermo Fisher Scientific, US), and 1% penicillin/streptomycin (Thermo Fisher Scientific, US). Cells were maintained in a humid 5% CO2 atmosphere at 37°C and were passaged using 1x trypsin-EDTA approximately every 2-3 days (when cells reached

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60-80% confluency). Fibroblasts were harvested by gently perturbing plates rinsed with 1x PBS. Fibroblast pellets were homogenized by adding a solution containing 4% SDS, 100 mM Tris (pH=8), 100 mM Dithiothreitol (DTT) at 95°C for 3 minutes. The follow-up filter-based protein digestion method was previous described (*10*). With the aid of the 30 KDa cut-off filter (Microcon), the solution was replaced by 8 M urea and disulfide bonds were blocked by iodoacetamide (IAA). The urea and IAA solutions were eventually exchanged into a 50 mM ammonium bicarbonate buffer, and the proteins were tryptic digested (Promega) at 37°C overnight. The digested samples were de-salted by classical C18 Sep-Pak cartridges (Waters).

Proteomics

The concentrated solutions were diluted to 2-3 mg/mL by 0.1% formic acid and 1 µL of the solution was injected into the same nanoLC-MS instrument. A two-solution (solution A: 0.1% formic acid; solution B: 80% acetonitrile, 0.1% formic acid) nanoLC gradient was used to elute an Acclaim™ PepMap™ 100 C18 LC Columns (25 cm, 2 µm, 100Å, 75 µm, Thermo Fisher Scientific, US): 0-1% B in 8 minutes, 1-5% B in 1 minute, 5-40% B in 200 minutes, 40-50% B in 5 minutes, 40-50% B in 5 minutes. The solution B was then elevated to 95% to wash the column for 5 minutes before coming back to 0%. The LC flow rate was 300 nL/minute. Column temperature was kept at 40°C. A guard column was used to further desalt the samples. The mass spectrometer was operated under the positive mode. The spray voltage is 1900 V. The ion transfer line temperature was 275°C. MS resolution was set to 120K and the mass range was 400-2000 Da. The maximum injection time was 72 ms. The AGC target was 4e5. S-lens RF level was 60. HCD MS/MS resolution was 30K. The maximum injection time was 75 ms. The AGC target was 1.2e5. The HCD collision energy was 28%. CID MS/MS was performed by linear ion

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trap, collisional energy was set to 35%, activation time set to 10 ms, and activation Q value was 0.25. MS/MS isolation offset was 1.6. MS was active from 8 to 240 minutes.

Data analysis

MS Raw data were processed by MaxQuant. The peptide and protein identification were determined by the MaxQuant built-in Andromeda engine (*11*) that searches raw data against a Uniprot human proteome. False discovery rate threshold was set to 1%. The MaxLFQ algorithm (*12*) was used for label-free proteome quantification. The minimum ratio count for quantification was set to 1, while the final list of protein quantifications was filtered for proteins with a minimum of two peptides for each protein. The 'Match Between Runs' feature was enabled. All statistics and bioinformatics were done by using Perseus (*13, 14*). For the two-sample test, we performed student t-test with a P value threshold of 5%. Missing values were replaced based on a normal distribution (width, 0.3; downshift, 1.8). Pearson correlation for **fig. s7a-c** was done by using Python.

Western blot and laminin overlay

Homogenization A TBS buffer containing 1% Triton-X, 10mM EDTA and proteinase inhibitors (leupeptin, pepstatin A, aprotinin and PMSF) was used to lyse mice tissues (brain, heart, kidney, and skeletal muscle) and cells. Skeletal muscle was minced with a scalpel and homogenized with a Kinematica PT2500 E Polytron. Heart and brain tissues were processed by a "beads beat" method using a Next Advance Bullet Blender. The tissue lysates were centrifuged at 20K xg, 4□ for 30 minutes, and the supernatants were collected.

Wheat-germ agglutinin (WGA) affinity chromatography. Tissue and cell lysates supernatants were added to WGA-agarose resin. The mixtures were rotated overnight at 4□. The

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resin was then washed three times with 0.1% Triton X-100. The slurry was combined with SDS-loading dye and the sample heated for 10 minutes at 99□.

SDS-PAGE

Proteins were resolved on homemade 3-15% polyacrylamide gradient gels in SDS-glycine buffer for either 6 hours at 200 V or 16 hours at 60 V at room temperature. The proteins were transferred to Immobilon-FL (Millipore IPFL00010).

Western blotting

Membranes were blocked in either 2% skim milk in low-salt TBS-T or fish gelatin and incubated with antibodies against matriglycan (IIH6), dystroglycan (AF6868 or 199768), or laminin overlay. Antibodies against matriglycan (IIH6) and dystroglycan (AF6868) were made in house. Mouse laminin111 and its antibody used for laminin overlay was purchased from Thermo Fisher Scientific (23017015) and Sigma-Aldrich (L9393).

Rescuing myf5-Cre/DAG1 KO mice with AAV2/9CMV mDag1

Myf5 cre + flox DAG1 mice at 2-7 days of age were injected with one dose of 10 uL of AAV vectors (1.8 – 5.1 × 10e11 vg) via the retro-orbital sinus. Retro-orbital injections are administered in pups with a 31-gauge, 0.3125-inch needle attached to a 0.3 ml insulin syringe (BD Ultra-Fine II, Becton, Dickinson and Co., Franklin Lakes, NJ). To carry out the injections, we use a dissecting microscope with a fiber optic point source light source. Sunflower seeds were added to the cage after injection to reduce cannibalism.

AAV2/9CMV mDag1 n=16

AAV2/9CMV mDag1 T315A,T317A n=6

AAV2/9CMV mDag1 T377A, T379A n=6

AAV2/9CMV mDag1 T315A,T317A T377A, T379A n=6

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Forelimb grip strength test

The methods were previously described (*1*). Mice were first weighed on a Scout scale (OHAUS CORPORATION in Parsippany, NJ). Mice were then brought to rigid wire grid about 4in. x 4in. in size. This rigid wire grid is attached to a Chatillon E-DFE-002 Force Gauge (Columbus Instruments, Columbus, OH) at a 45-degree angle. The mouse is then allowed to grasp the rigid wire grid with just two forelimbs; trials in which the mouse gripped with one limb, or more than 2 limbs were rejected. The mouse was then gently and steadily pulled back until its grip was broken from the grid; the attached force gauge registers the highest force exerted by the mouse on the pull; this value is recorded. The grip of the mouse and the gentle pull are then immediately repeated 2 more times for a total of 3 times per session. After a session, the mouse was allowed to rest for 1 minute, and 4 more sessions were conducted, for a total of 15 pulls, 5 sessions. The three highest force (in grams) exerted by the mouse were averaged to find the final grip strength of the mouse. Ten–fourteen-week-old mice were (n=6 for each group) used. Statistics were calculated using GraphPad Prism software and two-sided Student's unpaired t-test or one-way ANOVA were used. Differences were considered significant at a p-value less than 0.05.

Statistics were calculated using GraphPad Prism software and one-way ANOVA was used. Differences were considered significant at a p-value less than 0.05.

Measurement of muscle function *in vitro*

To compare the contractile properties of muscles, extensor digitorum longus (EDL) muscles were surgically removed as described previously (*15–17*). The muscle was immediately placed in a bath containing a buffered physiological salt solution (composition in mM: NaCl, 137; KCl, 5; $CaCl_2$, 2; $MgSO_4$, 1; NaH_2PO_4, 1; $NaHCO_3$, 24; glucose, 11). The bath was maintained

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at 25°C, and the solution was bubbled with 95% O_2 and 5% CO_2 to stabilize pH at 7.4. The proximal tendon was clamped to a post and the distal tendon tied to a dual mode servomotor (Model 305C; Aurora Scientific, Aurora, ON, Canada). Optimal current and whole muscle length (L_0) were determined by monitoring isometric twitch force. Optimal frequency and maximal isometric tetanic force (F_0) were also determined. The muscle was then subjected to an eccentric contraction (ECC) protocol consisting of eight eccentric contractions (ECCs) at 3-minute intervals. A fiber length L_f-to-L_0 ratio of 0.45 was used to calculate L_f. Each ECC consisted of an initial 100 millisecond isometric contraction at optimal frequency immediately followed by a stretch of Lo to 30% of L_f beyond Lo at a velocity of 1 L_f/s at optimal frequency. The muscle was then passively returned to L_o at the same velocity. At 3, 15, 30, 45, and 60 minutes after the ECC protocol, isometric tetanic force was measured. After the analysis of the contractile properties, the muscle was weighed. The CSA of muscle was determined by dividing the muscle mass by the product of L_f and the density of mammalian skeletal muscle (1.06 g/cm3). The specific force was determined by dividing F_o by the CSA (kN/mm2). For AAV rescued mice, n = 5 to 8 muscles used for each analysis. For transgenic mice, n=5 to 11 muscles used for each analysis. Each data point represents an individual EDL. Statistics were calculated using GraphPad Prism software and two-sided Student's unpaired t-test or one-way ANOVA were used. Differences were considered significant at a p-value less than 0.05.

NMJ imaging and quantification

Upon harvest, Extensor digitorum longus (EDL), Tibias anterior (TA), and Soleus (SOL) were washed in Phosphate Buffered Saline (PBS) 3 times for 5 minutes each time. Each muscle group was fixed in 4% paraformaldehyde in PBS for 20 minutes then followed by 3 washes with PBS. Fixed muscle was split apart into muscle fiber bundles then incubated in 3% Triton X-100

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in PBS for 3 hours at room temperature. Muscle bundles were washed in PBS for 5 minutes, then incubated in Background Buster (Innovex; NB306) for 4 hours at room temperature. The muscle bundles are washed with PBS for 5 minutes then incubated with Alexa Fluor 488-conjugated α-bungarotoxin (α-BTX) (Invitrogen; B13422) diluted in 5% background buster at 1:500 ratio for 2 hours. Muscle bundles were then washed for 4 hours in PBS exchanging the buffer every 30 minutes at room temperature. Images were acquired using an Olympus FLUOVIEW FV3000 confocal laser scanning microscope. Complete en face NMJs were identified and acquired with Z-stacks using 100x objectives. Maximum intensity Z-stacks were reconstructed with the FV31S (Olympus) software. Observer analyzes a-BTX-488-labeled acetylcholine receptor (AChR) cluster formations to determine irregularities, fragmentation, synaptic size, and dispersion. Irregularities such as AChR plaques, AChR perforated plaques, ring-shaped or c-shaped clusters, and extensive fragmentation were scored. C-shaped, or ring-shaped NMJs receive a score of 1, fragmented NMJs receive a score of 2, perforated NMJs receive a score of 3, and plaque NMJs receive a score of 4. If more than one irregularity is identified in an NMJ, then the score is the sum of the individual scores (e.g. ring shaped (1) + perforated (3) + plaque (4) = 7). Fragmentation was determined by the number of identifiable individual AChR clusters within the footprint of the a-BTX-488-labeled AChR cluster. Fiji ImageJ software was used for semi-automatic analysis of AChR clusters. Synaptic size refers to the total area of the AChR footprint identified by a-BTX-488-labeled AChR. AChR cluster dispersion was determined by the following equation: total stained area/total area*100. GraphPad Prism was used to quantitate irregular %, fragments, synaptic size, and AChR cluster dispersion.

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H&E and immunofluorescence

The H&E and immunofluorescence cryosections were cut at 10 microns on a Leica CM3050S Research Cryostat then put on Superfrost Plus Microscope Slides (Fisher Scientific, Pittsburgh, PA), and airdried at room temperature for 20 minutes before slides were stained. For H&E, slides were fixed in 10% Neutral Buffered Formalin for 5 minutes, washed in dH_2O 3x5 minutes, 1 minute in Hematoxylin (Leica SelecTech 560, Richmond, IL), washed in dH_2O x3 on/off, 0.5 % acid alcohol for a quick dip, washed in dH_2Ox 3 on/off, Scott's Tap water for 1 minute, washed in dH_2O, 80% ethyl alcohol for 1 minute, Eosin (Leica SelecTech 515LT, Richmond, IL) for 20 seconds, dehydrated through a series of 95-100% ethyl alcohol, xylene 3 x 1 minute, mounting medium (Permount ThermoFisher Scientific, UK) and cover slipped (Leica Surgipath coverglass, LeicaBiosystems.com). For Immunofluorescence, slides were washed in 1xPBS for 5 minutes, placed in 1:1 methanol/acetone (precooled to -20°C) for 10 minutes in a flammable storage freezer set at -20°C, washed in 1xPBS, 3x10 minutes, blocked in Background Buster (Innovex Biosciences, Richmond, CA) overnight then washed in 1xPBS, 2x2 minutes before incubation in primary antibodies. The first primary antibody that was used was a mouse monoclonal antibody IIH6 to matriglycan on alpha-dystroglycan (αDG; 1:25; Campbell Laboratory, University of Iowa), was incubated overnight at 4□°C in a humid chamber, washed in 1xPBS for 3x10 minutes followed by secondary antibody Alexa Fluor-conjugated 488 goat anti-mouse IgM (1:500; Invitrogen Thermo Fisher Scientific, Waltham, MA) for 40 minutes in the dark, washed in 1xPBS 3x10 minutes then mounting medium, (ProLong Gold Antifade Mountant, Thermo Fisher Scientific, Waltham, MA) was added and slides were cover slipped (Surgipath coverglass, LeicaBiosystems.com) and dried 24 hours before imaging. Another primary antibody used was affinity purified βDG rabbit polyclonal AP83 (1:50; Campbell

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Laboratory, University of Iowa) followed by Alexa-Fluor-conjugated 555 goat anti-rabbit IgG (1:500; Invitrogen Thermo Fisher Scientific, Waltham, MA). The steps for this primary and secondary antibody were the same as stated above for the other primary and secondary antibody used. Digital images of stained sections were captured with a VS120-S5-FL Olympus slide scanner upright microscope (Olympus Cooperation, Tokyo, Japan). For measuring fiber radius, rabbit polyclonal anti-collagen VI primary antibody (1:100, Fitzgerald Industries International) and goat anti-Rabbit IgG (H+L) secondary antibody (1:500, Alexa Fluor™ Plus 647, Thermo Fisher Scientific) were used to visualize collagen VI. Monoclonal primary antibody (1:200, A7L6, Thermo Fisher Scientific) and the goat anti-rat IgG (H+L) secondary antibody (1:250, Alexa Fluor™ 488, Thermo Fisher Scientific) were used to visualize perlecan. The slides were dried for 10 minutes, washed in PBS for 5 minutes, and blocked by 3%BSA in PBS for 30 minutes at room temperature. The primary antibodies were added in PBS containing 1% BSA, and the slides were incubated in the mixture at 4°C overnight. The slides were then washed 5 minutes in PBS three times, incubated with PBS containing 1% BSA and the secondary antibodies for 30 minutes, and washed with PBS three times at room temperature. The slides were stored in dark, and images were collected by using SlideScanner 24 hours later. Feret's diameter of muscle fibers was measured with VS-DESKTOP software (Olympus).

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Ethics

Animal experimentation: This study was performed in strict accordance with the recommendations in the Guide for the Care and Use of Laboratory Animals of the National Institutes of Health. All animal experiments were approved by the Institutional Animal Care and Use Committee (IACUC) protocols of the University of Iowa (#0081122).

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Figures

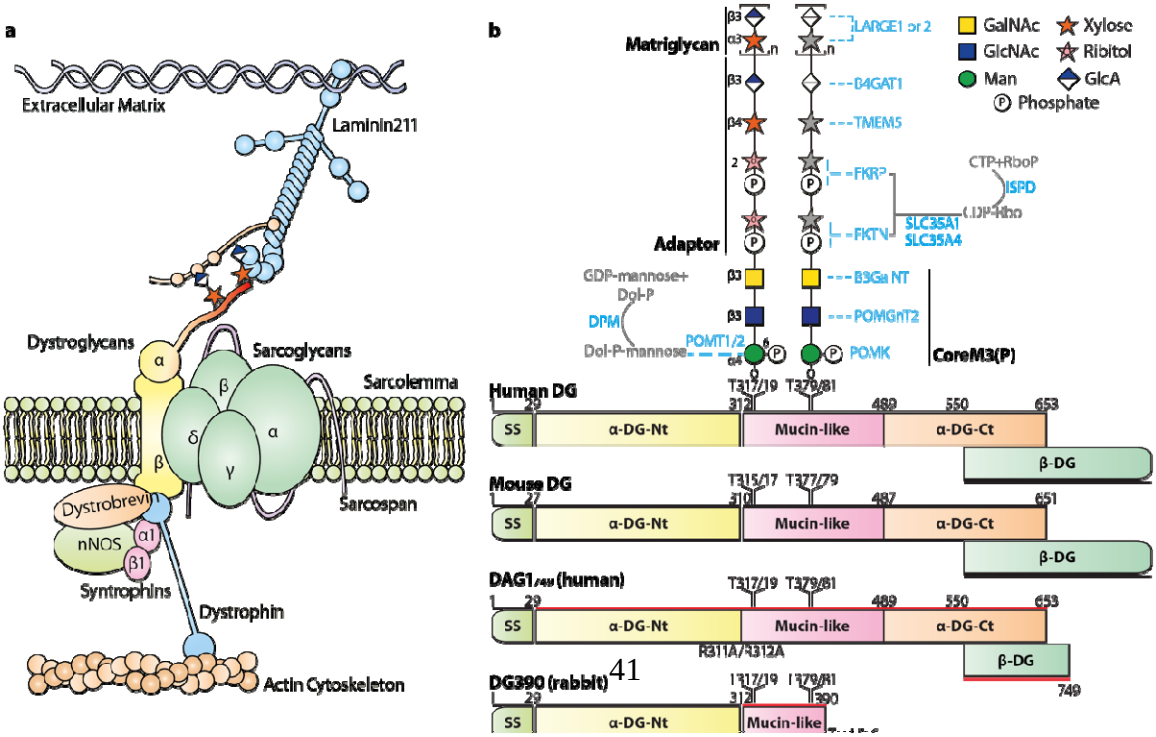

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Fig.1. Dystroglycan complex. (**a**) A laminin-matriglycan-dystroglycan complex-dystrophin-actin axis plays a central role in bridging the plasma membrane and extracellular matrix. (**b**) The dystroglycan polypeptide chain auto-cleaves into DG N-terminus (DG-Nt), α- and β-DG. α-DG has two domains, a mucin-like domain presenting the matriglycan and a C-terminal domain (α-DG-Ct) binding to β-DG. α-DG is highly conserved in different organisms. The "most prominent" difference between human and mice is the two amino acid difference between their signal sequences (SS). Matriglycosylation requires a cooperation of multiple enzymes (colored blue). Previous research revealed two TPT motifs on α-DG can carry coreM3 *O*-glycan. The matriglycan links on the T317T319 motif coreM3 via a ribitol-phosphate containing adaptor. It was not known if the T379T381 coreM3 is extended into the matriglycan.

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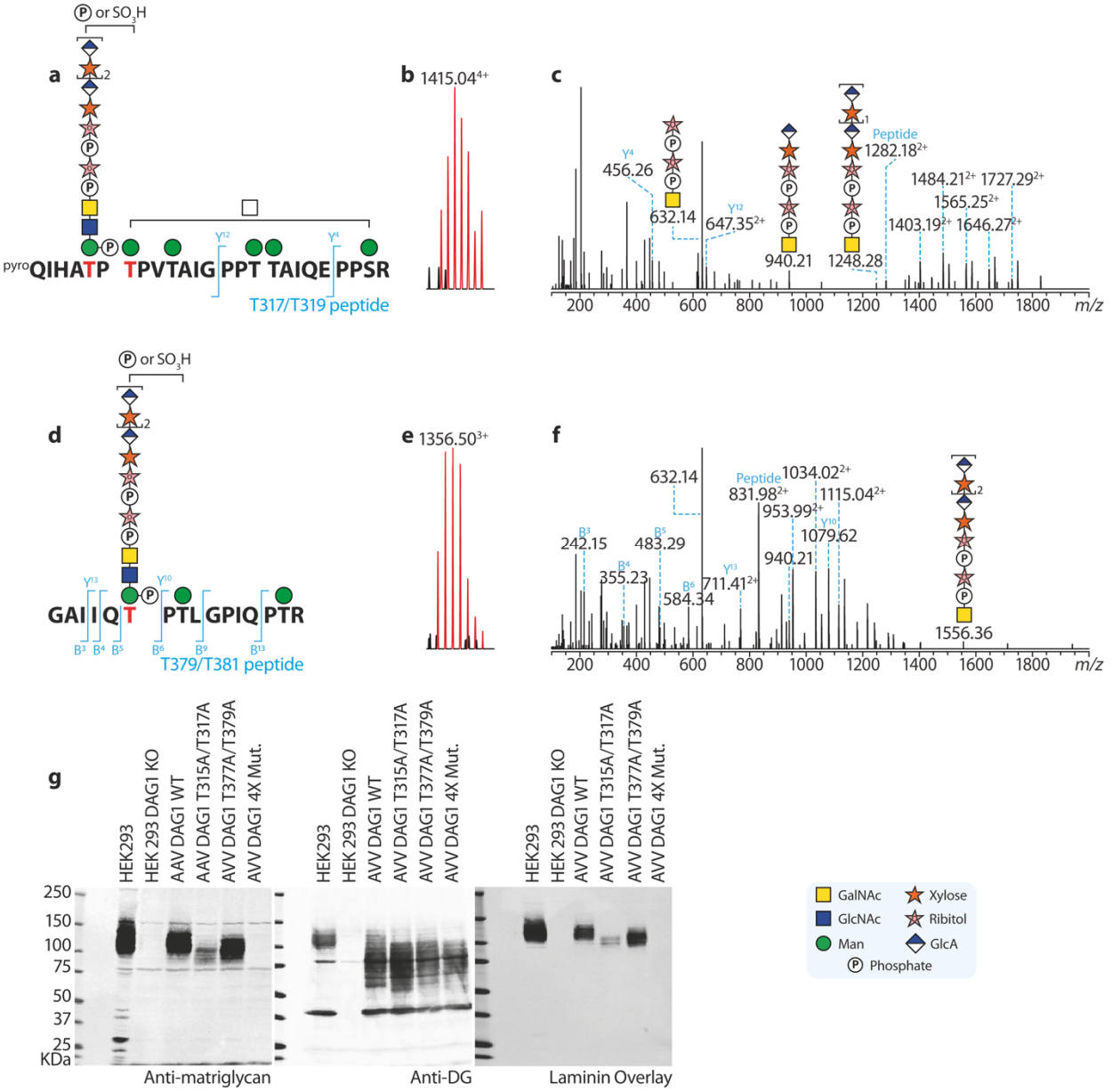

Fig. 2. Mapping of T317T319 motif (a-c) and T379T381 (d-f) matriglycan motifs. (**a**) and (**d**) Diagrams showing structures of two matriglycosylated peptides. (**b**) and (**e**) MS signals of the glycopeptides in (**a**) and (**d**). (**c**) and (**f**) MS/MS spectra of the correspondence MS signals. Both peptide and matriglycan fragment ions were detected, confirming the glycopeptides carries matriglycans. There are only two matriglycan motifs detectable by MS. (**g**) Immunoblotting and laminin overlay assays supporting the exitance of only two matriglycan motifs in HEK cells. For immunoblotting, antibodies against both matriglycan and DG backbone were used. The blots indicate the T379T381 motif carries a shorter matriglycan than the T317T319 motif.

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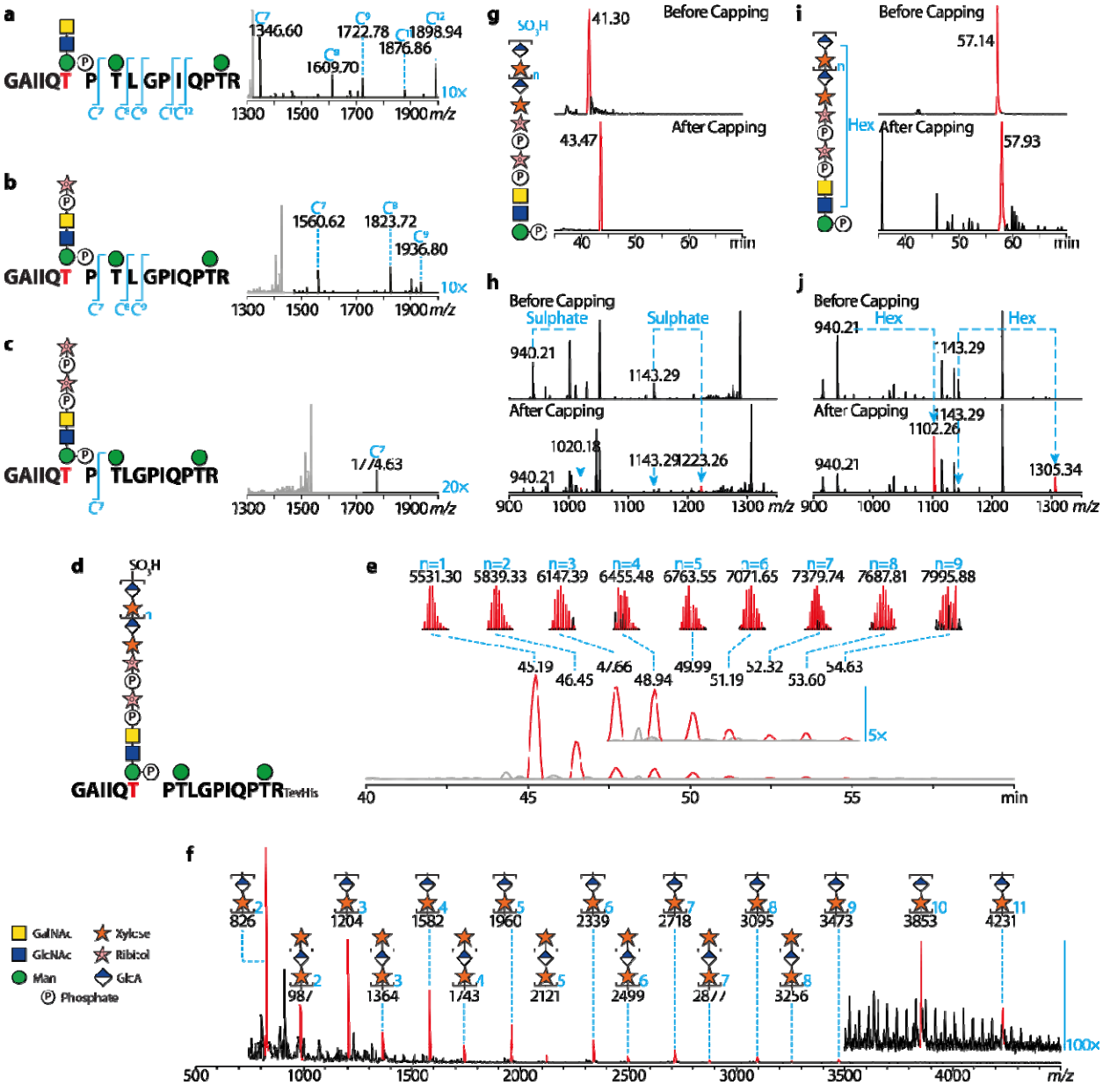

Fig. 3. MS investigation of the T379 matriglycan. Electron transfer dissociation (ETD) confirming T379 as the main carrier of the matriglycan in the T377T379 motif (**a-c**). Fragmentation of the peptide backbones are annotated at the left of the correspondence MS/MS spectra. Because of the low ETD efficiency, black regions of the spectra are amplified by 10 or 20-fold. MS detected the T379 matriglycan repeats for up to nine times (**d-f**). (d) A diagram of T379 glycopeptides carrying extended matriglycans. (**e**) Overlayed XICs of MS signals on T379 glycopeptides carrying matriglycans with different disaccharide unit numbers. The XIC peaks are annotated with retention times, MS signals of the glycopeptide ions, molecular weights of the ions and disaccharide repeating numbers (colored blue). Note the heights of the XIC peaks are normalized to the same level and they do not represent relative intensities. (**f**) LARGE1 assay *in vitro*. MALDI-TOF profile of permethylated LARGE1 products are shown. MS signals

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corresponding to sodiated permethylated matriglycans are colored red and annotated with glycan structures. Higher molecular weight region of the spectrum is amplified by 100-fold. The matriglycans can be capped by a sulphate group (**g and h**) or hexose residue (**i and j**). The XIC peaks shown in (**g**) and (**h**) are colored red and annotated with retention times. EThcD spectra detected the sulphate (**i**) and hexose (**j**) caps on the *m/z* 940.21 fragment ions (structure annotated in Fig. 1c).

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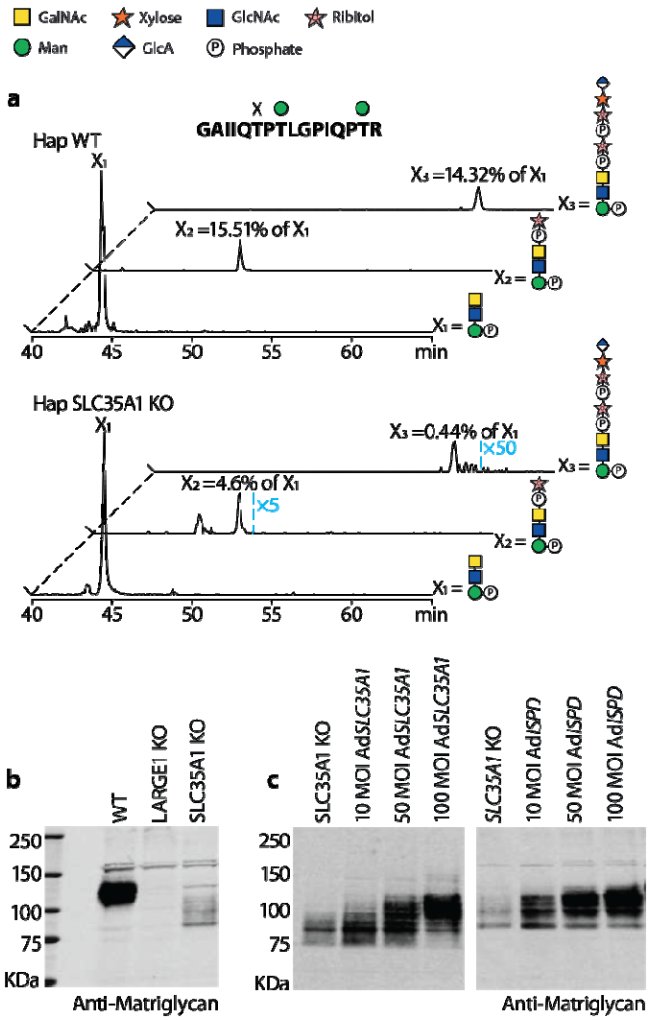

Fig. 4. SLC35A1 functions as a ribitol-phosphate transporter. (**a**) Extracted ion chromatograms of the T379T381 glycopeptides containing coreM3 (X_1), RboP-coreM3 (X_2) and $(RboP)_2$-coreM3 (X_3) in WT (upper panel) and SLC35A1 KO (lower panel) haploid (Hap) cells. The RboP containing peaks (X_2 and X_3) in SLC35A1 KO cells are amplified by 5 and 50 times, and the roughly 70% and 97% reduction in their intensity relative to the coreM3 (X_1) peak strongly indicates the biosynthesis of the matriglycan halted at the step of RboP addition. The relative intensities are the calculated ratios between the integrated area under the RboP containing peaks and the coreM3 peak. Immunoblotting indicates the SLC35A1 KO leads to a dramatic downregulation of matriglycan (**b**), adenoviral vectors encoding SLC35A1 or ISPD can rescue the matriglycan phenotype (**c**).

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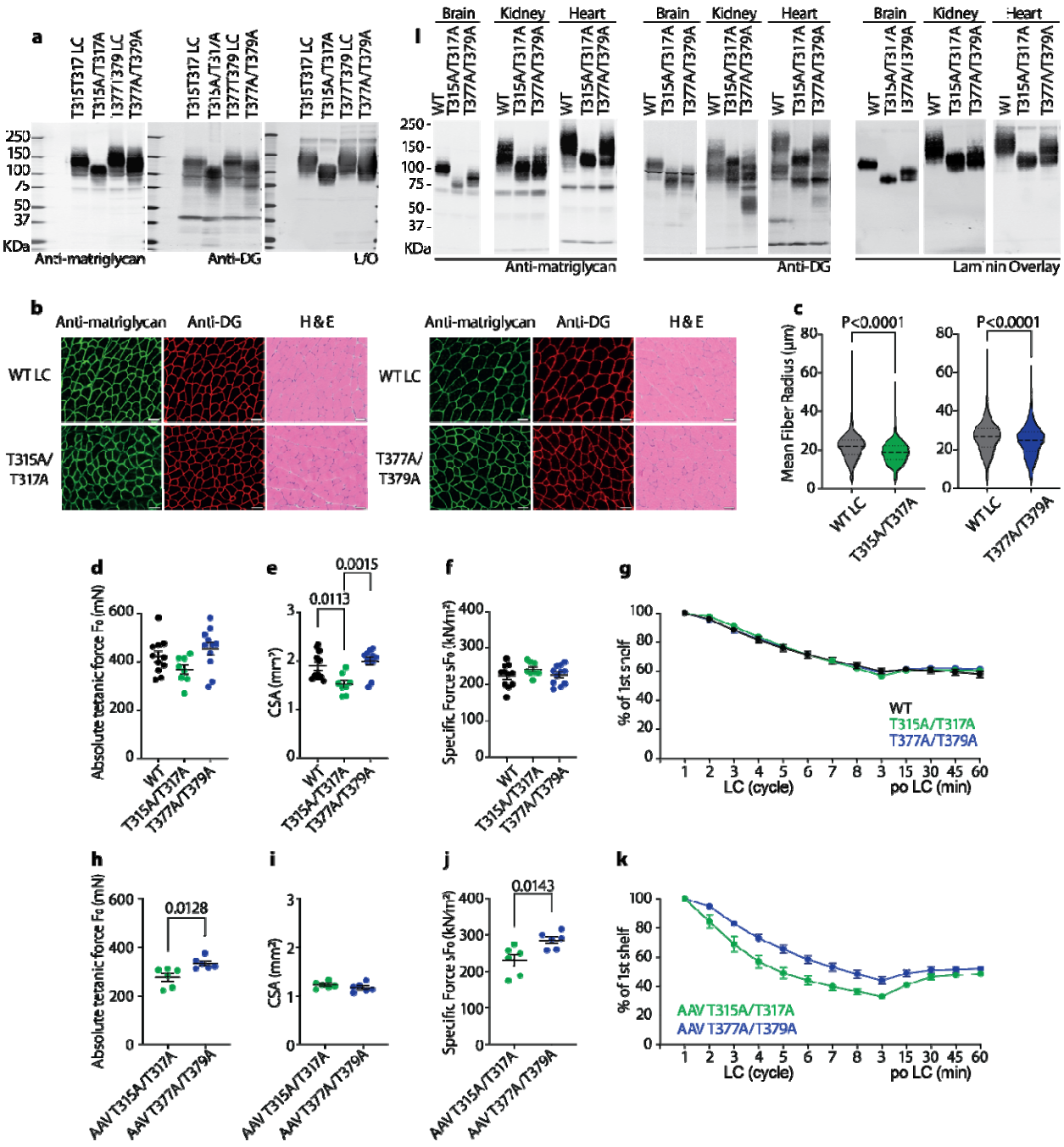

Fig. 5. Both MS determined matriglycan motifs exist and functional *in vivo*. (**a**) Immunoblotting and laminin assays of the WGA-enriched skeletal muscle suggest both motifs can be modified by the matriglycan and the T377T379 matriglycan is shorter in skeletal muscle. (**b**) Both of the transgenic mice show no apparent muscle pathology as proved by IF and H&E stain, indicating both are functionally sufficient to maintain a healthy muscle. (**c**) Fiber size is slightly reduced in skeletal muscle from mice with a single matriglycan compared to their litter mates. (**d-g**) Extensor digitorum longus (EDL) from mice with a single matriglycan showed similar absolute tetanic (F_0) and specific (sF_0) forces and injuries caused eccentric contraction (ECC) to WT mice. The only observed difference is the slightly altered cross-sectional area

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(CSA). (**h-k**) DAG1KO muscle rescued by AAV T315A/T317A DAG1 has similar CSA (**i**) but slightly lower F_0 (**h**) and sF_0 (**j**) compared to that rescued by AAV T377A/T379A DAG1. The former muscle is also more susceptible to ECC-induced injuries (**k**). (**l**) The two motifs also exist in tissues beyond muscle as showed by the immunoblotting and laminin assays of the WGA-enriched brain, kidney, and heart lysates. The T377T379 matriglycan is consistently shorter. P values for (**k**) are summarized in **sTable5**.

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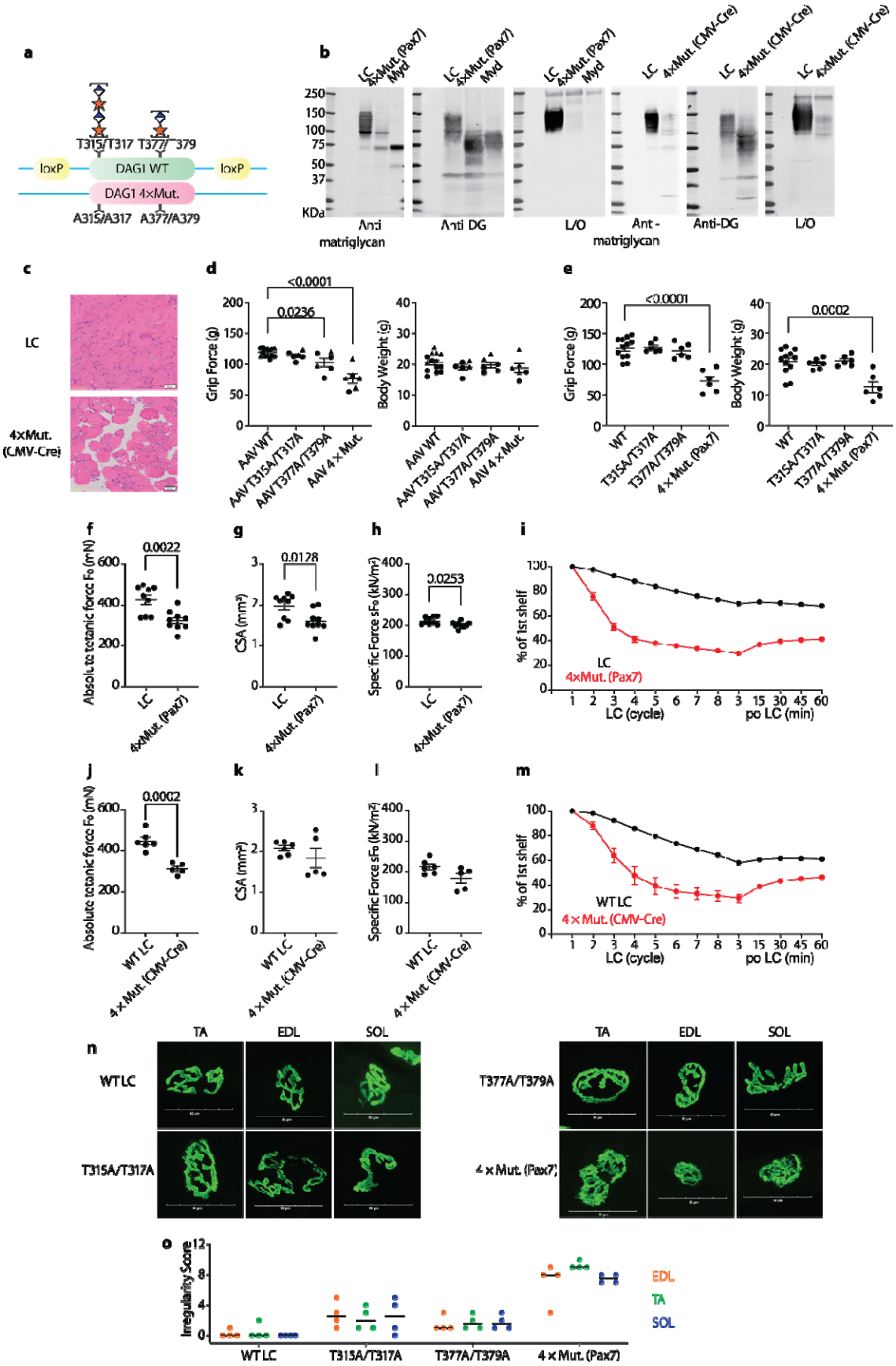

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Fig. 6. Mutation of both matriglycans in skeletal muscle leads to muscular disorders. (**a**) Diagrams illustrating alleles of heterozygous mice carrying floxed WT DAG1 and DAG1 4X mutant. The Floxed DAG1 can be KO by breeding with pax7 Cre or by injecting AAV Cre (**b**). The KO leads to pathologic muscle as shown by H&E stain (**c**). When both matriglycosylation sites get mutated, forelimb grip force (**d-e**), absolute tetanic (F_0) and specific (sF_0) forces (**f-h, j-l**) are all reduced, while muscles are more susceptible to ECC-induced injuries (**i and m**). Mice with T315A/T317A, T377A T379A, and Pax7 Cre DAG1 result in post-synaptic defects. Neuromuscular junctions from TA, EDL, and SOL muscles were obtained from 10-14-week-old mice. (**n)** Representative images of post-synaptic terminals (α-BTX-488) from TA, EDL, and SOL muscles. Scale bars = 50 μm. (**o**) Dot chart of irregularity score for post-synaptic defects (scoring criteria described in Materials and Methods). P values for (**i**) and (**m**) are summarized in **sTable5**.

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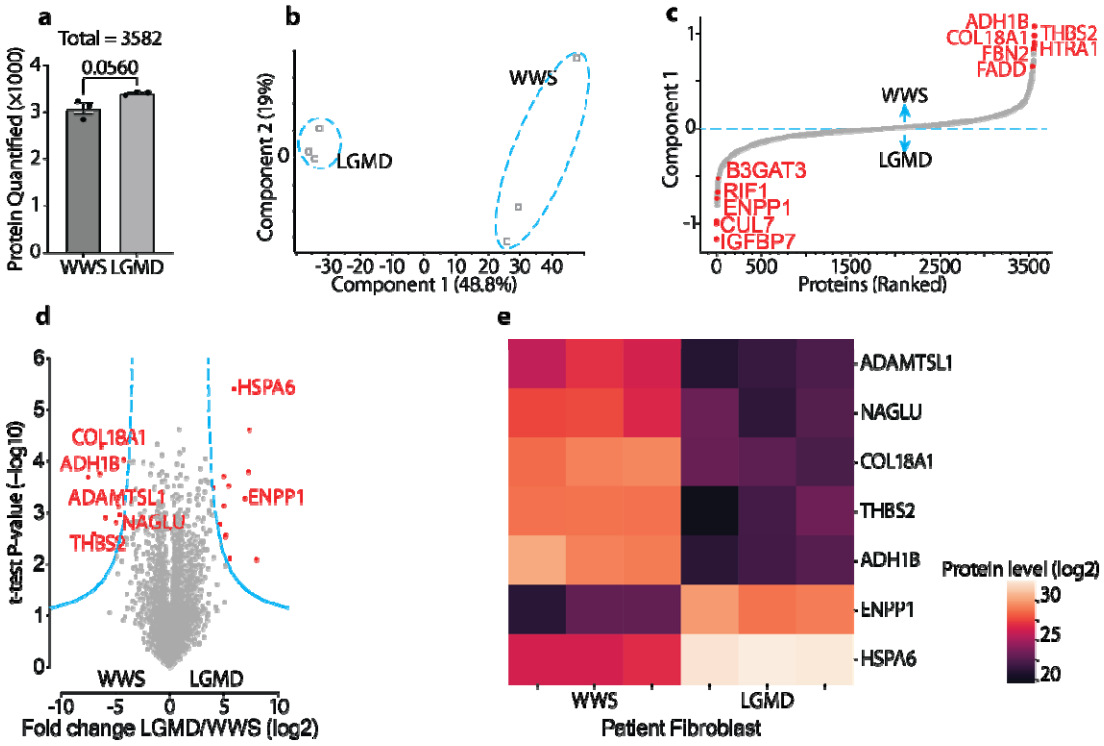

Fig. 7. Label free, quantitative proteomics of primary fibroblast indicates ECM modulation by matriglycans. (**a**) Number of unique proteins quantified by MaxLFQ from each group of diseases (n = 3 patients for each disease). (**b**) Principal component analysis (PCA) groups limb-girdle muscular dystrophy (LGMD) and Walker-Warburg Syndrome (WWS) samples. (**c**) Ranking of proteins by expression in WWS cells versus LGMD cells shows WWS proteomes characterized of extracellular matrix proteins. (**d**) Volcano plots comparing LGMD and WWS cells screened out 25 significantly differentially expressed proteins (n red). Two-sided t-test FDR < 0.01. Seven proteins mainly expressed by fibroblast in skeletal muscle are annotated with gene names. (**e**) Heat map of the seven proteins differentially expressed in the patients' fibroblasts. A dark purple color presents a low expression while bright beige color presents a high expression.

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TABLE 1

Prot. Rank	Protein Name	|Log Prob|	Best |Log Prob|	Best Score	# Spectra	# Uniq. Peps.	# Mod Peps.	% Cov.	# AAs	Intensity
1 | 1	**>sp|Q28685|DAG1_RABIT Dystroglycan OS=Oryctolagus cuniculus GN=DAG1 PE=1 SV=1**	**280.15**	**13.58**	**942.9**	**194**	**68**	**40**	**47.5**	**870**	**1.989e+08**
2 | 2	>sp|P04264|K2C1_HUMAN Keratin, type II cytoskeletal 1 OS=Homo sapiens OX=9606 GN=KRT1 PE=1 SV=6	167.57	19.31	1177.5	46	25	5	31.8	644	3.151e+07
3 | 3	>sp|P13645|K1C10_HUMAN Keratin, type I cytoskeletal 10 OS=Homo sapiens OX=9606 GN=KRT10 PE=1 SV=6	161.34	16.55	1021.4	46	29	7	39.6	584	2.927e+07
4 | 4	>sp|P08670|VIME_HUMAN Vimentin OS=Homo sapiens OX=9606 GN=VIM PE=1 SV=4	160.22	11.58	790.9	39	28	11	59	466	2.132e+07
5 | 5	>sp|P0DMV8|HS71A_HUMAN Heat shock 70 kDa protein 1A OS=Homo sapiens OX=9606 GN=HSPA1A PE=1 SV=1	90.79	11.44	792.5	23	14	3	25.1	641	1.099e+07
6 | 6	>sp|P35908|K22E_HUMAN Keratin, type II cytoskeletal 2 epidermal OS=Homo sapiens OX=9606 GN=KRT2 PE=1 SV=2	77.49	11.26	789.6	19	16	2	24.9	639	2.069e+07
7 | 7	>sp|P60709|ACTB_HUMAN Actin, cytoplasmic 1 OS=Homo sapiens OX=9606 GN=ACTB PE=1 SV=1	75.41	12.44	818.7	20	11	5	37.1	375	1.232e+07
8 | 8	>sp|P07437|TBB5_HUMAN Tubulin beta chain OS=Homo sapiens OX=9606 GN=TUBB PE=1 SV=2	59.12	10.39	734.3	25	9	4	19.1	444	1.042e+07
9 | 9	>sp|P14618|KPYM_HUMAN Pyruvate kinase PKM OS=Homo sapiens OX=9606 GN=PKM PE=1 SV=4	55.26	10.26	716	11	9	2	22.2	531	3.150e+06
10 | 10	>sp|Q71U36|TBA1A_HUMAN Tubulin alpha-1A chain OS=Homo sapiens OX=9606 GN=TUBA1A PE=1 SV=1	50.15	10.26	703.7	14	10	3	24.4	451	5.615e+06
11 | 11	>sp|P07900|HS90A_HUMAN Heat shock protein HSP 90-alpha OS=Homo sapiens OX=9606 GN=HSP90AA1 PE=1 SV=5	49	11.47	792.7	15	10	1	15.3	732	6.615e+06
12 | 12	>sp|P07355|ANXA2_HUMAN Annexin A2 OS=Homo sapiens OX=9606 GN=ANXA2 PE=1 SV=2	48.46	8.52	692.3	8	8	1	28.6	339	2.562e+06
13 | 13	>sp|P11021|BIP_HUMAN Endoplasmic reticulum chaperone BiP OS=Homo sapiens OX=9606 GN=HSPA5 PE=1 SV=2	48.05	13.14	810.1	7	7	2	13.6	654	2.147e+06
14 | 14	>sp|O95461|LARG1_HUMAN LARGE xylosyl- and glucuronyltransferase 1 OS=Homo sapiens OX=9606 GN=LARGE1 PE=1 SV=1	47.16	8.26	613.6	13	12	6	19.6	756	3.913e+06
15 | 15	>sp|P25705|ATPA_HUMAN ATP synthase subunit alpha, mitochondrial OS=Homo sapiens OX=9606 GN=ATP5F1A PE=1 SV=1	38.6	11.73	815.7	9	7	1	14.5	553	1.931e+06
16 | 16	>sp|Q06830|PRDX1_HUMAN Peroxiredoxin-1 OS=Homo sapiens OX=9606 GN=PRDX1 PE=1 SV=1	36.06	8.08	637.6	8	8	2	33.2	199	3.489e+06
17 | 17	>sp|P14625|ENPL_HUMAN Endoplasmin OS=Homo sapiens OX=9606 GN=HSP90B1 PE=1 SV=1	34.93	6.18	557.8	9	9	1	11.5	803	3.021e+06
18 | 18	>sp|P11142|HSP7C_HUMAN Heat shock cognate 71 kDa protein OS=Homo sapiens OX=9606 GN=HSPA8 PE=1 SV=1	34.27	8.06	609.6	8	7	2	13.6	646	1.826e+06
19 | 19	>sp|P68104|EF1A1_HUMAN Elongation factor 1-alpha 1 OS=Homo sapiens OX=9606 GN=EEF1A1 PE=1 SV=1	33.27	9.86	749.3	6	6	1	10	462	4.910e+06
20 | 20	>sp|P02545|LMNA_HUMAN Prelamin-A/C OS=Homo sapiens OX=9606 GN=LMNA PE=1 SV=1	32.98	7.34	572.5	11	10	3	18.8	664	2.377e+06
21 | 21	>sp|P13639|EF2_HUMAN Elongation factor 2 OS=Homo sapiens OX=9606 GN=EEF2 PE=1 SV=4	32.66	10.3	741.9	7	7	0	8.6	858	2.157e+06
22 | 22	>sp|P04406|G3P_HUMAN Glyceraldehyde-3-phosphate dehydrogenase OS=Homo sapiens OX=9606 GN=GAPDH PE=1 SV=3	30.01	11.01	725.2	11	9	5	28.1	335	4.127e+06
23 | 23	>sp|P30101|PDIA3_HUMAN Protein disulfide-isomerase A3 OS=Homo sapiens OX=9606 GN=PDIA3 PE=1 SV=4	29.14	10.44	778.7	10	8	2	18.4	505	1.723e+06
24 | 24	>sp|P22314|UBA1_HUMAN Ubiquitin-like modifier-activating enzyme 1 OS=Homo sapiens OX=9606 GN=UBA1 PE=1 SV=3	28.55	6.26	476	8	7	1	8.7	1058	1.684e+06
25 | 25	>sp|P08238|HS90B_HUMAN Heat shock protein HSP 90-beta OS=Homo sapiens OX=9606 GN=HSP90AB1 PE=1 SV=4	27.2	9.08	719.5	7	7	0	9.4	724	1.748e+06
26 | 26	>sp|P13667|PDIA4_HUMAN Protein disulfide-isomerase A4 OS=Homo sapiens OX=9606 GN=PDIA4 PE=1 SV=2	26.78	7.13	591.5	9	8	4	14	645	1.504e+06
27 | 27	>sp|Q5QNW6|H2B2F_HUMAN Histone H2B type 2-F OS=Homo sapiens OX=9606 GN=HIST2H2BF PE=1 SV=3	26.21	9.02	748.5	6	6	3	35.7	126	4.857e+06
28 | 28	>sp|P21333|FLNA_HUMAN Filamin-A OS=Homo sapiens OX=9606 GN=FLNA PE=1 SV=4	24.72	6.94	556.6	8	7	0	3.8	2647	8.765e+05
29 | 29	>sp|P62805|H4_HUMAN Histone H4 OS=Homo sapiens OX=9606 GN=HIST1H4A PE=1 SV=2	23.74	10.29	718.4	7	3	1	29.1	103	5.192e+06
30 | 30	>sp|P02751|FINC_HUMAN Fibronectin OS=Homo sapiens OX=9606 GN=FN1 PE=1 SV=4	22.61	6.73	505.6	5	5	1	2.8	2386	9.352e+05
31 | 31	>sp|P63244|RACK1_HUMAN Receptor of activated protein C kinase 1 OS=Homo sapiens OX=9606 GN=RACK1 PE=1 SV=3	22.39	10.06	704.3	4	3	0	10.4	317	9.752e+05
32 | 32	>sp|P08865|RSSA_HUMAN 40S ribosomal protein SA OS=Homo sapiens OX=9606 GN=RPSA PE=1 SV=4	21.14	13.14	827.5	3	3	0	12.9	295	1.336e+06
33 | 33	>sp|P13647|K2C5_HUMAN Keratin, type II cytoskeletal 5 OS=Homo sapiens OX=9606 GN=KRT5 PE=1 SV=3	20.97	5.97	561.4	5	5	0	9	590	1.672e+06
34 | 34	>sp|P62937|PPIA_HUMAN Peptidyl-prolyl cis-trans isomerase A OS=Homo sapiens OX=9606 GN=PPIA PE=1 SV=2	20.54	6.07	546.9	7	7	3	33.9	165	2.552e+06
35 | 35	>sp|P40926|MDHM_HUMAN Malate dehydrogenase, mitochondrial OS=Homo sapiens OX=9606 GN=MDH2 PE=1 SV=3	20.4	10.42	737.9	4	4	2	13.3	338	1.217e+06
36 | 36	>sp|Q99519|NEUR1_HUMAN Sialidase-1 OS=Homo sapiens OX=9606 GN=NEU1 PE=1 SV=1	20.24	6.24	643.2	6	5	0	13	415	2.609e+06
37 | 37	>sp|P09651|ROA1_HUMAN Heterogeneous nuclear ribonucleoprotein A1 OS=Homo sapiens OX=9606 GN=HNRNPA1 PE=1 SV=5	19.86	8.32	674.5	4	4	0	13.4	372	1.989e+06
38 | 38	>sp|P60842|IF4A1_HUMAN Eukaryotic initiation factor 4A-I OS=Homo sapiens OX=9606 GN=EIF4A1 PE=1 SV=1	19.81	5.87	552.9	6	6	2	15.8	406	1.283e+06
39 | 39	>sp|P04075|ALDOA_HUMAN Fructose-bisphosphate aldolase A OS=Homo sapiens OX=9606 GN=ALDOA PE=1 SV=2	19.32	9.62	729.2	5	5	0	13.2	364	2.031e+06
40 | 40	>sp|Q00839|HNRPU_HUMAN Heterogeneous nuclear ribonucleoprotein U OS=Homo sapiens OX=9606 GN=HNRNPU PE=1 SV=6	19.15	8.72	649.6	8	8	2	8.6	825	1.549e+06
41 | 41	>sp|P62258|1433E_HUMAN 14-3-3 protein epsilon OS=Homo sapiens OX=9606 GN=YWHAE PE=1 SV=1	19.1	7.86	616.9	4	4	2	16.5	255	1.383e+06
42 | 42	>sp|Q92841|DDX17_HUMAN Probable ATP-dependent RNA helicase DDX17 OS=Homo sapiens OX=9606 GN=DDX17 PE=1 SV=2	18.69	5.03	433.8	6	6	2	9.2	729	9.855e+05
43 | 43	>sp|P06733|ENOA_HUMAN Alpha-enolase OS=Homo sapiens OX=9606 GN=ENO1 PE=1 SV=2	18.56	7.3	582.2	5	4	1	11.1	434	2.327e+06
44 | 44	>sp|P07237|PDIA1_HUMAN Protein disulfide-isomerase OS=Homo sapiens OX=9606 GN=P4HB PE=1 SV=3	18.54	10.85	746.6	3	3	2	7.5	508	6.238e+05
45 | 45	>sp|P07195|LDHB_HUMAN L-lactate dehydrogenase B chain OS=Homo sapiens OX=9606 GN=LDHB PE=1 SV=2	17.38	7.04	626.7	3	3	0	11.1	334	1.609e+06
46 | 46	>sp|P19338|NUCL_HUMAN Nucleolin OS=Homo sapiens OX=9606 GN=NCL PE=1 SV=3	17.25	4.78	474.7	5	5	0	6.8	710	1.078e+06
47 | 47	>sp|P30041|PRDX6_HUMAN Peroxiredoxin-6 OS=Homo sapiens OX=9606 GN=PRDX6 PE=1 SV=3	16.92	5.49	568	5	4	0	20.1	224	6.158e+05
48 | 48	>sp|P22626|ROA2_HUMAN Heterogeneous nuclear ribonucleoproteins A2/B1 OS=Homo sapiens OX=9606 GN=HNRNPA2B1 PE=1 SV=2	16.77	4.9	514.7	4	4	1	16.1	353	9.776e+05
49 | 49	>sp|P68371|TBB4B_HUMAN Tubulin beta-4B chain OS=Homo sapiens OX=9606 GN=TUBB4B PE=1 SV=1	16.35	8.25	622.8	4	2	1	6.1	445	1.424e+06
50 | 50	>sp|P62987|RL40_HUMAN Ubiquitin-60S ribosomal protein L40 OS=Homo sapiens OX=9606 GN=UBA52 PE=1 SV=2	15.75	10.26	738.4	6	3	0	29.7	128	2.556e+06
51 | 51	>sp|Q8IZP2|ST134_HUMAN Putative protein FAM10A4 OS=Homo sapiens OX=9606 GN=ST13P4 PE=5 SV=1	15.69	8.17	622.6	3	3	0	15.4	240	3.061e+05
52 | 52	>sp|P62826|RAN_HUMAN GTP-binding nuclear protein Ran OS=Homo sapiens OX=9606 GN=RAN PE=1 SV=3	15.54	6.35	506.2	4	3	0	15.7	216	1.447e+06
53 | 53	>sp|Q08211|DHX9_HUMAN ATP-dependent RNA helicase A OS=Homo sapiens OX=9606 GN=DHX9 PE=1 SV=4	15.5	10.22	729.7	3	3	1	3	1270	4.149e+06

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54 | 54	>sp|P23396|RS3_HUMAN 40S ribosomal protein S3 OS=Homo sapiens OX=9606 GN=RPS3 PE=1 SV=2	15.33	11.26	771.2	3	3	0	13.6	243	9.401e+05
55 | 55	>sp|P12277|KCRB_HUMAN Creatine kinase B-type OS=Homo sapiens OX=9606 GN=CKB PE=1 SV=1	15.16	5.91	559	5	5	2	18.6	381	8.505e+05
56 | 56	>sp|Q71UI9|H2AV_HUMAN Histone H2A.V OS=Homo sapiens OX=9606 GN=H2AFV PE=1 SV=3	15.09	7.7	673.6	12	4	1	23.4	128	9.882e+06
57 | 57	>sp|P10809|CH60_HUMAN 60 kDa heat shock protein, mitochondrial OS=Homo sapiens OX=9606 GN=HSPD1 PE=1 SV=2	14.76	6.58	564.5	3	3	0	8	573	6.548e+05
58 | 58	>sp|Q14103|HNRPD_HUMAN Heterogeneous nuclear ribonucleoprotein D0 OS=Homo sapiens OX=9606 GN=HNRNPD PE=1 SV=1	14.7	10.45	736.3	2	2	0	6.8	355	4.404e+05
59 | 59	>sp|P15531|NDKA_HUMAN Nucleoside diphosphate kinase A OS=Homo sapiens OX=9606 GN=NME1 PE=1 SV=1	14.7	11.72	756.1	3	3	1	26.3	152	5.700e+05
60 | 60	>sp|P06576|ATPB_HUMAN ATP synthase subunit beta, mitochondrial OS=Homo sapiens OX=9606 GN=ATP5F1B PE=1 SV=3	14.22	3.98	493.7	6	5	3	11.3	529	8.998e+05
61 | 61	>sp|P02533|K1C14_HUMAN Keratin, type I cytoskeletal 14 OS=Homo sapiens OX=9606 GN=KRT14 PE=1 SV=4	13.83	5.56	553.2	3	3	0	8.3	472	6.851e+05
62 | 62	>sp|P57721|PCBP3_HUMAN Poly(rC)-binding protein 3 OS=Homo sapiens OX=9606 GN=PCBP3 PE=2 SV=2	13.38	4.52	528.3	3	3	1	12.1	371	6.418e+05
63 | 63	>sp|P62917|RL8_HUMAN 60S ribosomal protein L8 OS=Homo sapiens OX=9606 GN=RPL8 PE=1 SV=2	12.69	8.53	623.6	2	2	0	10.5	257	5.836e+05
64 | 64	>sp|P10412|H14_HUMAN Histone H1.4 OS=Homo sapiens OX=9606 GN=HIST1H1E PE=1 SV=2	12.68	8.08	608.6	3	3	0	14.6	219	1.360e+06
65 | 65	>sp|P61604|CH10_HUMAN 10 kDa heat shock protein, mitochondrial OS=Homo sapiens OX=9606 GN=HSPE1 PE=1 SV=2	12.56	4.92	491.9	3	3	0	33.3	102	8.737e+05
66 | 66	>sp|P62241|RS8_HUMAN 40S ribosomal protein S8 OS=Homo sapiens OX=9606 GN=RPS8 PE=1 SV=2	12.19	4.81	461.1	3	3	0	14.9	208	5.192e+05
67 | 67	>tr|Q9UK54|Q9UK54_HUMAN Hemoglobin beta subunit variant (Fragment) OS=Homo sapiens OX=9606 GN=HBB PE=2 SV=1	12.14	7.08	602.9	3	2	0	16.4	128	1.817e+06
68 | 68	>sp|P09382|LEG1_HUMAN Galectin-1 OS=Homo sapiens OX=9606 GN=LGALS1 PE=1 SV=2	11.81	6.05	570.6	3	3	0	20.7	135	1.339e+06
69 | 69	>sp|O43175|SERA_HUMAN D-3-phosphoglycerate dehydrogenase OS=Homo sapiens OX=9606 GN=PHGDH PE=1 SV=4	11.74	11.74	759.1	1	1	0	2.8	533	3.506e+05
70 | 70	>sp|P07737|PROF1_HUMAN Profilin-1 OS=Homo sapiens OX=9606 GN=PFN1 PE=1 SV=2	11.6	11.47	786.9	2	2	0	21.4	140	4.739e+05
71 | 71	>sp|P60174|TPIS_HUMAN Triosephosphate isomerase OS=Homo sapiens OX=9606 GN=TPI1 PE=1 SV=3	11.45	6.06	462.7	4	4	2	13.3	286	8.926e+05
72 | 72	>sp|P27348|1433T_HUMAN 14-3-3 protein theta OS=Homo sapiens OX=9606 GN=YWHAQ PE=1 SV=1	11.38	7.58	597.2	2	2	0	10.2	245	5.058e+05
73 | 73	>sp|P14649|MYL6B_HUMAN Myosin light chain 6B OS=Homo sapiens OX=9606 GN=MYL6B PE=1 SV=1	11.29	7.05	591	2	2	1	11.5	208	5.335e+05
74 | 74	>sp|P08758|ANXA5_HUMAN Annexin A5 OS=Homo sapiens OX=9606 GN=ANXA5 PE=1 SV=2	11.22	9.38	656.4	3	3	0	11.2	320	1.135e+06
75 | 75	>sp|O60506|HNRPQ_HUMAN Heterogeneous nuclear ribonucleoprotein Q OS=Homo sapiens OX=9606 GN=SYNCRIP PE=1 SV=2	11.13	8.27	612.2	2	2	1	3.7	623	3.320e+05
76 | 76	>sp|P0DOX5|IGG1_HUMAN Immunoglobulin gamma-1 heavy chain OS=Homo sapiens OX=9606 PE=1 SV=1	11.05	10.97	732.5	5	1	0	3.6	449	8.188e+06
77 | 77	>sp|Q6EEV6|SUMO4_HUMAN Small ubiquitin-related modifier 4 OS=Homo sapiens OX=9606 GN=SUMO4 PE=1 SV=2	10.87	10.85	780.4	2	1	0	12.6	95	6.538e+05
78 | 78	>sp|Q02543|RL18A_HUMAN 60S ribosomal protein L18a OS=Homo sapiens OX=9606 GN=RPL18A PE=1 SV=2	10.58	10.58	725.7	1	1	0	7.4	176	2.974e+05
79 | 79	>sp|Q07020|RL18_HUMAN 60S ribosomal protein L18 OS=Homo sapiens OX=9606 GN=RPL18 PE=1 SV=2	10.5	6.02	532	2	2	0	12.8	188	4.816e+05
80 | 80	>sp|P12004|PCNA_HUMAN Proliferating cell nuclear antigen OS=Homo sapiens OX=9606 GN=PCNA PE=1 SV=1	10.12	3.9	428.1	3	3	1	12.3	261	9.980e+05
81 | 81	>tr|H6VRG2|H6VRG2_HUMAN Keratin 1 OS=Homo sapiens OX=9606 GN=KRT1 PE=3 SV=1	10.1	10.1	732.7	1	1	0	1.9	644	3.019e+05
82 | 82	>sp|P35527|K1C9_HUMAN Keratin, type I cytoskeletal 9 OS=Homo sapiens OX=9606 GN=KRT9 PE=1 SV=3	10.07	6.27	550	5	5	2	6.7	623	1.096e+06
83 | 83	>sp|P61978|HNRPK_HUMAN Heterogeneous nuclear ribonucleoprotein K OS=Homo sapiens OX=9606 GN=HNRNPK PE=1 SV=1	10.03	6.52	459.8	3	3	1	7.6	463	8.601e+05
84 | 84	>sp|P78371|TCPB_HUMAN T-complex protein 1 subunit beta OS=Homo sapiens OX=9606 GN=CCT2 PE=1 SV=4	9.86	9.86	734.4	1	1	0	2.2	535	4.647e+05
85 | 85	>sp|P27797|CALR_HUMAN Calreticulin OS=Homo sapiens OX=9606 GN=CALR PE=1 SV=1	9.69	6.12	401.1	2	2	0	6.5	417	2.839e+05
86 | 86	>sp|P00441|SODC_HUMAN Superoxide dismutase [Cu-Zn] OS=Homo sapiens OX=9606 GN=SOD1 PE=1 SV=2	9.3	9.3	664.6	1	1	0	9.1	154	1.831e+05
87 | 87	>sp|P37802|TAGL2_HUMAN Transgelin-2 OS=Homo sapiens OX=9606 GN=TAGLN2 PE=1 SV=3	9.28	4.31	382	4	4	2	20.1	199	6.788e+05
88 | 88	>sp|P35080|PROF2_HUMAN Profilin-2 OS=Homo sapiens OX=9606 GN=PFN2 PE=1 SV=3	9.26	9.26	680	1	1	0	10	140	1.676e+05
89 | 89	>sp|P61981|1433G_HUMAN 14-3-3 protein gamma OS=Homo sapiens OX=9606 GN=YWHAG PE=1 SV=2	9.14	9.05	664.7	2	2	0	9.7	247	2.527e+05
90 | 90	>sp|P02768|ALBU_HUMAN Serum albumin OS=Homo sapiens OX=9606 GN=ALB PE=1 SV=2	9.08	4.38	523.6	4	3	0	5.1	609	1.608e+06
91 | 91	>sp|P00387|NB5R3_HUMAN NADH-cytochrome b5 reductase 3 OS=Homo sapiens OX=9606 GN=CYB5R3 PE=1 SV=3	9.07	5.99	518.3	2	2	0	8	301	3.474e+05
92 | 92	>sp|P23284|PPIB_HUMAN Peptidyl-prolyl cis-trans isomerase B OS=Homo sapiens OX=9606 GN=PPIB PE=1 SV=2	9.01	5.14	422	3	3	1	17.1	216	5.500e+05
93 | 93	>tr|A0A0S2Z4I4|A0A0S2Z4I4_HUMAN Tropomyosin 3 isoform 3 (Fragment) OS=Homo sapiens OX=9606 GN=TPM3 PE=2 SV=1	9.01	5.41	465.6	2	2	0	9.7	248	2.002e+05
94 | 94	>sp|Q00610|CLH1_HUMAN Clathrin heavy chain 1 OS=Homo sapiens OX=9606 GN=CLTC PE=1 SV=5	9	5.03	402.9	4	4	1	3.7	1675	4.935e+05
95 | 95	>sp|P00338|LDHA_HUMAN L-lactate dehydrogenase A chain OS=Homo sapiens OX=9606 GN=LDHA PE=1 SV=2	8.81	4.87	569.8	3	3	0	8.7	332	1.131e+06
96 | 96	>sp|P50990|TCPQ_HUMAN T-complex protein 1 subunit theta OS=Homo sapiens OX=9606 GN=CCT8 PE=1 SV=4	8.79	5.62	534.7	2	2	0	4.6	548	3.925e+05
97 | 97	>sp|Q07955|SRSF1_HUMAN Serine/arginine-rich splicing factor 1 OS=Homo sapiens OX=9606 GN=SRSF1 PE=1 SV=2	8.73	4.57	481.9	2	2	0	8.9	248	3.424e+05
98 | 98	>sp|P00558|PGK1_HUMAN Phosphoglycerate kinase 1 OS=Homo sapiens OX=9606 GN=PGK1 PE=1 SV=3	8.73	6.5	449.2	3	2	1	6	417	5.007e+05
99 | 99	>sp|P38646|GRP75_HUMAN Stress-70 protein, mitochondrial OS=Homo sapiens OX=9606 GN=HSPA9 PE=1 SV=2	8.71	4.63	428.8	2	2	0	4.1	679	2.531e+05
100 | 100	>sp|P10599|THIO_HUMAN Thioredoxin OS=Homo sapiens OX=9606 GN=TXN PE=1 SV=3	8.58	8.58	603.7	1	1	0	12.4	105	2.416e+05
101 | 101	>sp|P0DP23|CALM1_HUMAN Calmodulin-1 OS=Homo sapiens OX=9606 GN=CALM1 PE=1 SV=1	8.27	8.27	635	1	1	0	11.4	149	1.824e+05
102 | 102	>sp|P35268|RL22_HUMAN 60S ribosomal protein L22 OS=Homo sapiens OX=9606 GN=RPL22 PE=1 SV=2	8.13	4.11	444.8	2	2	0	18.7	128	2.715e+05
103 | 103	>sp|P01023|A2MG_HUMAN Alpha-2-macroglobulin OS=Homo sapiens OX=9606 GN=A2M PE=1 SV=3	8.09	8.08	606.1	2	1	0	0.7	1474	8.920e+05
104 | 104	>sp|P62316|SMD2_HUMAN Small nuclear ribonucleoprotein Sm D2 OS=Homo sapiens OX=9606 GN=SNRPD2 PE=1 SV=1	7.92	4.69	358.4	2	2	1	16.9	118	1.894e+05
105 | 105	>sp|P45880|VDAC2_HUMAN Voltage-dependent anion-selective channel protein 2 OS=Homo sapiens OX=9606 GN=VDAC2 PE=1 SV=2	7.51	4.35	481.2	2	2	0	8.5	294	4.501e+05
106 | 106	>sp|P80723|BASP1_HUMAN Brain acid soluble protein 1 OS=Homo sapiens OX=9606 GN=BASP1 PE=1 SV=2	7.26	6.1	405	2	2	0	16.7	227	4.537e+05
107 | 107	>sp|P26373|RL13_HUMAN 60S ribosomal protein L13 OS=Homo sapiens OX=9606 GN=RPL13 PE=1 SV=4	7.17	5.12	462.4	3	2	0	9.5	211	8.377e+05
108 | 108	>sp|Q32P28|P3H1_HUMAN Prolyl 3-hydroxylase 1 OS=Homo sapiens OX=9606 GN=P3H1 PE=1 SV=2	6.95	3.78	326.4	2	2	0	3.1	736	2.724e+05
109 | 109	>sp|Q9BQA1|MEP50_HUMAN Methylosome protein 50 OS=Homo sapiens OX=9606 GN=WDR77 PE=1 SV=1	6.94	6.94	566.1	1	1	0	4.4	342	1.494e+05

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110 | 110	>sp|Q7Z794|K2C1B_HUMAN Keratin, type II cytoskeletal 1b OS=Homo sapiens OX=9606 GN=KRT77 PE=1 SV=3	6.9	4.05	418.2	2	2	0	3.3	578	3.836e+05
111 | 111	>sp|Q9Y3U8|RL36_HUMAN 60S ribosomal protein L36 OS=Homo sapiens OX=9606 GN=RPL36 PE=1 SV=3	6.86	6.86	590.7	1	1	0	9.5	105	2.150e+05
112 | 112	>sp|P63104|1433Z_HUMAN 14-3-3 protein zeta/delta OS=Homo sapiens OX=9606 GN=YWHAZ PE=1 SV=1	6.61	6.5	546.9	2	2	0	10.6	245	7.009e+05
113 | 113	>sp|P00734|THRB_HUMAN Prothrombin OS=Homo sapiens OX=9606 GN=F2 PE=1 SV=2	6.56	6.45	556.5	2	2	1	4.8	622	3.049e+05
114 | 114	>sp|P29692|EF1D_HUMAN Elongation factor 1-delta OS=Homo sapiens OX=9606 GN=EEF1D PE=1 SV=5	6.47	6.48	630.5	1	1	0	4.3	281	3.704e+05
115 | 115	>sp|P30050|RL12_HUMAN 60S ribosomal protein L12 OS=Homo sapiens OX=9606 GN=RPL12 PE=1 SV=1	6.45	6.45	528.7	1	1	0	9.7	165	1.566e+05
116 | 116	>sp|P83731|RL24_HUMAN 60S ribosomal protein L24 OS=Homo sapiens OX=9606 GN=RPL24 PE=1 SV=1	6.25	5.99	518.7	2	2	1	14.6	157	2.284e+05
117 | 117	>sp|P31943|HNRH1_HUMAN Heterogeneous nuclear ribonucleoprotein H OS=Homo sapiens OX=9606 GN=HNRNPH1 PE=1 SV=4	6.22	3.63	500.4	4	4	2	12	449	1.031e+06
118 | 118	>sp|Q04837|SSBP_HUMAN Single-stranded DNA-binding protein, mitochondrial OS=Homo sapiens OX=9606 GN=SSBP1 PE=1 SV=1	6.2	6.2	505.6	1	1	0	10.1	148	1.401e+05
119 | 119	>sp|Q9Y281|COF2_HUMAN Cofilin-2 OS=Homo sapiens OX=9606 GN=CFL2 PE=1 SV=1	6.17	6.17	513.9	1	1	0	6.6	166	5.293e+05
120 | 120	>sp|P62910|RL32_HUMAN 60S ribosomal protein L32 OS=Homo sapiens OX=9606 GN=RPL32 PE=1 SV=2	6.14	6.14	488.5	1	1	0	9.6	135	3.414e+05
121 | 121	>sp|P46783|RS10_HUMAN 40S ribosomal protein S10 OS=Homo sapiens OX=9606 GN=RPS10 PE=1 SV=1	6.14	6.14	487.4	1	1	0	8.5	165	1.057e+05
122 | 122	>sp|Q96QK1|VPS35_HUMAN Vacuolar protein sorting-associated protein 35 OS=Homo sapiens OX=9606 GN=VPS35 PE=1 SV=2	6.07	6.07	449.1	1	1	0	1.9	796	1.361e+05
123 | 123	>sp|Q01995|TAGL_HUMAN Transgelin OS=Homo sapiens OX=9606 GN=TAGLN PE=1 SV=4	6.05	6.05	477	1	1	1	6.5	201	7.400e+04
124 | 124	>sp|P62888|RL30_HUMAN 60S ribosomal protein L30 OS=Homo sapiens OX=9606 GN=RPL30 PE=1 SV=2	6.04	6.04	388.5	1	1	0	13.9	115	1.617e+05
125 | 125	>sp|P52565|GDIR1_HUMAN Rho GDP-dissociation inhibitor 1 OS=Homo sapiens OX=9606 GN=ARHGDIA PE=1 SV=3	6.01	6.01	469	1	1	0	7.4	204	1.125e+05
126 | 126	>sp|P07602|SAP_HUMAN Prosaposin OS=Homo sapiens OX=9606 GN=PSAP PE=1 SV=2	5.97	3.28	437.6	3	3	0	5.3	524	5.840e+05
127 | 127	>sp|Q8WUM4|PDC6I_HUMAN Programmed cell death 6-interacting protein OS=Homo sapiens OX=9606 GN=PDCD6IP PE=1 SV=1	5.91	5.91	404.5	1	1	0	1.5	868	5.560e+04
128 | 128	>sp|P50454|SERPH_HUMAN Serpin H1 OS=Homo sapiens OX=9606 GN=SERPINH1 PE=1 SV=2	5.72	4.84	494.3	2	2	0	5.5	418	2.681e+05
129 | 129	>sp|P51148|RAB5C_HUMAN Ras-related protein Rab-5C OS=Homo sapiens OX=9606 GN=RAB5C PE=1 SV=2	5.7	3.29	413.1	2	2	0	10.6	216	1.988e+05
130 | 130	>sp|P38919|IF4A3_HUMAN Eukaryotic initiation factor 4A-III OS=Homo sapiens OX=9606 GN=EIF4A3 PE=1 SV=4	5.64	5.64	442.8	1	1	0	2.7	411	2.720e+05
131 | 131	>tr|H7BZJ3|H7BZJ3_HUMAN Protein disulfide-isomerase A3 (Fragment) OS=Homo sapiens OX=9606 GN=PDIA3 PE=1 SV=1	5.62	5.62	394.4	1	1	0	11.4	123	1.919e+05
132 | 132	>sp|P21796|VDAC1_HUMAN Voltage-dependent anion-selective channel protein 1 OS=Homo sapiens OX=9606 GN=VDAC1 PE=1 SV=2	5.59	4.81	410.8	2	2	0	11.3	283	2.912e+05
133 | 133	>sp|P47914|RL29_HUMAN 60S ribosomal protein L29 OS=Homo sapiens OX=9606 GN=RPL29 PE=1 SV=2	5.57	5.57	458.6	1	1	0	9.4	159	3.130e+05
134 | 134	>sp|Q99873|ANM1_HUMAN Protein arginine N-methyltransferase 1 OS=Homo sapiens OX=9606 GN=PRMT1 PE=1 SV=3	5.47	5.43	429.3	3	1	0	3	371	6.391e+05
135 | 135	>sp|O00148|DX39A_HUMAN ATP-dependent RNA helicase DDX39A OS=Homo sapiens OX=9606 GN=DDX39A PE=1 SV=2	5.42	3.46	362.2	3	3	0	7.3	427	5.942e+05
136 | 136	>sp|P07741|APT_HUMAN Adenine phosphoribosyltransferase OS=Homo sapiens OX=9606 GN=APRT PE=1 SV=2	5.28	5.28	564.6	1	1	0	5.6	180	2.182e+05
137 | 137	>sp|P08962|CD63_HUMAN CD63 antigen OS=Homo sapiens OX=9606 GN=CD63 PE=1 SV=2	5.27	5.28	538.9	1	1	1	4.2	238	2.257e+05
138 | 138	>sp|Q15149|PLEC_HUMAN Plectin OS=Homo sapiens OX=9606 GN=PLEC PE=1 SV=3	5.21	3.07	360	4	4	0	0.8	4684	3.853e+05
139 | 139	>sp|P42677|RS27_HUMAN 40S ribosomal protein S27 OS=Homo sapiens OX=9606 GN=RPS27 PE=1 SV=3	5.17	2.98	350.4	2	2	1	25	84	4.200e+05
140 | 140	>sp|P55058|PLTP_HUMAN Phospholipid transfer protein OS=Homo sapiens OX=9606 GN=PLTP PE=1 SV=1	5.14	5.12	468.5	2	1	0	2.2	493	8.422e+05
141 | 141	>sp|P0DMR1|HNRC4_HUMAN Heterogeneous nuclear ribonucleoprotein C-like 4 OS=Homo sapiens OX=9606 GN=HNRNPCL4 PE=3 SV=1	5.13	4.05	533.5	3	3	1	7.5	293	5.315e+05
142 | 142	>sp|P30049|ATPD_HUMAN ATP synthase subunit delta, mitochondrial OS=Homo sapiens OX=9606 GN=ATP5F1D PE=1 SV=2	5.13	5.13	512	1	1	0	8.3	168	1.250e+05
143 | 143	>sp|P18124|RL7_HUMAN 60S ribosomal protein L7 OS=Homo sapiens OX=9606 GN=RPL7 PE=1 SV=1	5.12	3.17	308.1	2	2	0	8.1	248	2.187e+05
144 | 144	>sp|P47756|CAPZB_HUMAN F-actin-capping protein subunit beta OS=Homo sapiens OX=9606 GN=CAPZB PE=1 SV=4	5.1	3.87	461.8	2	2	1	8.7	277	2.341e+05
145 | 145	>sp|Q99623|PHB2_HUMAN Prohibitin-2 OS=Homo sapiens OX=9606 GN=PHB2 PE=1 SV=2	5.08	2.85	374.9	2	2	0	6.7	299	2.731e+05
146 | 146	>sp|P62829|RL23_HUMAN 60S ribosomal protein L23 OS=Homo sapiens OX=9606 GN=RPL23 PE=1 SV=1	5.06	5.06	495.3	1	1	1	10.7	140	1.600e+05
147 | 147	>sp|P35232|PHB_HUMAN Prohibitin OS=Homo sapiens OX=9606 GN=PHB PE=1 SV=1	5.02	4.97	414.4	2	2	0	7.7	272	2.400e+05
148 | 148	>sp|O95336|6PGL_HUMAN 6-phosphogluconolactonase OS=Homo sapiens OX=9606 GN=PGLS PE=1 SV=2	5.02	5.02	365.2	1	1	0	6.2	258	5.724e+04
149 | 149	>sp|P23246|SFPQ_HUMAN Splicing factor, proline- and glutamine-rich OS=Homo sapiens OX=9606 GN=SFPQ PE=1 SV=2	4.97	4.97	397.5	1	1	0	2.1	707	1.930e+05
150 | 150	>sp|Q9UBQ5|EIF3K_HUMAN Eukaryotic translation initiation factor 3 subunit K OS=Homo sapiens OX=9606 GN=EIF3K PE=1 SV=1	4.93	4.93	539.9	1	1	0	5	218	2.272e+05
151 | 151	>sp|P50991|TCPD_HUMAN T-complex protein 1 subunit delta OS=Homo sapiens OX=9606 GN=CCT4 PE=1 SV=4	4.91	4.32	454	2	2	1	4.5	539	3.691e+05
152 | 152	>sp|P62263|RS14_HUMAN 40S ribosomal protein S14 OS=Homo sapiens OX=9606 GN=RPS14 PE=1 SV=3	4.91	4.91	468.3	1	1	0	7.3	151	3.142e+05
153 | 153	>sp|P31040|SDHA_HUMAN Succinate dehydrogenase [ubiquinone] flavoprotein subunit, mitochondrial OS=Homo sapiens OX=9606 GN=SDHA PE=1 SV=2	4.84	4.84	447	2	2	1	2.6	664	2.012e+05
154 | 154	>sp|P40429|RL13A_HUMAN 60S ribosomal protein L13a OS=Homo sapiens OX=9606 GN=RPL13A PE=1 SV=2	4.83	4.79	504.8	2	2	1	9.4	203	5.051e+05
155 | 155	>sp|P23526|SAHH_HUMAN Adenosylhomocysteinase OS=Homo sapiens OX=9606 GN=AHCY PE=1 SV=4	4.79	4.72	519.6	2	2	1	6	432	2.333e+05
156 | 156	>sp|P15880|RS2_HUMAN 40S ribosomal protein S2 OS=Homo sapiens OX=9606 GN=RPS2 PE=1 SV=2	4.77	4.77	555.6	1	1	0	3.8	293	2.902e+05
157 | 157	>sp|Q13885|TBB2A_HUMAN Tubulin beta-2A chain OS=Homo sapiens OX=9606 GN=TUBB2A PE=1 SV=1	4.75	4.75	511.7	1	1	0	2.7	445	1.408e+05
158 | 158	>sp|P09936|UCHL1_HUMAN Ubiquitin carboxyl-terminal hydrolase isozyme L1 OS=Homo sapiens OX=9606 GN=UCHL1 PE=1 SV=2	4.73	4.05	523.5	2	2	1	13.5	223	4.605e+05
159 | 159	>sp|P46777|RL5_HUMAN 60S ribosomal protein L5 OS=Homo sapiens OX=9606 GN=RPL5 PE=1 SV=3	4.72	4.72	521.2	1	1	0	3.4	297	2.346e+05
160 | 160	>sp|P12956|XRCC6_HUMAN X-ray repair cross-complementing protein 6 OS=Homo sapiens OX=9606 GN=XRCC6 PE=1 SV=2	4.69	4.69	496.6	1	1	0	2	609	1.593e+05
161 | 161	>sp|P61247|RS3A_HUMAN 40S ribosomal protein S3a OS=Homo sapiens OX=9606 GN=RPS3A PE=1 SV=2	4.67	3.71	347.9	2	2	0	7.6	264	6.062e+05
162 | 162	>sp|P04083|ANXA1_HUMAN Annexin A1 OS=Homo sapiens OX=9606 GN=ANXA1 PE=1 SV=2	4.66	4.66	493.5	1	1	0	3.2	346	2.092e+05

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163 | 163	>sp|P05387|RLA2_HUMAN 60S acidic ribosomal protein P2 OS=Homo sapiens OX=9606 GN=RPLP2 PE=1 SV=1	4.64	3.87	366	2	2	0	39.1	115	2.699e+05
164 | 164	>sp|Q14566|MCM6_HUMAN DNA replication licensing factor MCM6 OS=Homo sapiens OX=9606 GN=MCM6 PE=1 SV=1	4.62	4.62	410	1	1	0	1.6	821	1.822e+05
165 | 165	>sp|P61221|ABCE1_HUMAN ATP-binding cassette sub-family E member 1 OS=Homo sapiens OX=9606 GN=ABCE1 PE=1 SV=1	4.6	4.61	407.9	1	1	0	2	599	1.677e+05
166 | 166	>sp|P17987|TCPA_HUMAN T-complex protein 1 subunit alpha OS=Homo sapiens OX=9606 GN=TCP1 PE=1 SV=1	4.5	4.3	415.4	2	2	0	3.2	556	4.368e+05
167 | 167	>sp|O00303|EIF3F_HUMAN Eukaryotic translation initiation factor 3 subunit F OS=Homo sapiens OX=9606 GN=EIF3F PE=1 SV=1	4.48	4.48	332.8	1	1	0	4.8	357	9.558e+04
168 | 168	>sp|P16870|CBPE_HUMAN Carboxypeptidase E OS=Homo sapiens OX=9606 GN=CPE PE=1 SV=1	4.47	4.47	439.9	1	1	0	2.1	476	1.285e+05
169 | 169	>sp|Q9BVA1|TBB2B_HUMAN Tubulin beta-2B chain OS=Homo sapiens OX=9606 GN=TUBB2B PE=1 SV=1	4.46	4.46	439.1	1	1	0	2.7	445	2.605e+05
170 | 170	>tr|Q5TEC6|Q5TEC6_HUMAN Histone H3 OS=Homo sapiens OX=9606 GN=HIST2H3PS2 PE=1 SV=1	4.42	2.33	533.2	2	2	0	13.2	136	2.534e+06
171 | 171	>sp|P62249|RS16_HUMAN 40S ribosomal protein S16 OS=Homo sapiens OX=9606 GN=RPS16 PE=1 SV=2	4.37	4.24	499.7	2	2	0	12.3	146	9.095e+05
172 | 172	>sp|P31942|HNRH3_HUMAN Heterogeneous nuclear ribonucleoprotein H3 OS=Homo sapiens OX=9606 GN=HNRNPH3 PE=1 SV=2	4.36	3.1	383.8	2	2	0	6.1	346	3.196e+05
173 | 173	>sp|P35637|FUS_HUMAN RNA-binding protein FUS OS=Homo sapiens OX=9606 GN=FUS PE=1 SV=1	4.28	4.17	297.1	2	2	1	4.9	526	3.921e+05
174 | 174	>sp|P61204|ARF3_HUMAN ADP-ribosylation factor 3 OS=Homo sapiens OX=9606 GN=ARF3 PE=1 SV=2	4.25	4.04	478.9	2	2	2	10.5	181	7.388e+05
175 | 175	>sp|P32119|PRDX2_HUMAN Peroxiredoxin-2 OS=Homo sapiens OX=9606 GN=PRDX2 PE=1 SV=5	4.19	3.26	378.3	2	2	0	9.6	198	5.577e+05
176 | 176	>sp|O43852|CALU_HUMAN Calumenin OS=Homo sapiens OX=9606 GN=CALU PE=1 SV=2	4.1	2.9	340.7	2	2	0	6.3	315	4.823e+05
177 | 177	>sp|Q8N257|H2B3B_HUMAN Histone H2B type 3-B OS=Homo sapiens OX=9606 GN=HIST3H2BB PE=1 SV=3	4.1	4.1	430.3	1	1	0	7.1	126	2.175e+05
178 | 178	>sp|Q99832|TCPH_HUMAN T-complex protein 1 subunit eta OS=Homo sapiens OX=9606 GN=CCT7 PE=1 SV=2	4.09	3.85	310.6	3	3	0	6.3	543	3.428e+05
179 | 179	>sp|P0C0L5|CO4B_HUMAN Complement C4-B OS=Homo sapiens OX=9606 GN=C4B PE=1 SV=2	4.05	4.05	542.8	1	1	0	0.5	1744	2.006e+05
180 | 180	>sp|Q99439|CNN2_HUMAN Calponin-2 OS=Homo sapiens OX=9606 GN=CNN2 PE=1 SV=4	4.04	4.04	355.1	1	1	0	3.6	309	8.251e+04
181 | 181	>sp|P42766|RL35_HUMAN 60S ribosomal protein L35 OS=Homo sapiens OX=9606 GN=RPL35 PE=1 SV=2	4.02	4.02	394.4	1	1	0	8.1	123	1.596e+05
182 | 182	>sp|P39023|RL3_HUMAN 60S ribosomal protein L3 OS=Homo sapiens OX=9606 GN=RPL3 PE=1 SV=2	3.99	3.99	317.9	1	1	0	3	403	1.835e+05
183 | 183	>sp|Q9H9B4|SFXN1_HUMAN Sideroflexin-1 OS=Homo sapiens OX=9606 GN=SFXN1 PE=1 SV=4	3.97	3.97	339.4	1	1	0	4	322	5.879e+04
184 | 184	>sp|Q16658|FSCN1_HUMAN Fascin OS=Homo sapiens OX=9606 GN=FSCN1 PE=1 SV=3	3.97	3.97	317.3	1	1	0	2.6	493	7.966e+04
185 | 185	>sp|O00299|CLIC1_HUMAN Chloride intracellular channel protein 1 OS=Homo sapiens OX=9606 GN=CLIC1 PE=1 SV=4	3.97	3.97	291.3	1	1	0	5	241	1.691e+05
186 | 186	>Reverse >sp|O43513|MED7_HUMAN Mediator of RNA polymerase II transcription subunit 7 OS=Homo sapiens OX=9606 GN=MED7 PE=1 SV=1	3.95	1.23	325.3	7	4	4	3.9	233	5.920e+06
187 | 187	>sp|P06396|GELS_HUMAN Gelsolin OS=Homo sapiens OX=9606 GN=GSN PE=1 SV=1	3.95	3.96	408.7	1	1	0	1.2	782	3.637e+05
188 | 188	>sp|Q9P258|RCC2_HUMAN Protein RCC2 OS=Homo sapiens OX=9606 GN=RCC2 PE=1 SV=2	3.94	3.91	368.6	3	2	0	3.3	522	1.804e+05
189 | 189	>sp|P02649|APOE_HUMAN Apolipoprotein E OS=Homo sapiens OX=9606 GN=APOE PE=1 SV=1	3.89	3.89	473.3	1	1	0	2.8	317	1.155e+06
190 | 190	>sp|Q5CZC0|FSIP2_HUMAN Fibrous sheath-interacting protein 2 OS=Homo sapiens OX=9606 GN=FSIP2 PE=2 SV=4	3.87	3.86	392.4	3	2	1	0.3	6907	6.548e+05
191 | 191	>sp|P69905|HBA_HUMAN Hemoglobin subunit alpha OS=Homo sapiens OX=9606 GN=HBA1 PE=1 SV=2	3.77	2.39	347.3	2	2	0	15.5	142	6.344e+05
192 | 192	>sp|P81605|DCD_HUMAN Dermcidin OS=Homo sapiens OX=9606 GN=DCD PE=1 SV=2	3.76	3.77	394.5	1	1	0	10	110	1.476e+05
193 | 193	>sp|P61313|RL15_HUMAN 60S ribosomal protein L15 OS=Homo sapiens OX=9606 GN=RPL15 PE=1 SV=2	3.75	3.75	426.6	1	1	0	4.4	204	4.073e+05
194 | 194	>sp|Q02878|RL6_HUMAN 60S ribosomal protein L6 OS=Homo sapiens OX=9606 GN=RPL6 PE=1 SV=3	3.75	2.56	523.6	3	3	0	7.3	288	6.211e+05
195 | 195	>sp|P62913|RL11_HUMAN 60S ribosomal protein L11 OS=Homo sapiens OX=9606 GN=RPL11 PE=1 SV=2	3.69	3.69	287.6	1	1	0	7.9	178	9.119e+04
196 | 196	>sp|Q14974|IMB1_HUMAN Importin subunit beta-1 OS=Homo sapiens OX=9606 GN=KPNB1 PE=1 SV=2	3.69	3.69	344.7	1	1	0	1.4	876	2.095e+05
197 | 197	>sp|P16152|CBR1_HUMAN Carbonyl reductase [NADPH] 1 OS=Homo sapiens OX=9606 GN=CBR1 PE=1 SV=3	3.66	3.66	241.6	1	1	0	5.8	277	1.179e+05
198 | 198	>sp|Q06033|ITIH3_HUMAN Inter-alpha-trypsin inhibitor heavy chain H3 OS=Homo sapiens OX=9606 GN=ITIH3 PE=1 SV=2	3.63	3.64	362.4	1	1	1	1.1	890	1.095e+05
199 | 199	>sp|Q9NS39|RED2_HUMAN Double-stranded RNA-specific editase B2 OS=Homo sapiens OX=9606 GN=ADARB2 PE=1 SV=1	3.57	3.58	259.7	1	1	0	1.8	739	2.606e+05
200 | 200	>sp|Q96E39|RMXL1_HUMAN RNA binding motif protein, X-linked-like-1 OS=Homo sapiens OX=9606 GN=RBMXL1 PE=1 SV=1	3.57	3.57	354	1	1	0	3.3	390	1.886e+05
201 | 201	>sp|P07339|CATD_HUMAN Cathepsin D OS=Homo sapiens OX=9606 GN=CTSD PE=1 SV=1	3.53	3.49	396.6	2	2	2	7	412	1.480e+05
202 | 202	>sp|P36957|ODO2_HUMAN Dihydrolipoyllysine-residue succinyltransferase component of 2-oxoglutarate dehydrogenase complex, mitochondrial OS=Homo sapiens OX=9606 GN=DLST PE=1 SV=4	3.52	3.52	313.4	1	1	1	2.6	453	7.981e+04
203 | 203	>sp|P09874|PARP1_HUMAN Poly [ADP-ribose] polymerase 1 OS=Homo sapiens OX=9606 GN=PARP1 PE=1 SV=4	3.5	2.75	317.3	3	2	0	1.8	1014	6.703e+05
204 | 204	>sp|Q13347|EIF3I_HUMAN Eukaryotic translation initiation factor 3 subunit I OS=Homo sapiens OX=9606 GN=EIF3I PE=1 SV=1	3.46	3.46	570.8	1	1	0	2.8	325	3.939e+05
205 | 205	>sp|P52209|6PGD_HUMAN 6-phosphogluconate dehydrogenase, decarboxylating OS=Homo sapiens OX=9606 GN=PGD PE=1 SV=3	3.41	3.41	283.6	1	1	0	2.1	483	1.328e+05
206 | 206	>sp|P48668|K2C6C_HUMAN Keratin, type II cytoskeletal 6C OS=Homo sapiens OX=9606 GN=KRT6C PE=1 SV=3	3.38	3.38	333.4	1	1	0	1.8	564	9.678e+04
207 | 207	>sp|Q07954|LRP1_HUMAN Prolow-density lipoprotein receptor-related protein 1 OS=Homo sapiens OX=9606 GN=LRP1 PE=1 SV=2	3.38	3.39	235	1	1	0	0.3	4544	6.867e+04
208 | 208	>sp|Q99497|PARK7_HUMAN Protein/nucleic acid deglycase DJ-1 OS=Homo sapiens OX=9606 GN=PARK7 PE=1 SV=2	3.38	3.38	319.4	1	1	0	7.9	189	1.632e+05
209 | 209	>sp|P61803|DAD1_HUMAN Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit DAD1 OS=Homo sapiens OX=9606 GN=DAD1 PE=1 SV=3	3.36	3.36	418.5	1	1	0	10.6	113	1.031e+05
210 | 210	>sp|P62269|RS18_HUMAN 40S ribosomal protein S18 OS=Homo sapiens OX=9606 GN=RPS18 PE=1 SV=3	3.33	3.33	248.5	1	1	0	7.9	152	1.048e+05
211 | 211	>Reverse >sp|A6NK89|RASFA_HUMAN Ras association domain-containing protein 10 OS=Homo sapiens OX=9606 GN=RASSF10 PE=2 SV=3	3.3	3.3	456.3	1	1	0	1.8	507	6.602e+05
212 | 212	>sp|P01008|ANT3_HUMAN Antithrombin-III OS=Homo sapiens OX=9606 GN=SERPINC1 PE=1 SV=1	3.24	3.24	423.5	1	1	0	1.9	464	5.711e+05
213 | 213	>sp|Q9Y4L1|HYOU1_HUMAN Hypoxia up-regulated protein 1 OS=Homo sapiens OX=9606 GN=HYOU1 PE=1 SV=1	3.24	3.24	420.9	1	1	0	0.9	999	2.150e+05
214 | 214	>sp|Q969Q0|RL36L_HUMAN 60S ribosomal protein L36a-like OS=Homo sapiens OX=9606 GN=RPL36AL PE=1 SV=3	3.23	3.23	308.4	1	1	0	8.5	106	1.783e+05
215 | 215	>sp|P62244|RS15A_HUMAN 40S ribosomal protein S15a OS=Homo sapiens OX=9606 GN=RPS15A PE=1 SV=2	3.23	3.23	384.2	1	1	1	6.9	130	2.398e+05
216 | 216	>sp|P43487|RANG_HUMAN Ran-specific GTPase-activating protein OS=Homo sapiens OX=9606 GN=RANBP1 PE=1 SV=1	3.21	3.21	321.2	1	1	0	5.5	201	8.348e+04

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217 | 217	>Reverse >sp|A6NFC9|OR2W5_HUMAN Putative olfactory receptor 2W5 OS=Homo sapiens OX=9606 GN=OR2W5 PE=5 SV=1	3.2	3.16	384.9	3	1	0	3.4	320	8.222e+05
218 | 218	>sp|Q02790|FKBP4_HUMAN Peptidyl-prolyl cis-trans isomerase FKBP4 OS=Homo sapiens OX=9606 GN=FKBP4 PE=1 SV=3	3.2	3.2	343	1	1	0	2	459	8.844e+04
219 | 219	>sp|Q15717|ELAV1_HUMAN ELAV-like protein 1 OS=Homo sapiens OX=9606 GN=ELAVL1 PE=1 SV=2	3.1	3.1	337.6	1	1	0	3.4	326	1.308e+05
220 | 220	>sp|Q96KK5|H2A1H_HUMAN Histone H2A type 1-H OS=Homo sapiens OX=9606 GN=HIST1H2AH PE=1 SV=3	3.07	3.07	359.8	1	1	0	8.6	128	3.052e+05
221 | 221	>sp|Q13509|TBB3_HUMAN Tubulin beta-3 chain OS=Homo sapiens OX=9606 GN=TUBB3 PE=1 SV=2	3.05	3.05	230.7	1	1	1	2.7	450	7.740e+04
222 | 222	>sp|P45974|UBP5_HUMAN Ubiquitin carboxyl-terminal hydrolase 5 OS=Homo sapiens OX=9606 GN=USP5 PE=1 SV=2	2.98	2.9	280.1	2	2	0	2.4	858	2.060e+05
223 | 223	>sp|P62277|RS13_HUMAN 40S ribosomal protein S13 OS=Homo sapiens OX=9606 GN=RPS13 PE=1 SV=2	2.97	2.97	281.6	1	1	0	6.6	151	1.274e+05
224 | 224	>sp|P38405|GNAL_HUMAN Guanine nucleotide-binding protein G(olf) subunit alpha OS=Homo sapiens OX=9606 GN=GNAL PE=1 SV=1	2.91	2.91	406.1	1	1	0	2.9	381	1.353e+05
225 | 225	>sp|P16949|STMN1_HUMAN Stathmin OS=Homo sapiens OX=9606 GN=STMN1 PE=1 SV=3	2.88	2.88	245	1	1	0	6.7	149	1.508e+05
226 | 226	>sp|P17812|PYRG1_HUMAN CTP synthase 1 OS=Homo sapiens OX=9606 GN=CTPS1 PE=1 SV=2	2.82	2.82	313.6	1	1	0	1.7	591	8.281e+04
227 | 227	>tr|A0A2P9APT0|A0A2P9APT0_HUMAN Uncharacterized protein OS=Homo sapiens OX=9606 GN=BQ8482_340069 PE=4 SV=1	2.79	0.86	282.4	7	4	4	3	297	3.156e+06
228 | 228	>sp|Q13263|TIF1B_HUMAN Transcription intermediary factor 1-beta OS=Homo sapiens OX=9606 GN=TRIM28 PE=1 SV=5	2.74	2.63	249.2	2	2	2	2.4	835	2.199e+05
229 | 229	>sp|Q14697|GANAB_HUMAN Neutral alpha-glucosidase AB OS=Homo sapiens OX=9606 GN=GANAB PE=1 SV=3	2.73	1.87	469.2	3	3	0	2.3	944	1.432e+06
230 | 230	>sp|P48643|TCPE_HUMAN T-complex protein 1 subunit epsilon OS=Homo sapiens OX=9606 GN=CCT5 PE=1 SV=1	2.72	2.73	290.4	1	1	0	1.8	541	7.438e+04
231 | 231	>tr|A0A2P9AKE0|A0A2P9AKE0_HUMAN Tyrosine recombinase XerC OS=Homo sapiens OX=9606 GN=xerC PE=3 SV=1	2.72	2.72	230.6	1	1	1	4.5	312	1.507e+05
232 | 232	>sp|O95757|HS74L_HUMAN Heat shock 70 kDa protein 4L OS=Homo sapiens OX=9606 GN=HSPA4L PE=1 SV=3	2.65	2.66	378.3	1	1	0	1.3	839	1.020e+05
233 | 233	>sp|P14868|SYDC_HUMAN Aspartate--tRNA ligase, cytoplasmic OS=Homo sapiens OX=9606 GN=DARS PE=1 SV=2	2.63	1.44	292.5	2	2	0	4	501	2.950e+05
234 | 234	>sp|P62899|RL31_HUMAN 60S ribosomal protein L31 OS=Homo sapiens OX=9606 GN=RPL31 PE=1 SV=1	2.62	2.62	323.8	1	1	0	7.2	125	2.331e+05
235 | 235	>sp|P11586|C1TC_HUMAN C-1-tetrahydrofolate synthase, cytoplasmic OS=Homo sapiens OX=9606 GN=MTHFD1 PE=1 SV=3	2.62	1.93	316.9	2	2	0	2.1	935	3.587e+05
236 | 236	>sp|B9A064|IGLL5_HUMAN Immunoglobulin lambda-like polypeptide 5 OS=Homo sapiens OX=9606 GN=IGLL5 PE=2 SV=2	2.61	2.61	383.4	2	2	0	7.5	214	7.452e+05
237 | 237	>sp|P13073|COX41_HUMAN Cytochrome c oxidase subunit 4 isoform 1, mitochondrial OS=Homo sapiens OX=9606 GN=COX4I1 PE=1 SV=1	2.59	2.59	229.1	1	1	1	7.1	169	8.383e+04
238 | 238	>sp|Q01518|CAP1_HUMAN Adenylyl cyclase-associated protein 1 OS=Homo sapiens OX=9606 GN=CAP1 PE=1 SV=5	2.51	2.51	242.5	1	1	0	2.3	475	5.955e+04
239 | 239	>sp|P02748|CO9_HUMAN Complement component C9 OS=Homo sapiens OX=9606 GN=C9 PE=1 SV=2	2.48	2.48	301.3	1	1	0	1.6	559	3.488e+05
240 | 240	>sp|P51149|RAB7A_HUMAN Ras-related protein Rab-7a OS=Homo sapiens OX=9606 GN=RAB7A PE=1 SV=1	2.37	2.3	303.5	2	2	0	11.6	207	1.459e+05
241 | 241	>sp|P04080|CYTB_HUMAN Cystatin-B OS=Homo sapiens OX=9606 GN=CSTB PE=1 SV=2	2.37	2.37	227	1	1	0	12.2	98	1.089e+05
242 | 242	>Reverse >tr|E5RJZ4|E5RJZ4_HUMAN Lipoprotein lipase OS=Homo sapiens OX=9606 GN=LPL PE=4 SV=1	2.36	2.36	343.7	1	1	0	28.2	39	2.058e+05
243 | 243	>sp|P13010|XRCC5_HUMAN X-ray repair cross-complementing protein 5 OS=Homo sapiens OX=9606 GN=XRCC5 PE=1 SV=3	2.36	2.36	277.8	1	1	0	1.2	732	1.890e+05
244 | 244	>sp|P13987|CD59_HUMAN CD59 glycoprotein OS=Homo sapiens OX=9606 GN=CD59 PE=1 SV=1	2.34	2.34	281	1	1	0	9.4	128	1.927e+05
245 | 245	>sp|P62424|RL7A_HUMAN 60S ribosomal protein L7a OS=Homo sapiens OX=9606 GN=RPL7A PE=1 SV=2	2.32	2.32	364.9	1	1	0	3	266	1.662e+05
246 | 246	>sp|Q9BXJ9|NAA15_HUMAN N-alpha-acetyltransferase 15, NatA auxiliary subunit OS=Homo sapiens OX=9606 GN=NAA15 PE=1 SV=1	2.32	2.33	282.9	1	1	0	1	866	1.283e+05
247 | 247	>sp|Q13162|PRDX4_HUMAN Peroxiredoxin-4 OS=Homo sapiens OX=9606 GN=PRDX4 PE=1 SV=1	2.26	2.27	301.8	1	1	0	4.1	271	9.230e+04
248 | 248	>Reverse >sp|Q8WXI7|MUC16_HUMAN Mucin-16 OS=Homo sapiens OX=9606 GN=MUC16 PE=1 SV=3	2.26	2.3	396.4	1	1	1	0.1	14507	5.215e+05
249 | 249	>sp|P20962|PTMS_HUMAN Parathymosin OS=Homo sapiens OX=9606 GN=PTMS PE=1 SV=2	2.26	2.26	282.5	1	1	0	10.8	102	3.384e+05
250 | 250	>sp|P08134|RHOC_HUMAN Rho-related GTP-binding protein RhoC OS=Homo sapiens OX=9606 GN=RHOC PE=1 SV=1	2.23	2.23	327.4	1	1	0	5.7	193	1.401e+05
251 | 251	>sp|Q15181|IPYR_HUMAN Inorganic pyrophosphatase OS=Homo sapiens OX=9606 GN=PPA1 PE=1 SV=2	2.22	2.22	264.7	1	1	0	3.1	289	1.135e+05
252 | 252	>sp|Q9UQ80|PA2G4_HUMAN Proliferation-associated protein 2G4 OS=Homo sapiens OX=9606 GN=PA2G4 PE=1 SV=3	2.18	2.08	257.9	3	2	0	4.8	394	5.127e+05
253 | 253	>sp|P14866|HNRPL_HUMAN Heterogeneous nuclear ribonucleoprotein L OS=Homo sapiens OX=9606 GN=HNRNPL PE=1 SV=2	2.14	2.1	314.5	2	2	0	2.7	589	3.736e+05
254 | 254	>sp|Q9NUQ3|TXLNG_HUMAN Gamma-taxilin OS=Homo sapiens OX=9606 GN=TXLNG PE=1 SV=2	2.12	2.12	319.6	1	1	1	1.9	528	9.407e+04
255 | 255	>sp|P46779|RL28_HUMAN 60S ribosomal protein L28 OS=Homo sapiens OX=9606 GN=RPL28 PE=1 SV=3	2.12	2.12	343.3	1	1	0	5.8	137	1.527e+05
256 | 256	>sp|P49207|RL34_HUMAN 60S ribosomal protein L34 OS=Homo sapiens OX=9606 GN=RPL34 PE=1 SV=3	2.12	2.12	384	1	1	0	6.8	117	2.929e+05
257 | 257	>sp|P62857|RS28_HUMAN 40S ribosomal protein S28 OS=Homo sapiens OX=9606 GN=RPS28 PE=1 SV=1	2.1	2.1	222.1	1	1	0	17.4	69	1.011e+05
258 | 258	>sp|P21741|MK_HUMAN Midkine OS=Homo sapiens OX=9606 GN=MDK PE=1 SV=1	2.09	2.09	289.2	1	1	0	7	143	1.302e+05
259 | 259	>sp|P15311|EZRI_HUMAN Ezrin OS=Homo sapiens OX=9606 GN=EZR PE=1 SV=4	2.05	2.05	480.8	1	1	0	1.4	586	2.633e+05
260 | 260	>Reverse >tr|A0A2P9AH94|A0A2P9AH94_HUMAN Diguanylate cyclase/phosphodiesterase with PAS/PAC sensor(S) OS=Homo sapiens OX=9606 GN=BQ8482_150087 PE=4 SV=1	2.03	2.03	386.6	1	1	1	1.3	749	2.022e+05
261 | 261	>sp|Q13247|SRSF6_HUMAN Serine/arginine-rich splicing factor 6 OS=Homo sapiens OX=9606 GN=SRSF6 PE=1 SV=2	1.99	1.98	419.5	2	2	1	3.8	344	3.647e+05
262 | 262	>sp|Q9NZL4|HPBP1_HUMAN Hsp70-binding protein 1 OS=Homo sapiens OX=9606 GN=HSPBP1 PE=1 SV=1	1.98	1.98	382.1	1	1	0	2.8	362	1.035e+05
263 | 263	>sp|Q9HCS5|E41LA_HUMAN Band 4.1-like protein 4A OS=Homo sapiens OX=9606 GN=EPB41L4A PE=1 SV=2	1.97	1.97	301.3	1	1	0	1.3	686	1.310e+06
264 | 264	>sp|Q8TDD2|SP7_HUMAN Transcription factor Sp7 OS=Homo sapiens OX=9606 GN=SP7 PE=1 SV=1	1.94	1.93	380	2	1	0	2.6	431	1.015e+06
265 | 265	>sp|P06748|NPM_HUMAN Nucleophosmin OS=Homo sapiens OX=9606 GN=NPM1 PE=1 SV=2	1.92	1.93	352.7	1	1	0	3.1	294	2.349e+05
266 | 266	>sp|P25205|MCM3_HUMAN DNA replication licensing factor MCM3 OS=Homo sapiens OX=9606 GN=MCM3 PE=1 SV=3	1.83	1.83	300.2	1	1	0	1.1	808	1.505e+05
267 | 267	>Reverse >sp|Q92953|KCNB2_HUMAN Potassium voltage-gated channel subfamily B member 2 OS=Homo sapiens OX=9606 GN=KCNB2 PE=2 SV=2	1.8	1.79	229.9	2	1	1	1.3	911	4.361e+05
268 | 268	>sp|P62906|RL10A_HUMAN 60S ribosomal protein L10a OS=Homo sapiens OX=9606 GN=RPL10A PE=1 SV=2	1.79	1.79	333.7	1	1	0	3.7	217	2.152e+05
269 | 269	>sp|P29401|TKT_HUMAN Transketolase OS=Homo sapiens OX=9606 GN=TKT PE=1 SV=3	1.77	1.77	196.7	1	1	0	2.9	623	1.056e+05

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270 | 270	>sp|P28072|PSB6_HUMAN Proteasome subunit beta type-6 OS=Homo sapiens OX=9606 GN=PSMB6 PE=1 SV=4	1.73	1.73	283.7	1	1	0	4.6	239	1.032e+05
271 | 271	>sp|Q07065|CKAP4_HUMAN Cytoskeleton-associated protein 4 OS=Homo sapiens OX=9606 GN=CKAP4 PE=1 SV=2	1.69	1.62	266.7	2	2	0	3.5	602	2.290e+05
272 | 272	>sp|P00918|CAH2_HUMAN Carbonic anhydrase 2 OS=Homo sapiens OX=9606 GN=CA2 PE=1 SV=2	1.64	1.64	283	1	1	0	4.6	260	2.832e+05
273 | 273	>sp|P62820|RAB1A_HUMAN Ras-related protein Rab-1A OS=Homo sapiens OX=9606 GN=RAB1A PE=1 SV=3	1.63	1.63	396.7	1	1	0	3.9	205	2.227e+05
274 | 274	>Reverse >sp|Q2M3C6|TM266_HUMAN Transmembrane protein 266 OS=Homo sapiens OX=9606 GN=TMEM266 PE=2 SV=2	1.63	1.59	335	3	1	0	1.7	531	2.730e+06
275 | 275	>sp|P13473|LAMP2_HUMAN Lysosome-associated membrane glycoprotein 2 OS=Homo sapiens OX=9606 GN=LAMP2 PE=1 SV=2	1.62	1.62	278.5	1	1	0	2	410	1.808e+05
276 | 276	>sp|P24666|PPAC_HUMAN Low molecular weight phosphotyrosine protein phosphatase OS=Homo sapiens OX=9606 GN=ACP1 PE=1 SV=3	1.61	1.61	320.9	1	1	0	5.7	158	1.434e+05
277 | 277	>sp|Q9UNX3|RL26L_HUMAN 60S ribosomal protein L26-like 1 OS=Homo sapiens OX=9606 GN=RPL26L1 PE=1 SV=1	1.61	1.61	292.3	1	1	0	6.2	145	1.992e+05
278 | 278	>sp|O75718|CRTAP_HUMAN Cartilage-associated protein OS=Homo sapiens OX=9606 GN=CRTAP PE=1 SV=1	1.6	1.59	347.3	2	2	1	3	401	6.310e+05
279 | 279	>sp|H7BZ55|CRCC2_HUMAN Putative ciliary rootlet coiled-coil protein 2 OS=Homo sapiens OX=9606 GN=CROCC2 PE=5 SV=3	1.58	1.58	380.1	1	1	0	0.5	1655	3.372e+05
280 | 280	>sp|O60831|PRAF2_HUMAN PRA1 family protein 2 OS=Homo sapiens OX=9606 GN=PRAF2 PE=1 SV=1	1.58	1.58	292.3	1	1	0	6.2	178	1.421e+05
281 | 281	>sp|Q9BXT5|TEX15_HUMAN Testis-expressed protein 15 OS=Homo sapiens OX=9606 GN=TEX15 PE=2 SV=2	1.57	1.51	292.8	4	2	1	0.5	2789	1.242e+06
282 | 282	>sp|P05787|K2C8_HUMAN Keratin, type II cytoskeletal 8 OS=Homo sapiens OX=9606 GN=KRT8 PE=1 SV=7	1.52	1.42	235.7	3	3	1	6.2	483	3.482e+05
283 | 283	>sp|Q9NR99|MXRA5_HUMAN Matrix-remodeling-associated protein 5 OS=Homo sapiens OX=9606 GN=MXRA5 PE=1 SV=3	1.49	1.46	288.8	3	1	0	0.3	2828	4.498e+06
284 | 284	>sp|P26641|EF1G_HUMAN Elongation factor 1-gamma OS=Homo sapiens OX=9606 GN=EEF1G PE=1 SV=3	1.47	0.74	413.1	2	2	0	4.6	437	7.424e+05
285 | 285	>sp|Q8WXI7|MUC16_HUMAN Mucin-16 OS=Homo sapiens OX=9606 GN=MUC16 PE=1 SV=3	1.41	0.74	410.4	3	2	0	0.1	14507	2.290e+06
286 | 286	>sp|P62854|RS26_HUMAN 40S ribosomal protein S26 OS=Homo sapiens OX=9606 GN=RPS26 PE=1 SV=3	1.34	1.34	331.3	1	1	0	7.8	115	6.290e+05
287 | 287	>sp|A6NF34|ANTRL_HUMAN Anthrax toxin receptor-like OS=Homo sapiens OX=9606 GN=ANTXRL PE=3 SV=3	1.29	1.23	291.6	3	2	1	2.7	631	7.123e+05
288 | 288	>sp|P62851|RS25_HUMAN 40S ribosomal protein S25 OS=Homo sapiens OX=9606 GN=RPS25 PE=1 SV=1	1.25	1.25	383.2	1	1	0	8	125	3.286e+05
289 | 289	>Reverse >tr|Q96N33|Q96N33_HUMAN HCG1815013, isoform CRA_a OS=Homo sapiens OX=9606 GN=hCG_1815013 PE=2 SV=1	1.24	1.2	319.7	3	1	0	5.8	154	9.129e+05
290 | 290	>sp|Q16695|H31T_HUMAN Histone H3.1t OS=Homo sapiens OX=9606 GN=HIST3H3 PE=1 SV=3	1.21	1.21	357.1	1	1	0	5.1	136	6.488e+05
291 | 291	>tr|Q96DQ4|Q96DQ4_HUMAN cDNA FLJ30634 fis, clone CTONG2002453 OS=Homo sapiens OX=9606 PE=2 SV=1	1.2	1.2	346.1	1	1	0	5.7	122	1.144e+06
292 | 292	>sp|P31946|1433B_HUMAN 14-3-3 protein beta/alpha OS=Homo sapiens OX=9606 GN=YWHAB PE=1 SV=3	1.13	1.13	259.8	1	1	0	4.5	246	1.395e+05
293 | 293	>tr|A0A2P9AAM5|A0A2P9AAM5_HUMAN Gluconolaconase OS=Homo sapiens OX=9606 GN=BQ8482_110125 PE=4 SV=1	1.11	1.12	381.1	1	1	0	3.4	293	2.539e+05
294 | 294	>sp|P49773|HINT1_HUMAN Histidine triad nucleotide-binding protein 1 OS=Homo sapiens OX=9606 GN=HINT1 PE=1 SV=2	1.09	1.09	299.2	1	1	0	5.6	126	2.161e+05
295 | 295	>Reverse >tr|A0A2P9AAW1|A0A2P9AAW1_HUMAN Disulfide-bond oxidoreductase YfcG OS=Homo sapiens OX=9606 GN=yfcG PE=3 SV=1	1.05	0.48	207.7	4	4	4	4.7	234	1.398e+06
296 | 296	>sp|B1AJZ9|FHAD1_HUMAN Forkhead-associated domain-containing protein 1 OS=Homo sapiens OX=9606 GN=FHAD1 PE=2 SV=2	1.03	1.03	274.7	1	1	0	0.7	1412	2.844e+05
297 | 297	>sp|P84098|RL19_HUMAN 60S ribosomal protein L19 OS=Homo sapiens OX=9606 GN=RPL19 PE=1 SV=1	0.98	0.98	324.4	1	1	0	4.6	196	3.383e+05
298 | 298	>sp|Q15293|RCN1_HUMAN Reticulocalbin-1 OS=Homo sapiens OX=9606 GN=RCN1 PE=1 SV=1	0.98	0.98	360.1	1	1	0	2.4	331	2.079e+05
299 | 299	>Reverse >sp|P29353|SHC1_HUMAN SHC-transforming protein 1 OS=Homo sapiens OX=9606 GN=SHC1 PE=1 SV=4	0.96	0.58	360.3	20	1	0	1.4	583	4.409e+07
300 | 300	>sp|P31150|GDIA_HUMAN Rab GDP dissociation inhibitor alpha OS=Homo sapiens OX=9606 GN=GDI1 PE=1 SV=2	0.94	0.82	351.2	2	2	1	4	447	2.432e+05
301 | 301	>sp|Q09666|AHNK_HUMAN Neuroblast differentiation-associated protein AHNAK OS=Homo sapiens OX=9606 GN=AHNAK PE=1 SV=2	0.92	0.87	326.7	3	3	2	0.4	5890	4.444e+05
302 | 302	>sp|Q13474|DRP2_HUMAN Dystrophin-related protein 2 OS=Homo sapiens OX=9606 GN=DRP2 PE=2 SV=2	0.91	0.67	173.5	4	4	4	1.6	957	9.157e+05
303 | 303	>sp|Q53HC9|EIPR1_HUMAN EARP-interacting protein OS=Homo sapiens OX=9606 GN=EIPR1 PE=1 SV=2	0.9	0.9	216.2	1	1	0	3.4	387	7.307e+04
304 | 304	>Reverse >sp|Q5TBA9|FRY_HUMAN Protein furry homolog OS=Homo sapiens OX=9606 GN=FRY PE=1 SV=1	0.88	0.87	233.8	2	2	1	0.4	3013	7.249e+05
305 | 305	>tr|L0R5A1|L0R5A1_HUMAN Alternative protein CSF2RB OS=Homo sapiens OX=9606 GN=CSF2RB PE=4 SV=1	0.87	0.87	437	1	1	0	7.4	108	1.325e+07
306 | 306	>Reverse >tr|A0A0A0MRA3|A0A0A0MRA3_HUMAN Titin OS=Homo sapiens OX=9606 GN=TTN PE=1 SV=1	0.84	0.76	261.9	4	4	3	0.1	27118	1.121e+06
307 | 307	>sp|P84090|ERH_HUMAN Enhancer of rudimentary homolog OS=Homo sapiens OX=9606 GN=ERH PE=1 SV=1	0.83	0.83	122.6	1	1	1	16.3	104	6.477e+04
308 | 308	>sp|Q9BUF5|TBB6_HUMAN Tubulin beta-6 chain OS=Homo sapiens OX=9606 GN=TUBB6 PE=1 SV=1	0.83	0.83	234.2	1	1	0	2.7	446	8.948e+04
309 | 309	>Reverse >sp|P52948|NUP98_HUMAN Nuclear pore complex protein Nup98-Nup96 OS=Homo sapiens OX=9606 GN=NUP98 PE=1 SV=4	0.8	0.78	294.9	2	1	0	0.5	1817	4.438e+05
310 | 310	>Reverse >sp|Q6Y2X3|DJC14_HUMAN DnaJ homolog subfamily C member 14 OS=Homo sapiens OX=9606 GN=DNAJC14 PE=2 SV=2	0.8	0.8	282	1	1	0	1.7	702	7.157e+05
311 | 311	>sp|Q9Y230|RUVB2_HUMAN RuvB-like 2 OS=Homo sapiens OX=9606 GN=RUVBL2 PE=1 SV=3	0.8	0.72	212.8	2	2	0	4.8	463	1.378e+05
312 | 312	>tr|A0A1W2PQU7|A0A1W2PQU7_HUMAN Glial fibrillary acidic protein (Fragment) OS=Homo sapiens OX=9606 GN=GFAP PE=1 SV=1	0.79	0.78	241.5	2	1	1	31	29	3.374e+05
313 | 313	>sp|Q7Z2Y8|GVIN1_HUMAN Interferon-induced very large GTPase 1 OS=Homo sapiens OX=9606 GN=GVINP1 PE=2 SV=2	0.78	0.71	277.4	2	2	1	0.8	2422	4.792e+05
314 | 314	>sp|Q13283|G3BP1_HUMAN Ras GTPase-activating protein-binding protein 1 OS=Homo sapiens OX=9606 GN=G3BP1 PE=1 SV=1	0.78	0.78	214.8	1	1	0	2.4	466	1.480e+05
315 | 315	>sp|P55001|MFAP2_HUMAN Microfibrillar-associated protein 2 OS=Homo sapiens OX=9606 GN=MFAP2 PE=2 SV=1	0.77	0.78	235.6	1	1	0	5.5	183	1.666e+05
316 | 316	>sp|P34932|HSP74_HUMAN Heat shock 70 kDa protein 4 OS=Homo sapiens OX=9606 GN=HSPA4 PE=1 SV=4	0.76	0.76	213.3	1	1	0	1.3	840	7.306e+04
317 | 317	>sp|P24821|TENA_HUMAN Tenascin OS=Homo sapiens OX=9606 GN=TNC PE=1 SV=3	0.76	0.74	368.4	2	1	0	0.4	2201	1.411e+06
318 | 318	>sp|P60866|RS20_HUMAN 40S ribosomal protein S20 OS=Homo sapiens OX=9606 GN=RPS20 PE=1 SV=1	0.76	0.76	207.3	1	1	0	10.1	119	1.816e+05
319 | 319	>sp|P62304|RUXE_HUMAN Small nuclear ribonucleoprotein E OS=Homo sapiens OX=9606 GN=SNRPE PE=1 SV=1	0.76	0.76	217.1	1	1	0	13	92	4.590e+04

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320 | 320	>sp|P06703|S10A6_HUMAN Protein S100-A6 OS=Homo sapiens OX=9606 GN=S100A6 PE=1 SV=1	0.75	0.75	386.4	1	1	0	8.9	90	4.998e+05
321 | 321	>sp|Q9C0B2|CFA74_HUMAN Cilia- and flagella-associated protein 74 OS=Homo sapiens OX=9606 GN=CFAP74 PE=2 SV=3	0.74	0.75	333.2	1	1	0	0.6	1584	1.537e+05
322 | 322	>sp|O75581|LRP6_HUMAN Low-density lipoprotein receptor-related protein 6 OS=Homo sapiens OX=9606 GN=LRP6 PE=1 SV=2	0.74	0.74	301.2	1	1	1	0.8	1613	1.526e+06
323 | 323	>sp|P82094|TMF1_HUMAN TATA element modulatory factor OS=Homo sapiens OX=9606 GN=TMF1 PE=1 SV=2	0.73	0.73	408.8	1	1	0	0.7	1093	4.176e+05
324 | 324	>sp|Q9NQ38|ISK5_HUMAN Serine protease inhibitor Kazal-type 5 OS=Homo sapiens OX=9606 GN=SPINK5 PE=1 SV=2	0.72	0.72	276.2	2	2	2	1	1064	6.253e+05
325 | 325	>tr|A1L1A2|A1L1A2_HUMAN Uncharacterized protein (Fragment) OS=Homo sapiens OX=9606 PE=2 SV=1	0.72	0.72	369.7	1	1	0	14.5	69	5.913e+05
326 | 326	>sp|Q02818|NUCB1_HUMAN Nucleobindin-1 OS=Homo sapiens OX=9606 GN=NUCB1 PE=1 SV=4	0.71	0.72	209.8	1	1	0	2.2	461	9.146e+04
327 | 327	>sp|P52272|HNRPM_HUMAN Heterogeneous nuclear ribonucleoprotein M OS=Homo sapiens OX=9606 GN=HNRNPM PE=1 SV=3	0.71	0.71	186.2	1	1	0	2.1	730	1.155e+05
328 | 328	>sp|P51116|FXR2_HUMAN Fragile X mental retardation syndrome-related protein 2 OS=Homo sapiens OX=9606 GN=FXR2 PE=1 SV=2	0.71	0.71	313.3	1	1	0	1.2	673	2.405e+05
329 | 329	>Reverse >sp|Q8N137|CNTRB_HUMAN Centrobin OS=Homo sapiens OX=9606 GN=CNTROB PE=1 SV=1	0.71	0.71	323.6	1	1	0	1.1	903	7.981e+05
330 | 330	>Reverse >tr|G3V3S9|G3V3S9_HUMAN Calcium permeable stress-gated cation channel 1 (Fragment) OS=Homo sapiens OX=9606 GN=TMEM63C PE=4 SV=1	0.7	0.7	251.6	1	1	1	30.6	36	5.817e+05
331 | 331	>sp|P05556|ITB1_HUMAN Integrin beta-1 OS=Homo sapiens OX=9606 GN=ITGB1 PE=1 SV=2	0.7	0.7	201.7	1	1	0	1.3	798	9.898e+04
332 | 332	>Reverse >tr|A0A2P9AGQ9|A0A2P9AGQ9_HUMAN Sarcosine oxidase subunit alpha OS=Homo sapiens OX=9606 GN=soxA PE=4 SV=1	0.7	0.7	353.1	1	1	0	1.3	977	5.067e+05
333 | 333	>sp|P0DME0|SETLP_HUMAN Protein SETSIP OS=Homo sapiens OX=9606 GN=SETSIP PE=1 SV=1	0.7	0.7	198.7	1	1	0	3.3	302	1.432e+05
334 | 334	>tr|A0A2P9AWU7|A0A2P9AWU7_HUMAN Putative electron transfer protein OS=Homo sapiens OX=9606 GN=BQ8482_90027 PE=4 SV=1	0.69	0.67	304.3	3	1	1	1.8	709	1.511e+06
335 | 335	>Reverse >sp|Q86UY6|NAA40_HUMAN N-alpha-acetyltransferase 40 OS=Homo sapiens OX=9606 GN=NAA40 PE=1 SV=1	0.69	0.69	284.5	1	1	0	5.1	237	3.447e+05
336 | 336	>sp|Q9BPW8|NIPS1_HUMAN Protein NipSnap homolog 1 OS=Homo sapiens OX=9606 GN=NIPSNAP1 PE=1 SV=1	0.69	0.68	308.9	2	2	1	4.6	284	4.057e+05
337 | 337	>tr|A0A2P9AWP3|A0A2P9AWP3_HUMAN 5-methyltetrahydrofolate--homocysteine methyltransferase OS=Homo sapiens OX=9606 GN=BQ8482_90005 PE=4 SV=1	0.69	0.67	436	2	1	1	4.7	232	6.592e+05
338 | 338	>sp|P84095|RHOG_HUMAN Rho-related GTP-binding protein RhoG OS=Homo sapiens OX=9606 GN=RHOG PE=1 SV=1	0.68	0.68	276.5	1	1	0	5.8	191	2.862e+05
339 | 339	>sp|Q86VM9|ZCH18_HUMAN Zinc finger CCCH domain-containing protein 18 OS=Homo sapiens OX=9606 GN=ZC3H18 PE=1 SV=2	0.68	0.68	327	1	1	0	0.8	953	1.298e+06
340 | 340	>sp|P54886|P5CS_HUMAN Delta-1-pyrroline-5-carboxylate synthase OS=Homo sapiens OX=9606 GN=ALDH18A1 PE=1 SV=2	0.68	0.68	413.3	1	1	0	1	795	1.251e+06
341 | 341	>Reverse >sp|O60318|GANP_HUMAN Germinal-center associated nuclear protein OS=Homo sapiens OX=9606 GN=MCM3AP PE=1 SV=2	0.68	0.68	254.4	1	1	1	0.5	1980	1.160e+05

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Prot.Rank	Protein Name	Log Prob	Best Log Prob	BestScore	#Spectra	# Uniq.Peps.	# ModPeps.	% Cov.	# AAs	Intensity
1 | 1	**>sp|Q28685|DAG1_RABIT Dystroglycan OS=Oryctolagus cuniculus GN=DAG1 PE=1 SV=1**	**531.07**	**17.47**	**1164.2**	**494**	**108**	**76**	**58.9**	**870**	**8.692e+08**
2 | 2	>sp|P04264|K2C1_HUMAN Keratin, type II cytoskeletal 1 OS=Homo sapiens OX=9606 GN=KRT1 PE=1 SV=6	140.51	14	953.3	56	21	2	38.4	644	3.155e+07
3 | 3	>sp|P08670|VIME_HUMAN Vimentin OS=Homo sapiens OX=9606 GN=VIM PE=1 SV=4	91.66	10.83	745.9	37	20	9	44.2	466	2.389e+07
4 | 4	>sp|P13645|K1C10_HUMAN Keratin, type I cytoskeletal 10 OS=Homo sapiens OX=9606 GN=KRT10 PE=1 SV=6	89.6	13.14	878.8	30	16	4	30	584	1.564e+07
5 | 5	>sp|P35527|K1C9_HUMAN Keratin, type I cytoskeletal 9 OS=Homo sapiens OX=9606 GN=KRT9 PE=1 SV=3	84.43	10.98	757.4	40	19	9	21.7	623	2.031e+07
6 | 6	>sp|P0DMV8|HS71A_HUMAN Heat shock 70 kDa protein 1A OS=Homo sapiens OX=9606 GN=HSPA1A PE=1 SV=1	82.78	10.59	722	38	14	5	25.7	641	2.506e+07
7 | 7	>sp|P07437|TBB5_HUMAN Tubulin beta chain OS=Homo sapiens OX=9606 GN=TUBB PE=1 SV=2	77.08	11.15	764	45	11	4	21.4	444	2.996e+07
8 | 8	>sp|P60709|ACTB_HUMAN Actin, cytoplasmic 1 OS=Homo sapiens OX=9606 GN=ACTB PE=1 SV=1	64.98	14.14	925.6	26	9	3	28	375	1.949e+07
9 | 9	>sp|P68363|TBA1B_HUMAN Tubulin alpha-1B chain OS=Homo sapiens OX=9606 GN=TUBA1B PE=1 SV=1	54.64	9.96	689.6	26	11	2	31	451	8.353e+06
10 | 10	>sp|P08238|HS90B_HUMAN Heat shock protein HSP 90-beta OS=Homo sapiens OX=9606 GN=HSP90AB1 PE=1 SV=4	46.8	9.88	681.2	18	11	1	17.3	724	8.225e+06
11 | 11	>sp|P35908|K22E_HUMAN Keratin, type II cytoskeletal 2 epidermal OS=Homo sapiens OX=9606 GN=KRT2 PE=1 SV=2	36.53	12.68	831.7	11	9	2	14.6	639	5.875e+06
12 | 12	>sp|P01023|A2MG_HUMAN Alpha-2-macroglobulin OS=Homo sapiens OX=9606 GN=A2M PE=1 SV=3	34.14	10.43	716.8	24	5	1	2.6	1474	1.533e+07
13 | 13	>sp|P22314|UBA1_HUMAN Ubiquitin-like modifier-activating enzyme 1 OS=Homo sapiens OX=9606 GN=UBA1 PE=1 SV=3	26.55	9.77	686.2	9	5	0	6.5	1058	2.609e+06
14 | 14	>sp|P04406|G3P_HUMAN Glyceraldehyde-3-phosphate dehydrogenase OS=Homo sapiens OX=9606 GN=GAPDH PE=1 SV=3	23.38	13.77	853.7	18	7	2	20.3	335	8.512e+06
15 | 15	>sp|P14618|KPYM_HUMAN Pyruvate kinase PKM OS=Homo sapiens OX=9606 GN=PKM PE=1 SV=4	21.76	7.2	623.3	17	5	0	12.4	531	7.189e+06
16 | 16	>sp|Q99519|NEUR1_HUMAN Sialidase-1 OS=Homo sapiens OX=9606 GN=NEU1 PE=1 SV=1	19.18	6.48	568.9	13	4	0	10.4	415	4.908e+06
17 | 17	>sp|O95461|LARG1_HUMAN LARGE xylosyl- and glucuronyltransferase 1 OS=Homo sapiens OX=9606 GN=LARGE1 PE=1 SV=1	18.3	4.25	478.3	7	7	5	13.1	756	2.083e+06
18 | 18	>sp|P62805|H4_HUMAN Histone H4 OS=Homo sapiens OX=9606 GN=HIST1H4A PE=1 SV=2	18.23	9.06	699.1	13	3	0	29.1	103	6.453e+06
19 | 19	>sp|Q06830|PRDX1_HUMAN Peroxiredoxin-1 OS=Homo sapiens OX=9606 GN=PRDX1 PE=1 SV=1	18.2	5.34	487.4	6	5	2	20.1	199	2.565e+06
20 | 20	>sp|P78371|TCPB_HUMAN T-complex protein 1 subunit beta OS=Homo sapiens OX=9606 GN=CCT2 PE=1 SV=4	17.37	9.41	684.6	2	2	1	6.9	535	1.745e+05
21 | 21	>sp|P68371|TBB4B_HUMAN Tubulin beta-4B chain OS=Homo sapiens OX=9606 GN=TUBB4B PE=1 SV=1	16.02	5.94	542.3	8	3	1	6.1	445	3.301e+06
22 | 22	>tr|Q9UK54|Q9UK54_HUMAN Hemoglobin beta subunit variant (Fragment) OS=Homo sapiens OX=9606 GN=HBB PE=2 SV=1	15.9	8.11	738.8	21	4	1	23.4	128	1.501e+07
23 | 23	>sp|P08865|RSSA_HUMAN 40S ribosomal protein SA OS=Homo sapiens OX=9606 GN=RPSA PE=1 SV=4	15.6	6.98	552.4	3	3	0	12.9	295	1.534e+06
24 | 24	>sp|P02768|ALBU_HUMAN Serum albumin OS=Homo sapiens OX=9606 GN=ALB PE=1 SV=2	14.77	6.38	570.5	10	4	0	7.1	609	5.374e+06
25 | 25	>sp|P68104|EF1A1_HUMAN Elongation factor 1-alpha 1 OS=Homo sapiens OX=9606 GN=EEF1A1 PE=1 SV=1	14.59	9.69	704.4	7	4	0	8	462	3.488e+06
26 | 26	>sp|P13647|K2C5_HUMAN Keratin, type II cytoskeletal 5 OS=Homo sapiens OX=9606 GN=KRT5 PE=1 SV=3	14.37	4.53	564.2	4	4	0	6.6	590	1.602e+06
27 | 27	>sp|P12259|FA5_HUMAN Coagulation factor V OS=Homo sapiens OX=9606 GN=F5 PE=1 SV=4	14.23	7.62	686.6	6	4	2	1.8	2224	1.694e+06
28 | 28	>sp|P0DOX5|IGG1_HUMAN Immunoglobulin gamma-1 heavy chain OS=Homo sapiens OX=9606 PE=1 SV=1	11.94	11.73	831.8	13	1	0	3.6	449	3.074e+07
29 | 29	>sp|Q5QNW6|H2B2F_HUMAN Histone H2B type 2-F OS=Homo sapiens OX=9606 GN=HIST2H2BF PE=1 SV=3	10.89	8.31	670	5	2	1	15.9	126	5.672e+06
30 | 30	>sp|P27348|1433T_HUMAN 14-3-3 protein theta OS=Homo sapiens OX=9606 GN=YWHAQ PE=1 SV=1	10.88	10.88	713.6	1	1	0	5.7	245	4.237e+05
31 | 31	>sp|P61978|HNRPK_HUMAN Heterogeneous nuclear ribonucleoprotein K OS=Homo sapiens OX=9606 GN=HNRNPK PE=1 SV=1	10.73	6.9	514.7	4	3	0	8	463	1.754e+06
32 | 32	>sp|P00338|LDHA_HUMAN L-lactate dehydrogenase A chain OS=Homo sapiens OX=9606 GN=LDHA PE=1 SV=2	10.26	9.3	685	2	2	0	6.3	332	2.284e+06
33 | 33	>sp|P07355|ANXA2_HUMAN Annexin A2 OS=Homo sapiens OX=9606 GN=ANXA2 PE=1 SV=2	10.16	4.49	531.3	3	3	0	8.8	339	1.094e+06
34 | 34	>sp|Q32P28|P3H1_HUMAN Prolyl 3-hydroxylase 1 OS=Homo sapiens OX=9606 GN=P3H1 PE=1 SV=2	9.85	6.11	541	2	2	0	3.1	736	9.882e+05
35 | 35	>sp|Q71UI9|H2AV_HUMAN Histone H2A.V OS=Homo sapiens OX=9606 GN=H2AFV PE=1 SV=3	9.81	5.56	581	12	3	0	20.3	128	5.211e+06
36 | 36	>sp|P14625|ENPL_HUMAN Endoplasmin OS=Homo sapiens OX=9606 GN=HSP90B1 PE=1 SV=1	9.78	5.54	509.8	3	3	0	3.2	803	1.151e+06
37 | 37	>sp|P36871|PGM1_HUMAN Phosphoglucomutase-1 OS=Homo sapiens OX=9606 GN=PGM1 PE=1 SV=3	9.77	4.99	566.4	2	2	0	4.3	562	8.181e+05
38 | 38	>sp|P00734|THRB_HUMAN Prothrombin OS=Homo sapiens OX=9606 GN=F2 PE=1 SV=2	9.03	6.84	576.7	2	2	1	4.8	622	7.106e+05
39 | 39	>sp|P13639|EF2_HUMAN Elongation factor 2 OS=Homo sapiens OX=9606 GN=EEF2 PE=1 SV=4	8.49	5.77	517.7	4	4	0	4.9	858	1.846e+06
40 | 40	>sp|P30101|PDIA3_HUMAN Protein disulfide-isomerase A3 OS=Homo sapiens OX=9606 GN=PDIA3 PE=1 SV=4	8.34	4.11	398	3	3	1	6.3	505	6.702e+05
41 | 41	>sp|P63244|RACK1_HUMAN Receptor of activated protein C kinase 1 OS=Homo sapiens OX=9606 GN=RACK1 PE=1 SV=3	8.25	8.23	624.7	2	1	0	3.2	317	1.015e+06
42 | 42	>sp|P62258|1433E_HUMAN 14-3-3 protein epsilon OS=Homo sapiens OX=9606 GN=YWHAE PE=1 SV=1	8.07	8.07	607.9	1	1	0	4.3	255	2.102e+05
43 | 43	>sp|P60174|TPIS_HUMAN Triosephosphate isomerase OS=Homo sapiens OX=9606 GN=TPI1 PE=1 SV=3	7.69	5.87	459.6	2	2	0	7.7	286	7.026e+05
44 | 44	>sp|P63104|1433Z_HUMAN 14-3-3 protein zeta/delta OS=Homo sapiens OX=9606 GN=YWHAZ PE=1 SV=1	7.66	6.79	567.3	5	3	1	14.7	245	1.423e+06
45 | 45	>sp|P06733|ENOA_HUMAN Alpha-enolase OS=Homo sapiens OX=9606 GN=ENO1 PE=1 SV=2	7.49	3.93	492	2	2	1	4.4	434	1.449e+06
46 | 46	>sp|Q9Y490|TLN1_HUMAN Talin-1 OS=Homo sapiens OX=9606 GN=TLN1 PE=1 SV=3	7.14	6.23	448.3	3	3	0	2.4	2541	3.993e+05
47 | 47	>sp|P62987|RL40_HUMAN Ubiquitin-60S ribosomal protein L40 OS=Homo sapiens OX=9606 GN=UBA52 PE=1 SV=2	6.81	6.81	580.5	1	1	0	7	128	1.665e+06
48 | 48	>sp|P68366|TBA4A_HUMAN Tubulin alpha-4A chain OS=Homo sapiens OX=9606 GN=TUBA4A PE=1 SV=1	6.72	6.73	567.3	1	1	0	3.3	448	2.944e+05
49 | 49	>sp|Q13347|EIF3I_HUMAN Eukaryotic translation initiation factor 3 subunit I OS=Homo sapiens OX=9606 GN=EIF3I PE=1 SV=1	6.65	6.56	699.8	2	2	0	6.5	325	1.019e+06
50 | 50	>sp|P11142|HSP7C_HUMAN Heat shock cognate 71 kDa protein OS=Homo sapiens OX=9606 GN=HSPA8 PE=1 SV=1	6.57	6.51	389.4	4	3	1	6.5	646	1.860e+06
51 | 51	>sp|P02748|CO9_HUMAN Complement component C9 OS=Homo sapiens OX=9606 GN=C9 PE=1 SV=2	6.51	3.34	409.9	3	2	0	3.8	559	1.603e+06
52 | 52	>sp|P26373|RL13_HUMAN 60S ribosomal protein L13 OS=Homo sapiens OX=9606 GN=RPL13 PE=1 SV=4	6.42	5.7	487.3	2	2	0	9.5	211	6.518e+05
53 | 53	>sp|P02649|APOE_HUMAN Apolipoprotein E OS=Homo sapiens OX=9606 GN=APOE PE=1 SV=1	6.37	6.37	605.1	1	1	0	2.8	317	2.583e+06
54 | 54	>sp|P04075|ALDOA_HUMAN Fructose-bisphosphate aldolase A OS=Homo sapiens OX=9606 GN=ALDOA PE=1 SV=2	5.97	4.64	513.4	3	3	1	6.3	364	1.252e+06
55 | 55	>sp|P04004|VTNC_HUMAN Vitronectin OS=Homo sapiens OX=9606 GN=VTN PE=1 SV=1	5.83	5.81	491.9	2	1	0	3.1	478	4.174e+05
56 | 56	>sp|P07900|HS90A_HUMAN Heat shock protein HSP 90-alpha OS=Homo sapiens OX=9606 GN=HSP90AA1 PE=1 SV=5	5.76	3.99	500.7	6	3	0	4.5	732	1.920e+06
57 | 57	>sp|P38919|IF4A3_HUMAN Eukaryotic initiation factor 4A-III OS=Homo sapiens OX=9606 GN=EIF4A3 PE=1 SV=4	5.75	5.75	390.1	1	1	0	2.7	411	3.824e+05
58 | 58	>tr|H6VRG2|H6VRG2_HUMAN Keratin 1 OS=Homo sapiens OX=9606 GN=KRT1 PE=3 SV=1	5.48	5.44	569.1	3	2	1	1.9	644	3.573e+05
59 | 59	>sp|P07237|PDIA1_HUMAN Protein disulfide-isomerase OS=Homo sapiens OX=9606 GN=P4HB PE=1 SV=3	5.15	2.6	278.1	2	2	2	4.3	508	4.696e+05
60 | 60	>sp|P13667|PDIA4_HUMAN Protein disulfide-isomerase A4 OS=Homo sapiens OX=9606 GN=PDIA4 PE=1 SV=2	5.02	4.21	520	3	3	1	5.1	645	6.129e+05
61 | 61	>sp|P55058|PLTP_HUMAN Phospholipid transfer protein OS=Homo sapiens OX=9606 GN=PLTP PE=1 SV=1	5.02	4.98	519.4	4	1	0	2.2	493	2.705e+06
62 | 62	>sp|P62937|PPIA_HUMAN Peptidyl-prolyl cis-trans isomerase A OS=Homo sapiens OX=9606 GN=PPIA PE=1 SV=2	4.95	2.92	301.1	2	2	1	12.1	165	7.321e+05
63 | 63	>sp|P23396|RS3_HUMAN 40S ribosomal protein S3 OS=Homo sapiens OX=9606 GN=RPS3 PE=1 SV=2	4.81	4.81	555.9	1	1	0	5.3	243	4.098e+05
64 | 64	>sp|P55209|NP1L1_HUMAN Nucleosome assembly protein 1-like 1 OS=Homo sapiens OX=9606 GN=NAP1L1 PE=1 SV=1	4.8	4.78	321.5	2	1	0	4.3	391	3.734e+05
65 | 65	>sp|Q9BVA1|TBB2B_HUMAN Tubulin beta-2B chain OS=Homo sapiens OX=9606 GN=TUBB2B PE=1 SV=1	4.68	4.68	470.2	1	1	0	2.7	445	4.544e+05
66 | 66	>sp|P69905|HBA_HUMAN Hemoglobin subunit alpha OS=Homo sapiens OX=9606 GN=HBA1 PE=1 SV=2	4.44	2.85	388.6	5	2	1	11.3	142	2.456e+06
67 | 67	>sp|P02533|K1C14_HUMAN Keratin, type I cytoskeletal 14 OS=Homo sapiens OX=9606 GN=KRT14 PE=1 SV=4	4.37	3.52	300.6	2	2	0	5.9	472	5.884e+05
68 | 68	>sp|P45974|UBP5_HUMAN Ubiquitin carboxyl-terminal hydrolase 5 OS=Homo sapiens OX=9606 GN=USP5 PE=1 SV=2	4.31	4.31	379	1	1	0	1.2	858	2.605e+05
69 | 69	>sp|Q07954|LRP1_HUMAN Prolow-density lipoprotein receptor-related protein 1 OS=Homo sapiens OX=9606 GN=LRP1 PE=1 SV=2	4.25	3.41	488	3	3	1	0.7	4544	1.084e+06
70 | 70	>sp|Q8N884|CGAS_HUMAN Cyclic GMP-AMP synthase OS=Homo sapiens OX=9606 GN=CGAS PE=1 SV=2	4.25	4.21	460.6	3	1	0	1.9	522	1.240e+06
71 | 71	>sp|P06396|GELS_HUMAN Gelsolin OS=Homo sapiens OX=9606 GN=GSN PE=1 SV=1	4.24	4.24	516.8	1	1	0	1.2	782	8.703e+05
72 | 72	>sp|P49591|SYSC_HUMAN Serine--tRNA ligase, cytoplasmic OS=Homo sapiens OX=9606 GN=SARS PE=1 SV=3	4.24	4.24	345.9	1	1	0	2.7	514	4.786e+05
73 | 73	>sp|O60506|HNRPQ_HUMAN Heterogeneous nuclear ribonucleoprotein Q OS=Homo sapiens OX=9606 GN=SYNCRIP PE=1 SV=2	4.21	4.21	372.6	1	1	0	1.9	623	2.505e+05
74 | 74	>sp|P21741|MK_HUMAN Midkine OS=Homo sapiens OX=9606 GN=MDK PE=1 SV=1	4.09	4.09	360.1	1	1	0	7	143	4.383e+05
75 | 75	>sp|P07737|PROF1_HUMAN Profilin-1 OS=Homo sapiens OX=9606 GN=PFN1 PE=1 SV=2	4.06	4.06	384.7	1	1	1	10	140	1.174e+05
76 | 76	>sp|P09211|GSTP1_HUMAN Glutathione S-transferase P OS=Homo sapiens OX=9606 GN=GSTP1 PE=1 SV=2	4.06	4.06	359.4	1	1	0	4.8	210	2.105e+05
77 | 77	>sp|Q14974|IMB1_HUMAN Importin subunit beta-1 OS=Homo sapiens OX=9606 GN=KPNB1 PE=1 SV=2	4.04	4.04	393.5	1	1	0	1.4	876	7.755e+05
78 | 78	>sp|O14657|TOR1B_HUMAN Torsin-1B OS=Homo sapiens OX=9606 GN=TOR1B PE=1 SV=2	3.92	3.92	410.8	1	1	0	3.3	336	2.179e+05
79 | 79	>sp|P62917|RL8_HUMAN 60S ribosomal protein L8 OS=Homo sapiens OX=9606 GN=RPL8 PE=1 SV=2	3.85	3.85	486.4	1	1	0	4.3	257	8.177e+05
80 | 80	>sp|P09651|ROA1_HUMAN Heterogeneous nuclear ribonucleoprotein A1 OS=Homo sapiens OX=9606 GN=HNRNPA1 PE=1 SV=5	3.83	3.83	417.4	1	1	0	2.2	372	2.959e+05
81 | 81	>sp|P11021|BIP_HUMAN Endoplasmic reticulum chaperone BiP OS=Homo sapiens OX=9606 GN=HSPA5 PE=1 SV=2	3.83	3.65	241.8	2	2	0	4.4	654	3.049e+05
82 | 82	>sp|P23526|SAHH_HUMAN Adenosylhomocysteinase OS=Homo sapiens OX=9606 GN=AHCY PE=1 SV=4	3.81	2	247.3	2	2	0	5.6	432	3.420e+05
83 | 83	>sp|P46782|RS5_HUMAN 40S ribosomal protein S5 OS=Homo sapiens OX=9606 GN=RPS5 PE=1 SV=4	3.79	3.79	502.5	1	1	0	4.4	204	4.913e+05
84 | 84	>sp|P12004|PCNA_HUMAN Proliferating cell nuclear antigen OS=Homo sapiens OX=9606 GN=PCNA PE=1 SV=1	3.7	3.7	488	1	1	0	3.1	261	8.121e+05
85 | 85	>sp|P10809|CH60_HUMAN 60 kDa heat shock protein, mitochondrial OS=Homo sapiens OX=9606 GN=HSPD1 PE=1 SV=2	3.6	3.6	335.5	1	1	0	2.1	573	3.259e+05
86 | 86	>sp|P28066|PSA5_HUMAN Proteasome subunit alpha type-5 OS=Homo sapiens OX=9606 GN=PSMA5 PE=1 SV=3	3.59	3.59	342.5	1	1	0	4.1	241	1.761e+05
87 | 87	>sp|P61313|RL15_HUMAN 60S ribosomal protein L15 OS=Homo sapiens OX=9606 GN=RPL15 PE=1 SV=2	3.53	2.49	479.7	2	2	1	7.8	204	1.170e+06
88 | 88	>sp|P16870|CBPE_HUMAN Carboxypeptidase E OS=Homo sapiens OX=9606 GN=CPE PE=1 SV=1	3.47	3.47	320.6	1	1	0	2.1	476	3.196e+05
89 | 89	>sp|P40925|MDHC_HUMAN Malate dehydrogenase, cytoplasmic OS=Homo sapiens OX=9606 GN=MDH1 PE=1 SV=4	3.43	3.43	315.3	1	1	0	3	334	1.303e+05
90 | 90	>sp|P14314|GLU2B_HUMAN Glucosidase 2 subunit beta OS=Homo sapiens OX=9606 GN=PRKCSH PE=1 SV=2	3.4	3.4	336.2	1	1	1	2.1	528	1.791e+05
91 | 91	>sp|Q9NUQ3|TXLNG_HUMAN Gamma-taxilin OS=Homo sapiens OX=9606 GN=TXLNG PE=1 SV=2	3.39	3.39	484.1	1	1	1	1.9	528	2.306e+05

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92 | 92	>sp|P84098|RL19_HUMAN 60S ribosomal protein L19 OS=Homo sapiens OX=9606 GN=RPL19 PE=1 SV=1	3.28	3.28	393	1	1	0	4.6	196	3.056e+05
93 | 93	>sp|P62263|RS14_HUMAN 40S ribosomal protein S14 OS=Homo sapiens OX=9606 GN=RPS14 PE=1 SV=3	3.14	3.14	309.7	1	1	0	7.3	151	3.628e+05
94 | 94	>sp|P04792|HSPB1_HUMAN Heat shock protein beta-1 OS=Homo sapiens OX=9606 GN=HSPB1 PE=1 SV=2	3.13	3.13	318	1	1	0	4.9	205	9.277e+04
95 | 95	>sp|B9A064|IGLL5_HUMAN Immunoglobulin lambda-like polypeptide 5 OS=Homo sapiens OX=9606 GN=IGLL5 PE=2 SV=2	3.13	3.13	464.4	1	1	0	3.7	214	1.231e+06
96 | 96	>Reverse >sp|O43513|MED7_HUMAN Mediator of RNA polymerase II transcription subunit 7 OS=Homo sapiens OX=9606 GN=MED7 PE=1 SV=1	3.1	1.25	344.5	9	4	3	3.9	233	1.004e+07
97 | 97	>sp|P08962|CD63_HUMAN CD63 antigen OS=Homo sapiens OX=9606 GN=CD63 PE=1 SV=2	3.09	3.09	269.9	1	1	1	4.2	238	2.136e+05
98 | 98	>sp|P22626|ROA2_HUMAN Heterogeneous nuclear ribonucleoproteins A2/B1 OS=Homo sapiens OX=9606 GN=HNRNPA2B1 PE=1 SV=2	3.07	3.04	383.1	2	2	1	9.9	353	6.776e+05
99 | 99	>Reverse >sp|Q92953|KCNB2_HUMAN Potassium voltage-gated channel subfamily B member 2 OS=Homo sapiens OX=9606 GN=KCNB2 PE=2 SV=2	2.96	2.94	268.7	2	1	1	1.3	911	7.463e+05
100 | 100	>sp|Q06033|ITIH3_HUMAN Inter-alpha-trypsin inhibitor heavy chain H3 OS=Homo sapiens OX=9606 GN=ITIH3 PE=1 SV=2	2.9	2.87	284.4	3	1	1	1.1	890	5.580e+05
101 | 101	>Reverse >sp|A6NK89|RASFA_HUMAN Ras association domain-containing protein 10 OS=Homo sapiens OX=9606 GN=RASSF10 PE=2 SV=3	2.89	2.89	380.5	1	1	0	1.8	507	5.820e+05
102 | 102	>Reverse >sp|A6NFC9|OR2W5_HUMAN Putative olfactory receptor 2W5 OS=Homo sapiens OX=9606 GN=OR2W5 PE=5 SV=1	2.87	2.79	387.2	5	1	0	3.4	320	1.043e+06
103 | 103	>sp|Q9BXJ9|NAA15_HUMAN N-alpha-acetyltransferase 15, NatA auxiliary subunit OS=Homo sapiens OX=9606 GN=NAA15 PE=1 SV=1	2.81	2.81	355.8	1	1	0	1	866	1.756e+05
104 | 104	>sp|Q14240|IF4A2_HUMAN Eukaryotic initiation factor 4A-II OS=Homo sapiens OX=9606 GN=EIF4A2 PE=1 SV=2	2.8	2.8	297	1	1	0	2.5	407	1.298e+05
105 | 105	>sp|P62826|RAN_HUMAN GTP-binding nuclear protein Ran OS=Homo sapiens OX=9606 GN=RAN PE=1 SV=3	2.8	2.8	426.8	1	1	0	5.1	216	5.223e+05
106 | 106	>Reverse >tr|A0A2P9AH94|A0A2P9AH94_HUMAN Diguanylate cyclase/phosphodiesterase with PAS/PAC sensor(S) OS=Homo sapiens OX=9606 GN=BQ8482_150087 PE=4 SV=1	2.76	2.76	505.3	1	1	1	1.3	749	8.275e+05
107 | 107	>sp|P02545|LMNA_HUMAN Prelamin-A/C OS=Homo sapiens OX=9606 GN=LMNA PE=1 SV=1	2.71	2.57	294.7	2	2	0	2.6	664	5.853e+05
108 | 108	>sp|Q01130|SRSF2_HUMAN Serine/arginine-rich splicing factor 2 OS=Homo sapiens OX=9606 GN=SRSF2 PE=1 SV=4	2.71	2.71	275.5	1	1	0	3.6	221	4.155e+05
109 | 109	>sp|P01024|CO3_HUMAN Complement C3 OS=Homo sapiens OX=9606 GN=C3 PE=1 SV=2	2.69	2.69	372.4	1	1	0	0.5	1663	1.845e+05
110 | 110	>sp|P80723|BASP1_HUMAN Brain acid soluble protein 1 OS=Homo sapiens OX=9606 GN=BASP1 PE=1 SV=2	2.69	2.69	229.8	1	1	0	6.2	227	4.289e+05
111 | 111	>sp|H7BZ55|CRCC2_HUMAN Putative ciliary rootlet coiled-coil protein 2 OS=Homo sapiens OX=9606 GN=CROCC2 PE=5 SV=3	2.68	2.68	426.5	1	1	0	0.5	1655	7.897e+05
112 | 112	>sp|Q9Y4L1|HYOU1_HUMAN Hypoxia up-regulated protein 1 OS=Homo sapiens OX=9606 GN=HYOU1 PE=1 SV=1	2.64	2.64	419.6	1	1	0	0.9	999	2.225e+05
113 | 113	>sp|Q14166|TTL12_HUMAN Tubulin--tyrosine ligase-like protein 12 OS=Homo sapiens OX=9606 GN=TTLL12 PE=1 SV=2	2.63	2.63	478	1	1	0	1.6	644	5.702e+05
114 | 114	>sp|P02751|FINC_HUMAN Fibronectin OS=Homo sapiens OX=9606 GN=FN1 PE=1 SV=4	2.62	2.37	382	4	2	1	0.8	2386	6.279e+05
115 | 115	>sp|P01008|ANT3_HUMAN Antithrombin-III OS=Homo sapiens OX=9606 GN=SERPINC1 PE=1 SV=1	2.51	2.49	433.6	3	1	0	1.9	464	2.025e+06
116 | 116	>sp|Q8TF72|SHRM3_HUMAN Protein Shroom3 OS=Homo sapiens OX=9606 GN=SHROOM3 PE=1 SV=2	2.5	2.49	537.3	2	2	1	1.2	1996	9.217e+05
117 | 117	>sp|P21333|FLNA_HUMAN Filamin-A OS=Homo sapiens OX=9606 GN=FLNA PE=1 SV=4	2.49	1.44	338.8	3	2	0	0.7	2647	1.210e+06
118 | 118	>sp|Q16695|H31T_HUMAN Histone H3.1t OS=Homo sapiens OX=9606 GN=HIST3H3 PE=1 SV=3	2.41	2.41	516.3	1	1	0	5.1	136	1.833e+06
119 | 119	>sp|P04259|K2C6B_HUMAN Keratin, type II cytoskeletal 6B OS=Homo sapiens OX=9606 GN=KRT6B PE=1 SV=5	2.37	2.37	271.1	1	1	0	1.8	564	1.256e+05
120 | 120	>sp|P42677|RS27_HUMAN 40S ribosomal protein S27 OS=Homo sapiens OX=9606 GN=RPS27 PE=1 SV=3	2.35	2.35	387.1	1	1	0	9.5	84	5.045e+05
121 | 121	>sp|P01861|IGHG4_HUMAN Immunoglobulin heavy constant gamma 4 OS=Homo sapiens OX=9606 GN=IGHG4 PE=1 SV=1	2.32	2.29	361.5	3	2	1	8	327	7.196e+05
122 | 122	>sp|P31946|1433B_HUMAN 14-3-3 protein beta/alpha OS=Homo sapiens OX=9606 GN=YWHAB PE=1 SV=3	2.18	2.18	348.8	1	1	0	4.5	246	1.412e+05
123 | 123	>tr|A0A2P9APT0|A0A2P9APT0_HUMAN Uncharacterized protein OS=Homo sapiens OX=9606 GN=BQ8482_340069 PE=4 SV=1	2.15	1.11	266.4	5	3	3	3	297	3.871e+06
124 | 124	>sp|Q14697|GANAB_HUMAN Neutral alpha-glucosidase AB OS=Homo sapiens OX=9606 GN=GANAB PE=1 SV=3	2.14	1.43	475.7	2	2	0	1.4	944	1.341e+06
125 | 125	>sp|P62899|RL31_HUMAN 60S ribosomal protein L31 OS=Homo sapiens OX=9606 GN=RPL31 PE=1 SV=1	2.1	2.1	344.6	1	1	0	7.2	125	2.653e+05
126 | 126	>sp|O75718|CRTAP_HUMAN Cartilage-associated protein OS=Homo sapiens OX=9606 GN=CRTAP PE=1 SV=1	2.06	2.06	408.8	1	1	0	2	401	5.551e+05
127 | 127	>tr|A0A2P9AWU7|A0A2P9AWU7_HUMAN Putative electron transfer protein OS=Homo sapiens OX=9606 GN=BQ8482_90027 PE=4 SV=1	1.96	1.85	382	8	1	1	1.8	709	6.035e+06
128 | 128	>sp|P34897|GLYM_HUMAN Serine hydroxymethyltransferase, mitochondrial OS=Homo sapiens OX=9606 GN=SHMT2 PE=1 SV=3	1.95	1.95	346.5	1	1	0	1.8	504	1.977e+05
129 | 129	>sp|P11217|PYGM_HUMAN Glycogen phosphorylase, muscle form OS=Homo sapiens OX=9606 GN=PYGM PE=1 SV=6	1.95	1.95	369.4	1	1	0	1	842	5.332e+05
130 | 130	>sp|Q8N201|INT1_HUMAN Integrator complex subunit 1 OS=Homo sapiens OX=9606 GN=INTS1 PE=1 SV=2	1.89	1.8	430.4	6	1	0	0.3	2190	1.995e+06
131 | 131	>sp|Q9H173|SIL1_HUMAN Nucleotide exchange factor SIL1 OS=Homo sapiens OX=9606 GN=SIL1 PE=1 SV=1	1.88	1.88	364.5	1	1	0	1.7	461	4.142e+05
132 | 132	>Reverse >sp|P25445|TNR6_HUMAN Tumor necrosis factor receptor superfamily member 6 OS=Homo sapiens OX=9606 GN=FAS PE=1 SV=1	1.85	1.82	265.4	5	3	3	3.6	335	3.850e+06
133 | 133	>sp|P40926|MDHM_HUMAN Malate dehydrogenase, mitochondrial OS=Homo sapiens OX=9606 GN=MDH2 PE=1 SV=3	1.82	1.82	414.3	1	1	0	2.7	338	2.347e+05
134 | 134	>sp|P37802|TAGL2_HUMAN Transgelin-2 OS=Homo sapiens OX=9606 GN=TAGLN2 PE=1 SV=3	1.82	1.81	239.6	2	2	1	10.1	199	4.005e+05
135 | 135	>sp|P14868|SYDC_HUMAN Aspartate--tRNA ligase, cytoplasmic OS=Homo sapiens OX=9606 GN=DARS PE=1 SV=2	1.76	1.74	355.2	2	1	0	2	501	5.099e+05
136 | 136	>sp|P09874|PARP1_HUMAN Poly [ADP-ribose] polymerase 1 OS=Homo sapiens OX=9606 GN=PARP1 PE=1 SV=4	1.76	1.74	239.4	2	2	1	2.2	1014	6.994e+06
137 | 137	>sp|P62316|SMD2_HUMAN Small nuclear ribonucleoprotein Sm D2 OS=Homo sapiens OX=9606 GN=SNRPD2 PE=1 SV=1	1.74	1.74	234	1	1	0	8.5	118	9.357e+04
138 | 138	>tr|L0R5A1|L0R5A1_HUMAN Alternative protein CSF2RB OS=Homo sapiens OX=9606 GN=CSF2RB PE=4 SV=1	1.71	1.65	445.6	4	1	0	7.4	108	5.524e+07
139 | 139	>sp|P04003|C4BPA_HUMAN C4b-binding protein alpha chain OS=Homo sapiens OX=9606 GN=C4BPA PE=1 SV=2	1.69	1.7	291.4	1	1	0	1.3	597	2.429e+05
140 | 140	>Reverse >tr|Q96N33|Q96N33_HUMAN HCG1815013, isoform CRA_a OS=Homo sapiens OX=9606 GN=hCG_1815013 PE=2 SV=1	1.69	1.69	368.4	1	1	0	5.8	154	2.973e+06
141 | 141	>sp|P25205|MCM3_HUMAN DNA replication licensing factor MCM3 OS=Homo sapiens OX=9606 GN=MCM3 PE=1 SV=3	1.67	1.68	234.6	1	1	0	1.1	808	1.244e+05
142 | 142	>sp|P33908|MA1A1_HUMAN Mannosyl-oligosaccharide 1,2-alpha-mannosidase IA OS=Homo sapiens OX=9606 GN=MAN1A1 PE=1 SV=3	1.64	1.64	161.6	1	1	0	2.5	653	2.424e+05
143 | 143	>sp|Q08211|DHX9_HUMAN ATP-dependent RNA helicase A OS=Homo sapiens OX=9606 GN=DHX9 PE=1 SV=4	1.64	1.64	460.3	1	1	0	0.7	1270	4.704e+05
144 | 144	>sp|P42766|RL35_HUMAN 60S ribosomal protein L35 OS=Homo sapiens OX=9606 GN=RPL35 PE=1 SV=2	1.58	1.58	222.5	1	1	0	8.1	123	1.168e+05
145 | 145	>sp|Q8IXT5|RB12B_HUMAN RNA-binding protein 12B OS=Homo sapiens OX=9606 GN=RBM12B PE=1 SV=2	1.55	1.55	288.9	1	1	1	1	1001	2.225e+05
146 | 146	>Reverse >tr|B4DGA4|B4DGA4_HUMAN cDNA FLJ59237, highly similar to Interleukin-12 receptor beta-2 chain OS=Homo sapiens OX=9606 PE=2 SV=1	1.5	1.5	489.1	1	1	0	1.1	659	1.075e+06
147 | 147	>sp|Q5SYE7|NHSL1_HUMAN NHS-like protein 1 OS=Homo sapiens OX=9606 GN=NHSL1 PE=1 SV=2	1.49	1.5	262.8	1	1	1	0.6	1610	1.118e+06
148 | 148	>Reverse >sp|Q2M3C6|TM266_HUMAN Transmembrane protein 266 OS=Homo sapiens OX=9606 GN=TMEM266 PE=2 SV=2	1.44	1.4	333.1	4	1	0	1.7	531	5.245e+06
149 | 149	>tr|A0A2R8Y4Y8|A0A2R8Y4Y8_HUMAN Uncharacterized protein OS=Homo sapiens OX=9606 PE=4 SV=1	1.41	1.41	442.5	1	1	0	4.4	160	1.302e+06
150 | 150	>sp|Q562R1|ACTBL_HUMAN Beta-actin-like protein 2 OS=Homo sapiens OX=9606 GN=ACTBL2 PE=1 SV=2	1.4	1.3	359.2	2	2	1	7.4	376	6.465e+05
151 | 151	>sp|P63151|2ABA_HUMAN Serine/threonine-protein phosphatase 2A 55 kDa regulatory subunit B alpha isoform OS=Homo sapiens OX=9606 GN=PPP2R2A PE=1 SV=1	1.28	1.28	391.9	1	1	0	1.8	447	4.600e+05
152 | 152	>sp|Q08170|SRSF4_HUMAN Serine/arginine-rich splicing factor 4 OS=Homo sapiens OX=9606 GN=SRSF4 PE=1 SV=2	1.26	1.26	341.4	1	1	0	1.8	494	3.640e+05
153 | 153	>sp|O00712|NFIB_HUMAN Nuclear factor 1 B-type OS=Homo sapiens OX=9606 GN=NFIB PE=1 SV=2	1.26	1.12	391.6	8	1	0	2.4	420	5.627e+07
154 | 154	>sp|Q13291|SLAF1_HUMAN Signaling lymphocytic activation molecule OS=Homo sapiens OX=9606 GN=SLAMF1 PE=1 SV=1	1.23	1.23	290.8	1	1	0	2.7	335	3.203e+05
155 | 155	>sp|P08758|ANXA5_HUMAN Annexin A5 OS=Homo sapiens OX=9606 GN=ANXA5 PE=1 SV=2	1.22	1.2	256.2	2	1	0	2.8	320	2.674e+05
156 | 156	>sp|P28482|MK01_HUMAN Mitogen-activated protein kinase 1 OS=Homo sapiens OX=9606 GN=MAPK1 PE=1 SV=3	1.18	1.18	304.8	1	1	0	2.5	360	2.643e+05
157 | 157	>Reverse >tr|B8ZZI4|B8ZZI4_HUMAN Coiled-coil domain-containing protein 150 OS=Homo sapiens OX=9606 GN=CCDC150 PE=1 SV=1	1.13	1.13	370.2	2	2	2	3.9	588	3.281e+05
158 | 158	>sp|Q76LX8|ATS13_HUMAN A disintegrin and metalloproteinase with thrombospondin motifs 13 OS=Homo sapiens OX=9606 GN=ADAMTS13 PE=1 SV=1	1.1	1.1	330.2	1	1	0	0.6	1427	2.258e+05
159 | 159	>tr|A0A2P9AWP3|A0A2P9AWP3_HUMAN 5-methyltetrahydrofolate--homocysteine methyltransferase OS=Homo sapiens OX=9606 GN=BQ8482_90005 PE=4 SV=1	1.04	0.87	427.6	10	1	1	4.7	232	1.273e+07
160 | 160	>sp|O14523|C2C2L_HUMAN Phospholipid transfer protein C2CD2L OS=Homo sapiens OX=9606 GN=C2CD2L PE=1 SV=3	1.03	1	384	3	1	0	1.4	706	7.917e+06
161 | 161	>tr|A1L1A2|A1L1A2_HUMAN Uncharacterized protein (Fragment) OS=Homo sapiens OX=9606 PE=2 SV=1	1.03	0.95	366.8	5	1	0	14.5	69	2.515e+06
162 | 162	>Reverse >sp|Q96GQ7|DDX27_HUMAN Probable ATP-dependent RNA helicase DDX27 OS=Homo sapiens OX=9606 GN=DDX27 PE=1 SV=2	1.02	1	401.8	2	1	0	1.1	796	1.590e+06
163 | 163	>sp|P24821|TENA_HUMAN Tenascin OS=Homo sapiens OX=9606 GN=TNC PE=1 SV=3	1.02	0.96	357.2	4	1	0	0.4	2201	1.462e+06
164 | 164	>Reverse >sp|Q9UP79|ATS8_HUMAN A disintegrin and metalloproteinase with thrombospondin motifs 8 OS=Homo sapiens OX=9606 GN=ADAMTS8 PE=2 SV=2	0.97	0.51	57.3	2	2	2	2.7	889	1.775e+06
165 | 165	>sp|Q13474|DRP2_HUMAN Dystrophin-related protein 2 OS=Homo sapiens OX=9606 GN=DRP2 PE=2 SV=2	0.94	0.73	142.9	6	6	6	1.6	957	5.667e+06
166 | 166	>Reverse >sp|Q11203|SIAT6_HUMAN CMP-N-acetylneuraminate-beta-1,4-galactoside alpha-2,3-sialyltransferase OS=Homo sapiens OX=9606 GN=ST3GAL3 PE=1 SV=1	0.93	0.85	247.4	2	2	1	2.4	375	1.300e+06
167 | 167	>sp|Q9NQ38|ISK5_HUMAN Serine protease inhibitor Kazal-type 5 OS=Homo sapiens OX=9606 GN=SPINK5 PE=1 SV=2	0.93	0.91	335.4	2	1	1	0.8	1064	1.407e+06
168 | 168	>sp|Q86YS7|C2CD5_HUMAN C2 domain-containing protein 5 OS=Homo sapiens OX=9606 GN=C2CD5 PE=1 SV=1	0.92	0.83	238	4	2	2	0.8	1000	2.327e+06

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		>tr|Q5TFA5|Q5TFA5_HUMAN Glycoprotein integral membrane protein 1 (Fragment) OS=Homo sapiens OX=9606 GN=GINM1									
169	169	PE=1 SV=1	0.88	0.84	426.3	3	1	0	8.8	125	7.219e+06
170	170	>Reverse >sp|Q5TBA9|FRY_HUMAN Protein furry homolog OS=Homo sapiens OX=9606 GN=FRY PE=1 SV=1	0.86	0.86	247.2	2	2	1	0.4	3013	1.609e+06
171	171	>tr|A0A2P9AAT8|A0A2P9AAT8_HUMAN Uncharacterized protein OS=Homo sapiens OX=9606 GN=BQ8482_110182 PE=4 SV=1	0.86	0.86	494.7	1	1	0	11.9	67	1.463e+06
172	172	>Reverse >sp|Q8WXI7|MUC16_HUMAN Mucin-16 OS=Homo sapiens OX=9606 GN=MUC16 PE=1 SV=3	0.86	0.88	321.6	2	2	2	0.2	14507	1.239e+06
173	173	>sp|P09382|LEG1_HUMAN Galectin-1 OS=Homo sapiens OX=9606 GN=LGALS1 PE=1 SV=2	0.86	0.86	302.6	1	1	0	5.9	135	4.657e+05
174	174	>sp|Q9GZU5|NYX_HUMAN Nyctalopin OS=Homo sapiens OX=9606 GN=NYX PE=1 SV=1	0.85	0.85	324.5	1	1	0	1.9	481	6.371e+05
175	175	>sp|Q2NL82|TSR1_HUMAN Pre-rRNA-processing protein TSR1 homolog OS=Homo sapiens OX=9606 GN=TSR1 PE=1 SV=1	0.84	0.74	370.5	6	1	0	1.1	804	3.470e+06
176	176	>Reverse >sp|P15144|AMPN_HUMAN Aminopeptidase N OS=Homo sapiens OX=9606 GN=ANPEP PE=1 SV=4	0.84	0.84	286.4	1	1	0	0.9	967	4.553e+05
177	177	>Reverse >sp|Q96RU2|UBP28_HUMAN Ubiquitin carboxyl-terminal hydrolase 28 OS=Homo sapiens OX=9606 GN=USP28 PE=1 SV=1	0.83	0.84	63.6	1	1	1	2.3	1077	2.113e+05
178	178	>sp|Q5XG92|EST4A_HUMAN Carboxylesterase 4A OS=Homo sapiens OX=9606 GN=CES4A PE=2 SV=2	0.82	0.8	195.9	2	1	0	2.3	561	1.052e+06
179	179	>sp|P35637|FUS_HUMAN RNA-binding protein FUS OS=Homo sapiens OX=9606 GN=FUS PE=1 SV=1	0.79	0.8	182.1	1	1	0	2.7	526	1.520e+05
180	180	>Reverse >tr|Q4GG69|Q4GG69_HUMAN NADH-ubiquinone oxidoreductase chain 4 OS=Homo sapiens OX=9606 GN=NADH4 PE=3 SV=1	0.79	0.8	385.3	1	1	0	2	458	9.223e+05
181	181	>sp|Q9BZ29|DOCK9_HUMAN Dedicator of cytokinesis protein 9 OS=Homo sapiens OX=9606 GN=DOCK9 PE=1 SV=2	0.78	0.73	285.8	4	1	0	0.6	2069	5.237e+06
182	182	>sp|P61604|CH10_HUMAN 10 kDa heat shock protein, mitochondrial OS=Homo sapiens OX=9606 GN=HSPE1 PE=1 SV=2	0.78	0.78	247.6	1	1	0	9.8	102	1.868e+05
183	183	>tr|Q96DQ4|Q96DQ4_HUMAN cDNA FLJ30634 fis, clone CTONG2002453 OS=Homo sapiens OX=9606 PE=2 SV=1	0.77	0.75	330.6	3	1	0	5.7	122	2.311e+06
184	184	>sp|P17844|DDX5_HUMAN Probable ATP-dependent RNA helicase DDX5 OS=Homo sapiens OX=9606 GN=DDX5 PE=1 SV=1	0.77	0.77	209.9	1	1	0	1.6	614	1.439e+05
185	185	>sp|P82094|TMF1_HUMAN TATA element modulatory factor OS=Homo sapiens OX=9606 GN=TMF1 PE=1 SV=2	0.77	0.75	415.6	2	1	0	0.7	1093	1.410e+06
186	186	>sp|Q99623|PHB2_HUMAN Prohibitin-2 OS=Homo sapiens OX=9606 GN=PHB2 PE=1 SV=2	0.77	0.77	298.8	1	1	0	2.7	299	2.660e+05
187	187	>sp|O00148|DX39A_HUMAN ATP-dependent RNA helicase DDX39A OS=Homo sapiens OX=9606 GN=DDX39A PE=1 SV=2	0.76	0.76	345	1	1	0	1.6	427	4.627e+05
188	188	>sp|Q8TDD2|SP7_HUMAN Transcription factor Sp7 OS=Homo sapiens OX=9606 GN=SP7 PE=1 SV=1	0.75	0.75	360.4	2	1	0	2.6	431	1.246e+06
189	189	>sp|P32119|PRDX2_HUMAN Peroxiredoxin-2 OS=Homo sapiens OX=9606 GN=PRDX2 PE=1 SV=5	0.74	0.74	253.7	1	1	0	5.1	198	2.610e+05
190	190	>sp|Q96QK1|VPS35_HUMAN Vacuolar protein sorting-associated protein 35 OS=Homo sapiens OX=9606 GN=VPS35 PE=1 SV=2	0.74	0.74	194.7	1	1	0	1.9	796	8.560e+04
191	191	>sp|P31040|SDHA_HUMAN Succinate dehydrogenase [ubiquinone] flavoprotein subunit, mitochondrial OS=Homo sapiens OX=9606 GN=SDHA PE=1 SV=2	0.72	0.72	216.2	1	1	0	2	664	1.230e+05
192	192	>sp|P54886|P5CS_HUMAN Delta-1-pyrroline-5-carboxylate synthase OS=Homo sapiens OX=9606 GN=ALDH18A1 PE=1 SV=2	0.71	0.71	394.2	1	1	0	1	795	2.222e+06
193	193	>tr|A0A2P9AC39|A0A2P9AC39_HUMAN ATP-dependent RNA helicase HrpB OS=Homo sapiens OX=9606 GN=hrpB PE=4 SV=1	0.7	0.71	316.7	1	1	0	1	879	2.032e+05
194	194	>sp|Q9NPG4|PCD12_HUMAN Protocadherin-12 OS=Homo sapiens OX=9606 GN=PCDH12 PE=1 SV=1	0.57	0.57	68.8	1	1	1	1.9	1184	1.554e+05
195	195	>Reverse >sp|P29353|SHC1_HUMAN SHC-transforming protein 1 OS=Homo sapiens OX=9606 GN=SHC1 PE=1 SV=4	0.56	0.15	378.4	23	1	0	1.4	583	1.303e+08
196	196	>Reverse >sp|Q86UY6|NAA40_HUMAN N-alpha-acetyltransferase 40 OS=Homo sapiens OX=9606 GN=NAA40 PE=1 SV=1	0.55	0.45	301.4	6	1	0	5.1	237	3.616e+06

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Table 2

315.317

	Observed #	Expected #	Observed %	Expected %
Het	118	110	0.536	0.5
WT	80	55	0.364	0.25
Mut	**22**	**55**	**0.1**	**0.25**
Total:	220	220	1	1

377.379

	Observed #	Expected #	Observed %	Expected %
Het	111	119.5	0.464	0.5
WT	75	59.75	0.314	0.25
Mut	53	59.75	0.222	0.25
Total:	239	239	1	1

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Table 3

T: Protein names	T: Gene names	N: Peptides	N: Razor + unique peptides	N: Unique peptides	N: Sequence coverage [%]	N: Unique + razor sequence coverage [%]	N: Unique sequence coverage [%]	N: Mol. weight [kDa]	N: Q-value	N: Score	N: Intensity	N: MS/MS count
Heat shock 70 kDa protein 1A;Heat shock 70 kDa protein 1B	HSPA1A;HSPA1B;HEL-S-103	45	45	28	80.2	80.2	48.5	70.051	0	323.31	5.62E+11	1643
Actin, cytoplasmic 1;Actin, cytoplasmic 1, N-terminally processed;Actin, cytoplasmic 2;Actin, cytoplasmic 2, N-terminally processed	ACTB;ACTG1;PS1TP5BP1	22	22	0	69.1	69.1	0	41.736	0	323.31	3.78E+11	870
Alpha-enolase;Enolase	ENO1	34	34	24	75.6	75.6	61.8	47.168	0	323.31	3.66E+11	1082
Heat shock protein HSP 90-alpha	EL52;HSP90AA1	45	45	25	59.4	59.4	42.2	84.659	0	323.31	2.96E+11	839
78 kDa glucose-regulated protein	HSPA5;HEL-S-89n	35	35	35	63.1	63.1	63.1	72.332	0	323.31	2.91E+11	1161
Ubiquitin-40S ribosomal protein S27a;Ubiquitin;40S ribosomal protein S27a;Ubiquitin-60S ribosomal protein L40;Ubiquitin;60S ribosomal protein L40;Polyubiquitin-B;Ubiquitin;Polyubiquitin-C;Ubiquitin	RPS27A;HEL112;UbC;UBC;DKFZp434K0435;UBB;UBA52	7	7	2	50.6	50.6	20.5	17.905	0	305.99	2.73E+11	456
Glyceraldehyde-3-phosphate dehydrogenase	HEL-S-162eP;GAPDH	22	22	13	81.8	81.8	60.9	36.053	0	323.31	2.67E+11	670
Elongation factor 1-alpha;Elongation factor 1-alpha 1;Putative elongation factor 1-alpha-like 3	EEF1A1L14;EEF1A1;EEF1A1P5	19	19	1	68.6	68.6	7	43.024	0	313.52	2.47E+11	589
Vimentin	VIM;HEL113	39	39	4	67.6	67.6	3	53.651	0	323.31	2.35E+11	918
Tubulin beta-4B chain	TUBB2C;TUBB4B	22	22	1	59.6	59.6	2.7	49.839	0	323.31	2.27E+11	702
Glycosyltransferase-like protein LARGE1;Xylosyltransferase LARGE;Beta-1,3-glucuronyltransferase LARGE	**LARGE**	**36**	**36**	**35**	**55.1**	**55.1**	**53.9**	**80.54**	**0**	**323.31**	**2.26E+11**	**914**
Histone H4	HIST1H4H;HIST1H4A	8	8	8	46.6	46.6	46.6	11.367	0	82.986	2.15E+11	624
Peroxiredoxin-1	PRDX1	16	16	14	65.3	65.3	55.8	22.11	0	184.27	2.05E+11	431
Histone H1.4;Histone H1.3	HIST1H1E;HIST1H1D	10	10	2	28.8	28.8	11.4	21.893	0	55.805	1.97E+11	134
Endoplasmin	TRA1;HEL-S-125m;HSP90B1	41	39	39	55	53.2	53.2	92.339	0	323.31	1.80E+11	1432
Peptidyl-prolyl cis-trans isomerase;Peptidyl-prolyl cis-trans isomerase A;Peptidyl-prolyl cis-trans isomerase A, N-terminally processed	HEL-S-69p;PPIA	12	12	12	67.3	67.3	67.3	18.012	0	224.89	1.78E+11	609
Poly [ADP-ribose] polymerase 1	PARP1	46	46	46	57.4	57.4	57.4	113.08	0	323.31	1.76E+11	639
Pyruvate kinase;Pyruvate kinase PKM	HEL-S-30;PKM;PKM2	34	34	4	64	64	9.4	57.936	0	323.31	1.74E+11	822
Histone H2B;Histone H2B type 2-E;Histone H2B type 1-B;Histone H2B type 1-O;Histone H2B type 1-J;Histone H2B type 3-B	HIST1H2BJ;HIST2H2BE;HIST1H2BB;HIST1H2BO;HIST3H2BB	7	7	2	46.8	46.8	7.9	13.904	0	77.481	1.67E+11	836
Heat shock protein HSP 90-beta	HSP90AB1	43	26	16	61.2	44.3	30.7	83.263	0	323.31	1.67E+11	564
Exportin-2	CSE1L	27	27	27	31.4	31.4	31.4	110.42	0	323.31	1.66E+11	757
Malate dehydrogenase;Malate dehydrogenase, mitochondrial	MDH2	16	16	16	68.2	68.2	68.2	31.969	0	280.36	1.55E+11	537
Heat shock cognate 71 kDa protein	HSPA8;HEL-S-72p	33	30	1	71.7	67.5	2.6	70.898	0	323.31	1.51E+11	654
Triosephosphate isomerase	HEL-S-49;TPI1	17	17	17	83.9	83.9	83.9	26.669	0	323.31	1.41E+11	522

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Phosphoglycerate kinase;Phosphoglycerate kinase 1	HEL-S-68p;PGK1	22	22	22	61.2	61.2	61.2	44.614	0	323.31	1.41E+11	584
Protein disulfide-isomerase A4	PDIA4;ERP70	39	39	39	52.4	52.4	52.4	72.932	0	323.31	1.38E+11	695
ATP synthase subunit beta;ATP synthase subunit beta, mitochondrial	HEL-S-271;ATP5B	27	27	27	73.5	73.5	73.5	56.559	0	323.31	1.31E+11	815
Ubiquitin-like modifier-activating enzyme 1	UBE1;UBA1	37	37	37	55.3	55.3	55.3	117.85	0	323.31	1.29E+11	796
Elongation factor 2	EEF2	37	37	36	57	57	55.8	95.337	0	323.31	1.27E+11	740
Heterogeneous nuclear ribonucleoprotein K	HNRNPK;HNRPK	25	25	0	67.6	67.6	0	50.976	0	323.31	1.25E+11	467
DNA-dependent protein kinase catalytic subunit	PRKDC	130	130	130	38.7	38.7	38.7	469.08	0	323.31	1.25E+11	1394
14-3-3 protein zeta/delta	YWHAZ	18	15	15	61.6	58.4	58.4	27.745	0	323.31	1.22E+11	447
Histone H2A;Histone H2A type 1-J;Histone H2A type 1-H;Histone H2A.J;Histone H2A type 2-C;Histone H2A type 2-A;Histone H2A type 1;Histone H2A type 1-D	HIST1H2AH;H2AFJ;HIST1H2AK;HIST1H2AJ;HIST2H2AC;HIST2H2AA3;HIST1H2AG;HIST1H2AD	7	7	1	41.4	41.4	8.6	13.906	0	147.79	1.18E+11	68
Cytoplasmic dynein 1 heavy chain 1	DYNC1H1	144	144	144	39	39	39	532.4	0	323.31	1.10E+11	1484
Tubulin alpha-1B chain	TUBA1B	21	21	0	65.6	65.6	0	50.151	0	323.31	1.07E+11	997
Heat shock 70 kDa protein 6	HSPA6	15	5	5	25.2	14.8	14.8	71.003	0	17.934	1.06E+11	59
Filamin-A	FLNA;FLJ00119	91	91	88	54.7	54.7	53.9	280.74	0	323.31	1.03E+11	1279
T-complex protein 1 subunit theta	CCT8	30	30	30	60.8	60.8	60.8	59.62	0	323.31	98591000000	508
ATP synthase subunit alpha;ATP synthase subunit alpha, mitochondrial	HEL-S-123m;ATP5A1	20	20	20	40	40	40	59.75	0	323.31	92222000000	426
Calreticulin	HEL-S-99n;CALR	14	14	14	64.3	64.3	64.3	46.918	0	323.31	92029000000	497
Creatine kinase B-type	HEL-S-29;CKB;HEL-211	18	18	18	69	69	69	42.644	0	323.31	90973000000	674
Probable ATP-dependent RNA helicase DDX17	DDX17	29	29	21	50.2	50.2	39.8	80.253	0	323.31	90324000000	429
Fructose-bisphosphate aldolase;Fructose-bisphosphate aldolase A	HEL-S-87p;ALDOA	19	19	17	59.1	59.1	51.4	39.42	0	323.31	89268000000	113
Nucleolin	NCL	26	26	26	41.1	41.1	41.1	76.613	0	323.31	88191000000	464
Protein disulfide-isomerase;Protein disulfide-isomerase A3	HEL-S-269;PDIA3	29	29	24	63.3	63.3	55.6	54.102	0	323.31	87847000000	347
Ubiquitin carboxyl-terminal hydrolase;Ubiquitin carboxyl-terminal hydrolase isozyme L1	HEL-117;UCHL1	13	13	13	77.6	77.6	77.6	24.824	0	323.31	87620000000	164
Myosin-9	MYH9	95	95	6	51.2	51.2	5.8	226.53	0	323.31	87413000000	1165
60S acidic ribosomal protein P2	RPLP2	10	10	9	95.7	95.7	80.9	11.665	0	323.31	86810000000	196
Heterogeneous nuclear ribonucleoprotein D0	HNRNPD;HNRPD	7	7	7	39	39	39	23.811	0	242.79	83488000000	270
Phosphoglycerate mutase;Phosphoglycerate mutase 1	PGAM1;hCG_2015269	16	16	16	73.6	73.6	73.6	28.804	0	323.31	83387000000	408
Fatty acid synthase;[Acyl-carrier-protein] S-acetyltransferase;[Acyl-carrier-protein] S-malonyltransferase;3-oxoacyl-[acyl-carrier-protein] synthase;3-oxoacyl-[acyl-carrier-protein] reductase;3-hydroxyacyl-[acyl-carrier-protein] dehydratase;Enoyl-[acyl-carrier-protein] reductase;Oleoyl-[acyl-carrier-protein] hydrolase	FASN	72	72	72	39.2	39.2	39.2	273.2	0	323.31	83063000000	795
Stress-70 protein, mitochondrial	HEL-S-124m;HSPA9	29	29	1	50.2	50.2	2.1	72.4	0	323.31	82706000000	501
Elongation factor 1-gamma	EEF1G	16	16	16	39.8	39.8	39.8	50.118	0	210.25	82174000000	217
Transcription intermediary factor 1-beta	TRIM28	25	25	25	59.4	59.4	59.4	88.549	0	323.31	80359000000	715
40S ribosomal protein S3	RPS3	12	12	12	53.5	53.5	53.5	26.688	0	134.32	78705000000	294

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Histone H3.2	HIST2H3A	5	5	1	43.4	43.4	23.5	15.388	0	54.78	78591000000	54
60 kDa heat shock protein, mitochondrial	HSPD1	34	34	34	70.5	70.5	70.5	61.054	0	323.31	77308000000	717
Tubulin beta chain	TUBB;XTP3TPATP1	20	3	3	57.7	12.7	12.7	47.766	0	54.108	77258000000	255
Interleukin enhancer-binding factor 3	ILF3	37	37	2	61.5	61.5	7.3	95.337	0	323.31	76990000000	658
Heat shock 70 kDa protein 4	HSPA4;HEL-S-5a	46	46	43	63.9	63.9	59.3	94.33	0	323.31	73485000000	644
Heterogeneous nuclear ribonucleoprotein H;Heterogeneous nuclear ribonucleoprotein H, N-terminally processed	HNRNPH1;DKFZp686A15170	14	14	7	46.5	46.5	27.2	49.229	0	323.31	73136000000	542
D-3-phosphoglycerate dehydrogenase	PHGDH;HEL-S-113;PGDH3	23	23	23	44.7	44.7	44.7	56.65	0	314.81	71559000000	316
Profilin-1	PFN1	5	5	5	50	50	50	15.054	0	133.3	71015000000	377
Heterogeneous nuclear ribonucleoproteins C1/C2;Heterogeneous nuclear ribonucleoprotein C-like 2	HNRNPC;HNRNPCL2;hCG_1641229	14	14	1	43.1	43.1	10.1	33.67	0	295.63	68739000000	388
Heterogeneous nuclear ribonucleoproteins A2/B1	HNRNPA2B1;HNRPA2B1	23	23	23	73.4	73.4	73.4	37.429	0	323.31	68394000000	200
Protein deglycase DJ-1	HEL-S-67p;PARK7	14	14	14	65.6	65.6	65.6	19.891	0	132.06	68291000000	222
Annexin A2;Annexin;Putative annexin A2-like protein	ANXA2;HEL-S-270;ANXA2P2	21	21	21	51.6	51.6	51.6	38.604	0	323.31	67679000000	364
14-3-3 protein epsilon	HEL2;YWHAE;YWHAE/FAM22B fusion;YWHAE/FAM22A fusion	25	25	22	77.3	77.3	74.1	29.174	0	323.31	67369000000	713
Cofilin-1	CFL1;HEL-S-15	11	11	9	67.1	67.1	48.3	16.811	0	256.22	67049000000	303
Stress-induced-phosphoprotein 1	HEL-S-94n;STIP1	25	25	25	52.3	52.3	52.3	62.639	0	323.31	66465000000	379
Protein disulfide-isomerase A6	PDIA6	16	16	16	42.3	42.3	42.3	48.121	0	323.31	66363000000	466
Prelamin-A/C;Lamin-A/C	LMNA	34	34	34	48.6	48.6	48.6	74.139	0	323.31	65015000000	357
Tubulin beta-2B chain	TUBB2B;DKFZp566F223	21	7	1	60.4	25.6	2.7	49.953	0	323.31	64419000000	365
GTP-binding nuclear protein Ran	RAN	8	8	8	26.6	26.6	26.6	26.224	0	50.336	62683000000	119
Nucleoside diphosphate kinase A	NME1;NME2	8	8	3	61.8	61.8	25	17.149	0	87.45	62416000000	121
UHRF1-binding protein 1	UHRF1BP1	6	6	6	6.4	6.4	6.4	159.48	0	45.916	62322000000	19
Adenosylhomocysteinase	AHCY	18	18	18	41.4	41.4	41.4	47.716	0	146.47	61304000000	180
Heterogeneous nuclear ribonucleoprotein U	HNRNPU;HNRPU	24	24	23	38.4	38.4	37.7	90.583	0	323.31	60376000000	367
Clathrin heavy chain;Clathrin heavy chain 1	CLTC	55	55	43	39.6	39.6	33.9	192.06	0	323.31	59392000000	680
Tubulin beta-8 chain;Tubulin beta-8 chain-like protein LOC260334	TUBB8	11	3	3	27	13.1	13.1	49.775	0	323.31	59264000000	210
L-lactate dehydrogenase;L-lactate dehydrogenase A chain	HEL-S-133P;LDHA	14	13	13	43.1	39.5	39.5	36.688	0	214.81	57275000000	215
Voltage-dependent anion-selective channel protein 1	VDAC1	17	17	17	68.9	68.9	68.9	30.772	0	323.31	56853000000	628
Signal recognition particle subunit SRP72	HEL103;SRP72	15	15	15	32.2	32.2	32.2	74.605	0	278.68	55625000000	184
Voltage-dependent anion-selective channel protein 2	VDAC2	15	15	15	62.9	62.9	62.9	31.566	0	323.31	55416000000	393
Lamin-B1	LMNB1	34	34	33	62.3	62.3	60.1	66.408	0	323.31	54754000000	422
T-complex protein 1 subunit gamma	CCT3	29	29	20	74.6	74.6	53	55.674	0	323.31	53401000000	349
Protein disulfide-isomerase	P4HB	25	25	25	61	61	61	57.116	0	323.31	53030000000	498
Cytoskeleton-associated protein 4	CKAP4	27	27	27	57.5	57.5	57.5	66.022	0	323.31	52735000000	307
Hypoxia up-regulated protein 1	HYOU1	36	36	30	53.1	53.1	46.2	111.33	0	323.31	52628000000	560
Brain acid soluble protein 1	BASP1	10	10	10	54.6	54.6	54.6	22.693	0	323.31	52343000000	140
T-complex protein 1 subunit delta	CCT4	23	23	23	63.6	63.6	63.6	52.33	0	323.31	52204000000	447

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C-1-tetrahydrofolate synthase, cytoplasmic;Methylenetetrahydrofolate dehydrogenase;Methenyltetrahydrofolate cyclohydrolase;Formyltetrahydrofolate synthetase;C-1-tetrahydrofolate synthase, cytoplasmic, N-terminally processed	MTHFD1	38	38	38	50.7	50.7	50.7	101.53	0	323.31	51906000000	498
14-3-3 protein theta	YWHAQ	17	14	14	59.2	55.9	55.9	27.764	0	323.31	51884000000	326
Transketolase	HEL107;TKT	16	16	6	43.9	43.9	16	62.878	0	323.31	51851000000	279
T-complex protein 1 subunit beta	HEL-S-100n;CCT2	28	28	28	69.3	69.3	69.3	57.488	0	323.31	51575000000	540
T-complex protein 1 subunit alpha	TCP1	30	30	30	71.8	71.8	71.8	60.343	0	323.31	50864000000	392
Poly(rC)-binding protein 1	PCBP1	8	8	6	44.7	44.7	36	37.497	0	323.31	50424000000	168
Calnexin	CANX	23	23	23	37.7	37.7	37.7	67.567	0	323.31	50335000000	243
60S ribosomal protein L7a	RPL7A;RP-L7a	14	14	14	38.3	38.3	38.3	29.995	0	188.38	49112000000	143
T-complex protein 1 subunit eta	CCT7	26	26	26	61.1	61.1	61.1	59.34	0	323.31	48985000000	528
L-lactate dehydrogenase B chain;L-lactate dehydrogenase	LDHB	15	15	14	40.7	40.7	37.1	36.638	0	211.31	48926000000	291
Guanine nucleotide-binding protein subunit beta-2-like 1;Guanine nucleotide-binding protein subunit beta-2-like 1, N-terminally processed	GNB2L1	18	18	11	76.3	76.3	47.3	35.076	0	306.33	48310000000	292
Prohibitin	HEL-S-54e;PHB	10	10	10	48.5	48.5	48.5	29.82	0	92.778	47816000000	252
40S ribosomal protein SA	RPSA;LOC388524	9	9	9	49.4	49.4	49.4	29.404	0	141.49	47548000000	183
ATP-dependent RNA helicase A	DHX9	36	36	36	45.9	45.9	45.9	140.96	0	323.31	47044000000	549
High mobility group protein B2	HMGB2	10	10	10	32.7	32.7	32.7	23.904	0	93.452	44595000000	100
Nuclear autoantigenic sperm protein	NASP	38	38	38	75.4	75.4	75.4	85.237	0	323.31	43968000000	334
60S ribosomal protein L12	RPL12;hCG_21173	8	8	8	58.8	58.8	58.8	17.818	0	198.47	43683000000	131
	CALM1;CALM2;CALM3	9	9	9	79.2	79.2	79.2	16.837	0	278.86	43472000000	161
Splicing factor, proline- and glutamine-rich	SFPQ	22	22	21	37.1	37.1	35.9	76.188	0	323.31	43209000000	302
Transitional endoplasmic reticulum ATPase	HEL-S-70;VCP;DKFZp434K0126	37	37	37	61.4	61.4	61.4	89.321	0	323.31	41558000000	466
ATP-citrate synthase	ACLY;ACLY variant protein	29	29	29	38.2	38.2	38.2	120.84	0	297.7	41557000000	338
Peroxiredoxin-6	HEL-S-128m;PRDX6	15	15	15	63.4	63.4	63.4	25.035	0	247.24	41553000000	251
X-ray repair cross-complementing protein 6	XRCC6;G22P1	26	26	26	43.8	43.8	43.8	69.842	0	323.31	41225000000	402
Peptidyl-prolyl cis-trans isomerase FKBP4;Peptidyl-prolyl cis-trans isomerase FKBP4, N-terminally processed	FKBP4	23	23	23	56.6	56.6	56.6	51.804	0	323.31	41011000000	292
Thioredoxin	TXN	5	5	5	45.7	45.7	45.7	11.737	0	19.862	40541000000	114
Elongation factor 1-delta	EEF1D	12	12	1	31.4	31.4	3.8	69.282	0	140.42	40368000000	117
Elongation factor Tu, mitochondrial	TUFM	23	23	23	55.1	55.1	55.1	49.541	0	323.31	39875000000	394
Heterogeneous nuclear ribonucleoprotein L	HNRNPL	24	24	16	65.4	65.4	42.7	61.926	0	323.31	39695000000	242
T-complex protein 1 subunit epsilon	HEL-S-69;CCT5	31	31	2	71.8	71.8	7.1	59.468	0	323.31	39328000000	414
T-complex protein 1 subunit zeta	CCT6A	23	23	18	63.5	63.5	56	57.761	0	323.31	39090000000	362
Leucine-rich PPR motif-containing protein, mitochondrial	LRPPRC	50	50	50	44.5	44.5	44.5	157.9	0	323.31	38699000000	560
Filamin-B	FLNB;DKFZp686A1668	89	87	85	55.5	55.1	53.8	278.16	0	323.31	38683000000	799
Alpha-actinin-4	ACTN4	36	36	23	54.6	54.6	38	104.85	0	323.31	38387000000	361
40S ribosomal protein S3a	RPS3A	14	14	14	53	53	53	29.975	0	119.7	38023000000	141
Superoxide dismutase [Cu-Zn]	HEL-S-44;SOD1	5	5	5	42.9	42.9	42.9	15.936	0	118.42	38019000000	73

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Eukaryotic translation initiation factor 5A-1;Eukaryotic translation initiation factor 5A;Eukaryotic translation initiation factor 5A-1-like	EIF5A;EIF5AL1	12	12	12	61.7	61.7	61.7	16.832	0	205.36	37909000000	126
Non-POU domain-containing octamer-binding protein	NONO	21	20	20	50.7	49	49	54.287	0	323.31	37855000000	579
40S ribosomal protein S6	RPS6	6	6	6	25.3	25.3	25.3	28.708	0	67.267	37718000000	102
Sodium/potassium-transporting ATPase subunit alpha-1	ATP1A1	29	29	16	37.4	37.4	21.7	112.89	0	323.31	37200000000	301
Heterogeneous nuclear ribonucleoprotein M	HNRNPM;ORF	24	24	15	38.9	38.9	23	77.515	0	293.67	37154000000	349
Neutral alpha-glucosidase AB	GANAB;HEL-S-164nA	30	30	4	43.1	43.1	5.3	96.215	0	323.31	36984000000	418
Matrin-3	MATR3;DKFZp686K2310 0	23	23	23	40.6	40.6	40.6	94.622	0	323.31	36683000000	458
Heterogeneous nuclear ribonucleoprotein Q	SYNCRIP	18	18	2	35.8	35.8	7.2	69.601	0	323.31	36643000000	366
Thioredoxin-dependent peroxide reductase, mitochondrial	PRDX3	11	11	11	41	41	41	27.692	0	217.51	36481000000	172
Rab GDP dissociation inhibitor alpha	GDI1	23	15	15	66.9	49.7	49.7	50.582	0	323.31	35762000000	326
Poly(rC)-binding protein 2	PCBP2	8	6	0	44.4	35.9	0	38.58	0	147.5	35704000000	212
40S ribosomal protein S2	RPS2;rps2	9	9	6	41	41	29.4	31.324	0	55.822	35553000000	149
		3	3	3	4.6	4.6	4.6	74.941	0	20.952	35499000000	126
Heterogeneous nuclear ribonucleoprotein A3	HNRPA3;HNRNPA3;D10S 102	11	11	10	38.7	38.7	31.9	34.189	0	250.95	35239000000	92
		12	11	1	29.6	28.5	3.2	66.231	0	323.31	35038000000	209
Histone H2B type 2-F;Histone H2B type 1-D;Histone H2B;Histone H2B type 1-C/E/F/G/I;Histone H2B type 1-K;Histone H2B type 1-H;Histone H2B type 1-N;Histone H2B type 1-M;Histone H2B type 1-L;Histone H2B type F-S	HIST2H2BF;HIST1H2BD; HIST1H2BM;HIST1H2BN; HIST1H2BI;HIST1H2BK;HI ST1H2BC;HIST1H2BH;HIS T1H2BL;H2BFS	7	2	2	46.8	7.9	7.9	13.92	0	5.2113	34630000000	38
Far upstream element-binding protein 2	KHSRP	24	24	23	43.5	43.5	41.5	73.114	0	323.31	34552000000	265
Heat shock protein 75 kDa, mitochondrial	TRAP1	21	21	21	43.2	43.2	43.2	79.992	0	323.31	34517000000	251
40S ribosomal protein S20	RPS20	5	5	5	45.4	45.4	45.4	13.373	0	23.187	34431000000	64
Aspartate--tRNA ligase, cytoplasmic	DARS	21	21	21	50.9	50.9	50.9	57.136	0	302.88	34414000000	194
Proliferation-associated protein 2G4	PA2G4	19	19	19	51.5	51.5	51.5	43.786	0	300.66	34208000000	287
Transgelin-2	TAGLN2	13	13	13	76.9	76.9	76.9	22.391	0	266.04	34050000000	329
Sarcoplasmic/endoplasmic reticulum calcium ATPase 2	ATP2A2	29	29	25	38.7	38.7	32.7	114.76	0	323.31	34027000000	350
60S ribosomal protein L4	RPL4	14	14	14	31.7	31.7	31.7	48.995	0	121.16	33894000000	221
Small ubiquitin-related modifier 3	SUMO3	2	2	1	17	17	8.8	16.956	0	25.811	33523000000	26
Glutathione S-transferase P	HEL-S-22;GSTP1	11	11	8	61	61	39	23.356	0	323.31	33486000000	77
Cullin-associated NEDD8-dissociated protein 1	CAND1	35	35	32	37.5	37.5	35.6	136.32	0	320.12	33353000000	415
RuvB-like 2	RUVBL2	23	23	16	62	62	40.4	51.156	0	206.22	33258000000	261
Myosin-10	MYH10	70	58	56	39.9	34.1	33.2	229	0	323.31	33232000000	589
Four and a half LIM domains protein 1	FHL1	9	9	9	45.7	45.7	45.7	31.895	0	282.64	33179000000	132
Single-stranded DNA-binding protein;Single-stranded DNA-binding protein, mitochondrial	SSBP1	6	6	6	46.6	46.6	46.6	17.359	0	164.54	32944000000	139
Proliferating cell nuclear antigen	PCNA	9	9	9	57.9	57.9	57.9	28.715	0	296.47	32929000000	298
BTB/POZ domain-containing protein KCTD12	KCTD12	14	14	14	58.5	58.5	58.5	35.7	0	283.28	32905000000	213
DNA replication licensing factor MCM2;DNA helicase	MCM2	27	27	27	43.9	43.9	43.9	101.89	0	323.31	32763000000	351
DNA topoisomerase 2-alpha	TOP2A	47	47	38	38.9	38.9	33.8	174.38	0	323.31	32692000000	471
Glucosidase 2 subunit beta	PRKCSH	17	17	17	49	49	49	60.192	0	323.31	32588000000	389

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Hepatoma-derived growth factor	HDGF	16	16	16	66.2	66.2	66.2	26.805	0	323.31	32510000000	202
Plastin-2	HEL-S-37;LCP1	25	25	21	52	52	46.4	70.289	0	323.31	32480000000	334
6-phosphogluconate dehydrogenase, decarboxylating	PGD	19	19	19	56.9	56.9	56.9	53.139	0	159.81	32349000000	159
Spliceosome RNA helicase DDX39B	DDX39B;hCG_2005638	15	15	6	39.5	39.5	15.7	48.991	0	107.01	32311000000	320
	SPTAN1	97	97	1	52.3	52.3	0.8	282.83	0	323.31	32290000000	721
40S ribosomal protein S11	RPS11	8	8	8	41.1	41.1	41.1	18.431	0	59.284	32280000000	88
Epiplakin	EPPK1	66	62	62	39.5	34.5	34.5	553.12	0	323.31	32214000000	643
Talin-1	TLN1	83	83	78	54.3	54.3	52	269.76	0	323.31	32180000000	839
Plectin	PLEC;PLEC1	102	102	89	29.3	29.3	25.6	531.78	0	323.31	32159000000	683
40S ribosomal protein S8	RPS8	10	10	10	48.6	48.6	48.6	24.205	0	157.75	32120000000	98
60S ribosomal protein L18	RPL18	6	6	6	36	36	36	18.732	0	68.391	32063000000	129
Eukaryotic translation initiation factor 2 subunit 3;Putative eukaryotic translation initiation factor 2 subunit 3-like protein	EIF2S3;EIF2S3L	16	16	16	43	43	43	51.109	0	188.7	31730000000	143
Lamina-associated polypeptide 2, isoform alpha;Thymopoietin;Thymopentin	TMPO	26	26	18	64.3	64.3	48.6	75.491	0	323.31	31459000000	324
Splicing factor 3B subunit 2	SF3B2;DKFZp781L0540	28	28	28	41.9	41.9	41.9	100.23	0	323.31	31284000000	265
Electron transfer flavoprotein subunit alpha, mitochondrial	ETFA	12	12	12	51.4	51.4	51.4	35.079	0	253.1	31067000000	264
Serine/arginine repetitive matrix protein 2	SRRM2;KIAA0324	42	42	42	21.9	21.9	21.9	299.61	0	323.31	30754000000	391
Bifunctional glutamate/proline--tRNA ligase;Glutamate--tRNA ligase;Proline--tRNA ligase	EPRS	46	46	46	39.4	39.4	39.4	170.59	0	323.31	30697000000	400
60S ribosomal protein L22	RPL22	6	6	6	53.1	53.1	53.1	14.818	0	121.18	30659000000	88
Serine/arginine-rich splicing factor 1	SRSF1	11	11	11	42.9	42.9	42.9	25.624	0	58.009	30449000000	244
Heterogeneous nuclear ribonucleoprotein R	HNRNPR;HNRPR;DKFZp686A13234	18	13	8	33.6	26.1	16.3	70.942	0	269.49	30344000000	407
Eukaryotic initiation factor 4A-I	EIF4A1	22	22	14	63.3	63.3	42.1	46.153	0	182.79	30014000000	250
Nuclear mitotic apparatus protein 1	NUMA1;NUMA1 variant protein	68	68	68	43.9	43.9	43.9	236.51	0	323.31	29988000000	484
40S ribosomal protein S4;40S ribosomal protein S4, X isoform;40S ribosomal protein S4, Y isoform 2	RPS4X;RPS4Y2	10	10	10	41.2	41.2	41.2	27.259	0	146.7	29690000000	196
60S ribosomal protein L6	RPL6	11	11	11	31.2	31.2	31.2	32.741	0	42.103	29554000000	93
Splicing factor 3B subunit 1	SF3B1	44	44	44	42.9	42.9	42.9	145.83	0	323.31	29529000000	460
40S ribosomal protein S14	RPS14	7	7	7	58	58	58	16.159	0	115.95	29448000000	89
26S proteasome non-ATPase regulatory subunit 1	PSMD1	33	33	33	46.3	46.3	46.3	105.84	0	323.31	29341000000	393
Alanine--tRNA ligase, cytoplasmic	AARS	31	31	31	48.8	48.8	48.8	106.81	0	323.31	29282000000	341
ADP/ATP translocase 2;ADP/ATP translocase 2, N-terminally processed	SLC25A5	13	13	5	37.6	37.6	16.4	32.852	0	26.253	29276000000	136
40S ribosomal protein S12	RPS12	7	7	7	56.8	56.8	56.8	14.515	0	92.429	28767000000	123
Lupus La protein	SSB	20	20	20	40.7	40.7	40.7	46.867	0	283.46	28744000000	150
Fascin	FSCN1	18	18	18	53.5	53.5	53.5	54.529	0	323.31	28520000000	202
	TPM3;DKFZp686J1372	17	17	2	50.8	50.8	8.9	29.032	0	268.59	28389000000	187
Peroxiredoxin-5, mitochondrial	HEL-S-55;PRDX5	10	10	10	73.5	73.5	73.5	17.031	0	96.076	27986000000	288
High mobility group protein B1	HMGB1	11	11	11	31.6	31.6	31.6	18.311	0	248.25	27911000000	76
60S ribosomal protein L14	RPL14	5	5	1	28	28	7.3	23.646	0	40.777	27812000000	91
60S ribosomal protein L5	RPL5	13	13	13	62.6	62.6	62.6	27.045	0	65.219	27790000000	215
Hsc70-interacting protein;Putative protein FAM10A5;Putative protein FAM10A4	ST13;ST13P5;ST13P4	9	9	9	26.5	26.5	26.5	40.161	0	100.03	27788000000	77
Histone H2A.V;Histone H2A.Z;Histone H2A	H2AFV;H2AFZ	6	4	4	53.9	46.9	46.9	13.509	0	43.967	27653000000	64

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Acetyl-CoA acetyltransferase, mitochondrial	ACAT1	21	21	21	61.6	61.6	61.6	45.199	0	323.31	27639000000	212
Histone H3	HIST2H3PS2	3	1	1	19.9	8.1	8.1	15.43	0	3.1951	27632000000	7
Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 1	RPN1	17	17	17	36.7	36.7	36.7	68.606	0	142	27536000000	207
Fructose-bisphosphate aldolase;Fructose-bisphosphate aldolase C	ALDOC	14	12	12	55.2	47.5	47.5	39.455	0	323.31	27499000000	261
RuvB-like 1	RUVBL1	20	20	20	58.6	58.6	58.6	50.215	0	323.31	26868000000	390
Aspartate aminotransferase;Aspartate aminotransferase, mitochondrial	GOT2	12	12	12	35	35	35	41.326	0	158.85	26694000000	176
X-ray repair cross-complementing protein 5	XRCC5	28	28	28	57.9	57.9	57.9	82.704	0	323.31	26635000000	557
Adenylyl cyclase-associated protein;Adenylyl cyclase-associated protein 1	CAP1	18	18	1	57.5	57.5	5.1	49.08	0	323.31	26556000000	315
Ras GTPase-activating-like protein IQGAP1	IQGAP1;hCG_1991735	49	49	49	41.5	41.5	41.5	189.28	0	323.31	26483000000	467
Gamma-enolase;Enolase	ENO2	16	12	11	60.4	47.7	45.9	47.268	0	275.47	26398000000	252
Lactoylglutathione lyase	HEL-S-74	10	10	2	60.9	60.9	15.2	20.719	0	215.23	26361000000	162
Peroxisomal multifunctional enzyme type 2;(3R)-hydroxyacyl-CoA dehydrogenase;Enoyl-CoA hydratase 2	HSD17B4	24	24	8	43.3	43.3	10.2	79.685	0	323.31	26201000000	271
Staphylococcal nuclease domain-containing protein 1	SND1	30	30	12	48.7	48.7	22.7	99.67	0	323.31	26179000000	303
Moesin	HEL70;MSN	26	26	20	45.9	45.9	36.4	67.819	0	323.31	26132000000	427
Aconitate hydratase, mitochondrial	ACO2	29	29	29	53.6	53.6	53.6	85.424	0	323.31	26017000000	257
Vinculin	VCL;HEL114	39	39	39	49.3	49.3	49.3	116.72	0	323.31	25947000000	346
Splicing factor 3B subunit 3	SF3B3	28	28	28	36.2	36.2	36.2	135.58	0	323.31	25886000000	298
Pre-mRNA-processing-splicing factor 8	PRPF8	49	49	49	29.3	29.3	29.3	273.6	0	323.31	25664000000	520
Plastin-3	PLS3	22	18	17	46.8	41.3	39	70.81	0	240.85	25548000000	258
116 kDa U5 small nuclear ribonucleoprotein component	EFTUD2;U5-116KD;SNRP116	31	30	30	49.9	48.9	48.9	109.43	0	323.31	25317000000	437
Electron transfer flavoprotein subunit beta	ETFB	12	12	12	49.8	49.8	49.8	27.843	0	166.48	25141000000	167
60S acidic ribosomal protein P0;60S acidic ribosomal protein P0-like	RPLP0;RPLP0P6	11	11	6	46.1	46.1	24.6	34.273	0	196.2	25110000000	245
Serpin H1	SERPINH1	15	15	15	45.5	45.5	45.5	46.44	0	323.31	25049000000	177
Coatomer subunit beta	COPB2	27	27	27	46.4	46.4	46.4	102.49	0	323.31	25012000000	316
FACT complex subunit SPT16	SUPT16H	27	27	27	33.9	33.9	33.9	119.91	0	323.31	24981000000	362
60S ribosomal protein L13a;Putative 60S ribosomal protein L13a protein RPL13AP3	RPL13A;RPL13a;RPL13AP3	6	6	6	25.9	25.9	25.9	23.375	0	14.747	24681000000	99
Peroxiredoxin-4	HEL-S-97n;PRDX4	10	9	9	48.3	45.4	45.4	30.54	0	133.5	24654000000	161
Inosine-5-monophosphate dehydrogenase 2	IMPDH2	22	22	22	54.5	54.5	54.5	55.804	0	286.7	24614000000	208
U5 small nuclear ribonucleoprotein 200 kDa helicase	SNRNP200	52	52	52	31.2	31.2	31.2	244.5	0	323.31	24447000000	479
Activated RNA polymerase II transcriptional coactivator p15	PC4;SUB1	10	10	10	57.5	57.5	57.5	14.395	0	87.466	24422000000	107
MICOS complex subunit MIC60	IMMT	22	22	1	44.6	44.6	5.3	83.677	0	323.31	24116000000	286
FACT complex subunit SSRP1	SSRP1	17	17	17	32.7	32.7	32.7	81.074	0	323.31	24056000000	293
60S ribosomal protein L23a	RPL23A	7	7	7	33.5	33.5	33.5	17.692	0	21.715	24010000000	69
DNA replication licensing factor MCM6	MCM6	25	25	25	35.6	35.6	35.6	92.888	0	310.28	23871000000	273
60S ribosomal protein L10a;Ribosomal protein	RPL10A	8	8	8	35	35	35	24.831	0	110.49	23845000000	159

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Small nuclear ribonucleoprotein Sm D2	SNRPD2	8	8	8	48.3	48.3	48.3	13.527	0	234	23801000000	235
Insulin receptor substrate 4	IRS4	27	27	27	43	43	43	133.77	0	323.31	23593000000	312
Heterogeneous nuclear ribonucleoprotein U-like protein 1	HNRPUL1;HNRNPUL1	24	23	23	45.2	44.4	44.4	84.821	0	323.31	23570000000	278
26S protease regulatory subunit 7	PSMC2	25	25	25	61.2	61.2	61.2	48.633	0	323.31	23519000000	376
Heat shock 70 kDa protein 4L	HSPA4L	34	31	30	50.4	45.8	44.1	94.504	0	323.31	23447000000	290
Rho GDP-dissociation inhibitor 1	ARHGDIA;HEL-S-47e	7	7	7	45.1	45.1	45.1	21.517	0	178.11	23296000000	108
Myristoylated alanine-rich C-kinase substrate	MARCKS	10	10	10	43.7	43.7	43.7	31.554	0	323.31	23259000000	62
Beta-actin-like protein 2	ACTBL2	7	3	3	21.5	10.6	10.6	42.003	0	3.9336	23247000000	57
DNA helicase;DNA replication licensing factor MCM5	MCM5	27	27	27	50.5	50.5	50.5	82.285	0	166.31	23160000000	242
Ras-related protein Rab-1B;Putative Ras-related protein Rab-1C	RAB1B;RAB1C	8	8	4	54.2	54.2	27.4	22.171	0	118.56	23089000000	226
Tyrosine--tRNA ligase, cytoplasmic;Tyrosine--tRNA ligase, cytoplasmic, N-terminally processed;Tyrosine--tRNA ligase	YARS	23	23	23	49.2	49.2	49.2	59.143	0	163.24	22910000000	179
Nucleolar protein 56	NOP56	26	26	26	53.4	53.4	53.4	66.049	0	323.31	22739000000	264
Coatomer subunit alpha;Xenin;Proxenin	COPA	28	28	28	35.5	35.5	35.5	138.34	0	323.31	22580000000	374
Urotensin-2	UTS2	1	1	1	8.5	8.5	8.5	10.994	0.0042522	1.7928	22541000000	25
40S ribosomal protein S18	RPS18	7	7	7	38.8	38.8	38.8	17.718	0	52.536	22485000000	66
DNA helicase;DNA replication licensing factor MCM7	MCM7	24	24	24	44.6	44.6	44.6	81.279	0	323.31	22478000000	322
Myosin light polypeptide 6	MYL6	7	7	5	49.7	49.7	33.1	16.29	0	151.59	22357000000	87
Heterogeneous nuclear ribonucleoprotein A1;Heterogeneous nuclear ribonucleoprotein A1, N-terminally processed	HNRPA1;HNRNPA1;hCG_2020860	17	17	1	56.2	56.2	8.9	38.746	0	303.08	22284000000	135
Carbonyl reductase [NADPH] 1	CBR1	11	11	9	57	57	46.6	30.375	0	195.25	22278000000	223
Stathmin	STMN1	5	5	5	43.5	43.5	43.5	9.7931	0	54.42	22201000000	87
Multifunctional protein ADE2;Phosphoribosylaminoimidazole-succinocarboxamide synthase;Phosphoribosylaminoimidazole carboxylase	PAICS	18	18	18	50.8	50.8	50.8	45.651	0	274.87	22143000000	221
Filamin-C	FLNC	65	60	60	39.8	37.4	37.4	291.02	0	323.31	22139000000	440
F-actin-capping protein subunit beta	CAPZB	11	11	11	48.8	48.8	48.8	29.295	0	260.25	22113000000	107
Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 2	RPN2	15	15	15	38.5	38.5	38.5	69.333	0	323.31	22054000000	289
		36	36	2	57.8	57.8	5.1	90.98	0	323.31	21996000000	353
60S ribosomal protein L13	RPL13	6	6	6	29.9	29.9	29.9	24.265	0	52.398	21986000000	61
60S ribosomal protein L7	RPL7;WUGSC:H_RG054D04.1	14	14	14	46.7	46.7	46.7	30.438	0	93.899	21964000000	164
Delta-1-pyrroline-5-carboxylate synthase;Glutamate 5-kinase;Gamma-glutamyl phosphate reductase	ALDH18A1	24	24	24	38.2	38.2	38.2	87.301	0	208.08	21951000000	217
Eukaryotic initiation factor 4A-III;Eukaryotic initiation factor 4A-III, N-terminally processed	EIF4A3;DDX48	19	16	16	57.7	52.1	52.1	46.871	0	140.28	21911000000	323
Protein RCC2	RCC2	16	16	16	40.2	40.2	40.2	56.084	0	323.31	21746000000	150
CTP synthase 1;CTP synthase	CTPS1	23	23	22	51.8	51.8	49.7	66.69	0	269.4	21727000000	204

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Pre-mRNA-splicing factor ATP-dependent RNA helicase DHX15	DHX15	23	23	22	35.2	35.2	34.1	90.932	0	181.54	21711000000	318
Pre-mRNA-processing factor 19	PRPF19	13	13	13	55	55	55	55.18	0	323.31	21652000000	211
Heterogeneous nuclear ribonucleoprotein H3	HNRPH3;HNRNPH3	9	8	8	40.5	38.2	38.2	36.925	0	246.35	21625000000	174
60S ribosomal protein L17	RPL17;hCG_24487;RPL17-C18orf32	7	7	7	45	45	45	19.586	0	56.544	21583000000	59
NEDD8-conjugating enzyme Ubc12	UBE2M	5	5	5	30.1	30.1	30.1	20.9	0	94.418	21565000000	144
26S proteasome non-ATPase regulatory subunit 2	PSMD2;DKFZp564A2282	30	30	30	43	43	43	100.2	0	247.59	21375000000	176
Alpha-aminoadipic semialdehyde dehydrogenase	ALDH7A1	17	17	17	47.7	47.7	47.7	58.486	0	249.37	21367000000	194
Annexin A6;Annexin	ANXA6	28	28	3	48.6	48.6	5.5	75.872	0	323.31	21238000000	310
Glutathione reductase, mitochondrial	HEL-75;GSR	14	14	13	44.1	44.1	41	56.256	0	323.31	20982000000	265
Prohibitin-2	PHB2	14	14	14	53.4	53.4	53.4	33.239	0	71.988	20969000000	166
60S ribosomal protein L32	RPL32	4	4	4	28.6	28.6	28.6	15.616	0	40.389	20944000000	23
Insulin-like growth factor 2 mRNA-binding protein 1	IGF2BP1	19	19	17	38.1	38.1	34.1	63.48	0	295.3	20725000000	201
Chromobox protein homolog 3	CBX3	9	9	8	51.9	51.9	43.2	20.811	0	139.54	20670000000	145
Succinate dehydrogenase [ubiquinone] flavoprotein subunit, mitochondrial	SDHA	18	18	18	58.1	58.1	58.1	63.566	0	323.31	20628000000	202
60S ribosomal protein L18a	RPL18A	4	4	4	27	27	27	16.714	0	60.147	20627000000	51
Serine-threonine kinase receptor-associated protein	STRAP	16	16	16	64.3	64.3	64.3	38.438	0	323.31	20597000000	343
Myotrophin	MTPN;DKFZp761E1322	3	3	3	30.5	30.5	30.5	12.895	0	201.59	20585000000	31
3-hydroxyacyl-CoA dehydrogenase type-2	HSD17B10	14	14	14	75.9	75.9	75.9	26.923	0	323.31	20488000000	210
RNA-binding protein FUS	FUS	12	12	10	40.3	40.3	40.3	31.994	0	215.77	20439000000	127
40S ribosomal protein S17	RPS17	8	8	8	12.2	12.2	12.2	64.532	0	188.19	20346000000	239
Leucine--tRNA ligase, cytoplasmic	LARS	31	31	31	34.8	34.8	34.8	134.44	0	323.31	20282000000	370
Trifunctional enzyme subunit alpha, mitochondrial;Long-chain enoyl-CoA hydratase;Long chain 3-hydroxyacyl-CoA dehydrogenase	HADHA	26	26	26	46.4	46.4	46.4	82.999	0	323.31	20112000000	378
Nucleolar protein 58	NOP58	22	22	22	42.2	42.2	42.2	59.578	0	217.54	20000000000	175
Transaldolase	TALDO1	9	9	9	28.8	28.8	28.8	37.54	0	42.889	19960000000	86
Nucleosome assembly protein 1-like 1	NAP1L1	13	13	11	59.8	59.8	57	45.374	0	276.39	19898000000	303
Ras-related C3 botulinum toxin substrate 1;Ras-related C3 botulinum toxin substrate 2	RAC1;hCG_20693;RAC2	7	7	2	36.5	36.5	13.5	21.45	0	21.362	19617000000	69
Flap endonuclease 1	FEN1	10	10	10	42.1	42.1	42.1	42.592	0	216.52	19572000000	173
Microtubule-associated protein 4;Microtubule-associated protein	MAP4	36	36	36	47.8	47.8	47.8	121	0	323.31	19528000000	458
ELAV-like protein 1	ELAVL1	11	11	10	42.6	42.6	39.9	36.091	0	98.789	19497000000	106
Histone-binding protein RBBP7	RBBP7	10	10	1	40	40	3.8	47.82	0	246.58	19339000000	131
Acetyltransferase component of pyruvate dehydrogenase complex;Dihydrolipoyllysine-residue acetyltransferase component of pyruvate dehydrogenase complex, mitochondrial	DLAT	15	15	15	43.2	43.2	43.2	51.201	0	127.2	19309000000	301
Ornithine aminotransferase, mitochondrial;Ornithine aminotransferase, hepatic form;Ornithine aminotransferase, renal form	OAT	15	15	15	49	49	49	48.534	0	163.12	19215000000	298

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Programmed cell death 6-interacting protein	PDCD6IP	27	27	1	43.8	43.8	3.5	96.022	0	323.31	19150000000	262
CAD protein;Glutamine-dependent carbamoyl-phosphate synthase;Aspartate carbamoyltransferase;Dihydroorotase	CAD	54	54	51	39.4	39.4	38.4	242.98	0	323.31	19131000000	429
Eukaryotic translation initiation factor 4 gamma 1	EIF4G1;EIF4G1 variant protein	29	29	25	28	28	25.3	175.49	0	323.31	19095000000	272
NAD(P) transhydrogenase, mitochondrial	NNT	24	24	24	30.1	30.1	30.1	113.88	0	281.72	18950000000	243
Structural maintenance of chromosomes protein 1A;Structural maintenance of chromosomes protein	SMC1A;DKFZp686L1917 8	43	43	43	40.4	40.4	40.4	143.23	0	323.31	18878000000	313
Ras-related protein Rab-7a	RAB7A	13	13	13	60.4	60.4	60.4	23.489	0	312.93	18753000000	195
Phosphoglucomutase-1	PGM1	25	25	8	58.4	58.4	19	61.448	0	264.39	18694000000	220
Translational activator GCN1	PRIC295;GCN1L1	64	64	64	30.4	30.4	30.4	292.74	0	323.31	18598000000	530
Cytochrome c oxidase subunit 4 isoform 1, mitochondrial	COX4I1	6	6	6	32.5	32.5	32.5	19.576	0	21.418	18593000000	72
Protein DEK	DEK	10	10	6	30.7	30.7	20	42.674	0	99.756	18536000000	130
26S proteasome non-ATPase regulatory subunit 3	PSMD3	23	23	23	47.2	47.2	47.2	60.945	0	150.82	18531000000	187
Eukaryotic translation initiation factor 2 subunit 1	EIF2S1	18	18	18	57.8	57.8	57.8	36.112	0	227.7	18501000000	127
40S ribosomal protein S9	RPS9	8	8	8	35.6	35.6	35.6	22.591	0	15.909	18376000000	87
60S ribosomal protein L29	RPL29	1	1	1	9.6	9.6	9.6	17.553	0	16.305	18368000000	25
Proteasome subunit alpha type-5;Proteasome subunit alpha type	PSMA5	9	9	9	51	51	51	26.411	0	170.93	18334000000	101
Splicing factor U2AF 65 kDa subunit	U2AF2	9	9	9	42.1	42.1	42.1	53.5	0	248.33	18298000000	250
Cytochrome b-c1 complex subunit 2, mitochondrial	UQCRC2	13	13	13	43.7	43.7	43.7	48.442	0	241.48	18283000000	138
60S ribosomal protein L3	RPL3;rpl3	12	12	12	39.7	39.7	39.7	46.108	0	141.32	18185000000	190
Interleukin enhancer-binding factor 2	ILF2	17	17	17	65.6	65.6	65.6	38.91	0	277.63	18132000000	268
Structural maintenance of chromosomes protein 3;Structural maintenance of chromosomes protein	SMC3	36	36	36	38.2	38.2	38.2	141.54	0	323.31	18001000000	303
Annexin;Annexin A1	ANXA1	21	21	21	65.9	65.9	65.9	38.714	0	241.6	17978000000	156
Cell cycle and apoptosis regulator protein 2	CCAR2	26	26	26	45.4	45.4	45.4	102.93	0	323.31	17951000000	315
Barrier-to-autointegration factor;Barrier-to-autointegration factor, N-terminally processed	BANF1	4	4	4	56.2	56.2	56.2	10.058	0	18.633	17866000000	152
Y-box-binding protein 3	CSDA;YBX3	16	16	3	55.4	55.4	13.2	40.089	0	323.31	17828000000	128
Proteasome subunit alpha type-7;Proteasome subunit alpha type	PSMA7	9	9	9	43.1	43.1	43.1	27.887	0	167.92	17828000000	143
Polyadenylate-binding protein 1;Polyadenylate-binding protein	PABPC1	19	19	11	43.4	43.4	25.6	70.67	0	236.77	17824000000	147
Trifunctional purine biosynthetic protein adenosine-3;Phosphoribosylamine--glycine ligase;Phosphoribosylformylglycinamidine cyclo-ligase;Phosphoribosylglycinamide formyltransferase	GART	27	27	27	47	47	47	107.72	0	323.31	17794000000	256
NADH-cytochrome b5 reductase;NADH-cytochrome b5 reductase 3;NADH-cytochrome b5 reductase 3 membrane-bound form;NADH-cytochrome b5 reductase 3 soluble form	CYB5R3	14	14	14	68.7	68.7	68.7	33.238	0	226.35	17762000000	178

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SUMO-activating enzyme subunit 2	UBA2	27	27	27	55.6	55.6	55.6	71.223	0	323.31	17761000000	296
Threonine--tRNA ligase, cytoplasmic	TARS	18	18	18	30.8	30.8	30.8	78.605	0	258.75	17713000000	208
Kinesin-like protein;Kinesin-1 heavy chain	KIF5B;HEL-S-61;KIF5B-RET(NM_020975)_K23;R12;KIF5B-RET(NM_020630)_K23;R12;KIF5B-RET(NM_020630)_K24;R11;KIF5B-ALK;KIF5B-RET(NM_020975)_K22;R12;KIF5B-RET(NM_020630)_K22;R12;KIF5B-ALK_K17;A20;KIF5B-RET(NM_020975)_K16;R12;KIF5B-RET(NM_020630)_K16;R12;KIF5B-RET(NM_020630)_K15;R12;KIF5B-RET(NM_020975)_K15;R12	30	30	25	39.9	39.9	32.4	109.66	0	323.31	17705000000	238
	PDIA3	6	1	1	41.5	11.4	11.4	13.519	0	21.498	17701000000	26
Cytochrome b-c1 complex subunit 1, mitochondrial	UQCRC1	13	13	13	44.8	44.8	44.8	52.645	0	317.47	17616000000	183
60S ribosomal protein L27	RPL27	5	5	5	40.5	40.5	40.5	14.257	0	14.188	17613000000	43
		19	19	0	39.3	39.3	0	78.831	0	323.31	17557000000	201
Nuclease-sensitive element-binding protein 1	YBX1	15	9	9	51.2	43.8	43.8	35.924	0	323.31	17556000000	94
DNA replication licensing factor MCM4	MCM4	27	27	27	42.2	42.2	42.2	92.722	0	313.18	17526000000	247
Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform	PPP2R1A	21	21	17	50.3	50.3	39.9	64.181	0	266.1	17498000000	310
Isoleucine--tRNA ligase, cytoplasmic	IARS;DKFZp686L0869;DKFZp686L17145	26	26	26	30.5	30.5	30.5	146.34	0	323.31	17355000000	321
Glucose-6-phosphate isomerase	GPI	17	17	13	38.2	38.2	31.8	59.99	0	323.31	17350000000	223
60S ribosomal protein L36	RPL36	3	3	3	28.6	28.6	28.6	12.254	0	13.524	17319000000	34
Hydroxymethylglutaryl-CoA synthase, cytoplasmic	HMGCS1	15	15	15	32.8	32.8	32.8	56.238	0	276.95	17289000000	138
Keratin, type I cytoskeletal 18	KRT18	19	19	17	56.3	56.3	52.6	48.029	0	323.31	17253000000	188
Cathepsin D;Cathepsin D light chain;Cathepsin D heavy chain	HEL-S-130P;CTSD	9	9	8	31.1	31.1	28.9	43.688	0	133.53	17219000000	125
Chloride intracellular channel protein;Chloride intracellular channel protein 1	CLIC1	12	12	12	65.8	65.8	65.8	26.793	0	304.59	17195000000	254
10 kDa heat shock protein, mitochondrial	EPFP1;HSPE1	6	3	3	62.9	33	33	10.295	0	8.8638	17149000000	54
Nucleolar RNA helicase 2	DDX21	28	28	26	45	45	41.5	87.343	0	323.31	17123000000	236
14-3-3 protein beta/alpha;14-3-3 protein beta/alpha, N-terminally processed	HEL-S-1;YWHAB	15	12	9	61.8	58.5	46.3	28.082	0	323.31	17118000000	211
A disintegrin and metalloproteinase with thrombospondin motifs 1	DKFZp686E01144;ADAMTS1	22	22	21	39.8	39.8	38.3	103.39	0	323.31	17090000000	139
Prosaposin;Saposin-A;Saposin-B-Val;Saposin-B;Saposin-C;Saposin-D	PSAP	16	16	16	36.6	36.6	36.6	58.14	0	59.646	17012000000	165
Spectrin beta chain, non-erythrocytic 1	SPTBN1	61	61	59	40.2	40.2	39.4	264.44	0	323.31	16931000000	373
Nuclear migration protein nudC	NUDC;NPD011	15	15	15	52.9	52.9	52.9	38.242	0	75.255	16908000000	97
Citrate synthase, mitochondrial;Citrate synthase	CS	13	13	12	38.6	38.6	36.7	51.712	0	72.355	16886000000	160
Peroxiredoxin-2	HEL-S-2a;PRDX2	8	7	7	46	40.4	40.4	21.892	0	76.11	16863000000	150

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Cytoskeleton-associated protein 5	CKAP5	44	44	44	31.2	31.2	31.2	225.49	0	323.31	16830000000	282
Thioredoxin domain-containing protein 5	TXNDC5;STRF8;DKFZp666I134;hCG_1811539	12	12	12	56.1	56.1	56.1	40.369	0	200.93	16788000000	145
Nucleoprotein TPR	TPR	56	56	56	31.1	31.1	31.1	267.29	0	323.31	16755000000	355
Protein SET;Protein SETSIP	SET;SETSIP	8	8	8	30.7	30.7	30.7	32.134	0	323.31	16715000000	96
	RAB6A	5	5	1	30.8	30.8	10.6	23.549	0	65.623	16683000000	89
Mediator of DNA damage checkpoint protein 1	MDC1	36	36	36	36.6	36.6	36.6	226.66	0	323.31	16680000000	369
6-phosphogluconolactonase	PGLS	11	11	11	62.8	62.8	62.8	27.547	0	233.85	16678000000	198
Proteasome subunit alpha type;Proteasome subunit alpha type-6	PSMA6	10	10	10	51.6	51.6	51.6	27.399	0	122.95	16636000000	150
Poly(U)-binding-splicing factor PUF60	PUF60	17	17	17	50.7	50.7	50.7	54.626	0	253.82	16602000000	281
Coatomer subunit beta	COPB1	22	22	22	28	28	28	107.14	0	243.93	16594000000	224
Importin subunit beta-1	KPNB1	22	22	22	38.9	38.9	38.9	97.183	0	323.31	16518000000	264
Adenylate kinase 2, mitochondrial;Adenylate kinase 2, mitochondrial;Adenylate kinase 2, mitochondrial, N-terminally processed	AK2	12	12	12	61.2	61.2	61.2	25.63	0	95.725	16506000000	116
Core histone macro-H2A.1;Histone H2A	H2AFY	8	7	7	31.2	28.8	28.8	39.617	0	238.66	16381000000	126
60S ribosomal protein L27a	RPL27A;L27a	4	4	4	47.3	47.3	47.3	10.127	0	34.499	16196000000	51
Microtubule-associated protein RP/EB family member 1	MAPRE1	12	12	11	53.7	53.7	53.7	29.999	0	306.82	16189000000	97
Heterogeneous nuclear ribonucleoprotein U-like protein 2	HNRNPUL2;HNRNPUL2-BSCL2	25	25	25	38.8	38.8	38.8	85.104	0	323.31	16161000000	188
60S ribosomal protein L24	RPL24;HEL-S-310	3	3	3	25.6	25.6	25.6	14.369	0	10.254	16140000000	57
DNA mismatch repair protein Msh6	MSH6;GTBP	23	23	23	25.4	25.4	25.4	152.78	0	323.31	16114000000	262
Cytochrome c oxidase subunit 5B, mitochondrial	COX5B	7	7	7	45.7	45.7	45.7	13.696	0	39.742	16104000000	69
RNA-binding motif protein, X chromosome;RNA-binding motif protein, X chromosome, N-terminally processed	RBMX	10	10	4	29.2	29.2	8.2	42.331	0	206.09	16075000000	70
Dihydropyrimidinase-related protein 2	DPYSL2	23	23	9	57.9	57.9	20.1	73.502	0	323.31	16050000000	232
60S ribosomal protein L31	RPL31	4	4	4	33.6	33.6	33.6	14.495	0	45.968	16025000000	76
Pyruvate dehydrogenase E1 component subunit beta, mitochondrial	PDHB	12	12	12	46.5	46.5	46.5	39.233	0	137.04	15974000000	303
Regulator of chromosome condensation	RCC1	13	13	13	53.4	53.4	53.4	44.969	0	323.31	15962000000	133
Arginine--tRNA ligase, cytoplasmic	RARS	21	21	21	39.8	39.8	39.8	75.378	0	323.31	15950000000	197
F-actin-capping protein subunit alpha-1	CAPZA1	11	11	10	60.5	60.5	57	32.922	0	323.31	15876000000	166
Pyrroline-5-carboxylate reductase 1, mitochondrial;Pyrroline-5-carboxylate reductase	PYCR1;PIG45	12	12	11	44.5	44.5	40.4	33.36	0	323.31	15855000000	118
Hsp90 co-chaperone Cdc37;Hsp90 co-chaperone Cdc37, N-terminally processed	CDC37;MBD5	12	12	12	33.9	33.9	33.9	44.468	0	263.26	15802000000	204
Transforming protein RhoA	RHOA	6	6	2	52.8	52.8	18.7	21.768	0	113.59	15778000000	61
Macrophage migration inhibitory factor	MIF	3	3	3	35.7	35.7	35.7	12.476	0	23.906	15718000000	49
60S ribosomal protein L11	RPL11	3	3	3	26.9	26.9	26.9	19.024	0	41.689	15704000000	46
Nascent polypeptide-associated complex subunit alpha;Nascent polypeptide-associated complex subunit alpha, muscle-specific form	NACA;hCG_2016482	4	4	4	41.9	41.9	41.9	15.016	0	198.64	15573000000	55
Phosphatidylethanolamine-binding protein 1;Hippocampal cholinergic neurostimulating peptide	HEL-S-34;PEBP1;HEL-210	6	6	6	57.8	57.8	57.8	21.057	0	319.22	15482000000	104

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Kinectin	KTN1		35	35	35	36.9	36.9	36.9	156.27	0	323.31	15421000000	335
Inorganic pyrophosphatase	PPA1;HEL-S-66p		16	16	16	68.9	68.9	68.9	32.66	0	323.31	15352000000	123
4-trimethylaminobutyraldehyde dehydrogenase	ALDH9A1		17	17	17	43.4	43.4	43.4	52.769	0	193.89	15316000000	150
Serine--tRNA ligase, cytoplasmic	SARS		15	15	15	36.2	36.2	36.2	58.406	0	293.68	15292000000	305
Proteasome subunit alpha type-1	PSMA1;HEL-S-275		9	9	9	39.2	39.2	39.2	29.555	0	119.5	15272000000	86
Dynamin-2	DNM2		25	25	4	38	38	7.7	98.063	0	323.31	15167000000	277
60S ribosomal protein L10	RPL10		5	5	2	26	26	14.5	22.975	0	137.54	15134000000	151
Bifunctional purine biosynthesis protein PURH;Phosphoribosylaminoimidazolecarboxamide formyltransferase;IMP cyclohydrolase	HEL-S-70p;ATIC		23	23	3	54.9	54.9	10.5	64.615	0	323.31	15040000000	459
Serine/arginine-rich splicing factor 9	SRSF9		9	9	9	37.1	37.1	37.1	25.542	0	33.991	15019000000	98
Septin-2		2-Sep	11	11	11	54.3	54.3	54.3	41.487	0	224.78	15003000000	140
Serine/arginine-rich splicing factor 2	SFRS2;SRSF2		3	3	2	19.4	19.4	15.4	23.195	0	87.342	14989000000	48
Dihydrolipoyl dehydrogenase;Dihydrolipoyl dehydrogenase, mitochondrial	DLD		12	12	12	47.3	47.3	47.3	48.899	0	209.91	14947000000	180
Aldose reductase	AKR1B1		11	11	11	43	43	43	35.853	0	81.891	14945000000	79
Ribose-phosphate pyrophosphokinase 1	PRPS1		11	11	5	57.2	57.2	27.4	31.392	0	254.97	14897000000	89
Erlin-2	ERLIN2		12	12	10	37.5	37.5	33.9	37.839	0	138.36	14875000000	102
14-3-3 protein gamma;14-3-3 protein gamma, N-terminally processed	YWHAG		14	9	9	52.6	42.9	42.9	28.302	0	269.03	14837000000	130
Vesicle-fusing ATPase	NSF		23	23	23	37.1	37.1	37.1	82.091	0	303.38	14836000000	232
DNA mismatch repair protein Msh2	MSH2		30	30	30	43.8	43.8	43.8	104.74	0	228.87	14744000000	254
Glutamine--fructose-6-phosphate aminotransferase [isomerizing] 1	GFPT1		20	20	20	40.9	40.9	40.9	78.806	0	323.31	14653000000	173
ATP synthase subunit d, mitochondrial	ATP5H		11	11	11	70.2	70.2	70.2	18.491	0	106.02	14631000000	166
Nucleophosmin	NPM1		11	11	7	66.4	66.4	32.8	29.464	0	323.31	14590000000	186
Regulator of nonsense transcripts 1	UPF1		31	31	31	40.3	40.3	40.3	123.03	0	323.31	14589000000	240
Aldehyde dehydrogenase, mitochondrial	ALDH2		22	22	21	50.3	50.3	48.7	56.381	0	241.67	14492000000	306
KH domain-containing, RNA-binding, signal transduction-associated protein 1	KHDRBS1		10	10	10	29.6	29.6	29.6	48.227	0	66.774	14482000000	217
26S protease regulatory subunit 6A	PSMC3		22	22	22	66	66	66	47.352	0	160.88	14424000000	253
Putative RNA-binding protein Luc7-like 2	LUC7L2		10	10	8	29.1	29.1	21.7	46.513	0	243.95	14423000000	163
Splicing factor 3A subunit 1	SF3A1		22	22	4	34.9	34.9	10.5	88.885	0	323.31	14417000000	228
Apoptosis-inducing factor 1, mitochondrial	AIFM1		18	18	18	35.4	35.4	35.4	66.9	0	151.05	14403000000	166
60S ribosomal protein L23	RPL23		5	5	5	35.1	35.1	35.1	14.149	0	92.607	14379000000	77
RNA-binding protein 14	RBM14		17	17	17	40.5	40.5	40.5	69.491	0	323.31	14368000000	193
Heterogeneous nuclear ribonucleoprotein A/B	HNRNPAB		5	5	5	20	20	20	30.302	0	75.272	14364000000	61
Rab GDP dissociation inhibitor beta	GDI2		25	25	17	56.4	56.4	39.1	50.663	0	323.31	14345000000	311
DNA-(apurinic or apyrimidinic site) lyase;DNA-(apurinic or apyrimidinic site) lyase, mitochondrial	APEX1		13	13	13	52.5	52.5	52.5	29.19	0	247.67	14343000000	132
General vesicular transport factor p115	VDP;USO1		29	29	29	44.3	44.3	44.3	107.89	0	323.31	14274000000	231
Small nuclear ribonucleoprotein Sm D3	SNRPD3		4	4	4	47.6	47.6	47.6	13.916	0	203.47	14247000000	132
Sideroflexin-1	SFXN1		10	10	10	45	45	45	35.619	0	195.59	14228000000	75

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Ferritin;Ferritin heavy chain;Ferritin heavy chain, N-terminally processed	FTH1	8	8	8	61.2	61.2	61.2	21.225	0	83.386	14118000000	113
Delta(3,5)-Delta(2,4)-dienoyl-CoA isomerase, mitochondrial	ECH1	12	12	9	53.7	53.7	37.2	35.816	0	206.25	14104000000	195
E3 SUMO-protein ligase RanBP2	RANBP2	58	58	42	29.7	29.7	24.1	358.2	0	323.31	14055000000	356
DNA damage-binding protein 1	DDB1	23	23	23	30.9	30.9	30.9	126.97	0	320.33	14020000000	199
Malate dehydrogenase;Malate dehydrogenase, cytoplasmic	HEL-S-32;MDH1	10	10	10	41.3	41.3	41.3	36.426	0	92.203	13832000000	107
Ran-specific GTPase-activating protein	RANBP1	6	6	6	48.3	48.3	48.3	23.31	0	204.33	13772000000	60
Ubiquitin carboxyl-terminal hydrolase 5	USP5	21	21	21	40	40	40	95.785	0	225.88	13770000000	221
40S ribosomal protein S25	RPS25	4	4	4	24	24	24	13.742	0	9.0516	13769000000	33
Septin-7	SEPT7;DKFZp686F17268; Nbla02942	15	15	15	44.4	44.4	44.4	50.679	0	175.16	13706000000	124
Lamin-B2	LMNB2	19	18	18	36.5	34.4	34.4	69.948	0	199.05	13695000000	176
Exportin-1	XPO1	20	20	20	28.3	28.3	28.3	123.38	0	323.31	13634000000	281
40S ribosomal protein S13	RPS13	9	9	9	54.3	54.3	54.3	17.222	0	34.672	13573000000	125
Plasminogen activator inhibitor 1 RNA-binding protein	SERBP1	15	15	1	36.5	36.5	4.9	44.965	0	216.23	13562000000	203
Agrin;Agrin N-terminal 110 kDa subunit;Agrin C-terminal 110 kDa subunit;Agrin C-terminal 90 kDa fragment;Agrin C-terminal 22 kDa fragment	AGRN	44	44	44	37.8	37.8	37.8	217.23	0	323.31	13557000000	346
Ubiquitin thioesterase OTUB1	DKFZp564E242;OTUB1	9	9	9	57.4	57.4	57.4	31.424	0	323.31	13500000000	93
rRNA 2-O-methyltransferase fibrillarin	FBL	9	9	9	42.8	42.8	42.8	25.308	0	206.75	13498000000	73
Ribonuclease inhibitor	RNH1	18	18	18	65.8	65.8	65.8	49.416	0	310.37	13493000000	176
ADP-ribosylation factor 1;ADP-ribosylation factor 3	ARF1;ARF3	8	8	6	62.4	62.4	44.8	20.697	0	148.39	13462000000	136
Methionine--tRNA ligase, cytoplasmic	MARS	23	23	23	40.8	40.8	40.8	101.11	0	323.31	13450000000	303
Lysine--tRNA ligase	KARS	19	19	19	42.4	42.4	42.4	68.047	0	323.31	13413000000	139
Annexin;Annexin A5	HEL-S-7;ANXA5	10	10	10	40.6	40.6	40.6	35.936	0	323.31	13373000000	236
Peptidyl-prolyl cis-trans isomerase;Peptidyl-prolyl cis-trans isomerase B	HEL-S-39;PPIB	11	11	11	47.6	47.6	47.6	22.742	0	75.546	13363000000	80
Chromodomain-helicase-DNA-binding protein 4	CHD4	38	38	34	32.5	32.5	29.8	215.49	0	323.31	13359000000	280
Glutamine synthetase	PIG59;GLUL	8	8	8	30.6	30.6	30.6	42.064	0	226.23	13351000000	142
40S ribosomal protein S26;Putative 40S ribosomal protein S26-like 1	RPS26;RPS26P11	3	3	3	31.3	31.3	31.3	13.015	0	46.929	13305000000	138
WD repeat-containing protein 1	HEL-S-52;WDR1	16	16	16	40.4	40.4	40.4	66.193	0	323.31	13269000000	136
26S protease regulatory subunit 10B	HEL-S-73;PSMC6	14	14	14	48.6	48.6	48.6	44.16	0	205.6	13234000000	155
E3 ubiquitin-protein ligase HUWE1	HUWE1	67	67	11	27.9	27.9	4	481.89	0	323.31	13194000000	506
26S proteasome non-ATPase regulatory subunit 13	PSMD13	12	12	12	40.8	40.8	40.8	35.347	0	126.96	13173000000	80
	HSPE1-MOB4	8	8	0	38.3	38.3	0	29.736	0	29.044	13155000000	99
LETM1 and EF-hand domain-containing protein 1, mitochondrial	LETM1	23	23	23	37.5	37.5	37.5	83.353	0	219.97	13093000000	171
Glycogen phosphorylase, liver form;Alpha-1,4 glucan phosphorylase	PYGL	23	23	22	34.2	34.2	32.8	97.147	0	312.24	13091000000	167
Elongation factor 1-beta	EEF1B2;LOC392793	9	9	9	73.3	73.3	73.3	24.763	0	310.44	13022000000	173
Catenin alpha-1	CTNNA1	28	28	23	50.8	50.8	43.7	100.07	0	323.31	12997000000	298
Far upstream element-binding protein 3	hCG_31253;FUBP3	18	18	18	51.2	51.2	51.2	61.64	0	323.31	12959000000	141

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Mitochondrial import receptor subunit TOM70	TOMM70A	22	22	22	49.3	49.3	49.3	67.454	0	323.31	12910000000	206
Cyclin-dependent kinase 1	CDC2;DKFZp686L20222; CDK1	13	13	11	47.8	47.8	41.4	34.081	0	109.72	12908000000	87
Serrate RNA effector molecule homolog	SRRT	21	21	21	28.1	28.1	28.1	100.67	0	142.04	12885000000	247
Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-1	GNB1	8	8	6	45.6	45.6	29.7	37.301	0	305.5	12880000000	181
Membrane-associated progesterone receptor component 1	PGRMC1	14	14	13	66.2	66.2	66.2	21.671	0	291.7	12873000000	150
Reticulocalbin-1	HEL-S-84;RCN1	13	13	13	49.5	49.5	49.5	38.89	0	193.15	12735000000	96
26S protease regulatory subunit 8	PSMC5	18	18	17	49.3	49.3	46.3	45.626	0	158.99	12659000000	203
AP-2 complex subunit beta;AP complex subunit beta	AP2B1;DKFZp781K0743	24	24	13	36.5	36.5	26	104.55	0	130.23	12598000000	204
Puromycin-sensitive aminopeptidase	NPEPPS	27	27	27	40.7	40.7	40.7	103.28	0	203.04	12563000000	297
Non-specific lipid-transfer protein	SCP2	13	13	13	26	26	26	59.021	0	95.828	12529000000	137
THO complex subunit 4	ALYREF	7	7	7	44.3	44.3	44.3	27.557	0	285.98	12528000000	80
Importin-5	IPO5;RANBP5	23	23	23	34.5	34.5	34.5	123.63	0	323.31	12521000000	267
Nuclear pore membrane glycoprotein 210	NUP210	27	27	27	20.3	20.3	20.3	205.11	0	212.98	12454000000	265
Protein-L-isoaspartate O-methyltransferase;Protein-L-isoaspartate(D-aspartate) O-methyltransferase	PCMT1	7	7	7	56.2	56.2	56.2	20.683	0	133.28	12383000000	176
Mesencephalic astrocyte-derived neurotrophic factor	MANF	8	8	8	38.5	38.5	38.5	20.7	0	48.168	12359000000	159
40S ribosomal protein S19	RPS19	6	6	6	35.9	35.9	35.9	16.06	0	17.776	12338000000	95
Copine-3	CPNE3	15	15	14	35.8	35.8	34.1	60.13	0	207.45	12313000000	155
Small nuclear ribonucleoprotein F	SNRPF	3	3	3	31.4	31.4	31.4	9.7251	0	28.166	12313000000	97
Exosome complex exonuclease RRP44	DIS3;KIAA1008	23	23	23	36.1	36.1	36.1	109	0	292.13	12280000000	204
RNA 3-terminal phosphate cyclase	RTCA	7	7	7	29.8	29.8	29.8	39.32	0	63.716	12272000000	70
tRNA-splicing ligase RtcB homolog	RTCB	20	20	20	43.8	43.8	43.8	55.21	0	249.3	12265000000	167
		29	29	1	34.1	34.1	1.4	137.83	0	323.31	12246000000	208
Insulin-like growth factor 2 mRNA-binding protein 3	IGF2BP3	12	10	10	30.1	26.1	26.1	63.704	0	271.54	12239000000	148
RNA-binding protein EWS	EWSR1	7	7	6	16	16	12.1	64.929	0	224.45	12228000000	90
Purine nucleoside phosphorylase	HEL-S-156an;PNP	9	9	9	39.1	39.1	39.1	32.118	0	76.297	12197000000	119
Pyrroline-5-carboxylate reductase 2;Pyrroline-5-carboxylate reductase	PYCR2;P5CR2	8	7	7	26.9	22.8	22.8	33.637	0	99.139	12185000000	62
SAP domain-containing ribonucleoprotein	SARNP;CIP29	9	9	9	24.3	24.3	24.3	59.075	0	211.49	12166000000	62
Proteasome subunit beta type;Proteasome subunit beta type-1	PSMB1	9	9	9	54.4	54.4	54.4	26.491	0	105.54	12164000000	102
Protein NDRG1	NDRG1;TRG14	8	8	8	44.2	44.2	44.2	42.835	0	265.36	12125000000	85
DNA topoisomerase 1	TOP1	14	14	14	21.2	21.2	21.2	90.725	0	250.67	12096000000	119
Isocitrate dehydrogenase [NAD] subunit, mitochondrial;Isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial	IDH3A	10	10	10	31.3	31.3	31.3	34.505	0	99.833	12069000000	119
26S proteasome non-ATPase regulatory subunit 11	PSMD11	17	17	17	42.7	42.7	42.7	47.463	0	99.201	12056000000	204
Calumenin	CALU	14	14	4	54.9	54.9	13.7	37.106	0	142.08	12008000000	130
Isocitrate dehydrogenase [NADP], mitochondrial;Isocitrate dehydrogenase [NADP]	IDH2	14	14	13	38.7	38.7	36.7	50.91	0	275.73	11982000000	110
Serine/arginine-rich splicing factor 7	SRSF7	6	6	5	40.9	40.9	40.9	15.763	0	55.653	11957000000	61

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Probable ATP-dependent RNA helicase DDX5	DDX5;DKFZp686J01190	25	17	5	46.4	34	12.9	69.147	0	256.63	11928000000	209
Dynactin subunit 1	DCTN1;DKFZp686I0746; DKFZp686E0752;DKFZp686E191	33	33	33	39.7	39.7	39.7	139.09	0	323.31	11928000000	290
Complement component 1 Q subcomponent-binding protein, mitochondrial	C1QBP	10	10	10	62.8	62.8	62.8	31.362	0	298.87	11893000000	249
Alpha-centractin	ACTR1A	9	9	6	47	47	32.8	37.433	0	182.68	11876000000	90
40S ribosomal protein S16	RPS16	6	6	6	41.8	41.8	41.8	16.445	0	23.461	11851000000	191
Serine hydroxymethyltransferase;Serine hydroxymethyltransferase, mitochondrial	DKFZp686P09201;SHMT2;HEL-S-51e	17	17	11	44.5	44.5	24	53.464	0	194.79	11848000000	170
40S ribosomal protein S15a	RPS15A;hCG_1994130	5	5	2	43	43	19	11.477	0	12.395	11847000000	57
Band 4.1-like protein 2	EPB41L2	28	28	1	44.4	44.4	2.2	112.59	0	323.31	11827000000	208
ATP-dependent 6-phosphofructokinase, liver type	PFKL	15	12	12	28.5	23.8	23.8	85.018	0	47.859	11795000000	97
ATP-dependent 6-phosphofructokinase, platelet type	PFKP;PFK-P	21	21	18	37.8	37.8	33.2	85.595	0	323.31	11790000000	191
26S proteasome non-ATPase regulatory subunit 10	PSMD10	6	6	6	39.9	39.9	39.9	20.808	0	323.31	11779000000	42
Vigilin	HDLBP	30	30	30	33.8	33.8	33.8	141.44	0	323.31	11728000000	235
DnaJ homolog subfamily B member 11	DNAJB11	12	12	12	40.5	40.5	40.5	40.513	0	214.46	11713000000	169
Low molecular weight phosphotyrosine protein phosphatase	ACP1	7	7	7	46.7	46.7	46.7	18.698	0	178.3	11711000000	122
Ras-related protein Rab-5C	RAB5C	8	8	5	53.2	53.2	38.4	23.482	0	77.325	11609000000	68
Neuroblast differentiation-associated protein AHNAK	AHNAK	92	92	92	37.2	37.2	37.2	629.09	0	323.31	11549000000	377
Src substrate cortactin	CTTN;EMS1	17	17	17	35.6	35.6	35.6	61.557	0	323.31	11544000000	147
Cell division cycle 5-like protein	CDC5L	21	21	21	43.7	43.7	43.7	89.225	0	265.56	11487000000	229
26S protease regulatory subunit 4	PSMC1	18	18	18	47.5	47.5	47.5	49.184	0	178.1	11485000000	173
Probable cysteine--tRNA ligase, mitochondrial	CARS2	12	12	12	24.6	24.6	24.6	62.223	0	63.64	11422000000	98
Very-long-chain (3R)-3-hydroxyacyl-CoA dehydratase 3	HACD3	8	8	8	24.6	24.6	24.6	43.159	0	109.34	11412000000	127
Tubulin-specific chaperone A	TBCA	7	7	7	69	69	69	10.08	0	105.67	11390000000	55
Synaptic vesicle membrane protein VAT-1 homolog	VAT1	14	14	14	47.6	47.6	47.6	41.92	0	223.97	11387000000	160
Leukotriene A-4 hydrolase;Leukotriene A(4) hydrolase	LTA4H	16	16	16	40.8	40.8	40.8	69.284	0	145.74	11330000000	184
Nuclear pore complex protein Nup93	NUP93	20	20	20	31.7	31.7	31.7	99.554	0	228.2	11303000000	172
Guanine nucleotide-binding protein G(k) subunit alpha	GNAI3	14	14	8	47.5	47.5	28.2	40.532	0	203.07	11269000000	111
Glutamine--tRNA ligase	QARS	23	23	1	37	37	2.1	87.71	0	323.31	11268000000	147
Ribosomal L1 domain-containing protein 1	RSL1D1	16	16	16	30.6	30.6	30.6	54.972	0	231.96	11232000000	105
ATP-dependent RNA helicase DDX1	DDX1	24	24	24	39.9	39.9	39.9	73.915	0	245.04	11217000000	174
S-(hydroxymethyl)glutathione dehydrogenase;Alcohol dehydrogenase class-3	ADH5	12	12	12	40.9	40.9	40.9	39.724	0	187	11212000000	159
Valine--tRNA ligase	VARS	24	24	24	28.8	28.8	28.8	140.46	0	268.39	11208000000	174
NADH-ubiquinone oxidoreductase 75 kDa subunit, mitochondrial	NDUFS1	25	25	25	45	45	45	79.467	0	295.3	11187000000	258
Protein transport protein Sec24C	SEC24C	23	23	23	36.4	36.4	36.4	111.98	0	196.57	11186000000	192
Peptidyl-prolyl cis-trans isomerase FKBP1A;Peptidyl-prolyl cis-trans isomerase	FKBP1A	6	6	6	73.1	73.1	73.1	11.951	0	70.549	11174000000	39

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N-acylneuraminate cytidylyltransferase	CMAS	9	9	9	29.5	29.5	29.5	48.379	0	157.36	11156000000	87
NHP2-like protein 1;NHP2-like protein 1, N-terminally processed	NHP2L1	7	7	7	68.8	68.8	68.8	14.173	0	99.468	11142000000	68
Antigen KI-67	MKI67	72	72	72	36.6	36.6	36.6	358.69	0	323.31	11082000000	349
Profilin;Profilin-2	PFN2	4	4	4	47.3	47.3	47.3	9.7982	0	62.713	11074000000	54
Protein transport protein Sec23A	SEC23A	16	16	14	29.6	29.6	26.1	82.968	0	192.33	11046000000	165
Peptidyl-prolyl cis-trans isomerase FKBP3;Peptidyl-prolyl cis-trans isomerase	FKBP3	10	10	10	41.5	41.5	41.5	25.177	0	144.31	10952000000	98
DNA repair protein RAD50	RAD50	37	37	37	32.1	32.1	32.1	153.89	0	232.64	10833000000	222
40S ribosomal protein S28	RPS28	2	2	2	30.4	30.4	30.4	7.8409	0	14.312	10827000000	32
SUMO-activating enzyme subunit 1;SUMO-activating enzyme subunit 1, N-terminally processed	SAE1	17	17	17	59.5	59.5	59.5	38.449	0	169.97	10822000000	128
Insulin-like growth factor 2 mRNA-binding protein 2	IGF2BP2	15	14	14	32.1	29.9	29.9	66.121	0	303.92	10819000000	135
Sorcin	SRI	7	7	7	58.7	58.7	58.7	17.605	0	43.439	10779000000	48
Treacle protein	TCOF1	26	26	26	25.9	25.9	25.9	152.1	0	323.31	10772000000	228
Replication protein A 70 kDa DNA-binding subunit;Replication protein A 70 kDa DNA-binding subunit, N-terminally processed	RPA1	20	20	20	49.7	49.7	49.7	68.137	0	323.31	10759000000	187
26S proteasome non-ATPase regulatory subunit 12	PSMD12	13	13	13	34.4	34.4	34.4	52.904	0	289.29	10748000000	160
Leucine-rich repeat-containing protein 59	LRRC59	12	12	12	42	42	42	34.93	0	229.68	10729000000	206
60S ribosomal protein L35	RPL35;LOC154880	3	3	3	24	24	24	10.645	0	17.512	10719000000	36
14-3-3 protein eta	YWHAH	13	10	10	51.6	44.7	44.7	28.218	0	147.29	10689000000	130
ATP-binding cassette sub-family F member 1	ABCF1	22	22	22	36	36	36	95.925	0	323.31	10649000000	190
Importin subunit alpha;Importin subunit alpha-1	KPNA2	15	15	15	44.2	44.2	44.2	57.875	0	323.31	10638000000	300
Exportin-7	XPO7	18	18	18	21	21	21	123.93	0	323.31	10577000000	169
SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily A member 5	SMARCA5	27	27	22	32.1	32.1	27.2	121.9	0	323.31	10534000000	231
Cellular retinoic acid-binding protein 2	CRABP2	6	6	6	50	50	50	15.693	0	177.19	10518000000	102
Voltage-dependent anion-selective channel protein 3	VDAC3	11	11	11	52.3	52.3	52.3	30.658	0	323.31	10516000000	167
Tubulin--tyrosine ligase-like protein 12	TTLL12	17	17	17	34.9	34.9	34.9	74.403	0	206.55	10511000000	154
40S ribosomal protein S21	RPS21	6	6	6	64.2	64.2	64.2	8.85	0	87.131	10385000000	83
Signal recognition particle subunit SRP68	SRP68	18	18	18	34.3	34.3	34.3	70.729	0	308.28	10382000000	164
26S protease regulatory subunit 6B	PSMC4	17	17	17	72.2	72.2	72.2	47.366	0	323.31	10367000000	258
Host cell factor 1;HCF N-terminal chain 1;HCF N-terminal chain 2;HCF N-terminal chain 3;HCF N-terminal chain 4;HCF N-terminal chain 5;HCF N-terminal chain 6;HCF C-terminal chain 1;HCF C-terminal chain 2;HCF C-terminal chain 3;HCF C-terminal chain 4;HCF C-terminal chain 5;HCF C-terminal chain 6	HCFC1	28	28	28	25	25	25	208.73	0	323.31	10350000000	272
Creatine kinase U-type, mitochondrial	CKMT1A;CKMT1B	13	13	13	48.4	48.4	48.4	47.036	0	222.46	10305000000	110
ATP synthase-coupling factor 6, mitochondrial	ATP5J	6	6	6	49.1	49.1	49.1	12.587	0	252.64	10253000000	74
Chromobox protein homolog 5	HEL25;CBX5	10	10	10	55.5	55.5	55.5	22.225	0	239.57	10240000000	117

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Ataxin-10	ATXN10	12	12	12	32	32	32	53.488	0	261.42	10193000000	184
Dipeptidyl peptidase 3	DPP3;DKFZp686O1117	12	12	12	31.7	31.7	31.7	71.077	0	267.9	10184000000	113
GMP synthase [glutamine-hydrolyzing]	GMPS	22	22	22	39.5	39.5	39.5	76.715	0	123.4	10169000000	212
	NSFL1C	13	13	1	46.5	46.5	5.1	40.571	0	263.11	10147000000	92
Vesicle-associated membrane protein-associated protein B/C	VAPB	10	10	9	46.5	46.5	41.6	27.228	0	101.33	10133000000	67
26S proteasome non-ATPase regulatory subunit 4	PSMD4	12	12	10	44.8	44.8	37.4	40.736	0	321.44	10128000000	99
Translin-associated protein X	TSNAX;DISC1	7	7	7	35.9	35.9	35.9	33.112	0	110.94	10117000000	53
Fragile X mental retardation syndrome-related protein 1	FXR1	20	20	18	52	52	49.3	68.326	0	314.47	10059000000	128
Aminoacyl tRNA synthase complex-interacting multifunctional protein 1;Endothelial monocyte-activating polypeptide 2	AIMP1	11	11	11	56.7	56.7	56.7	34.352	0	257.87	10045000000	130
Eukaryotic translation initiation factor 3 subunit A	EIF3A;eIF3a	33	33	33	26.9	26.9	26.9	166.47	0	287.71	9982800000	217
Heme oxygenase 1	HMOX1	11	11	11	45.8	45.8	45.8	32.818	0	47.29	9957700000	116
Unconventional myosin-VI	MYO6	25	25	25	25.6	25.6	25.6	145.01	0	323.31	9953200000	218
Eukaryotic translation initiation factor 2 subunit 2	EIF2S2	13	13	13	35.7	35.7	35.7	38.388	0	216.14	9918100000	120
Drebrin	DBN1	13	13	13	37	37	37	71.428	0	323.31	9916500000	135
60S ribosomal protein L30	RPL30	5	5	5	51.8	51.8	51.8	12.656	0	123.55	9863500000	89
Coatomer subunit gamma-1	COPG1;COPG	24	24	21	39.9	39.9	35.8	97.717	0	323.31	9824300000	263
26S proteasome non-ATPase regulatory subunit 14	PSMD14	8	8	8	45.5	45.5	45.5	34.577	0	158.71	9818000000	184
Cytochrome c oxidase subunit 5A, mitochondrial	COX5A	5	5	5	37.3	37.3	37.3	16.762	0	72.105	9810600000	54
Coronin	CORO7-PAM16	22	22	2	42.7	42.7	3.2	114.16	0	323.31	9808700000	220
Leucine-rich repeat-containing protein 47	LRRC47	18	18	18	44.8	44.8	44.8	63.472	0	166.64	9790700000	150
26S proteasome non-ATPase regulatory subunit 6	PSMD6	17	17	17	41.1	41.1	41.1	45.531	0	75.845	9785200000	102
RNA-binding protein 4	RBM4	13	13	5	58.2	58.2	34.9	40.313	0	234.18	9783500000	116
Mitotic checkpoint protein BUB3	BUB3	9	9	9	40.6	40.6	40.6	31.703	0	163.82	9737600000	73
Bcl-2-associated transcription factor 1	BCLAF1	14	13	13	20.7	20.7	20.7	106.12	0	177.34	9716000000	79
High mobility group protein HMG-I/HMG-Y	HMGA1	6	6	4	41.1	41.1	23.4	11.676	0	113.38	9709500000	73
ATPase family AAA domain-containing protein 3A	ATAD3A	15	15	1	30.3	30.3	1.4	71.368	0	239.53	9688000000	149
Microtubule-associated protein 1B;MAP1B heavy chain;MAP1 light chain LC1	MAP1B;DKFZp686F1345	52	52	51	36.8	36.8	36.4	270.62	0	323.31	9684800000	319
Lamina-associated polypeptide 2, isoforms beta/gamma;Thymopoietin;Thymopentin	TMPO	17	9	9	54.4	30.4	30.4	50.67	0	258.35	9651100000	120
Sister chromatid cohesion protein PDS5 homolog B	PDS5B	25	25	11	21.9	21.9	9	164.67	0	323.31	9619700000	182
Actin-related protein 3	ACTR3	16	16	16	55.7	55.7	55.7	47.371	0	120.75	9613300000	207
Cytochrome c oxidase subunit 2	MT-CO2;COX2;COII;cox2	4	4	1	18.9	18.9	7	25.565	0	51.746	9607700000	72
ATP-dependent DNA helicase Q5	RECQL5;PP1045	3	3	3	3.6	3.6	3.6	108.83	0.0009817	2.626	9593100000	7
Ubiquitin-associated protein 2-like	UBAP2L	17	17	17	31.4	31.4	31.4	113.56	0	323.31	9584600000	223
Adipocyte plasma membrane-associated protein	APMAP	12	12	12	39.2	39.2	39.2	46.48	0	39.548	9572400000	75
General transcription factor II-I	GTF2I	22	22	12	34.2	34.2	19.5	107.97	0	307.77	9549800000	149
Probable 28S rRNA (cytosine(4447)-C(5))-methyltransferase	NOP2	19	19	19	32.9	32.9	32.9	89.301	0	232.63	9542900000	174
Peptidyl-prolyl cis-trans isomerase FKBP8;Peptidyl-prolyl cis-trans isomerase	FKBP8	11	11	11	52.5	52.5	52.5	38.495	0	239.32	9541900000	103

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Enoyl-CoA delta isomerase 1, mitochondrial	ECI1;DCI	4	4	4	19.5	19.5	19.5	32.816	0	30.076	9525700000	48
E3 ubiquitin-protein ligase UBR4	UBR4;ZUBR1	60	60	60	18.2	18.2	18.2	573.83	0	323.31	9482600000	324
ATP-dependent DNA helicase Q1	RECQL	14	14	14	31.4	31.4	31.4	73.457	0	323.31	9479100000	152
Scaffold attachment factor B2	SAFB2	16	16	7	23	23	8.8	107.47	0	323.31	9466500000	121
Aminopeptidase B	RNPEP	18	18	18	37.5	37.5	37.5	72.595	0	299.16	9450900000	132
Cytosolic acyl coenzyme A thioester hydrolase	ACOT7	9	9	9	25.5	25.5	25.5	41.796	0	47.8	9437900000	116
Cytoplasmic dynein 1 intermediate chain 2	DYNC1I2	16	16	5	37.5	37.5	19	71.456	0	323.31	9417000000	215
Ras-related protein Rap-1b;Ras-related protein Rap-1b-like protein	RAP1B	10	10	5	53.8	53.8	33.2	20.825	0	69.964	9412600000	65
Septin-11	11-Sep	16	16	9	39.1	39.1	21.9	49.005	0	323.31	9383800000	128
UV excision repair protein RAD23 homolog B	RAD23B	9	9	9	39.9	39.9	39.9	43.171	0	248.94	9366600000	109
B-cell receptor-associated protein 31	BCAP31	7	7	7	25.6	25.6	25.6	27.961	0	19.684	9366500000	50
tRNA (cytosine(34)-C(5))-methyltransferase	NSUN2	22	22	22	45.9	45.9	45.9	86.47	0	283.04	9363500000	200
Basigin	hEMMPRIN;BSG	9	9	9	49.6	49.6	49.6	28.432	0	143.1	9342400000	106
Midkine	MDK	5	5	5	35.9	35.9	35.9	14.374	0	182.38	9311400000	51
Dynactin subunit 2	DCTN2;HEL-S-77	18	18	18	60.8	60.8	60.8	44.23	0	323.31	9277600000	259
Phenylalanine--tRNA ligase beta subunit	FARSB	19	19	19	39.1	39.1	39.1	65.7	0	103.71	9249500000	139
Dynein light chain 1, cytoplasmic	DNCL1;DYNLL1	3	1	1	49.4	24.7	24.7	10.366	0	196.22	9243200000	21
Probable ATP-dependent RNA helicase DDX6	DDX6	12	12	12	35.8	35.8	35.8	54.416	0	323.31	9175900000	82
Methionine aminopeptidase 2;Methionine aminopeptidase	METAP2	14	14	2	51.9	51.9	5.2	52.891	0	245.75	9117800000	116
Histone deacetylase;Histone deacetylase 2	HDAC2	10	10	8	41.9	41.9	36.7	51.972	0	211.02	9117700000	114
Nuclear pore complex protein Nup205	NUP205	23	23	23	17.4	17.4	17.4	227.92	0	204.61	9099300000	170
Nucleosome assembly protein 1-like 4	NAP1L4	11	9	9	39.5	36.5	36.5	42.823	0	175.02	9060700000	143
Cytochrome c	CYCS	4	4	4	39.6	39.6	39.6	11.333	0	43.819	9035400000	26
Tubulin-folding cofactor B	TBCB	5	5	5	29.1	29.1	29.1	27.325	0	65.169	9025400000	72
Perilipin-3	PLIN3	14	14	14	55.5	55.5	55.5	47.074	0	277.77	9015500000	150
Protein transport protein Sec61 subunit alpha isoform 1	SEC61A1	6	6	2	11.6	11.6	4.2	52.264	0	16.237	9007500000	41
Proteasome subunit alpha type;Proteasome subunit alpha type-4;Proteasome subunit beta type	PSMA4	8	8	8	47.7	47.7	47.7	24.526	0	130.61	8901400000	166
Sorting nexin-2	SNX2	16	16	14	38.5	38.5	34.5	58.471	0	136.61	8889200000	127
Adenine phosphoribosyltransferase	APRT	8	8	8	58.3	58.3	58.3	19.608	0	69.148	8847800000	149
Coatomer subunit delta	ARCN1;DKFZp686M0924 5	17	17	17	38.2	38.2	38.2	57.21	0	105.14	8832700000	122
Ubiquitin carboxyl-terminal hydrolase 7;Ubiquitin carboxyl-terminal hydrolase	USP7	27	27	27	34.9	34.9	34.9	128.3	0	261.7	8831200000	184
Transmembrane emp24 domain-containing protein 9	TMED9	7	6	6	28.5	20.6	20.6	25.077	0	86.808	8804900000	50
Testin	TES	16	16	16	45.6	45.6	45.6	47.933	0	155.42	8801800000	111
Protein ERGIC-53	LMAN1	11	11	11	33.5	33.5	33.5	57.518	0	104	8793600000	72
PC4 and SFRS1-interacting protein	PSIP1	16	16	16	35.1	35.1	35.1	60.103	0	323.31	8769300000	108
Enoyl-CoA hydratase, mitochondrial	ECHS1	10	10	10	45.5	45.5	45.5	31.387	0	157.28	8756300000	126
Calcyclin-binding protein	CACYBP	11	11	11	46.5	46.5	46.5	26.182	0	130.72	8749900000	75
Obg-like ATPase 1	OLA1;PTD004	10	10	10	33.2	33.2	33.2	46.937	0	106.5	8748300000	59

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Probable ubiquitin carboxyl-terminal hydrolase FAF-X;Ubiquitin carboxyl-terminal hydrolase	USP9X	29	29	17	16	16	9.6	292.28	0	287.24	8743600000	195
Trifunctional enzyme subunit beta, mitochondrial;3-ketoacyl-CoA thiolase	HADHB	15	15	15	36.1	36.1	36.1	51.294	0	66.692	8737100000	139
Acyl-CoA-binding protein	DBI	4	4	4	61.9	61.9	61.9	7.2723	0	16.956	8694600000	28
Thyroid hormone receptor-associated protein 3	THRAP3	18	18	13	27.2	27.2	20.3	108.66	0	248.07	8689700000	130
Protein phosphatase 1G	PPM1G	15	15	15	41.6	41.6	41.6	56.134	0	323.31	8663500000	109
Ras-related protein Rab-11B	RAB11B	6	6	2	32.1	32.1	13.3	24.488	0	77.931	8660800000	40
TAR DNA-binding protein 43	TARDBP;TDP43	12	12	12	50.5	50.5	50.5	44.739	0	323.31	8639900000	66
Mitochondrial import receptor subunit TOM22 homolog	TOMM22;MST065	6	6	6	62.7	62.7	62.7	15.521	0	218.4	8638300000	80
Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform;Serine/threonine-protein phosphatase	PPP2CA	9	9	0	44	44	0	35.594	0	183.71	8626000000	107
V-type proton ATPase catalytic subunit A	ATP6V1A	19	19	19	38.7	38.7	38.7	68.303	0	116.91	8619000000	156
Glutamate dehydrogenase;Glutamate dehydrogenase 1, mitochondrial;Glutamate dehydrogenase 2, mitochondrial	GLUD1;GLUD2	15	15	15	40.7	40.7	40.7	56.603	0	131.97	8615700000	138
Cytosol aminopeptidase	HEL-S-106;LAP3	17	17	17	45.3	45.3	45.3	56.049	0	285.02	8593300000	111
Serine/threonine-protein phosphatase PP1-alpha catalytic subunit;Serine/threonine-protein phosphatase	PPP1CA	10	10	2	37.2	37.2	7.9	38.631	0	136.45	8583400000	176
Proteasome activator complex subunit 1	PSME1	11	11	11	41.8	41.8	41.8	28.709	0	141.18	8526600000	121
Eukaryotic translation initiation factor 5B	EIF5B	26	26	26	26.4	26.4	26.4	138.8	0	242.43	8482400000	179
60S ribosomal protein L26-like 1;60S ribosomal protein L26	RPL26;RPL26L1;hCG_26523	4	4	4	36.4	36.4	36.4	12.63	0	6.8067	8463000000	38
Hematological and neurological expressed 1-like protein	HN1L	8	8	8	61.1	61.1	61.1	20.063	0	116.11	8461200000	71
Peptidyl-prolyl cis-trans isomerase NIMA-interacting 4	PIN4	4	4	4	41.2	41.2	41.2	13.81	0	43.058	8452900000	103
Melanoma-associated antigen D2	MAGED2	17	17	15	35.6	35.6	34.3	64.953	0	323.31	8444100000	227
Succinyl-CoA ligase subunit beta;Succinyl-CoA ligase [ADP-forming] subunit beta, mitochondrial	SUCLA2;DKFZp686D0880	12	12	12	37.8	37.8	37.8	50.331	0	87.225	8438900000	153
Importin-7	IPO7	15	15	15	20.1	20.1	20.1	119.52	0	187.51	8429300000	175
Serine/arginine-rich splicing factor 6	HEL-S-91;SRSF6	7	7	4	24.7	24.7	14.7	31.865	0	23.595	8404400000	39
PDZ and LIM domain protein 1	HEL-S-112;PDLIM1	12	12	12	62.6	62.6	62.6	36.071	0	316.31	8396500000	167
Pyruvate dehydrogenase E1 component subunit alpha;Pyruvate dehydrogenase E1 component subunit alpha, somatic form, mitochondrial	PDHA1;PDHA1/LOC790664	16	16	16	47.4	47.4	47.4	43.295	0	99.162	8391600000	116
Chloride intracellular channel protein;Chloride intracellular channel protein 4	CLIC4	11	11	11	59.2	59.2	59.2	27.818	0	323.31	8384700000	173
U1 small nuclear ribonucleoprotein 70 kDa	SNRP70;SNRNP70	10	10	10	34.3	34.3	34.3	51.495	0	161.02	8378400000	67
Eukaryotic translation initiation factor 3 subunit B	EIF3S9;EIF3B	20	20	20	31.8	31.8	31.8	92.48	0	187.63	8376600000	137

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Eukaryotic translation initiation factor 3 subunit I	EIF3I	11	11	11	52	52	52	36.501	0	163.97	8376600000	101
Endoplasmic reticulum resident protein 29	HEL-S-107;ERP29	7	7	7	28.7	28.7	28.7	28.993	0	37.404	8364600000	72
Acidic leucine-rich nuclear phosphoprotein 32 family member E	ANP32E	8	8	8	45.5	45.5	45.5	30.434	0	251.08	8352600000	102
MARCKS-related protein	MARCKSL1	5	5	5	62.6	62.6	62.6	19.529	0	323.31	8348900000	57
Dolichyl-diphosphooligosaccharide--protein glycosyltransferase 48 kDa subunit	DDOST	11	11	11	39	39	39	48.799	0	125.43	8345200000	72
Transmembrane emp24 domain-containing protein 10	TMED10	8	8	8	37.9	37.9	37.9	24.976	0	45.669	8322300000	85
Transmembrane emp24 domain-containing protein 7	TMED7-TICAM2;TMED7	6	6	6	35.1	35.1	35.1	21.233	0	53.192	8279900000	102
Inositol-3-phosphate synthase 1	ISYNA1	9	9	9	43	43	43	38.821	0	132.07	8272500000	118
Secernin-1	SCRN1	13	13	13	39.1	39.1	39.1	46.382	0	96.679	8257500000	161
Splicing factor 3A subunit 3	SF3A3	14	14	14	27.5	27.5	27.5	58.776	0	184.8	8256900000	72
ATP synthase subunit O, mitochondrial	ATP5O	6	6	6	37.6	37.6	37.6	23.277	0	104.44	8246700000	56
Hexokinase;Hexokinase-1	HK1	22	22	19	26.1	26.1	23.2	102.31	0	289.33	8225200000	140
Eukaryotic translation initiation factor 3 subunit G	EIF3G	16	16	6	54.7	54.7	19.7	35.611	0	323.31	8217600000	147
		11	7	1	48.8	31.9	6.5	28.609	0	234.37	8180100000	47
Ran GTPase-activating protein 1	RANGAP1	17	17	17	36.3	36.3	36.3	63.541	0	149.05	8160500000	147
Centromere protein V	CENPV	8	8	5	53.8	53.8	29.5	29.946	0	203.38	8157700000	174
Flotillin-1	FLOT1	15	15	15	46.4	46.4	46.4	47.355	0	214.29	8156000000	143
Very long-chain specific acyl-CoA dehydrogenase, mitochondrial	ACADVL	18	18	18	43.9	43.9	43.9	62.581	0	253.64	8153900000	195
Histone H1.0;Histone H1.0, N-terminally processed	H1F0	2	2	2	10.8	10.8	10.8	20.863	0	9.9357	8092100000	37
Heat shock protein 105 kDa	HSPH1	30	27	27	45.3	40.8	40.8	92.115	0	318.73	8086200000	160
Cytochrome c oxidase subunit 7A2, mitochondrial	COX7A2	2	2	2	27.7	27.7	27.7	9.4259	0	15.037	8057000000	50
Replication factor C subunit 2	RFC2	15	15	15	49.4	49.4	49.4	39.157	0	132.26	8036000000	95
Eukaryotic translation initiation factor 3 subunit E	EIF3E	14	14	14	38	38	38	52.205	0	161.13	8002200000	137
40S ribosomal protein S10;Putative 40S ribosomal protein S10-like	RPS10;RPS10P5	4	4	2	17.8	17.8	8.6	19.86	0	36.215	7995700000	25
Procollagen galactosyltransferase 1	COLGALT1	9	9	9	16.9	16.9	16.9	71.635	0	69.852	7992500000	79
Ubiquitin-conjugating enzyme E2 N	HEL-S-71;UBE2N	5	5	5	32.9	32.9	32.9	17.138	0	21.512	7980800000	69
RNA-binding protein 25	RBM25	19	19	19	30	30	30	100.18	0	323.31	7966700000	92
Isocitrate dehydrogenase [NAD] subunit, mitochondrial;Isocitrate dehydrogenase [NAD] subunit beta, mitochondrial	IDH3B	11	11	11	35.4	35.4	35.4	42.41	0	134.76	7950200000	110
MICOS complex subunit MIC19	CHCHD3	9	9	9	37	37	37	26.152	0	109.31	7942100000	65
Glutathione S-transferase omega-1	HEL-S-21;GSTO1	8	8	8	41.5	41.5	41.5	27.566	0	24.199	7934600000	53
Acyl-CoA dehydrogenase family member 9, mitochondrial	ACAD9	17	17	17	34	34	34	68.76	0	99.177	7934300000	159
Transcription elongation factor B polypeptide 2	TCEB2	7	7	7	75.2	75.2	75.2	12.527	0	89.818	7931900000	58
Bifunctional 3-phosphoadenosine 5-phosphosulfate synthase 1;Sulfate adenylyltransferase;Adenylyl-sulfate kinase	PAPSS1	12	12	11	26	26	23.7	70.832	0	121.61	7917900000	168

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Structural maintenance of chromosomes protein 2;Structural maintenance of chromosomes protein	SMC2;SMC2L1	27	27	27	28.1	28.1	28.1	135.65	0	110.35	7878500000	147
Ezrin;Tyrosine-protein kinase receptor	EZR;HEL-S-105;EZR-ROS1	15	8	8	28.8	18.3	18.3	69.241	0	105.18	7865800000	183
Protein SEC13 homolog	SEC13	5	5	5	23.9	23.9	23.9	35.54	0	169.27	7846300000	98
Methylmalonyl-CoA mutase, mitochondrial	MUT	17	17	17	33.2	33.2	33.2	83.134	0	103.25	7845300000	138
Protein TFG;Tyrosine-protein kinase receptor	TFG;TFG/ALK fusion	8	8	8	29.1	29.1	29.1	38.703	0	240.98	7840600000	87
Calcium-binding mitochondrial carrier protein Aralar2	SLC25A13	17	17	14	39.9	39.9	34.8	74.175	0	135.04	7838600000	187
Histone-binding protein RBBP4	RBBP4	9	5	5	33.2	24.7	24.7	47.655	0	94.768	7834600000	42
Vesicular integral-membrane protein VIP36	LMAN2	9	9	9	36.1	36.1	36.1	32.577	0	171.89	7817100000	58
Protein CDV3 homolog	CDV3	10	10	10	66.7	66.7	66.7	27.335	0	323.31	7805700000	107
Ras-related protein Rab-14	RAB14	6	6	6	39.1	39.1	39.1	23.897	0	150.07	7789300000	57
Platelet-activating factor acetylhydrolase IB subunit alpha	PAFAH1B1	9	9	9	31	31	31	46.637	0	151.13	7778300000	70
Ribosome-binding protein 1	RRBP1	25	25	7	22.6	22.6	7.1	165.75	0	323.31	7772700000	179
Vacuolar protein sorting-associated protein 35	VPS35;DKFZp686O2462	15	15	15	25.6	25.6	25.6	91.706	0	82.598	7768300000	98
ATP-binding cassette sub-family E member 1	ABCE1	15	15	15	37.2	37.2	37.2	67.314	0	128.85	7760900000	121
Serine/threonine-protein phosphatase 2A 55 kDa regulatory subunit B alpha isoform;Serine/threonine-protein phosphatase 2A 55 kDa regulatory subunit B	PPP2R2A	11	11	7	35.6	35.6	22.1	51.691	0	115.83	7728000000	150
Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial	SDHB	10	10	10	39.6	39.6	39.6	31.629	0	136.39	7704000000	90
Biliverdin reductase A	BLVRA	8	8	8	33.8	33.8	33.8	33.428	0	84.617	7700500000	69
LDLR chaperone MESD	MESDC2	7	7	7	41	41	41	26.076	0	68.712	7700100000	53
Dihydrolipoyllysine-residue succinyltransferase component of 2-oxoglutarate dehydrogenase complex, mitochondrial	DLST	10	10	10	32	32	32	48.819	0	141.79	7687100000	182
Glyoxalase domain-containing protein 4	GLOD4	11	11	1	50.8	50.8	8.3	26.726	0	71.819	7674000000	113
N-alpha-acetyltransferase 15, NatA auxiliary subunit	NAA15;NARG1	17	17	15	27.9	27.9	25.6	101.3	0	170.94	7672000000	134
40S ribosomal protein S5;40S ribosomal protein S5, N-terminally processed	RPS5	6	6	6	29.5	29.5	29.5	22.391	0	140.25	7668300000	64
Glycine--tRNA ligase	GARS	14	14	14	31.8	31.8	31.8	77.53	0	125.38	7650500000	140
High mobility group protein B3	HMGB3	5	5	5	30.1	30.1	30.1	17.522	0	27.035	7629400000	53
Proteasome subunit beta type-4	PSMB4	6	6	6	41.7	41.7	41.7	29.204	0	131.28	7611200000	71
Calpastatin	CAST	21	21	0	54.8	54.8	0	75.046	0	323.31	7594800000	223
Protein arginine N-methyltransferase 1	PRMT1;HRMT1L2	12	12	12	44	44	44	37.709	0	97.767	7592400000	113
Protein mago nashi homolog;Protein mago nashi homolog 2	MAGOHB;FLJ10292;MAGOH	3	3	3	36.3	36.3	36.3	11.799	0	55.75	7589900000	65
Paraspeckle component 1	PSPC1	16	16	16	48.9	48.9	48.9	58.743	0	204.35	7584200000	179
3-ketoacyl-CoA thiolase, mitochondrial	ACAA2	14	14	14	58.4	58.4	58.4	41.601	0	323.31	7551600000	153
Eukaryotic translation initiation factor 3 subunit D	EIF3D	15	15	15	44	44	44	63.972	0	243.41	7507400000	198
Tryptophan--tRNA ligase, cytoplasmic;T1-TrpRS;T2-TrpRS	WARS	13	13	13	35.9	35.9	35.9	53.165	0	221.12	7492700000	145
Golgi resident protein GCP60	ACBD3	13	13	13	46.4	46.4	46.4	60.593	0	272.71	7473100000	131

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Protein arginine N-methyltransferase 5;Protein arginine N-methyltransferase 5, N-terminally processed;Protein arginine N-methyltransferase 5	PRMT5	18	18	18	40	40	40	72.683	0	163.46	7443600000	182
Phosphoglucomutase-2	PGM2	15	15	15	28.9	28.9	28.9	68.283	0	54.239	7443100000	85
Mitochondrial import receptor subunit TOM40 homolog	TOMM40	10	10	10	40.4	40.4	40.4	37.893	0	323.31	7432600000	138
Vesicle-trafficking protein SEC22b	SEC22B	5	5	5	26	26	26	24.593	0	135.23	7423700000	66
Double-strand break repair protein MRE11A	MRE11A	17	17	17	34.8	34.8	34.8	80.521	0	125.28	7411300000	149
Signal recognition particle receptor subunit beta	SRPRB	9	9	9	37.6	37.6	37.6	29.702	0	95.412	7400800000	57
60S ribosomal protein L8	RPL8	4	4	4	28.7	28.7	28.7	18.169	0	141.26	7388700000	81
S-formylglutathione hydrolase	ESD	11	11	11	64.5	64.5	64.5	31.462	0	116.09	7387200000	225
Heterochromatin protein 1-binding protein 3	HP1BP3	14	14	14	26	26	26	61.206	0	52.442	7382900000	116
Transportin-1	TNPO1	12	12	9	22.6	22.6	19	102.35	0	255.44	7362300000	105
Succinyl-CoA ligase [ADP/GDP-forming] subunit alpha, mitochondrial	SUCLG1	6	6	6	37.5	37.5	37.5	35.047	0	231.56	7353600000	76
Apoptotic chromatin condensation inducer in the nucleus	ACIN1;DKFZp667N107	23	23	21	32.3	32.3	30.1	145.44	0	323.31	7346000000	132
Suppressor of G2 allele of SKP1 homolog	SUGT1	15	15	15	52.6	52.6	52.6	41.024	0	246.55	7343700000	141
Early endosome antigen 1	EEA1	29	29	29	29.3	29.3	29.3	162.46	0	323.31	7342700000	120
Deoxyuridine 5-triphosphate nucleotidohydrolase, mitochondrial	DUT	7	7	7	35.3	35.3	35.3	26.563	0	97.349	7339000000	173
Enhancer of mRNA-decapping protein 4	EDC4	26	26	26	33.7	33.7	33.7	151.66	0	323.31	7309600000	216
Eukaryotic translation initiation factor 3 subunit C;Eukaryotic translation initiation factor 3 subunit C-like protein	EIF3C;EIF3CL	18	18	18	25.7	25.7	25.7	103.64	0	274.06	7309400000	116
Histidine--tRNA ligase, cytoplasmic	HARS;HRS	19	19	13	44	44	32	57.41	0	92.311	7300600000	121
AH receptor-interacting protein	AIP	10	10	10	38.3	38.3	38.3	37.501	0	175.7	7274600000	91
Protein transport protein Sec31A	SEC31L1;SEC31A	15	15	15	17.6	17.6	17.6	129.03	0	225.59	7271100000	119
Farnesyl pyrophosphate synthase	FDPS	5	5	5	12.6	12.6	12.6	48.275	0	43.168	7265000000	41
Aspartate aminotransferase, cytoplasmic;Aspartate aminotransferase	GOT1;GIG18	15	15	15	50.8	50.8	50.8	46.247	0	162.67	7154800000	143
		6	6	2	11.2	11.2	4.4	51.878	0	135.83	7146900000	46
Thioredoxin-related transmembrane protein 1	TMX1;TXNDC	10	10	10	30	30	30	31.791	0	117.39	7145000000	64
L-xylulose reductase	DCXR	10	10	10	61.9	61.9	61.9	25.913	0	147.51	7141200000	125
Methylcrotonoyl-CoA carboxylase beta chain, mitochondrial	MCCC2	14	14	14	38.5	38.5	38.5	61.332	0	156.19	7122900000	111
Ataxin-2-like protein	ATXN2L	18	18	18	28.7	28.7	28.7	113.37	0	204.94	7074600000	129
pre-rRNA processing protein FTSJ3	FTSJ3	17	17	17	30	30	30	96.557	0	218.55	7066900000	164
Replication protein A 32 kDa subunit	RPA2	6	6	6	48.1	48.1	48.1	29.247	0	142.19	7048600000	63
Clusterin;Clusterin beta chain;Clusterin alpha chain;Clusterin	CLU	9	9	9	23.8	23.8	23.8	52.494	0	194.48	7023900000	92
NADPH:adrenodoxin oxidoreductase, mitochondrial	FDXR	18	18	18	45.8	45.8	45.8	53.161	0	56.455	7004000000	136
S-phase kinase-associated protein 1	SKP1	8	8	6	53.4	53.4	35.6	18.72	0	122.04	6987500000	80

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ATP-dependent RNA helicase DDX3X;ATP-dependent RNA helicase DDX3Y	DDX3X;DDX3Y	15	14	14	25.1	23.4	23.4	73.243	0	126.67	6978400000	129
Prolyl endopeptidase	PREP	19	19	19	36.3	36.3	36.3	80.733	0	238.97	6932600000	201
UDP-glucose:glycoprotein glucosyltransferase 1	UGGT1	27	27	27	27.5	27.5	27.5	177.19	0	204.29	6925700000	142
Cleavage and polyadenylation specificity factor subunit 6	CPSF6	10	10	10	27.4	27.4	27.4	52.269	0	144.13	6898300000	109
Coiled-coil-helix-coiled-coil-helix domain-containing protein 2;Putative coiled-coil-helix-coiled-coil-helix domain-containing protein CHCHD2P9, mitochondrial	CHCHD2;CHCHD2P9	4	4	4	33.8	33.8	33.8	15.512	0	95.326	6884000000	40
Transcription elongation factor B polypeptide 1	TCEB1	4	4	4	67.9	67.9	67.9	12.473	0	199.85	6883900000	38
Stomatin-like protein 2, mitochondrial	STOML2	11	11	11	52.8	52.8	52.8	38.534	0	323.31	6870900000	101
Sialic acid synthase	NANS;HEL-S-100	8	8	8	33.7	33.7	33.7	40.307	0	76.886	6867600000	59
DNA (cytosine-5)-methyltransferase;DNA (cytosine-5)-methyltransferase 1	DNMT1	33	33	33	24.9	24.9	24.9	189.56	0	318.34	6858300000	192
Mitochondrial import receptor subunit TOM34	TOMM34	10	10	10	42.7	42.7	42.7	34.559	0	316.7	6853400000	87
Phosphatidylinositol transfer protein beta isoform	PITPNB	10	10	8	44.6	44.6	38.4	31.581	0	214.94	6834500000	101
Mitochondrial-processing peptidase subunit beta	PMPCB;DKFZp586I1223	14	14	14	36.9	36.9	36.9	53.508	0	153.15	6818700000	94
Proteasome subunit alpha type-3;Proteasome subunit alpha type	PSMA3	5	5	5	22	22	22	28.433	0	26.979	6813900000	43
Galactokinase	HEL-S-19;GALK1	9	9	9	28.3	28.3	28.3	42.272	0	91.955	6803200000	98
Radixin	RDX	20	14	13	42.7	33.3	32.1	68.563	0	108.7	6782600000	164
Cystatin-B	CSTB	4	4	4	53.1	53.1	53.1	11.139	0	54.922	6779700000	33
	SPAG9	20	20	1	27.4	27.4	1.4	145.17	0	323.31	6775400000	159
Septin-9	9-Sep	23	23	23	53.2	53.2	53.2	63.633	0	323.31	6770100000	120
Pre-mRNA-processing factor 6	PRPF6	21	21	21	28.6	28.6	28.6	106.92	0	154.11	6759400000	155
Glutathione S-transferase Mu 3	GSTM3	9	9	8	37.3	37.3	33	24.914	0	22.99	6750300000	53
Tumor suppressor p53-binding protein 1	TP53BP1	31	31	31	29.8	29.8	29.8	213.57	0	323.31	6747700000	193
Pachytene checkpoint protein 2 homolog	TRIP13	14	14	14	38.4	38.4	38.4	48.55	0	64.072	6747200000	115
Very large A-kinase anchor protein	CRYBG3	2	2	2	1.3	1.3	1.3	330.63	0.0099786	1.4316	6746600000	4
Nuclear pore complex protein Nup153	NUP153	28	28	28	34.8	34.8	34.8	153.97	0	323.31	6743100000	170
Drebrin-like protein	DBNL	8	8	8	30	30	30	48.207	0	133.98	6722500000	66
Myosin regulatory light chain 12A;Myosin regulatory light chain 12B;Myosin regulatory light polypeptide 9	MYL12A;MYL12B;MYL9	8	8	8	60.5	60.5	60.5	20.457	0	76.611	6711100000	113
Calponin-3;Calponin	CNN3	9	9	8	39.8	39.8	36.5	36.413	0	279.49	6703300000	86
Cleavage stimulation factor subunit 2	CSTF2	12	12	8	39.4	39.4	28.9	58.617	0	297.23	6691400000	123
Proteasome subunit beta type;Proteasome subunit beta type-6	PSMB6	4	4	4	20.9	20.9	20.9	25.357	0	10.637	6682400000	42
DnaJ homolog subfamily B member 1	DNAJB1	15	15	14	45.6	45.6	45.6	38.044	0	93.03	6676700000	94
Probable ATP-dependent RNA helicase DDX46	DDX46	30	30	1	37.4	37.4	1.8	117.36	0	198.57	6652000000	180
Eukaryotic translation initiation factor 6	EIF6	8	8	8	60	60	60	26.599	0	206.11	6637500000	56
Nicotinamide phosphoribosyltransferase	PBEF1;NAMPT	17	17	17	50.9	50.9	50.9	55.52	0	309.34	6605700000	153
40S ribosomal protein S15	RPS15	4	4	4	41.9	41.9	41.9	14.759	0	42.917	6586800000	55

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Ubiquitin carboxyl-terminal hydrolase isozyme L3;Ubiquitin carboxyl-terminal hydrolase	UCHL3	7	7	7	39.6	39.6	39.6	26.182	0	130.91	6582800000	84
Succinate-semialdehyde dehydrogenase, mitochondrial	ALDH5A1	13	13	13	48.5	48.5	48.5	53.867	0	323.31	6582000000	184
Nesprin-1	SYNE1	7	7	7	1.3	1.3	1.3	964.83	0	3.6213	6531900000	6
40S ribosomal protein S7	RPS7	5	5	1	41.8	41.8	5.7	22.127	0	83.456	6531800000	61
Exportin-5	XPO5	17	17	17	21.3	21.3	21.3	136.31	0	192.82	6514700000	191
Protein diaphanous homolog 1	DIAPH1	20	20	20	21.2	21.2	21.2	141.3	0	174.63	6514100000	163
Coronin-1C;Coronin	CORO1C	11	11	11	30.8	30.8	30.8	53.248	0	75.334	6465200000	76
Regulation of nuclear pre-mRNA domain-containing protein 1A	P15RS;RPRD1A	9	9	9	42.9	42.9	42.9	35.719	0	148.48	6465000000	95
Core histone macro-H2A;Core histone macro-H2A.2;Histone H2A	H2AFY2	11	11	10	37.1	37.1	34.7	40.058	0	216.08	6442900000	88
Long-chain-fatty-acid--CoA ligase 3	ACSL3	13	13	12	24.3	24.3	21.7	79.222	0	215.79	6442400000	135
Ribonucleoprotein PTB-binding 1	RAVER1	17	17	17	33.7	33.7	33.7	77.843	0	108.57	6436000000	173
Probable ATP-dependent RNA helicase DDX23	DDX23	19	19	19	30.9	30.9	30.9	93.233	0	145.94	6426400000	129
Vesicle-associated membrane protein 3	VAMP3	3	3	1	40	40	16	11.309	0	196.22	6424500000	37
Structural maintenance of chromosomes protein 4;Structural maintenance of chromosomes protein	SMC4	25	25	18	25.9	25.9	17.5	147.18	0	199.6	6422000000	131
T-complex protein 1 subunit zeta-2	CCT6B	6	1	1	11.3	2.3	2.3	57.821	0.0019183	2.3254	6393300000	11
Hypoxanthine-guanine phosphoribosyltransferase	HPRT1	8	8	8	53.7	53.7	53.7	24.588	0	73.817	6390300000	58
Ribosomal RNA processing protein 1 homolog B	RRP1B	24	24	24	52.1	52.1	52.1	84.427	0	296.43	6387100000	198
60S ribosomal protein L35a	RPL35A	4	4	4	16.4	16.4	16.4	12.538	0	8.4625	6359500000	24
Alanine--tRNA ligase, mitochondrial	AARS2	18	18	18	32.5	32.5	32.5	107.34	0	206.07	6354100000	120
RNA-binding protein 39	RBM39;DKFZp781C0423;DKFZp686A11192;RNPC2;DKFZp781I1140;DKFZp686C17209	11	11	11	38.1	38.1	38.1	48.023	0	76.418	6332100000	117
Replication factor C subunit 4	RFC4	10	10	10	39.7	39.7	39.7	39.681	0	70.592	6310600000	68
Cell division control protein 42 homolog	CDC42;hCG_39634	6	5	5	42.4	36.6	36.6	21.258	0	18.277	6287100000	122
Squamous cell carcinoma antigen recognized by T-cells 3	SART3	17	17	17	27	27	27	109.93	0	323.31	6280100000	96
ATP-dependent RNA helicase DDX19A	DDX19A;DKFZp686C21137;DKFZp762C1313;hCG_1998531	16	16	2	40.6	40.6	10.9	53.974	0	125.3	6266200000	87
Presequence protease, mitochondrial	PITRM1	21	21	21	30.8	30.8	30.8	116.29	0	222.6	6248200000	135
Crk-like protein	CRKL	8	8	8	51.5	51.5	51.5	33.777	0	197.04	6230500000	83
Golgi apparatus protein 1	GLG1	22	22	22	29.5	29.5	29.5	134.55	0	323.31	6230300000	206
Acylglycerol kinase, mitochondrial	AGK;FLJ10842	12	12	12	44.2	44.2	44.2	43.796	0	108.75	6226600000	122
Cytoplasmic dynein 1 light intermediate chain 1	DYNC1LI1;DKFZp686A1525	14	14	14	41.7	41.7	41.7	56.578	0	138.68	6222100000	102
O-acetyl-ADP-ribose deacetylase MACROD1	MACROD1	6	6	6	28.3	28.3	28.3	35.505	0	52.965	6207100000	52
Carnitine O-palmitoyltransferase 2, mitochondrial	CPT2	14	14	14	28.9	28.9	28.9	73.776	0	233.56	6184000000	146
Angiomotin	AMOT	20	20	19	28.1	28.1	27.2	118.08	0	292.24	6159200000	179
Calpain-1 catalytic subunit	CAPN1	20	20	13	37.8	37.8	23.1	81.889	0	101.18	6144500000	121
RNA-binding protein 8A	RBM8A;RBM8	4	4	4	37.4	37.4	37.4	19.889	0	29.557	6137400000	62
Nuclear pore complex protein Nup155	NUP155	17	17	17	20.5	20.5	20.5	151.23	0	323.31	6128800000	149
Proteasome subunit beta type-5	PSMB5	9	9	9	38	38	38	28.48	0	88.516	6116300000	51
Nucleobindin-1	NUCB1	18	18	18	51.2	51.2	51.2	53.907	0	63.6	6110500000	82

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2-oxoglutarate dehydrogenase, mitochondrial	OGDH	21	21	18	30	30	26.9	115.93	0	152.07	6104100000	186
Cullin-4A	CUL4A	13	13	10	20.4	20.4	16.6	87.679	0	53.463	6100100000	76
Transcription elongation factor SPT5	SUPT5H	23	23	23	32.1	32.1	32.1	118.18	0	323.31	6098900000	196
Isoleucine--tRNA ligase, mitochondrial	IARS2	18	18	18	32	32	32	113.79	0	218.01	6098700000	79
Phenylalanine--tRNA ligase alpha subunit	FARSLA;FARSA	11	11	11	25.4	25.4	25.4	57.563	0	169.86	6096100000	121
Cleavage and polyadenylation specificity factor subunit 5	NUDT21	7	7	7	30	30	30	26.215	0	60.208	6089400000	71
Phosphoserine aminotransferase	PSAT1	10	10	10	34.3	34.3	34.3	40.422	0	38.054	6086300000	78
Transducin beta-like protein 3	TBL3	20	20	20	39.6	39.6	39.6	89.034	0	276.93	6084900000	151
C-terminal-binding protein 1	CTBP1	7	7	6	25.9	25.9	23.6	47.535	0	178.96	6074400000	73
Heterogeneous nuclear ribonucleoprotein H2	HNRNPH2	13	7	7	43.7	28.1	28.1	49.263	0	97.947	6064000000	102
Vacuolar protein sorting-associated protein VTA1 homolog	VTA1	7	7	7	37.1	37.1	37.1	31.102	0	125.33	6054000000	87
Acidic leucine-rich nuclear phosphoprotein 32 family member A	ANP32A	9	9	7	56.5	56.5	47.5	19.997	0	144.22	6047400000	116
Afadin	MLLT4	31	31	25	28.7	28.7	24	207.62	0	190.78	6047200000	167
Prolyl 4-hydroxylase subunit alpha-1	P4HA1	14	14	14	35.2	35.2	35.2	60.966	0	90.964	6042500000	92
Up-regulated during skeletal muscle growth protein 5	USMG5	3	3	3	44.8	44.8	44.8	6.4575	0	166.48	6027900000	28
60S ribosomal protein L34	RPL34	2	2	2	12.8	12.8	12.8	13.293	0.0002006	3.0148	6024800000	22
Eukaryotic translation initiation factor 2A;Eukaryotic translation initiation factor 2A, N-terminally processed	EIF2A	20	20	20	49.2	49.2	49.2	64.989	0	189.44	6021800000	115
Mitogen-activated protein kinase;Mitogen-activated protein kinase 1	MAPK1	8	8	5	38.2	38.2	27.9	40.42	0	81.403	5957700000	95
Aminoacyl tRNA synthase complex-interacting multifunctional protein 2	JTV1;AIMP2	4	4	4	28.4	28.4	28.4	35.448	0	137.31	5934300000	36
Mitochondrial dicarboxylate carrier	SLC25A10	13	13	8	39.6	39.6	22.9	48.099	0	98.124	5933500000	93
60S ribosomal protein L9	RPL9	8	8	8	50	50	50	21.863	0	124.15	5933000000	73
Dihydropteridine reductase	QDPR	9	9	9	53.7	53.7	53.7	25.789	0	178.99	5929400000	133
mRNA export factor	RAE1	11	11	11	52.4	52.4	52.4	47.831	0	131.87	5924700000	114
ATP synthase subunit delta, mitochondrial	ATP5D	2	2	2	13.7	13.7	13.7	17.49	0	23.471	5914000000	34
Asparagine--tRNA ligase, cytoplasmic	NARS	12	12	12	27.7	27.7	27.7	62.942	0	128.16	5885900000	143
RNA-binding protein 12	DKFZp667H197;RBM12	13	13	13	19	19	19	100.16	0	39.22	5873800000	82
Cellular nucleic acid-binding protein	CNBP	5	5	5	40.6	40.6	40.6	18.742	0	142.28	5863500000	44
Translocation protein SEC63 homolog	SEC63	20	20	20	30.8	30.8	30.8	87.998	0	272.4	5863200000	200
Histone acetyltransferase type B catalytic subunit	HAT1	8	8	8	30.5	30.5	30.5	49.512	0	147.44	5843200000	88
Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit STT3A	hCG_2032701;STT3A	7	7	7	12.4	12.4	12.4	80.428	0	20.775	5838500000	38
26S proteasome non-ATPase regulatory subunit 7	PSMD7	6	6	6	33.3	33.3	33.3	37.025	0	61.737	5833900000	62
Small glutamine-rich tetratricopeptide repeat-containing protein alpha	SGTA	6	6	6	23.3	23.3	23.3	34.063	0	50.665	5828200000	57
BolA-like protein 2	BOLA2	4	4	4	60.5	60.5	60.5	10.116	0	123.1	5820700000	52
Glycerol-3-phosphate dehydrogenase;Glycerol-3-phosphate dehydrogenase, mitochondrial	GPD2	18	18	18	40.3	40.3	40.3	77.252	0	101.41	5815300000	106

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Actin-related protein 2	ACTR2	8	8	8	29.2	29.2	29.2	44.76	0	82.671	5791400000	57
Protein SON	SON	32	32	32	23.1	23.1	23.1	263.83	0	304.64	5766100000	189
Eukaryotic initiation factor 4A-II;Eukaryotic initiation factor 4A-II, N-terminally processed	EIF4A2	16	8	8	52.6	31.4	31.4	46.402	0	72.159	5754100000	161
Apoptosis inhibitor 5	API5	10	10	4	26.3	26.3	9.2	59.004	0	77.099	5748900000	71
Oxygen-dependent coproporphyrinogen-III oxidase, mitochondrial	CPOX	12	12	12	30.8	30.8	30.8	50.151	0	106.95	5745400000	80
4F2 cell-surface antigen heavy chain	SLC3A2	16	16	16	32.2	32.2	32.2	64.872	0	190.56	5739700000	157
Ubiquitin-conjugating enzyme E2 variant 1	TMEM189-UBE2V1;UBE2V1	7	7	4	23.2	23.2	14.9	42.208	0	117.82	5725800000	135
U5 small nuclear ribonucleoprotein 40 kDa protein	WDR57;SNRNP40	11	11	11	52.7	52.7	52.7	39.31	0	224.53	5721700000	142
Transcription elongation regulator 1	TCERG1	22	22	22	24.2	24.2	24.2	123.9	0	86.504	5720800000	108
ATP-dependent RNA helicase DDX42	DDX42	23	23	23	39.1	39.1	39.1	102.97	0	282.09	5684200000	202
DNA fragmentation factor subunit alpha	DFFA	11	11	3	57.4	57.4	9.7	36.521	0	115.98	5679700000	104
Emerin	EMD	10	10	10	61.8	61.8	61.8	28.994	0	166.96	5672500000	73
Heterogeneous nuclear ribonucleoprotein F;Heterogeneous nuclear ribonucleoprotein F, N-terminally processed	HNRPF;HNRNPF	11	9	9	47.2	40.7	40.7	45.671	0	215.55	5668400000	164
Collagen alpha-2(IV) chain;Canstatin	COL4A2	8	8	8	6	6	6	167.55	0	212.36	5639200000	85
Peptidyl-prolyl cis-trans isomerase FKBP5;Peptidyl-prolyl cis-trans isomerase FKBP5, N-terminally processed	FKBP5	16	16	16	38.9	38.9	38.9	51.198	0	323.31	5631200000	136
WD40 repeat-containing protein SMU1;WD40 repeat-containing protein SMU1, N-terminally processed	SMU1	12	12	12	36.1	36.1	36.1	57.543	0	164.18	5622400000	93
SRA stem-loop-interacting RNA-binding protein, mitochondrial	SLIRP	4	4	4	39.4	39.4	39.4	12.349	0	35.63	5615900000	25
V-type proton ATPase subunit B, brain isoform	ATP6V1B2	16	16	12	51.5	51.5	39.9	56.5	0	112.71	5602900000	106
ATP synthase subunit g, mitochondrial	ATP5L	2	2	2	36.8	36.8	36.8	8.4518	0	7.7195	5590900000	38
Mitochondrial carrier homolog 2	MTCH2	7	7	1	34.3	34.3	6.9	33.331	0	80.949	5589800000	44
Protein NipSnap homolog 1	NIPSNAP1	6	6	6	28.5	28.5	28.5	33.252	0	30.916	5573500000	56
ATP-dependent (S)-NAD(P)H-hydrate dehydratase	CARKD;FLJ10769	13	13	13	60.8	60.8	60.8	36.576	0	178.64	5561600000	90
dCTP pyrophosphatase 1	DCTPP1	9	9	9	58.2	58.2	58.2	18.681	0	106.44	5561200000	73
Renin receptor	ATP6AP2	8	8	8	32	32	32	39.008	0	46.84	5555000000	52
Echinoderm microtubule-associated protein-like 4;Tyrosine-protein kinase receptor	EML4	17	17	17	23.3	23.3	23.3	108.91	0	89.723	5536500000	79
Activator of 90 kDa heat shock protein ATPase homolog 1	AHSA1	12	12	12	47	47	47	38.274	0	130.54	5529200000	81
Calpain small subunit 1	CAPNS1	5	5	5	24.8	24.8	24.8	33.786	0	183.38	5500100000	81
Endoplasmic reticulum resident protein 44	ERP44	8	8	8	32.8	32.8	32.8	46.971	0	58.587	5491100000	63
Eukaryotic translation initiation factor 4H	EIF4H;LOC392647	7	7	7	40.7	40.7	40.7	27.385	0	193.78	5471800000	42
ERO1-like protein alpha	ERO1L	11	11	10	28	28	25.6	54.392	0	218.72	5469700000	121
Transcription elongation factor A protein 1	TCEA1	14	14	13	51.5	51.5	47.2	33.935	0	119.76	5466500000	100
Regulation of nuclear pre-mRNA domain-containing protein 1B	RPRD1B	7	7	7	41.4	41.4	41.4	36.899	0	142.53	5464800000	99
Asparagine synthetase [glutamine-hydrolyzing]	ASNS	15	15	15	36.5	36.5	36.5	64.369	0	117.41	5443000000	123

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CCR4-NOT transcription complex subunit 1	CNOT1	33	33	33	19.8	19.8	19.8	266.94	0	229.84	5441800000	144
Secretory carrier-associated membrane protein 3	SCAMP3	7	7	7	34.9	34.9	34.9	38.242	0	323.31	5430000000	87
Alpha-actinin-1	ACTN1	24	16	16	40.5	30	30	103.06	0	323.31	5429100000	128
Eukaryotic translation initiation factor 1A, X-chromosomal;Eukaryotic translation initiation factor 1A, Y-chromosomal	EIF1AX;EIF1AY	6	6	6	47.9	47.9	47.9	16.46	0	35.456	5399700000	61
Transformer-2 protein homolog beta	DKFZp686F18120;TRA2B	4	4	4	21.4	21.4	21.4	29.201	0	85.485	5398400000	44
Metastasis-associated protein MTA1	MTA1	18	18	15	36.3	36.3	30.4	79.372	0	103.68	5344400000	122
Flotillin-2	FLOT2;hCG_1998851	12	12	12	38	38	38	41.685	0	62.689	5342400000	93
Splicing factor 1	SF1	13	13	13	30.8	30.8	30.8	61.888	0	88.239	5331000000	181
SUMO-conjugating enzyme UBC9	UBE2I	7	7	7	54.4	54.4	54.4	18.007	0	124.68	5329900000	54
Omega-amidase NIT2	HEL-S-8a;NIT2	10	10	10	44.6	44.6	44.6	30.608	0	126.34	5312700000	79
Tyrosine-protein phosphatase non-receptor type 11	PTPN11	15	15	15	34.3	34.3	34.3	68.436	0	145.62	5311600000	137
Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit DAD1	DAD1	2	2	2	25.9	25.9	25.9	9.5541	0	8.3619	5311200000	32
Ras-related protein Rab-2A	RAB2;RAB2A	6	6	0	43.4	43.4	0	23.545	0	165.24	5303400000	38
Elongation factor Tu GTP-binding domain-containing protein 1	EFTUD1	22	22	22	31	31	31	125.43	0	323.31	5300000000	226
Glutaredoxin-3	GLRX3	10	10	10	26.3	26.3	26.3	37.432	0	78.058	5296400000	63
Myosin-14	MYH14	34	27	16	23.6	20.2	11.6	227.87	0	323.31	5294500000	142
cAMP-dependent protein kinase type II-alpha regulatory subunit	PRKAR2A	16	16	14	56	56	49.2	43.066	0	137.6	5280700000	107
Extended synaptotagmin-1	FAM62A;ESYT1	19	19	19	27.4	27.4	27.4	122.9	0	182.35	5278200000	161
Sec1 family domain-containing protein 1	SCFD1	14	14	14	30.1	30.1	30.1	72.307	0	323.31	5272700000	129
Lon protease homolog, mitochondrial;Lon protease homolog	LONP1	22	22	22	37.9	37.9	37.9	93.296	0	193.81	5269400000	233
NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial	NDUFS3;DKFZp586K082 1	5	5	5	26.1	26.1	26.1	30.16	0	59.481	5266500000	144
Syntaxin-12	STX12	5	5	5	29	29	29	30.878	0	141.23	5264800000	48
Reticulon-4;Reticulon	RTN4	10	10	10	22.1	22.1	22.1	129.93	0	88.105	5262300000	141
Uroporphyrinogen decarboxylase	UROD	9	9	9	34.1	34.1	34.1	40.786	0	107.46	5260600000	94
Clathrin interactor 1	CLINT1	13	13	13	26.6	26.6	26.6	70.294	0	141.14	5226500000	87
	RALY	10	10	2	53.3	53.3	17.9	30.398	0	323.31	5224800000	66
Guanine nucleotide-binding protein-like 3	GNL3	12	12	12	29.4	29.4	29.4	60.572	0	149.43	5213700000	76
Zinc finger RNA-binding protein	ZFR	20	20	20	31.2	31.2	31.2	117.01	0	323.31	5213600000	152
Superkiller viralicidic activity 2-like 2	SKIV2L2	17	17	17	21.3	21.3	21.3	117.8	0	135.41	5212700000	123
Actin-like protein 6A	BAF53A;ACTL6A	11	11	11	34.5	34.5	34.5	47.38	0	188.61	5210100000	80
ATP synthase subunit gamma;ATP synthase subunit gamma, mitochondrial	ATP5C1	7	7	1	34.4	34.4	4.5	32.247	0	22.407	5188800000	101
Minor histocompatibility antigen H13	HM13	4	4	4	12.2	12.2	12.2	41.488	0	60.976	5186800000	39
Amidophosphoribosyltransferase	PPAT	12	12	12	31.5	31.5	31.5	57.384	0	161.1	5177700000	105
COP9 signalosome complex subunit 4	COPS4	12	12	12	43.1	43.1	43.1	46.267	0	200.52	5176100000	95
Flavin reductase (NADPH)	HEL-S-10;BLVRB	6	6	6	47.1	47.1	47.1	22.119	0	223.3	5172100000	114
Protein scribble homolog	SCRIB	28	28	27	28	28	27.4	174.91	0	92.082	5147100000	141
Protein LYRIC	MTDH	17	17	17	46	46	46	63.836	0	167.81	5144000000	141
Helicase SKI2W	SKIV2L;SKI2W	21	21	21	28	28	28	137.75	0	92.505	5109900000	195
Coatomer subunit gamma-2;Coatomer subunit gamma	COPG2	19	16	16	34.6	30.4	30.4	97.621	0	236.79	5109600000	156
Eukaryotic translation initiation factor 3 subunit L	EIF3L	12	12	12	25	25	25	62.691	0	173.62	5089800000	86

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Golgin subfamily B member 1	GOLGB1	47	47	46	26.1	26.1	25.9	376.01	0	323.31	5088100000	173
Probable rRNA-processing protein EBP2	EBNA1BP2	8	8	8	30.7	30.7	30.7	34.852	0	63.23	5087000000	60
3-hydroxyisobutyrate dehydrogenase, mitochondrial;3-hydroxyisobutyrate dehydrogenase	HIBADH	8	8	8	42	42	42	35.329	0	208.05	5082500000	59
Transcription factor BTF3 homolog 4;Transcription factor BTF3	BTF3L4	5	5	5	41.1	41.1	41.1	17.27	0	93.029	5081600000	101
UBX domain-containing protein 1	UBXN1;LOC51035	6	6	6	35.9	35.9	35.9	32.611	0	280.34	5078100000	82
Double-strand-break repair protein rad21 homolog	RAD21	18	18	18	45.5	45.5	45.5	71.689	0	323.31	5066500000	156
FAS-associated factor 2	FAF2	10	10	10	44.5	44.5	44.5	52.623	0	102.56	5042500000	122
Eukaryotic translation initiation factor 3 subunit J	EIF3S1;EIF3J	8	8	8	34.5	34.5	34.5	29.062	0	102.04	5041700000	60
DnaJ homolog subfamily C member 7	DNAJC7	19	19	19	46.2	46.2	46.2	56.44	0	111.98	5040900000	80
Ribonucleoside-diphosphate reductase subunit M2	hCG_23833;RRM2	13	13	12	40.1	40.1	36.7	51.076	0	185.02	5039200000	129
HBS1-like protein	HBS1L	15	15	6	31.4	31.4	15.4	75.472	0	188.18	5001900000	103
E3 UFM1-protein ligase 1	UFL1	19	19	19	27.8	27.8	27.8	89.594	0	118.28	4992200000	140
Tubulin alpha-1C chain	TUBA1C	21	4	4	56.6	13.1	13.1	57.73	0	252.65	4988400000	91
Lamin-B receptor	LBR	7	7	7	13.3	13.3	13.3	70.729	0	38.225	4982800000	44
Ribonucleoside-diphosphate reductase large subunit;Ribonucleoside-diphosphate reductase	RRM1	17	17	17	33.8	33.8	33.8	90.069	0	273.58	4982700000	229
Sorbitol dehydrogenase	HEL-S-95n;SORD	7	7	7	31.9	31.9	31.9	38.311	0	73.994	4976500000	86
Nodal modulator 2;Nodal modulator 3;Nodal modulator 1	NOMO2;NOMO3;NOMO 1	19	19	19	23.5	23.5	23.5	139.44	0	199.18	4966500000	136
Serine/threonine-protein phosphatase 2A 56 kDa regulatory subunit delta isoform	PPP2R5D	14	14	11	36.7	36.7	29.7	69.978	0	98.239	4960300000	115
Protein FAM49B	FAM49B;DKFZp686B041 28	9	9	8	36.4	36.4	32.4	36.748	0	202.05	4921500000	93
Transcription factor A, mitochondrial	TFAM	7	7	7	27.2	27.2	27.2	29.082	0	55.31	4903700000	51
SH3 domain-binding glutamic acid-rich-like protein	HEL-S-115;SH3BGRL	7	7	7	84.2	84.2	84.2	12.774	0	86.683	4850600000	68
Histidine triad nucleotide-binding protein 1	HINT1	4	4	4	52.6	52.6	52.6	8.7079	0	18.146	4849300000	33
Chromatin complexes subunit BAP18	BAP18;C17orf49	9	9	1	73.3	73.3	8.1	17.9	0	103.91	4846400000	59
Replication factor C subunit 3	RFC3	14	14	14	53.1	53.1	53.1	34.832	0	121.55	4841900000	115
Phosphate carrier protein, mitochondrial	SLC25A3	8	8	8	25.3	25.3	25.3	36.161	0	26.826	4841000000	79
RNA-binding protein with serine-rich domain 1	RNPS1	3	3	3	13.6	13.6	13.6	27.431	0	18.077	4838500000	25
ADP/ATP translocase 3;ADP/ATP translocase 3, N-terminally processed	SLC25A6	12	5	1	43.6	22.1	4.4	32.866	0	29.713	4834100000	96
Protein NipSnap homolog 2	GBAS	5	5	5	18.5	18.5	18.5	33.742	0	28.302	4821000000	43
40S ribosomal protein S24	RPS24	4	4	4	21.4	21.4	21.4	15.197	0	27.72	4816800000	89
Polyadenylate-binding protein 4;Polyadenylate-binding protein	PABPC4	17	10	9	36.8	21	19.6	70.782	0	56.215	4811800000	81
Pinin	PNN	10	10	10	17.4	17.4	17.4	81.541	0	74.281	4793900000	61
Cytochrome b-c1 complex subunit 7	UQCRB	5	5	5	34.2	34.2	34.2	13.53	0	41.746	4791400000	36
Platelet-activating factor acetylhydrolase IB subunit gamma	PAFAH1B3	5	5	5	30.3	30.3	30.3	25.734	0	30.017	4784800000	51
RNA-binding protein 26	RBM26	16	16	8	18.3	18.3	12.2	113.79	0	157.39	4762800000	93
Magnesium-dependent phosphatase 1	NEDD8-MDP1;MDP1	4	4	4	32.4	32.4	32.4	19.536	0	24.515	4758100000	18

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Pantothenate kinase 4	PANK4	16	16	3	31.3	31.3	3.9	85.99	0	227.79	4750100000	110
Procollagen-lysine,2-oxoglutarate 5-dioxygenase 1	PLOD1	12	12	12	23.2	23.2	23.2	79.398	0	132.51	4740300000	70
U2 small nuclear ribonucleoprotein A	SNRPA1	11	11	11	58.4	58.4	58.4	28.415	0	120.11	4740200000	105
60S acidic ribosomal protein P1	RPLP1	3	2	2	66.7	51.8	51.8	11.5	0	57.552	4737000000	108
Spermidine synthase	SRM	6	6	6	31.1	31.1	31.1	33.824	0	323.31	4735700000	69
Serine/threonine-protein phosphatase PGAM5, mitochondrial	PGAM5	8	8	8	36.7	36.7	36.7	32.004	0	36.432	4731600000	59
Protein EMSY	EMSY;C11orf30	3	3	3	4.6	4.6	4.6	141.47	0.0028095	1.9434	4729100000	13
Density-regulated protein	DENR	7	7	7	42.9	42.9	42.9	22.092	0	258.69	4724400000	111
Cell division cycle and apoptosis regulator protein 1	CCAR1	14	14	14	18.9	18.9	18.9	132.82	0	319.98	4723600000	112
Eukaryotic peptide chain release factor subunit 1	ETF1	10	10	10	26.1	26.1	26.1	49.03	0	44.505	4722400000	43
NEDD8-activating enzyme E1 catalytic subunit	UBA3;UBE1C	17	17	17	51.4	51.4	51.4	51.822	0	176.2	4717600000	123
Trafficking protein particle complex subunit 3	TRAPPC3	6	6	6	38.3	38.3	38.3	20.274	0	82.537	4711800000	59
Procollagen-lysine,2-oxoglutarate 5-dioxygenase 2	PLOD2	13	13	13	25.5	25.5	25.5	81.169	0	139.9	4707900000	85
Serine/arginine repetitive matrix protein 1	SRRM1	5	5	5	8.6	8.6	8.6	102.33	0	167.13	4702600000	106
Cofilin-2	CFL2	7	5	5	57.2	40.4	40.4	18.736	0	123.04	4701800000	107
Translocon-associated protein subunit delta	SSR4	4	4	4	30.6	30.6	30.6	18.998	0	26.912	4700400000	36
Heterogeneous nuclear ribonucleoprotein A0	HNRNPA0	3	3	3	22.6	22.6	22.6	30.84	0	128.38	4685100000	128
Double-stranded RNA-binding protein Staufen homolog 1	STAU1	16	16	16	38	38	38	63.192	0	95.457	4676500000	80
Band 4.1-like protein 3;Band 4.1-like protein 3, N-terminally processed	EPB41L3	21	20	0	40.5	39.8	0	102.29	0	323.31	4667300000	130
CDGSH iron-sulfur domain-containing protein 2	CISD2	5	5	5	41.5	41.5	41.5	15.278	0	30.103	4666400000	41
Probable serine carboxypeptidase CPVL	CPVL	8	8	8	23.3	23.3	23.3	54.172	0	58.358	4666100000	59
Glyoxylate reductase/hydroxypyruvate reductase	GRHPR	6	6	6	29.6	29.6	29.6	38.695	0	177.6	4657900000	81
Glutathione synthetase	HEL-S-64p;GSS	12	12	12	35.9	35.9	35.9	52.384	0	98.448	4653400000	104
Serine/threonine-protein kinase Nek9	NEK9	18	18	18	28.2	28.2	28.2	107.15	0	207.91	4653300000	124
Inositol monophosphatase 1	IMPA1	9	9	9	35	35	35	30.188	0	121.79	4644100000	66
SWI/SNF complex subunit SMARCC2	SMARCC2	19	19	15	24.2	24.2	20.8	132.88	0	298.53	4622700000	123
3(2),5-bisphosphate nucleotidase 1	HEL20;BPNT1	9	9	9	45.8	45.8	45.8	33.392	0	103.13	4622300000	50
Monofunctional C1-tetrahydrofolate synthase, mitochondrial	MTHFD1L	17	17	17	27.4	27.4	27.4	99.31	0	99.267	4618200000	120
SURP and G-patch domain-containing protein 2	SFRS14;SUGP2	17	17	17	28.7	28.7	28.7	120.23	0	176.12	4601100000	142
Protein S100;Protein S100-A11;Protein S100-A11, N-terminally processed	HEL-S-43;S100A11	3	3	3	54.3	54.3	54.3	11.74	0	37.995	4587300000	49
Calpain-2 catalytic subunit	CAPN2	16	16	16	34.6	34.6	34.6	83.108	0	323.31	4586800000	125
Signal recognition particle receptor subunit alpha	SRPR	17	17	17	43.3	43.3	43.3	69.81	0	262.17	4586600000	116
Peptidyl-prolyl cis-trans isomerase;Peptidyl-prolyl cis-trans isomerase H	PPIH	8	8	8	52.5	52.5	52.5	19.208	0	20.863	4579800000	56
Ribosome biogenesis protein BOP1	BOP1	14	14	14	26.8	26.8	26.8	83.629	0	114.95	4578800000	182
Alpha-taxilin	TXLNA	12	12	12	35.5	35.5	35.5	61.89	0	255.73	4576100000	96
Glutathione S-transferase kappa 1	GSTK1;LOC51064	4	4	4	31.2	31.2	31.2	19.385	0	92.248	4575300000	32

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U4/U6.U5 tri-snRNP-associated protein 1	SART1	19	19	19	31.1	31.1	31.1	90.254	0	323.31	4570800000	104
Annexin;Annexin A11	ANXA11	13	13	13	37	37	37	45.597	0	104.72	4566100000	81
NADH dehydrogenase [ubiquinone] flavoprotein 2, mitochondrial	NDUFV2	9	9	9	45.5	45.5	45.5	25.43	0	115.81	4551900000	102
GTPase-activating protein and VPS9 domain-containing protein 1	GAPVD1	19	19	19	23.9	23.9	23.9	159.75	0	302.64	4539500000	120
Mitochondrial import inner membrane translocase subunit Tim13	TIMM13	4	4	4	45.3	45.3	45.3	10.5	0	29.454	4529100000	48
2,3-cyclic-nucleotide 3-phosphodiesterase	CNP	14	14	14	37.7	37.7	37.7	45.098	0	231.58	4528800000	126
Tyrosine-protein phosphatase non-receptor type 1;Tyrosine-protein phosphatase non-receptor type	PTPN1	10	10	10	32.6	32.6	32.6	49.966	0	185.67	4523000000	74
Very-long-chain 3-oxoacyl-CoA reductase	HSD17B12	7	7	7	24.4	24.4	24.4	38.806	0	36.832	4518200000	57
Casein kinase II subunit beta	CSNK2B;CSNK2B-LY6G5B-1181;CSNK2B-LY6G5B--991	5	5	5	33.5	33.5	33.5	24.942	0	50.298	4508800000	117
Calcium/calmodulin-dependent protein kinase type II subunit delta	CAMK2D	9	9	7	25.5	25.5	19.3	56.298	0	190.12	4508400000	75
Malectin	MLEC	9	9	9	32.5	32.5	32.5	32.233	0	120.18	4506000000	52
C-terminal-binding protein 2	CTBP2	7	6	6	33.9	31.7	31.7	48.944	0	139.52	4505900000	53
Isocitrate dehydrogenase [NAD] subunit, mitochondrial;Isocitrate dehydrogenase [NAD] subunit gamma, mitochondrial	hCG_2004980;IDH3G	8	8	8	38.8	38.8	38.8	36.756	0	308.13	4505200000	119
Nuclear pore complex protein Nup98-Nup96;Nuclear pore complex protein Nup98;Nuclear pore complex protein Nup96	NUP98	26	26	26	21.8	21.8	21.8	197.58	0	141.38	4500000000	130
DNA polymerase;DNA polymerase delta catalytic subunit	POLD1	27	27	27	34.3	34.3	34.3	123.63	0	262.59	4474900000	159
Histone deacetylase;Histone deacetylase 1	HDAC1;DKFZp686H1220 3	9	7	7	36.3	31.3	31.3	55.102	0	131.91	4472500000	78
Acyl-coenzyme A thioesterase 13;Acyl-coenzyme A thioesterase 13, N-terminally processed	ACOT13	5	5	5	62.1	62.1	62.1	14.96	0	32.485	4468200000	52
Fumarate hydratase, mitochondrial	FH	8	8	8	24.7	24.7	24.7	54.636	0	80.35	4467600000	98
Prefoldin subunit 2	PFDN2	5	5	5	32.5	32.5	32.5	16.648	0	75.612	4465800000	42
Separin	ESPL1	4	4	4	3.5	3.5	3.5	233.17	0.0017318	2.3607	4463400000	7
Leucine-rich repeat-containing protein 40	LRRC40	16	16	16	39	39	39	68.249	0	101.57	4461300000	96
Parathymosin	PTMS	1	1	1	19.3	19.3	19.3	6.2542	0	3.4313	4460800000	27
Scaffold attachment factor B1	SAFB	15	6	6	25.3	8.6	8.6	91.084	0	90.692	4451000000	43
Alpha-endosulfine	ENSA	8	8	7	61.4	61.4	53.6	15.634	0	97.063	4448400000	47
Alcohol dehydrogenase [NADP(+)]	HEL-S-165mP;AKR1A1	12	12	12	45.2	45.2	45.2	36.573	0	64.759	4448000000	89
7-dehydrocholesterol reductase	DHCR7	3	3	3	9.1	9.1	9.1	54.469	0	47.301	4446700000	35
Gem-associated protein 5	GEMIN5	20	20	20	19.8	19.8	19.8	168.59	0	147.2	4442600000	111
Nuclear cap-binding protein subunit 1	NCBP1	12	12	12	23.2	23.2	23.2	91.838	0	75.014	4417800000	121
Cathepsin B;Cathepsin B light chain;Cathepsin B heavy chain	CTSB	8	8	8	30.7	30.7	30.7	37.821	0	83.317	4399100000	51
Protein disulfide-isomerase A5	PDIA5	11	11	11	29.5	29.5	29.5	59.594	0	146.31	4397500000	117

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Heterogeneous nuclear ribonucleoprotein D-like	HNRNPDL;HNRPDL	8	8	8	31.1	31.1	31.1	40.04	0	48.254	4393800000	67
Tubulin-specific chaperone D	TBCD	18	18	18	26.7	26.7	26.7	132.6	0	256.54	4387400000	145
Sulfotransferase;Sulfotransferase 1A1;Sulfotransferase 1A2	hCG_1993905;SULT1A1;SULT1A2	10	10	5	46.1	46.1	22.4	34.197	0	29.886	4376900000	91
Eukaryotic translation initiation factor 3 subunit K	EIF3K	6	6	6	46.9	46.9	46.9	22.095	0	37.918	4370700000	49
Nitrilase homolog 1	NIT1	10	10	10	44.2	44.2	44.2	34.265	0	100.81	4364600000	84
Importin subunit alpha;Importin subunit alpha-7	KPNA6	11	11	9	35.5	35.5	30	59.64	0	102.79	4352700000	54
Caprin-1	CAPRIN1	7	7	7	21.7	21.7	21.7	78.365	0	272.49	4335900000	55
Metastasis-associated protein MTA2	MTA2	13	12	11	27.7	25.7	24.7	75.022	0	135.35	4334300000	74
Xaa-Pro aminopeptidase 1	XPNPEP1	15	15	6	37.7	37.7	18.1	69.917	0	206.26	4314800000	143
Hydroxyacylglutathione hydrolase, mitochondrial	HAGH	8	8	8	41.8	41.8	41.8	26.305	0	71.737	4314100000	70
Elongator complex protein 1	IKBKAP;IKBKAP variant protein;DKFZp781H1425	18	18	18	21.2	21.2	21.2	150.22	0	323.31	4306000000	122
Microtubule-associated protein 1S;MAP1S heavy chain;MAP1S light chain	MAP1S	19	19	19	37.5	37.5	37.5	112.23	0	132.63	4304200000	169
Signal recognition particle 9 kDa protein	SRP9	3	3	1	32.6	32.6	12.8	10.112	0	22.384	4299600000	31
DnaJ homolog subfamily C member 8	DNAJC8	5	5	5	31.2	31.2	31.2	29.841	0	21.713	4299000000	40
Protein PRRC2A	PRRC2A	27	26	26	21.7	21.2	21.2	228.86	0	252.5	4289300000	146
Myb-binding protein 1A	MYBBP1A	20	20	20	22.1	22.1	22.1	148.85	0	162.36	4287200000	132
Follistatin-related protein 1	FSTL1	9	9	9	32.1	32.1	32.1	34.985	0	179.23	4286600000	68
Mitochondrial import inner membrane translocase subunit TIM44	hTIM44;TIMM44	10	10	10	27	27	27	47.366	0	61.708	4282500000	85
AP-1 complex subunit mu-1	AP1M1	10	10	10	36.2	36.2	36.2	48.56	0	28.677	4281900000	77
Coiled-coil domain-containing protein 124	CCDC124;LOC115098	8	8	8	36.3	36.3	36.3	25.835	0	52.707	4277800000	46
Methylosome subunit pICln	CLNS1A	7	7	7	48.9	48.9	48.9	26.215	0	193.36	4276900000	101
Cyclin-dependent-like kinase 5	CDK5	9	8	8	37.3	34.6	34.6	33.304	0	61.403	4275200000	87
Acylamino-acid-releasing enzyme	APEH	11	11	11	25	25	25	81.224	0	96.089	4266400000	89
Mitochondrial-processing peptidase subunit alpha	PMPCA	9	9	9	22.3	22.3	22.3	58.252	0	42.344	4260500000	80
Nucleoside diphosphate kinase;Nucleoside diphosphate kinase B;Putative nucleoside diphosphate kinase	NME1-NME2;NME2;NME2P1	7	2	2	44.5	9.6	9.6	32.642	0	4.4597	4260500000	22
Sorting nexin-6;Sorting nexin-6, N-terminally processed	SNX6	11	11	11	32.3	32.3	32.3	46.647	0	259.43	4258100000	70
Lipopolysaccharide-responsive and beige-like anchor protein	LRBA	30	30	0	17.3	17.3	0	319.1	0	160.93	4246300000	137
Nuclear transport factor 2	NUTF2	4	4	4	51.2	51.2	51.2	14.478	0	35.558	4234500000	91
Protein enabled homolog	ENAH	13	13	13	32.7	32.7	32.7	66.509	0	305.93	4225800000	69
PEST proteolytic signal-containing nuclear protein	PCNP	5	5	5	36	36	36	18.925	0	61.919	4219400000	35
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 10, mitochondrial	NDUFA10	9	9	9	25.1	25.1	25.1	40.676	0	40.214	4209900000	57
WD repeat-containing protein 61;WD repeat-containing protein 61, N-terminally processed	WDR61	7	7	7	37.4	37.4	37.4	33.58	0	185.52	4196800000	123
Microtubule-actin cross-linking factor 1, isoforms 1/2/3/5	MACF1	59	59	59	12.4	12.4	12.4	861.07	0	323.31	4196200000	198
Importin-9	IPO9	15	15	15	23.7	23.7	23.7	115.96	0	301.46	4196200000	174

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Cysteine and histidine-rich domain-containing protein 1	CHORDC1	8	8	8	34.9	34.9	34.9	37.533	0	77.895	4189600000	63
Ferritin light chain;Ferritin	FTL;FTL variant	5	5	5	40.6	40.6	40.6	20.019	0	36.62	4188800000	46
Endophilin-A2	SH3GL1	10	10	10	37.1	37.1	37.1	39.84	0	171.82	4177800000	69
DnaJ homolog subfamily A member 1	DNAJA1;HDJ2	8	8	8	28	28	28	44.868	0	145.05	4170200000	53
Proteasome activator complex subunit 3	PSME3;HEL-S-283	6	6	6	35.8	35.8	35.8	20.593	0	36.988	4169500000	135
TIP41-like protein	TIPRL	9	9	9	49.3	49.3	49.3	31.444	0	40.362	4169300000	54
Epoxide hydrolase 1	EPHX1	11	11	11	29	29	29	52.948	0	35.852	4167600000	61
Methylmalonate-semialdehyde dehydrogenase [acylating], mitochondrial	ALDH6A1	15	15	15	34.8	34.8	34.8	57.839	0	97.39	4165300000	91
Desmoplakin	DSP;DSP variant protein	35	35	35	17.6	17.6	17.6	331.77	0	212.99	4163500000	153
Hydroxysteroid dehydrogenase-like protein 2	HSDL2	12	12	12	36.6	36.6	36.6	45.394	0	132.2	4151800000	128
Hydroxyacyl-coenzyme A dehydrogenase, mitochondrial	HADH	5	5	5	35.6	35.6	35.6	29.096	0	79.869	4144000000	110
Phosphoacetylglucosamine mutase	PGM3	10	10	10	22.7	22.7	22.7	59.865	0	139.2	4137200000	100
AP-1 complex subunit beta-1	AP1B1	23	12	3	29.7	19.4	8	104.64	0	64.741	4130900000	92
E3 ubiquitin-protein ligase MYCBP2	MYCBP2	43	43	43	14.4	14.4	14.4	513.63	0	281.8	4128300000	187
Mitochondrial ribonuclease P protein 1	TRMT10C	9	9	9	32	32	32	47.346	0	46.164	4119300000	60
Thioredoxin domain-containing protein 17	TXNDC17	3	3	3	34.1	34.1	34.1	13.941	0	25.215	4110300000	45
GTP-binding protein 1	GTPBP1	14	14	14	42.6	42.6	42.6	71.463	0	190.84	4107900000	108
Ribosomal protein S6 kinase;Ribosomal protein S6 kinase alpha-1	RPS6KA1	16	16	11	32.7	32.7	23.8	81.471	0	113.38	4106200000	64
Guanine nucleotide-binding protein subunit gamma;Guanine nucleotide-binding protein G(I)/G(S)/G(O) subunit gamma-12	GNG12	3	3	3	44.4	44.4	44.4	8.0342	0	56.259	4101900000	38
Proteasome subunit beta type-2;Proteasome subunit beta type	PSMB2	7	7	7	30.8	30.8	30.8	22.836	0	49.872	4099600000	35
26S proteasome non-ATPase regulatory subunit 8	PSMD8;HEL-S-91n	5	5	5	29.7	29.7	29.7	19.781	0	36.381	4097100000	30
Guanine nucleotide-binding protein G(s) subunit alpha isoforms short;Guanine nucleotide-binding protein G(s) subunit alpha isoforms XLas	GNAS;GSA	10	9	9	34	31.2	31.2	45.664	0	44.087	4087500000	50
Nuclear ubiquitous casein and cyclin-dependent kinase substrate 1	NUCKS1;NUCKS	11	11	11	44.9	44.9	44.9	27.296	0	229.19	4082700000	78
PCI domain-containing protein 2	PCID2;RP11-98F14.6	9	9	9	29.8	29.8	29.8	46.03	0	101.71	4075100000	70
Protein S100-A10	S100A10	1	1	1	17.5	17.5	17.5	11.187	0	56.099	4069200000	50
Cyclin-dependent kinase 2	CDK2	10	8	8	42.6	36.2	36.2	33.929	0	49.78	4062900000	102
Trafficking protein particle complex subunit 9	TRAPPC9	5	5	5	5.9	5.9	5.9	128.53	0	3.8103	4056100000	5
Prostaglandin reductase 1	LTB4DH;PTGR1	12	12	12	51.1	51.1	51.1	35.885	0	100.77	4048900000	170
RNA-binding protein 10	DKFZp686E2459;RBM10	17	17	17	30.3	30.3	30.3	103.53	0	137.54	4046700000	139
Signal recognition particle 54 kDa protein	SRP54	10	10	10	24.2	24.2	24.2	55.704	0	253.62	4038800000	128
Adenylosuccinate synthetase isozyme 2	ADSS	8	8	7	23.9	23.9	22.3	47.938	0	41.106	4034900000	80
Transducin-like enhancer protein 4;Transducin-like enhancer protein 1	TLE4;TLE1	10	10	9	19.8	19.8	18.4	83.754	0	98.639	4033800000	74

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GrpE protein homolog 1, mitochondrial;GrpE protein homolog	GRPEL1	8	8	8	47	47	47	24.279	0	135.23	4028500000	69
Transmembrane emp24 domain-containing protein 4	TMED4	8	8	7	37.4	37.4	30	25.943	0	88.071	4019700000	86
Reticulocalbin-2	RCN2	9	9	9	31.5	31.5	31.5	36.876	0	265.25	4017800000	73
Mini-chromosome maintenance complex-binding protein	MCMBP	16	16	16	31	31	31	72.979	0	141.19	4015500000	103
Ras-related protein Ral-A	RALA	3	3	2	24.4	24.4	17.7	18.26	0	22.594	3982600000	40
YLP motif-containing protein 1	YLPM1	21	21	4	19.2	19.2	4.8	241.64	0	234.21	3975000000	135
U4/U6 small nuclear ribonucleoprotein Prp4	PRPF4	10	10	10	29.2	29.2	29.2	58.306	0	45.659	3974700000	67
Cysteine--tRNA ligase, cytoplasmic	CARS	19	19	19	35.2	35.2	35.2	85.472	0	90.931	3961900000	105
Survival of motor neuron-related-splicing factor 30	SMNDC1	5	5	5	38.2	38.2	38.2	26.711	0	136.48	3951600000	55
Alkyldihydroxyacetonephosphate synthase, peroxisomal	AGPS	12	12	12	24.8	24.8	24.8	72.911	0	136.71	3947800000	96
DAZ-associated protein 1	DAZAP1;DAZAP1/MEF2D fusion	4	4	4	18.7	18.7	18.7	35.02	0	41.876	3942300000	38
Synapse-associated protein 1	SYAP1	17	17	17	57.4	57.4	57.4	39.933	0	323.31	3939500000	69
NADH dehydrogenase [ubiquinone] iron-sulfur protein 2, mitochondrial	NDUFS2	8	8	8	30	30	30	52.545	0	80.891	3927500000	61
Interferon-inducible double-stranded RNA-dependent protein kinase activator A	PRKRA	11	11	11	39.6	39.6	39.6	34.404	0	75.611	3925000000	62
Protein FAM98B	FAM98B	8	8	8	38.2	38.2	38.2	37.19	0	109.49	3923300000	65
U1 small nuclear ribonucleoprotein C	SNRPC	3	3	3	24.5	24.5	24.5	17.394	0	73.34	3922900000	37
Histidine triad nucleotide-binding protein 2, mitochondrial	HINT2	4	4	4	53.1	53.1	53.1	13.918	0	65.69	3913600000	62
Putative helicase MOV-10	MOV10	16	16	16	22.8	22.8	22.8	107.21	0	135.3	3912100000	100
Serine/threonine-protein phosphatase;Serine/threonine-protein phosphatase 5	PPP5C	11	11	11	32.6	32.6	32.6	55.096	0	260	3908100000	91
YTH domain-containing family protein 2	YTHDF2	9	9	7	24.2	24.2	21.4	61.319	0	172.19	3897600000	57
Polymerase delta-interacting protein 3	POLDIP3;DKFZp434G0310	8	8	5	35.5	35.5	23.7	45.658	0	215.23	3895400000	64
Catenin delta-1	CTNND1;DKFZp781O2021	20	20	2	35.6	35.6	5.4	104.85	0	235.93	3893800000	95
Eukaryotic translation initiation factor 5	EIF5	10	10	10	26	26	26	49.222	0	33.146	3892200000	52
	CYFIP2	13	13	0	13.2	13.2	0	142.58	0	92.473	3890300000	79
NAD(P)H-hydrate epimerase	APOA1BP	8	8	8	47.9	47.9	47.9	33.627	0	184.16	3888800000	72
High mobility group protein HMGI-C	HMGA2	3	3	3	38.5	38.5	38.5	11.832	0	202.82	3887300000	56
Calcium-binding mitochondrial carrier protein SCaMC-1	SLC25A24	11	11	11	31.7	31.7	31.7	53.382	0	70.55	3886700000	72
NEDD8-activating enzyme E1 regulatory subunit	NAE1	8	8	8	21.3	21.3	21.3	60.246	0	147.55	3878000000	73
Exosome complex component MTR3	EXOSC6	6	6	6	25	25	25	28.235	0	79.249	3872400000	55
Zyxin	ZYX	11	11	11	36.7	36.7	36.7	61.277	0	85.582	3860100000	85
Kinesin-like protein;Kinesin-like protein KIF2C	KIF2C	17	17	16	37.2	37.2	35.7	81.34	0	164.78	3855900000	109
SNW domain-containing protein 1	SNW1	12	12	12	32.3	32.3	32.3	53.022	0	88.956	3853900000	69
Proteasome activator complex subunit 2	PSME2	7	7	7	41	41	41	27.401	0	30.926	3851600000	42
60S ribosomal protein L28	RPL28	2	2	2	21.3	21.3	21.3	9.657	0	7.9151	3848900000	14
Charged multivesicular body protein 4b	CHMP4B	5	5	5	34.8	34.8	34.8	24.95	0	75.542	3848700000	38
Cold shock domain-containing protein E1	CSDE1;UNR;DKFZp586J0620	18	18	14	26.1	26.1	20.7	85.729	0	303.44	3839200000	84

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mRNA turnover protein 4 homolog	C1orf33;MRTO4	11	11	11	46.4	46.4	46.4	27.56	0	39.676	3830800000	40
Coatomer subunit zeta-1	COPZ1	5	5	5	46.3	46.3	46.3	20.267	0	106.09	3827600000	62
Glycylpeptide N-tetradecanoyltransferase;Glycylpeptide N-tetradecanoyltransferase 1	NMT1	6	6	4	17.8	17.8	11.1	56.603	0	42.702	3824400000	32
Splicing factor U2AF 35 kDa subunit	U2AF1	6	6	6	35.8	35.8	35.8	27.872	0	66.542	3820400000	69
Pre-mRNA 3-end-processing factor FIP1	FIP1L1	8	8	8	22.4	22.4	22.4	66.526	0	301.36	3816300000	61
ATP-dependent 6-phosphofructokinase, muscle type;ATP-dependent 6-phosphofructokinase	PFKM	18	17	17	37.2	36	36	85.182	0	199.64	3811800000	118
H/ACA ribonucleoprotein complex subunit 4	DKC1	14	14	14	28.6	28.6	28.6	57.673	0	83.771	3807100000	73
Caldesmon	CALD1	12	12	12	28.9	28.9	28.9	64.168	0	252.57	3804800000	72
Protein canopy homolog 2	CNPY2	9	8	8	38.4	35	35	29.224	0	88.365	3782600000	66
28 kDa heat- and acid-stable phosphoprotein	PDAP1	9	9	9	33.1	33.1	33.1	20.63	0	66.803	3774000000	54
Prenylcysteine oxidase 1	PCYOX1	12	12	12	30.2	30.2	30.2	54.553	0	65.769	3769600000	62
Tumor protein D52	TPD52	7	7	2	49.6	49.6	16.5	24.327	0	158.34	3767800000	128
Cysteine desulfurase, mitochondrial	NFS1	14	14	14	49.4	49.4	49.4	44.017	0	257.95	3761600000	112
Alpha-adducin	ADD1;LA04NC01-25A3.2-001	13	13	12	30.9	30.9	29.6	70.055	0	100.35	3760600000	89
Fibulin-1	FBLN1	14	14	2	30.7	30.7	7.2	70.154	0	323.31	3756200000	123
Inactive tyrosine-protein kinase 7	PTK7	16	16	16	22.3	22.3	22.3	118.39	0	99.994	3754400000	95
Dynamin-1-like protein	DNM1L	19	19	2	35.5	35.5	5.7	87.811	0	323.31	3731100000	140
Transmembrane protein 43	TMEM43;FLJ00144	7	7	7	25.5	25.5	25.5	44.875	0	57.549	3709700000	102
Calcium homeostasis endoplasmic reticulum protein	CHERP	12	12	12	20.8	20.8	20.8	104.93	0	323.31	3706000000	59
Ubiquitin-conjugating enzyme E2 D2;Ubiquitin-conjugating enzyme E2 D3	UBE2D2;UBE2D3	3	3	2	54.1	54.1	35.7	11.065	0	24.2	3700800000	41
rRNA/tRNA 2-O-methyltransferase fibrillarin-like protein 1	FBLL1	1	1	1	3.3	3.3	3.3	34.803	0	3.1241	3697300000	13
Nestin	NES	30	30	30	29.2	29.2	29.2	177.42	0	184.07	3695900000	135
Zinc finger protein 512	ZNF512;DKFZp666L156	12	12	12	35	35	35	64.594	0	126.32	3690400000	64
Short/branched chain specific acyl-CoA dehydrogenase, mitochondrial	ACADSB	10	10	10	35	35	35	47.485	0	88.443	3689800000	66
Pleiotropic regulator 1	PLRG1	12	12	12	43.2	43.2	43.2	57.193	0	245.68	3679100000	92
Superoxide dismutase;Superoxide dismutase [Mn], mitochondrial	SOD2;DKFZp564M2422	2	2	2	26.1	26.1	26.1	12.13	0	51.935	3671600000	12
LIM and SH3 domain protein 1	LASP1	5	5	5	21.5	21.5	21.5	29.645	0	68.424	3664100000	51
Serpin B6	SERPINB6	10	10	10	35.9	35.9	35.9	42.621	0	109.2	3660300000	70
Tumor protein D54	DKFZp686A1765;TPD52L2	6	6	6	54.8	54.8	54.8	19.901	0	193.94	3652200000	53
Alpha-1,4 glucan phosphorylase;Glycogen phosphorylase, brain form	PYGB	23	22	20	32.4	31	28.1	98.828	0	150.85	3649700000	90
Transmembrane 9 superfamily member 3	TM9SF3;SMBP	9	9	9	19	19	19	60.107	0	38.886	3641800000	62
Desmoglein-2	DSG2	20	20	20	36.9	36.9	36.9	122.29	0	257.84	3635000000	152
V-type proton ATPase 16 kDa proteolipid subunit	ATP6V0C	1	1	1	11.6	11.6	11.6	15.736	0	27.386	3631900000	27
Galectin-1	LGALS1	5	5	5	43.7	43.7	43.7	14.716	0	48.762	3630900000	62
Serine--tRNA ligase, mitochondrial	SARS2	11	11	11	34.9	34.9	34.9	58.182	0	127.51	3625200000	74
Ubiquitin-conjugating enzyme E2 K	UBE2K;HIP2	8	8	8	46	46	46	22.406	0	63.859	3623500000	83
Bromodomain-containing protein 2	BRD2	14	14	13	25.1	25.1	23.5	88.06	0	208.53	3619700000	74

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Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-2	GNB2	6	5	4	29.1	22.4	18.5	37.331	0	136.15	3616500000	44
Lysosomal alpha-glucosidase;76 kDa lysosomal alpha-glucosidase;70 kDa lysosomal alpha-glucosidase	GAA	8	8	8	13.4	13.4	13.4	105.34	0	36.042	3614900000	36
Annexin;Annexin A4	HEL-S-274;ANXA4	12	12	12	42.1	42.1	42.1	36.057	0	119.77	3612400000	85
40S ribosomal protein S27	RPS27	3	3	2	29.8	29.8	14.3	9.461	0	12.709	3610400000	21
Ribosome biogenesis protein WDR12	WDR12	13	13	13	44.9	44.9	44.9	47.707	0	128.82	3608900000	79
Torsin-1A-interacting protein 1	TOR1AIP1	10	10	10	29	29	29	67.821	0	79.058	3602900000	65
Plasma membrane calcium-transporting ATPase 1;Calcium-transporting ATPase	ATP2B1	16	16	9	19	19	11.4	138.75	0	114.84	3594300000	107
GTPase KRas;GTPase KRas, N-terminally processed	KRAS	9	9	1	49.7	49.7	5.4	33.983	0	46.4	3588500000	103
Quinone oxidoreductase	CRYZ	7	7	7	59.2	59.2	59.2	21.932	0	57.629	3585500000	66
PHD finger-like domain-containing protein 5A	PHF5A	4	4	4	46.4	46.4	46.4	12.405	0	83.674	3585400000	29
ATP synthase subunit e, mitochondrial	ATP5I	3	3	3	31.9	31.9	31.9	7.9331	0	7.1928	3577500000	33
Protein transport protein Sec61 subunit beta	SEC61B	2	2	2	26	26	26	9.9743	0	8.0562	3576600000	16
CTP synthase;CTP synthase 2	CTPS2	13	12	12	32.3	30.2	30.2	65.677	0	68.37	3569700000	68
CDGSH iron-sulfur domain-containing protein 1	C10orf70;CISD1	3	3	3	35.2	35.2	35.2	12.199	0	73.359	3559400000	30
		1	1	1	3.6	3.6	3.6	27.076	0.0083318	1.5895	3543700000	7
DBIRD complex subunit ZNF326	ZNF326	7	7	7	17.4	17.4	17.4	65.653	0	56.27	3541100000	60
HEAT repeat-containing protein 1;HEAT repeat-containing protein 1, N-terminally processed	HEATR1	24	24	24	15.5	15.5	15.5	242.26	0	139.48	3533400000	126
Poly(ADP-ribose) glycohydrolase ARH3	ADPRHL2	9	9	9	35	35	35	38.946	0	145.87	3532500000	78
U2 snRNP-associated SURP motif-containing protein	U2SURP	18	18	2	29.8	29.8	5.3	118.29	0	111.6	3530500000	104
Proteasome subunit beta type-3	PSMB3	5	5	5	42.8	42.8	42.8	16.161	0	53.991	3524200000	65
Non-specific serine/threonine protein kinase;Serine/threonine-protein kinase PAK 2;PAK-2p27;PAK-2p34	PAK2	12	12	8	37.6	37.6	25.8	58.043	0	112.94	3524100000	98
U6 snRNA-associated Sm-like protein LSm2	LSM2	5	5	5	67.4	67.4	67.4	10.834	0	45.425	3522800000	68
Cytochrome b-c1 complex subunit Rieske, mitochondrial;Cytochrome b-c1 complex subunit 11;Putative cytochrome b-c1 complex subunit Rieske-like protein 1	UQCRFS1;UQCRFS1P1	7	7	7	35	35	35	29.668	0	102.67	3522500000	60
N-alpha-acetyltransferase 50	NAA50	8	8	8	51.8	51.8	51.8	19.311	0	37.15	3518200000	63
Vesicle-associated membrane protein-associated protein A	VAPA	7	6	6	34.9	34.9	34.9	27.893	0	69.515	3517200000	51
Vacuolar protein sorting-associated protein 26A	VPS26A	7	7	7	30.3	30.3	30.3	38.169	0	40.867	3512300000	42
ES1 protein homolog, mitochondrial	C21orf33	5	5	5	31	31	31	28.17	0	171.68	3509500000	50
Golgi reassembly-stacking protein 2	GORASP2	7	7	7	25.4	25.4	25.4	42.044	0	102.74	3502500000	55
5-3 exoribonuclease 2	XRN2	13	13	13	23.6	23.6	23.6	99.95	0	78.806	3501500000	91
DnaJ homolog subfamily A member 3, mitochondrial	DNAJA3	7	7	1	19.2	19.2	2.5	52.286	0	55.594	3490000000	65
Cation-dependent mannose-6-phosphate receptor	M6PR	2	2	2	20.8	20.8	20.8	18.793	0	104.35	3486000000	25

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Selenium-binding protein 1	HEL-S-134P;SELENBP1	11	11	11	27.5	27.5	27.5	52.39	0	104.98	3483300000	84
Acetyl-CoA acetyltransferase, cytosolic	ACAT2	11	11	11	59.4	59.4	59.4	42.135	0	173.53	3481800000	167
Luc7-like protein 3	LUC7L3;CROP	6	6	6	22.2	22.2	22.2	51.442	0	213.75	3480200000	37
N-acetyltransferase 10	NAT10	16	16	16	22.7	22.7	22.7	115.73	0	165.66	3477300000	127
Apoptosis regulator BAX	BAX	5	5	3	30.2	30.2	17.7	21.184	0	80.609	3476400000	40
Purine nucleoside phosphorylase;S-methyl-5-thioadenosine phosphorylase	MTAP	7	7	7	44.6	44.6	44.6	25.629	0	110.32	3474000000	100
Peptidyl-prolyl cis-trans isomerase FKBP2;Peptidyl-prolyl cis-trans isomerase	FKBP2	4	4	4	38.7	38.7	38.7	15.649	0	28.681	3473800000	73
La-related protein 1	LARP1	13	13	13	23.4	23.4	23.4	123.51	0	182.28	3466900000	90
NAD-dependent malic enzyme, mitochondrial	ME2	13	13	13	37	37	37	61.221	0	96.819	3460900000	88
Cleavage and polyadenylation specificity factor subunit 7	CPSF7	9	9	9	30.7	30.7	30.7	41.265	0	66.913	3460100000	82
Inositol 1,4,5-trisphosphate receptor type 3	ITPR3	28	28	26	18.7	18.7	18	304.1	0	274.94	3446200000	148
Mitochondrial 2-oxoglutarate/malate carrier protein	SLC25A11	6	6	6	26.7	26.7	26.7	32.182	0	77.604	3438000000	44
Coronin;Coronin-1B	CORO1B;DKFZp762I166	9	9	9	35	35	35	54.234	0	85.186	3436400000	69
Cytochrome b5 type B	DKFZp686M0619;CYB5B	3	3	3	60.7	60.7	60.7	11.873	0	166.23	3435800000	77
Peptidyl-prolyl cis-trans isomerase FKBP10	FKBP10;DKFZp666D193	10	10	10	22.9	22.9	22.9	64.244	0	87.242	3435300000	75
Translin	TSN	4	4	4	21	21	21	20.951	0	31.031	3426000000	28
Heme-binding protein 1	HEBP1	6	6	6	49.2	49.2	49.2	21.097	0	96.972	3417600000	28
Replication protein A 14 kDa subunit	RPA3	5	5	5	95.1	95.1	95.1	9.1703	0	36.558	3415900000	56
Small nuclear ribonucleoprotein E	SNRPE	3	3	3	52.2	52.2	52.2	10.803	0	51.855	3414800000	26
AP-3 complex subunit delta-1	AP3D1	17	17	17	20.4	20.4	20.4	130.16	0	154.14	3408500000	131
PHD finger protein 6	PHF6	7	7	7	31	31	31	41.29	0	233.67	3398000000	58
Cytoplasmic dynein 1 light intermediate chain 2	DYNC1LI2	10	10	10	33.7	33.7	33.7	54.099	0	78.952	3390100000	54
Syntaxin-7	STX7	6	6	6	35.2	35.2	35.2	29.815	0	75.745	3386300000	46
Sjoegren syndrome/scleroderma autoantigen 1	SSSCA1	7	7	7	61.7	61.7	61.7	20.916	0	250.32	3384900000	90
Protein FAM162A	FAM162A	7	7	7	31.2	31.2	31.2	16.515	0	34.278	3380200000	66
Condensin complex subunit 1	NCAPD2	22	22	22	25.5	25.5	25.5	157.19	0	281.83	3378300000	195
Eukaryotic translation initiation factor 3 subunit F	EIF3F	8	8	7	62.5	62.5	56.7	23.166	0	75.736	3370300000	44
S-adenosylmethionine synthase isoform type-2;S-adenosylmethionine synthase	MAT2A	8	8	8	25.8	25.8	25.8	43.66	0	79.455	3358400000	53
Cysteine and glycine-rich protein 2	CSRP2	8	8	8	51.3	51.3	51.3	20.954	0	217.15	3348700000	53
Insulin-like growth factor-binding protein 7	IGFBP7	8	8	8	40.1	40.1	40.1	29.13	0	119.74	3348400000	61
Eukaryotic translation initiation factor 4 gamma 2	EIF4G2;AAG1	15	15	15	24.2	24.2	24.2	98.117	0	147.3	3348200000	79
Protein PRRC2C	PRRC2C	30	30	29	16.3	16.3	15.9	308.77	0	323.31	3335300000	81
Shootin-1	KIAA1598	15	15	15	31.1	31.1	31.1	71.639	0	268.72	3330900000	70
DNA ligase 3;DNA ligase	LIG3	26	26	26	32.3	32.3	32.3	112.91	0	205.66	3330600000	102
PDZ and LIM domain protein 5	PDLIM5;LIM	14	14	4	35.4	35.4	10.9	63.974	0	185.32	3327700000	76
Transcriptional repressor p66-alpha	GATAD2A	17	17	16	37.4	37.4	35.7	68.062	0	124.6	3322400000	76
	NCAM2	1	1	1	21.4	21.4	21.4	4.7347	0.0024724	2.1978	3315600000	8
Ubiquilin-4	UBQLN4	9	9	6	29.9	29.9	22	62.185	0	190.62	3314500000	82
Ribosomal protein L15;60S ribosomal protein L15	RPL15	8	8	8	37.3	37.3	37.3	19.968	0	85.595	3313800000	32
Phosphomevalonate kinase	PMVK	9	9	9	45.8	45.8	45.8	21.995	0	31.089	3313300000	60
Cytosolic non-specific dipeptidase	CNDP2	10	10	10	29.5	29.5	29.5	52.878	0	30.816	3309300000	137

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N-alpha-acetyltransferase 10	NAA10	8	8	5	45.1	45.1	31.5	26.458	0	155.2	3302500000	50
Protein lin-28 homolog B	LIN28B	7	7	7	37.6	37.6	37.6	27.957	0	56.143	3300900000	34
Translation initiation factor eIF-2B subunit gamma	EIF2B3	13	13	13	36.9	36.9	36.9	50.24	0	127.71	3297000000	86
Actin, alpha cardiac muscle 1;Actin, aortic smooth muscle;Actin, alpha skeletal muscle;Actin, gamma-enteric smooth muscle	ACTC1;ACTA2;ACTA1;ACTG2	20	9	9	60.5	35	35	42.019	0	114.42	3294200000	44
Pirin	PIR	6	6	6	28.6	28.6	28.6	32.113	0	44.271	3292700000	68
KRR1 small subunit processome component homolog	KRR1	6	6	4	21.3	21.3	15.5	43.664	0	33.41	3291800000	74
60S ribosomal protein L21	RPL21	5	5	5	31.9	31.9	31.9	18.565	0	46.678	3289800000	29
Developmentally-regulated GTP-binding protein 1	DRG1	11	11	11	43.3	43.3	43.3	40.542	0	236.94	3287000000	88
Eukaryotic translation initiation factor 4E	EIF4E	5	5	5	18	18	18	25.067	0	29.08	3279000000	35
Aflatoxin B1 aldehyde reductase member 2	AKR7A2;HEL-S-166mP	5	5	5	21.7	21.7	21.7	34.684	0	49.446	3277100000	45
Dynein light chain roadblock-type 1	DYNLRB1	3	3	3	40.5	40.5	40.5	13.362	0	28.391	3274800000	39
Cytochrome c1, heme protein, mitochondrial	CYC1	9	9	9	48.3	48.3	48.3	34.489	0	52.489	3272600000	44
Gamma-tubulin complex component 3	TUBGCP3	14	14	14	27.5	27.5	27.5	103.57	0	118.02	3270300000	85
Secretory carrier-associated membrane protein 1	SCAMP1	4	4	4	30.1	30.1	30.1	28.427	0	70.071	3261600000	43
Ubiquitin carboxyl-terminal hydrolase;Ubiquitin carboxyl-terminal hydrolase isozyme L5	UCHL5	9	9	1	35.9	35.9	7.1	41.694	0	74.926	3258200000	88
Tetratricopeptide repeat protein 37	TTC37	19	19	19	18.2	18.2	18.2	175.48	0	103.04	3254200000	93
Growth/differentiation factor 15	GDF15	6	6	6	27.6	27.6	27.6	34.14	0	73.193	3247600000	60
FAS-associated factor 1	FAF1	10	10	10	18.8	18.8	18.8	73.919	0	55.742	3247300000	68
ADP-ribosylation factor-like protein 8A	ARL8A	5	5	3	26.3	26.3	16.1	21.416	0	12.109	3245700000	25
Protein PBDC1	PBDC1	6	6	6	28.8	28.8	28.8	26.056	0	96.629	3243900000	46
Desmocollin-3	DSC3	7	7	7	11.3	11.3	11.3	99.954	0	17.279	3235700000	41
Mycophenolic acid acyl-glucuronide esterase, mitochondrial	ABHD10	9	9	9	36.9	36.9	36.9	33.932	0	157.4	3230400000	58
Gamma-glutamylcyclotransferase	C7orf24;GGCT	6	6	6	38.3	38.3	38.3	21.007	0	72.152	3228900000	40
Ubiquitin-like modifier-activating enzyme 6	UBE1L2;UBA6	17	17	17	20.9	20.9	20.9	117.97	0	84.401	3219100000	110
Mitochondrial antiviral-signaling protein	MAVS	12	12	12	55.4	55.4	55.4	56.527	0	304.13	3217700000	73
Probable ATP-dependent RNA helicase DDX47	hCG_27698;DDX47;E4-DBP	9	9	9	29.5	29.5	29.5	49.881	0	60.756	3216100000	63
Polyadenylate-binding protein 2	PABPN1	6	6	6	31.7	31.7	31.7	32.749	0	72.285	3215700000	55
Nicotinate-nucleotide pyrophosphorylase [carboxylating]	HEL-S-90n;QPRT	6	6	6	37	37	37	30.815	0	82.152	3212000000	53
ER membrane protein complex subunit 1	EMC1	11	11	11	15.5	15.5	15.5	111.76	0	34.322	3208900000	62
Small ubiquitin-related modifier 1;Small ubiquitin-related modifier	SUMO1	2	2	2	20.8	20.8	20.8	11.557	0	4.2374	3203900000	17
Catenin beta-1	CTNNB1	12	12	12	30.9	30.9	30.9	85.496	0	180.26	3190000000	110
Fibrillin-1	FBN1	31	31	29	16.4	16.4	15.7	312.24	0	269.58	3185800000	139
Tyrosine-protein kinase BAZ1B	BAZ1B	23	23	23	20.6	20.6	20.6	170.9	0	158.16	3184000000	95
Glutamate-rich WD repeat-containing protein 1	DKFZp564C172;GRWD1	9	9	9	36.1	36.1	36.1	49.447	0	293.1	3183500000	91
Sister chromatid cohesion protein PDS5 homolog A	PDS5A	22	19	19	23.6	21.5	21.5	150.83	0	323.31	3178200000	114
Translationally-controlled tumor protein	TPT1	4	4	4	53.5	53.5	53.5	16.104	0	168.11	3177200000	77
TATA-binding protein-associated factor 2N	TAF15	6	4	4	19.3	15.4	15.4	61.829	0	207.45	3172800000	30

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Large proline-rich protein BAG6	BAG6;BAT3	13	13	13	23	23	23	119.41	0	167.1	3168900000	125
Palmitoyl-protein thioesterase 1	PPT1	5	5	5	35.1	35.1	35.1	34.136	0	75.031	3161000000	37
	RPL14	5	1	1	28.6	8.2	8.2	23.787	0	16.668	3157800000	18
N(G),N(G)-dimethylarginine dimethylaminohydrolase 2	HEL-S-277;DDAH2	7	6	6	37.2	34.4	34.4	29.644	0	165.05	3156600000	67
Cold-inducible RNA-binding protein	CIRBP	4	4	4	30.2	30.2	30.2	18.648	0	31.772	3155100000	34
Tetraspanin;CD81 antigen	CD81	3	3	3	35.8	35.8	35.8	17.963	0	281.92	3152200000	54
Zinc finger CCCH-type antiviral protein 1	ZC3HAV1	15	15	15	26.8	26.8	26.8	101.43	0	197.86	3151500000	95
Nucleoside diphosphate kinase;Nucleoside diphosphate kinase 3	c371H6.2;NME3	5	5	5	44.4	44.4	44.4	17.296	0	32.796	3151400000	37
	HNRNPC	14	1	1	45.4	6.9	6.9	28.916	0	71.363	3144600000	128
Protein RRP5 homolog	PDCD11	26	26	26	20.3	20.3	20.3	208.7	0	191.14	3133800000	103
Nidogen-1	NID1	17	17	17	21.9	21.9	21.9	136.38	0	91.096	3132200000	103
Fatty acid-binding protein, epidermal	FABP5	9	9	9	69.6	69.6	69.6	15.164	0	165.34	3127600000	41
Polyribonucleotide nucleotidyltransferase 1, mitochondrial	PNPT1	22	22	22	37.4	37.4	37.4	85.95	0	126.5	3126400000	111
Protein quaking	QKI	10	10	10	32	32	32	37.67	0	44.903	3124700000	48
Sulfatase-modifying factor 2	SUMF2;DKFZP566I1024	6	6	6	27.2	27.2	27.2	33.843	0	67.127	3111800000	49
Nucleolar transcription factor 1	UBTF	11	11	11	17.7	17.7	17.7	87.435	0	60.948	3108300000	46
AP-2 complex subunit mu	AP2M1	9	9	9	30.4	30.4	30.4	42.701	0	104.27	3107800000	62
Vacuolar protein sorting-associated protein 26B	VPS26B	4	4	4	15.5	15.5	15.5	39.154	0	7.9966	3107400000	17
La-related protein 7	LARP7;HDCMA18P	12	12	12	27.3	27.3	27.3	66.898	0	111.79	3107000000	75
Extended synaptotagmin-2	ESYT2	17	17	17	28.6	28.6	28.6	98.008	0	121.3	3104100000	94
ADP-ribosylation factor-like protein 3	ARL3	4	4	4	34.1	34.1	34.1	20.455	0	275.96	3104100000	45
Kinesin-like protein KIF11;Kinesin-like protein	KIF11	22	22	22	27	27	27	119.16	0	125.05	3102800000	107
SRSF protein kinase 1	SRPK1	13	13	11	28.6	28.6	25.6	76.039	0	158.23	3102300000	73
Mannosyl-oligosaccharide glucosidase	GCS1;MOGS	14	14	14	20.2	20.2	20.2	91.905	0	22.397	3101100000	115
Transmembrane protein 109	TMEM109	1	1	1	5.1	5.1	5.1	24.983	0	17.748	3097500000	12
Destrin	HEL32;DSTN	6	6	6	36.4	36.4	36.4	18.506	0	13.793	3097000000	31
Mitochondrial import inner membrane translocase subunit Tim8 A	TIMM8A	3	3	3	34	34	34	10.998	0	9.1138	3096300000	29
Pre-mRNA-processing factor 40 homolog A	PRPF40A	13	13	11	15.4	15.4	13.3	108.8	0	120.51	3095300000	75
Neudesin	NENF	6	6	6	51.7	51.7	51.7	18.856	0	99.825	3087000000	43
Actin-related protein 2/3 complex subunit 4	ARPC4-TTLL3;ARPC4	4	4	4	21	21	21	21.058	0	8.0852	3083400000	29
Nucleoside diphosphate kinase;Nucleoside diphosphate kinase, mitochondrial	NME4	4	4	4	30.8	30.8	30.8	21.521	0	50.611	3079800000	35
Ubiquitin-fold modifier 1	UFM1	3	3	3	58.8	58.8	58.8	9.1175	0	72.013	3069700000	83
Isochorismatase domain-containing protein 1	ISOC1	5	5	5	23.5	23.5	23.5	32.236	0	48.088	3062400000	56
Galactosylgalactosylxylosylprotein 3-beta-glucuronosyltransferase 3	B3GAT3	7	7	5	35.6	35.6	24.1	34.655	0	90.596	3054000000	51
Protein phosphatase 1 regulatory subunit 7	PPP1R7	14	14	14	43.9	43.9	43.9	41.564	0	125.03	3052600000	95
ATP-dependent RNA helicase DDX18	DDX18	15	15	15	33.1	33.1	33.1	75.406	0	245.78	3048400000	66
AP-2 complex subunit alpha-1	AP2A1	19	19	17	30.8	30.8	27.4	107.54	0	55.313	3046900000	63
3-hydroxybutyrate dehydrogenase type 2	BDH2	5	5	5	27.8	27.8	27.8	26.724	0	54.167	3046300000	48
Beta-hexosaminidase;Beta-hexosaminidase subunit beta;Beta-hexosaminidase subunit beta chain B;Beta-hexosaminidase subunit beta chain A	HEXB	9	9	9	21.8	21.8	21.8	63.111	0	52.696	3044200000	53

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Chromatin target of PRMT1 protein	CHTOP	4	4	4	27.8	27.8	27.8	23.661	0	111.41	3042100000	44
Peptidyl-prolyl cis-trans isomerase;Peptidyl-prolyl cis-trans isomerase-like 1	PPIL1	4	4	4	27.1	27.1	27.1	18.237	0	63.477	3035700000	20
Putative ATP-dependent RNA helicase DHX30	DHX30	21	21	21	22.7	22.7	22.7	130.55	0	73.821	3033700000	76
Sodium/potassium-transporting ATPase subunit beta-3	ATP1B3	7	7	7	40.8	40.8	40.8	29.717	0	43.87	3031500000	49
Protein DDI1 homolog 2	DDI2	8	8	8	37.6	37.6	37.6	44.522	0	94.066	3030900000	85
Importin-4	IPO4	14	14	14	17.8	17.8	17.8	118.71	0	103.41	3026500000	125
Collagen alpha-1(XVIII) chain;Endostatin	COL18A1	9	9	9	12.5	12.5	12.5	135.51	0	93.636	3025700000	60
Translocon-associated protein subunit alpha	SSR1	4	4	4	21	21	21	32.193	0	26.949	3023000000	32
E3 ubiquitin-protein ligase CHIP	STUB1	8	8	8	29	29	29	34.856	0	102.18	3022400000	45
E2/E3 hybrid ubiquitin-protein ligase UBE2O	UBE2O	16	16	16	20.2	20.2	20.2	141.29	0	161.28	3012100000	89
COP9 signalosome complex subunit 3	COPS3	9	9	9	30.5	30.5	30.5	47.873	0	317.26	3007400000	66
	OK/KNS-cl.6	4	1	1	58.2	15.2	15.2	8.7578	0	6.0474	3004400000	12
DNA-directed RNA polymerase;DNA-directed RNA polymerase II subunit RPB2	POLR2B	15	15	15	18.3	18.3	18.3	133.06	0	159.26	2998900000	83
Prefoldin subunit 3	VBP1	7	7	7	40	40	40	18.735	0	18.34	2996600000	50
Beta-centractin	ACTR1B	7	4	4	31.9	19.4	19.4	42.293	0	129.83	2983100000	55
Acetolactate synthase-like protein	ILVBL	8	8	8	30.5	30.5	30.5	56.732	0	77.444	2976600000	66
U4/U6 small nuclear ribonucleoprotein Prp3	PRPF3	13	13	13	26.6	26.6	26.6	77.542	0	211.68	2973200000	73
Kinesin light chain 1	KNS2;KLC1	13	13	8	23.8	23.8	16.9	68.761	0	46.486	2972500000	65
Splicing factor 3B subunit 4	SF3B4	2	2	2	8	8	8	44.386	0	56.393	2969200000	16
Anamorsin	CIAPIN1	9	9	9	39.7	39.7	39.7	33.582	0	93.959	2967900000	55
Dynamin-like 120 kDa protein, mitochondrial;Dynamin-like 120 kDa protein, form S1	OPA1	15	15	15	25.1	25.1	25.1	111.63	0	89.247	2967100000	106
Cullin-5	CUL5	17	17	17	25	25	25	90.954	0	88.422	2963000000	82
Ras GTPase-activating protein-binding protein 1	G3BP;DKFZp686L1159;G3BP1	10	10	9	36.3	36.3	33.7	52.164	0	218.37	2957000000	69
60 kDa SS-A/Ro ribonucleoprotein	TROVE2	8	8	8	21.2	21.2	21.2	60.67	0	177.72	2956400000	55
Oxysterol-binding protein 1	OSBP	14	14	14	32	32	32	89.42	0	76.078	2947400000	95
Acylphosphatase;Acylphosphatase-1	ACYP1	3	3	3	23.3	23.3	23.3	14.125	0	51.063	2936200000	30
Inner centromere protein	INCENP	13	13	13	25.7	25.7	25.7	105.43	0	64.786	2924700000	46
Fragile X mental retardation syndrome-related protein 2	FXR2	12	10	9	26.3	23.9	21.1	74.222	0	222.78	2923400000	90
Cytochrome c oxidase subunit 6B1	COX6B1	6	6	6	58.1	58.1	58.1	10.192	0	72.344	2917800000	81
39S ribosomal protein L1, mitochondrial	MRPL1	8	8	8	35.1	35.1	35.1	36.908	0	144.17	2917200000	89
Nuclear pore complex protein Nup214	NUP214;DKFZp686J0330	23	23	23	20.4	20.4	20.4	218.17	0	194.93	2905200000	129
Phospholipase A-2-activating protein	PLAA	14	14	14	24.5	24.5	24.5	87.156	0	173.67	2903500000	84
Nuclear pore glycoprotein p62	NUP62;hCG_19665	4	4	4	14.8	14.8	14.8	45.615	0	74.754	2901900000	50
Pre-mRNA-splicing factor SPF27	BCAS2	10	10	10	56.4	56.4	56.4	26.131	0	70.659	2899100000	34
Ras-related protein Rab-21	RAB21	4	4	4	22.7	22.7	22.7	24.347	0	41.422	2895100000	36
Isopentenyl-diphosphate Delta-isomerase 1	IDI1	5	5	5	29.1	29.1	29.1	26.319	0	97.545	2889600000	87
Small acidic protein	C11orf58;SMAP	3	3	3	29.3	29.3	29.3	17.634	0	323.31	2866800000	32
Microtubule-associated protein RP/EB family member 2	MAPRE2	7	7	6	39.4	39.4	36.4	37.031	0	133.94	2866300000	70

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Dipeptidyl peptidase 1;Dipeptidyl peptidase 1 exclusion domain chain;Dipeptidyl peptidase 1 heavy chain;Dipeptidyl peptidase 1 light chain	CTSC	7	7	7	25.8	25.8	25.8	50.151	0	190.07	2866000000	94
Hepatoma-derived growth factor-related protein 2	HDGFRP2	7	7	7	15.2	15.2	15.2	74.316	0	107.94	2863500000	40
Pogo transposable element with ZNF domain	POGZ	18	18	18	25.3	25.3	25.3	155.34	0	206.91	2853600000	139
		9	9	9	30.7	30.7	30.7	49.244	0	95.524	2852900000	54
Importin subunit alpha-3	KPNA4	8	8	6	28.2	28.2	25.3	57.886	0	188.28	2851800000	63
Protein KRI1 homolog	FLJ12949;KRI1	12	12	12	26.2	26.2	26.2	88.194	0	193.46	2844200000	126
NADH dehydrogenase [ubiquinone] flavoprotein 1, mitochondrial	NDUFV1	9	9	3	30.9	30.9	17.3	50.054	0	123.85	2838200000	119
Eukaryotic translation initiation factor 4 gamma 3	EIF4G3	27	23	23	19.6	17.2	17.2	195.27	0	71.833	2834400000	83
Annexin;Annexin A7	ANXA7	8	8	8	25.6	25.6	25.6	37.805	0	97.453	2833400000	54
Prolactin regulatory element-binding protein	PREB	9	9	9	38.8	38.8	38.8	45.468	0	76.664	2818400000	70
ADP-ribosylation factor 4	ARF4	5	3	3	47.2	29.4	29.4	20.511	0	26.631	2810900000	23
Lysosome membrane protein 2	SCARB2	5	5	5	11.6	11.6	11.6	49.204	0	25.059	2810300000	32
Translational activator of cytochrome c oxidase 1	TACO1	6	6	6	43.1	43.1	43.1	32.477	0	56.836	2808300000	37
Nucleoporin p54	NUP54	7	7	7	27.5	27.5	27.5	37.383	0	68.167	2802900000	47
Telomeric repeat-binding factor 2-interacting protein 1	TERF2IP	9	9	9	42.4	42.4	42.4	44.259	0	149.32	2801300000	74
Serine/threonine-protein kinase 3;Serine/threonine-protein kinase 3 36kDa subunit;Serine/threonine-protein kinase 3 20kDa subunit	STK3	9	9	6	26.3	26.3	17.7	56.3	0	79.616	2797300000	54
Methyl-CpG-binding protein 2	MECP2	9	9	9	31.7	31.7	31.7	52.44	0	86.531	2794500000	57
COP9 signalosome complex subunit 6	COPS6	5	5	5	26.6	26.6	26.6	33.575	0	96.791	2792900000	57
40S ribosomal protein S30	FAU	2	2	2	11.2	11.2	11.2	10.905	0	4.1456	2781500000	28
Interferon-induced, double-stranded RNA-activated protein kinase	EIF2AK2	12	12	12	26	26	26	61.51	0	42.962	2780500000	77
Glucose-6-phosphate 1-dehydrogenase	G6PD	10	10	10	27.2	27.2	27.2	54.823	0	114.44	2780400000	39
LanC-like protein 1	LANCL1	5	5	5	18	18	18	45.267	0	20.581	2772400000	48
	PECI	14	14	2	49.5	49.5	3.8	40.193	0	190.62	2769600000	60
Coactosin-like protein	COTL1	3	3	3	25.4	25.4	25.4	15.945	0	33.038	2769000000	34
Splicing factor 45	RBM17	14	14	14	49.4	49.4	49.4	44.961	0	69.688	2767500000	101
Mannose-6-phosphate isomerase	MPI	8	8	8	29.8	29.8	29.8	46.655	0	87.144	2766800000	114
Actin-related protein 2/3 complex subunit 2	ARPC2	10	10	10	35	35	35	34.333	0	37.649	2766800000	42
Diablo homolog, mitochondrial	DIABLO	6	6	6	46.2	46.2	46.2	21.232	0	76.136	2762800000	62
Protein phosphatase 1 regulatory subunit 14B	PPP1R14B	4	4	4	33.2	33.2	33.2	20.964	0	77.408	2756200000	35
Nuclear inhibitor of protein phosphatase 1;Activator of RNA decay	PPP1R8	10	10	10	36.8	36.8	36.8	38.478	0	61.919	2756000000	52
Glutaredoxin-related protein 5, mitochondrial	GLRX5	5	5	5	40.1	40.1	40.1	16.628	0	41.362	2746700000	31
Symplekin	SYMPK;SYMPK variant protein	15	15	15	20.6	20.6	20.6	141.13	0	176.36	2745100000	135
Small nuclear ribonucleoprotein-associated protein;Small nuclear ribonucleoprotein-associated protein N;Small nuclear ribonucleoprotein-associated proteins B and B	SNRPB;SNRPN	5	5	5	20.7	20.7	20.7	29.671	0	21.667	2743700000	35
DNA repair protein XRCC1	XRCC1	10	10	10	26.5	26.5	26.5	69.525	0	184.36	2737600000	69
LIM domain and actin-binding protein 1	LIMA1	14	14	14	27.9	27.9	27.9	76.08	0	72.188	2734500000	69

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Protein FAM98A	FAM98A	6	6	6	22.2	22.2	22.2	55.173	0	63.522	2733500000	78
SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily B member 1	SMARCB1	11	11	11	47.5	47.5	47.5	44.141	0	205.13	2733500000	67
m7GpppX diphosphatase	DCPS	7	7	7	29.7	29.7	29.7	38.608	0	175.9	2726200000	89
Slit homolog 2 protein;Slit homolog 2 protein N-product;Slit homolog 2 protein C-product	SLIT2	19	19	19	19.5	19.5	19.5	171.34	0	237.63	2722600000	116
Procollagen-lysine,2-oxoglutarate 5-dioxygenase 3	PLOD3;DKFZp564O1822	11	11	11	20.2	20.2	20.2	84.784	0	61.054	2721800000	43
ATPase family AAA domain-containing protein 1	ATAD1	8	8	8	30.7	30.7	30.7	40.744	0	99.113	2717200000	44
Guanine nucleotide-binding protein-like 1	GNL1;HSR1	16	16	16	26.6	26.6	26.6	68.255	0	47.486	2705700000	62
WD repeat and HMG-box DNA-binding protein 1	WDHD1	21	21	21	29	29	29	125.97	0	301.37	2703800000	111
5-AMP-activated protein kinase subunit gamma-2	PRKAG2	3	2	2	6.3	4.6	4.6	63.065	0.0084853	1.5545	2696000000	4
V-type proton ATPase subunit a;V-type proton ATPase 116 kDa subunit a isoform 1	ATP6V0A1;DKFZp686N0561	15	15	15	26.2	26.2	26.2	95.75	0	58.5	2695700000	56
Chromobox protein homolog 1	CBX1	4	3	3	43.5	33.9	33.9	19.325	0	57.343	2691100000	64
N-terminal kinase-like protein	SCYL1	11	11	11	19.5	19.5	19.5	85.718	0	93.937	2687400000	84
Isocitrate dehydrogenase [NADP];Isocitrate dehydrogenase [NADP] cytoplasmic	HEL-S-26;HEL-216;IDH1	8	7	7	28.7	26.6	26.6	46.659	0	64.557	2685300000	96
Alpha-2-macroglobulin receptor-associated protein	LRPAP1	8	8	8	24.6	24.6	24.6	41.48	0	63.992	2683300000	32
Lysine-specific histone demethylase 1A	KDM1A	16	16	16	29.9	29.9	29.9	92.902	0	150.22	2678100000	123
Carbonyl reductase [NADPH] 3	CBR3;HEL-S-25	9	7	7	47.3	36.8	36.8	30.85	0	50.008	2672300000	83
Probable ATP-dependent RNA helicase DDX27	DDX27	16	16	16	24.3	24.3	24.3	86.604	0	51.243	2672000000	62
Protein unc-45 homolog A	UNC45A	15	15	15	20.2	20.2	20.2	118.39	0	161.6	2668300000	85
Putative RNA-binding protein 15	RBM15	12	12	12	18.3	18.3	18.3	107.19	0	60.09	2650900000	65
U6 snRNA-associated Sm-like protein LSm4	LSM4	5	5	5	26.9	26.9	26.9	25.733	0	28.338	2642600000	54
Epidermal growth factor receptor substrate 15-like 1	EPS15L1	20	20	20	37.7	37.7	37.7	94.254	0	237.73	2640400000	150
Replication factor C subunit 5	RFC5	8	8	8	28.5	28.5	28.5	38.466	0	104.98	2623900000	59
Membrane-associated progesterone receptor component 2	PGRMC2	5	4	4	26.5	22.4	22.4	23.818	0	56.101	2623000000	26
Myelin expression factor 2	MYEF2	10	10	2	29.2	29.2	7.5	64.149	0	72.914	2621800000	92
AP-2 complex subunit alpha-2	AP2A2	15	13	6	22.6	19.1	8.5	103.96	0	91.021	2618100000	99
Glycine cleavage system H protein, mitochondrial	GCSH	3	3	3	67	67	67	10.999	0	172.19	2615300000	71
KIF1-binding protein	KIAA1279	8	8	8	21.7	21.7	21.7	74.783	0	171.64	2614500000	78
Phosphoglycolate phosphatase	PGP	7	7	7	40.8	40.8	40.8	34.006	0	50.735	2613000000	92
Protein CutA	CUTA	4	4	4	40.8	40.8	40.8	19.116	0	16.101	2609900000	52
Succinyl-CoA ligase subunit beta;Succinyl-CoA ligase [GDP-forming] subunit beta, mitochondrial	SUCLG2;DKFZp586M2023	11	11	11	34.3	34.3	34.3	46.51	0	171.92	2606000000	70
Programmed cell death protein 4	PDCD4	10	10	10	33	33	33	50.228	0	88.217	2597900000	61
U4/U6 small nuclear ribonucleoprotein Prp31	PRPF31	11	11	11	27.9	27.9	27.9	55.455	0	89.017	2594700000	74
Transducin beta-like protein 2	TBL2	11	11	11	30.2	30.2	30.2	45.935	0	100.93	2592600000	55
Tubulin beta-2A chain	TUBB2A	21	2	0	60.4	11.5	0	49.906	0	9.7765	2592000000	12
SEC23-interacting protein	SEC23IP	13	13	13	21.3	21.3	21.3	111.11	0	102.87	2590400000	68

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Thioredoxin domain-containing protein 12	TXNDC12	4	4	4	30.8	30.8	30.8	19.206	0	38.164	2589700000	22
Structural maintenance of chromosomes flexible hinge domain-containing protein 1	SMCHD1	21	21	21	16.8	16.8	16.8	226.37	0	163	2589100000	110
Ribosome maturation protein SBDS	SBDS	6	6	6	28.8	28.8	28.8	28.763	0	46.817	2586200000	35
IST1 homolog	IST1	10	10	2	53.8	53.8	15.7	39.766	0	70.145	2583300000	187
		36	1	1	59	5	5	95.777	0	53.934	2580200000	32
Glia maturation factor beta	GMFB	4	4	4	35.3	35.3	35.3	17.512	0	24.961	2575000000	26
Vitamin K epoxide reductase complex subunit 1	VKORC1	1	1	1	37.1	37.1	37.1	3.8594	0	12.391	2568900000	12
Tubulin beta-3 chain	TUBB3	16	5	3	48	22.2	17	45.622	0	59.044	2568400000	45
WD repeat-containing protein 18	WDR18	6	6	6	17	17	17	43.237	0	24.337	2567700000	43
	TUBB6	16	3	0	45.4	12.8	0	50.09	0	65.428	2563200000	21
Serine/arginine-rich splicing factor 3	SRSF3;SFRS3	5	4	4	49.5	49.5	49.5	10.32	0	73.381	2557100000	31
Ribose-phosphate pyrophosphokinase 2	PRPS2	8	3	2	37.4	15	10.9	35.054	0	65.127	2554900000	30
Mitochondrial import receptor subunit TOM20 homolog	TOMM20	3	3	3	31	31	31	16.298	0	11.238	2553300000	21
Splicing factor 3B subunit 5	SF3B5	2	2	2	32.6	32.6	32.6	10.135	0	34.401	2550000000	22
Prostaglandin E synthase 3	PTGES3	6	6	6	38.8	38.8	38.8	18.697	0	58.029	2548200000	24
Medium-chain specific acyl-CoA dehydrogenase, mitochondrial	ACADM;DKFZp686M24262	10	10	10	31.7	31.7	31.7	42.426	0	130.64	2545100000	62
Transcription elongation factor SPT6	SUPT6H	21	21	21	19.3	19.3	19.3	199.07	0	160.67	2544600000	99
D-tyrosyl-tRNA(Tyr) deacylase;D-tyrosyl-tRNA(Tyr) deacylase 1	DTD1	2	2	2	14.8	14.8	14.8	23.483	0	80.945	2543900000	22
UTP--glucose-1-phosphate uridylyltransferase	UGP2	10	10	6	26.7	26.7	14.7	57.791	0	101.34	2540100000	88
AP-3 complex subunit beta;AP-3 complex subunit beta-1	AP3B1	10	10	10	12.5	12.5	12.5	121.29	0	84.796	2536000000	71
Adenylate kinase 4, mitochondrial	AK4	6	6	6	39.5	39.5	39.5	25.268	0	116.27	2534100000	48
Kinesin-like protein;Kinesin-like protein KIF2A	KIF2A	16	16	1	32.5	32.5	3.9	84.012	0	173.61	2532300000	84
Phosphoribosylformylglycinamidine synthase	PFAS	16	16	16	25.4	25.4	25.4	144.72	0	158.08	2525100000	100
ER membrane protein complex subunit 2	EMC2	6	6	6	26.6	26.6	26.6	34.761	0	40.862	2523000000	38
DNA topoisomerase 2-beta;DNA topoisomerase 2	TOP2B	31	22	9	25.3	20	9.7	183.26	0	122.61	2521300000	83
ATP-binding cassette sub-family B member 7, mitochondrial	ABCB7	9	9	9	17.8	17.8	17.8	78.287	0	144.37	2517300000	107
Proteasome subunit beta type;Proteasome subunit beta type-7	PSMB7	4	4	4	24.5	24.5	24.5	30.018	0	42.137	2517100000	173
UDP-glucose 6-dehydrogenase	UGDH	11	11	11	38.5	38.5	38.5	55.023	0	115.88	2515400000	88
NAD kinase 2, mitochondrial	NADK2;FLJ30596	9	9	9	26.7	26.7	26.7	49.432	0	108.69	2513700000	51
Carbonic anhydrase 2	HEL-76;CA2	5	5	5	23.8	23.8	23.8	29.246	0	24.137	2512500000	50
Phosphoinositide phospholipase C;1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase gamma-1	PLCG1 variant protein;PLCG1	16	16	16	16.4	16.4	16.4	161.3	0	183.35	2509800000	84
Zinc finger Ran-binding domain-containing protein 2	ZRANB2	7	7	7	26.7	26.7	26.7	37.404	0	128.75	2506800000	51
Tripeptidyl-peptidase 2	TPP2	18	18	18	21	21	21	138.35	0	142.9	2506700000	64
ATP-dependent RNA helicase DDX24	DDX24	16	16	16	30.6	30.6	30.6	96.331	0	171.85	2503900000	119
Nuclear pore complex protein Nup107	NUP107	17	17	17	30.7	30.7	30.7	106.37	0	156.17	2502100000	116

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Mitochondrial import inner membrane translocase subunit Tim9	TIMM9	3	3	3	47.2	47.2	47.2	10.378	0	64.262	2499800000	24
Junction plakoglobin	JUP	10	10	4	24.8	24.8	11.3	81.744	0	103.24	2497900000	83
Methylosome protein 50	WDR77	8	8	8	39.8	39.8	39.8	36.724	0	69.968	2495100000	60
Nucleolysin TIAR	TIAL1	7	7	3	25.1	25.1	10.2	41.462	0	54.482	2489800000	50
Bromodomain-containing protein 4	BRD4	13	12	10	16.4	15.5	13.9	152.22	0	65.379	2486600000	51
Gamma-glutamyl hydrolase	GGH	3	3	3	12.9	12.9	12.9	35.964	0	24.684	2478400000	13
U6 snRNA-associated Sm-like protein LSm3	LSM3	1	1	1	11.8	11.8	11.8	11.829	0	3.4193	2478400000	14
UBX domain-containing protein 4	UBXN4	6	6	6	28.9	28.9	28.9	56.777	0	215.79	2476100000	34
Hematological and neurological expressed 1 protein;Hematological and neurological expressed 1 protein, N-terminally processed	HN1	5	5	5	64.9	64.9	64.9	16.014	0	105.22	2475900000	35
Heme-binding protein 2	HEBP2	5	5	5	32.7	32.7	32.7	24.029	0	82.149	2474700000	36
Thioredoxin reductase 2, mitochondrial	TXNRD2;DKFZp781E0833	8	8	7	22.7	22.7	19.8	55.217	0	88.567	2470100000	68
A-kinase anchor protein 8-like	AKAP8L	7	7	7	15.5	15.5	15.5	71.648	0	114.75	2469900000	60
F-actin-capping protein subunit alpha-2	CAPZA2	8	7	7	47.9	44.4	44.4	32.967	0	126.33	2467200000	41
Coatomer subunit epsilon	COPE	11	11	11	51.3	51.3	51.3	34.528	0	190.61	2461800000	58
Bifunctional methylenetetrahydrofolate dehydrogenase/cyclohydrolase, mitochondrial;NAD-dependent methylenetetrahydrofolate dehydrogenase;Methenyltetrahydrofolate cyclohydrolase	MTHFD2	6	6	6	31.4	31.4	31.4	37.32	0	76.801	2456000000	48
Replication factor C subunit 1	RFC1;LLDBP	13	13	13	18.4	18.4	18.4	128.25	0	229.28	2454600000	71
Phosphoenolpyruvate carboxykinase [GTP], mitochondrial	PCK2	13	13	12	28.8	28.8	26.1	70.696	0	94.053	2449700000	68
Alpha-soluble NSF attachment protein	NAPA	11	11	11	49.5	49.5	49.5	33.232	0	176.88	2447100000	61
Pyridoxine-5-phosphate oxidase	PNPO;HEL-S-302	6	6	6	31.9	31.9	31.9	27.312	0	73.926	2442700000	27
Proline-, glutamic acid- and leucine-rich protein 1	PELP1	11	11	11	17	17	17	124.94	0	82.46	2436400000	48
Protein Red	CSA2;IK	12	12	5	33.9	33.9	16.2	65.585	0	84.374	2435700000	83
ADP-sugar pyrophosphatase	NUDT5	5	5	5	29.3	29.3	29.3	25.895	0	22.617	2431900000	40
Programmed cell death protein 5	PDCD5	5	5	5	54	54	54	10.004	0	58.261	2422000000	35
CD2-associated protein	CD2AP	15	15	15	40.5	40.5	40.5	71.45	0	54.563	2420800000	78
Cellular tumor antigen p53	TP53	6	6	1	32.6	32.6	9.2	43.653	0	64.105	2418600000	77
Lysine-specific demethylase 3B	KDM3B;JMJD1B	17	17	16	19.1	19.1	18.5	191.58	0	101.95	2410000000	96
Lipoma-preferred partner	LPP	16	16	16	50.2	50.2	50.2	65.746	0	188.37	2408900000	121
DNA polymerase delta subunit 3	POLD3	4	4	4	11.4	11.4	11.4	51.342	0	26.85	2407100000	48
CD276 antigen	CD276	5	5	5	27.1	27.1	27.1	41.709	0	91.812	2405100000	66
HIV Tat-specific factor 1	HTATSF1	13	13	13	29.4	29.4	29.4	85.852	0	323.31	2404000000	91
Partner of Y14 and mago	WIBG	6	6	6	53.9	53.9	53.9	22.655	0	112.79	2394800000	62
NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 10	NDUFB10	3	3	3	22.7	22.7	22.7	20.776	0	10.585	2391400000	27
Basic leucine zipper and W2 domain-containing protein 1	BZW1;hCG_2022736	14	14	14	40.6	40.6	40.6	48.043	0	92.251	2389400000	55
Nucleolar GTP-binding protein 1	GTPBP4	9	9	9	19.5	19.5	19.5	73.708	0	48.114	2386700000	75
Signal peptidase complex subunit 1	SPCS1	2	2	2	31.4	31.4	31.4	11.805	0	10.165	2382100000	19
Cadherin-2	CDH2	11	11	11	22.6	22.6	22.6	99.808	0	170.97	2381300000	74
Dedicator of cytokinesis protein 7	DOCK7	17	17	17	12.5	12.5	12.5	242.56	0	105.27	2380000000	79

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Polyadenylate-binding protein-interacting protein 1	PAIP1	10	10	10	34	34	34	53.524	0	49.102	2379500000	116
Transcriptional repressor p66-beta	GATAD2B	12	11	11	32.4	30.5	30.5	63.461	0	132.4	2377200000	59
Peptidyl-prolyl cis-trans isomerase NIMA-interacting 1	PIN1	5	5	5	78.9	78.9	78.9	9.8329	0	134.33	2375200000	40
Inosine triphosphate pyrophosphatase	ITPA	4	4	4	39.2	39.2	39.2	21.445	0	85.409	2363500000	80
Cystatin-C	CST3	4	4	4	30.8	30.8	30.8	15.799	0	15.013	2363000000	17
Selenide, water dikinase 1	SEPHS1	4	4	4	15.6	15.6	15.6	42.91	0	43.869	2357000000	32
Nck-associated protein 1	NCKAP1	14	14	14	19.4	19.4	19.4	128.79	0	95.158	2355900000	170
Centromere/kinetochore protein zw10 homolog	ZW10	16	16	16	32.3	32.3	32.3	88.839	0	140.45	2355300000	78
	LOC401309	1	1	1	18.9	18.9	18.9	13.387	0	6.7806	2350800000	17
Fumarylacetoacetate hydrolase domain-containing protein 2A;Fumarylacetoacetate hydrolase domain-containing protein 2B	FAHD2A;hCG_2002650;FAHD2B	7	7	7	30.9	30.9	30.9	34.596	0	48.317	2349700000	87
Ras-related protein Rab-28	RAB28	2	2	1	12.7	12.7	5	24.841	0	9.4066	2349600000	3
Interferon regulatory factor 2-binding protein 2	IRF2BP2	8	6	6	30.5	26.1	26.1	61.024	0	309.45	2348900000	50
Prefoldin subunit 5	PFDN5	5	5	5	43.5	43.5	43.5	17.328	0	26.38	2348100000	24
3-hydroxyisobutyryl-CoA hydrolase, mitochondrial	HIBCH	6	6	6	23.8	23.8	23.8	43.482	0	21.542	2347000000	45
Glucosamine-6-phosphate isomerase;Glucosamine-6-phosphate isomerase 1	GNPDA1	7	7	7	31.5	31.5	31.5	32.678	0	17.271	2342200000	37
Spermine synthase	SMS	9	9	9	35.8	35.8	35.8	41.268	0	43.753	2340400000	55
Serine palmitoyltransferase 1	SPTLC1	8	8	8	32.6	32.6	32.6	52.743	0	34.604	2340300000	62
WD repeat-containing protein 5	WDR5	9	9	9	47.3	47.3	47.3	36.588	0	46.05	2338100000	53
Cip1-interacting zinc finger protein	CIZ1	16	16	16	30.2	30.2	30.2	100.04	0	119.98	2334900000	74
Pyrroline-5-carboxylate reductase;Pyrroline-5-carboxylate reductase 3	PYCRL	7	7	7	36	36	36	29.878	0	35.077	2333200000	44
Pre-mRNA-splicing factor 38A	PRPF38A	5	5	5	15.1	15.1	15.1	37.476	0	33.918	2332600000	36
Protein phosphatase 1 regulatory subunit;Protein phosphatase 1 regulatory subunit 12A	PPP1R12A	13	13	13	18.3	18.3	18.3	115.33	0	176.66	2331800000	75
28S ribosomal protein S22, mitochondrial	MRPS22	8	8	8	27.6	27.6	27.6	36.805	0	38.6	2330000000	58
COP9 signalosome complex subunit 1	GPS1	9	9	9	27.8	27.8	27.8	53.371	0	55.481	2325700000	94
N(G),N(G)-dimethylarginine dimethylaminohydrolase 1	DDAH1	8	8	7	40.7	40.7	37.9	31.121	0	154.52	2325600000	61
Soluble lamin-associated protein of 75 kDa	FAM169A	13	13	13	44.3	44.3	44.3	68.054	0	323.31	2324700000	79
Basement membrane-specific heparan sulfate proteoglycan core protein;Endorepellin;LG3 peptide	HSPG2	27	27	27	12.1	12.1	12.1	464.01	0	231.1	2321000000	103
STE20-like serine/threonine-protein kinase	SLK	19	19	18	28.3	28.3	27.5	142.69	0	285.21	2315000000	88
5-AMP-activated protein kinase catalytic subunit alpha-1	PRKAA1	10	10	7	22.7	22.7	13.8	64.009	0	81.32	2314800000	63
Serine/threonine-protein kinase MARK2	MARK2;Par1b	16	16	12	29.3	29.3	22.2	86.69	0	83.611	2310100000	68
45 kDa calcium-binding protein	SDF4	5	5	2	19.6	19.6	8.3	41.806	0	73.712	2307200000	37
Sex comb on midleg-like protein 2	SCML2	17	17	2	35	35	4.3	77.256	0	63.359	2305200000	62
Cleavage stimulation factor subunit 3	CSTF3	8	8	8	15.1	15.1	15.1	82.921	0	58.636	2302200000	50
Serine/arginine-rich splicing factor 5	SFRS5;SRSF5	4	3	3	16.5	13.2	13.2	31.263	0	21.562	2301700000	21

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Mimitin, mitochondrial	NDUFAF2	4	4	4	39.1	39.1	39.1	19.856	0	33.143	2298700000	23
Serine/threonine-protein kinase 26	STK26;MST4	11	11	7	39.7	39.7	30.5	46.528	0	71.456	2298700000	69
Eukaryotic peptide chain release factor GTP-binding subunit ERF3A	GSPT1	11	11	11	32	32	32	52.832	0	42.182	2297000000	46
Ankycorbin	RAI14	21	21	21	29.8	29.8	29.8	110.04	0	53.261	2296100000	66
Ubiquitin carboxyl-terminal hydrolase 10	USP10	12	12	12	28.1	28.1	28.1	87.133	0	104.24	2293400000	48
Uncharacterized protein C7orf50	C7orf50;MGC11257	6	6	6	36.5	36.5	36.5	21.883	0	97.185	2292500000	49
		14	3	3	38.9	12.2	12.2	53.851	0	45.288	2292200000	10
Sorting and assembly machinery component 50 homolog	SAMM50	11	11	7	34.1	34.1	22	51.976	0	63.718	2290600000	69
Protein lin-7 homolog A	LIN7A	7	7	3	36.5	36.5	13.7	25.996	0	20.151	2289900000	41
NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 4	NDUFB4	4	4	4	41.1	41.1	41.1	15.208	0	52.221	2284200000	39
Polypyrimidine tract-binding protein 1	PTBP1	18	18	16	50.3	50.3	47.3	62.463	0	323.31	2282600000	53
Ubiquitin carboxyl-terminal hydrolase 34	USP34	4	4	4	2.5	2.5	2.5	404.23	0	4.9323	2281800000	5
Putative pre-mRNA-splicing factor ATP-dependent RNA helicase DHX16	DBP2;DHX16	11	10	10	15.8	14.9	14.9	112.45	0	135.85	2281600000	70
	EEF1D	11	1	1	33.6	3.8	3.8	60.882	0	144.96	2280900000	12
Septin-8	8-Sep	9	6	6	32.2	24.2	24.2	49.355	0	86.728	2278800000	74
Laminin subunit gamma-1	LAMC1	22	22	22	23.1	23.1	23.1	177.6	0	307.33	2277900000	108
Pyridoxal kinase	PDXK;HEL-S-1a	8	8	8	37.5	37.5	37.5	30.638	0	86.822	2277900000	74
Deoxynucleoside triphosphate triphosphohydrolase SAMHD1	SAMHD1	10	10	10	21.7	21.7	21.7	72.2	0	53.983	2276700000	50
Pescadillo homolog	PES1	9	9	9	21.5	21.5	21.5	66.077	0	115.25	2274100000	49
Charged multivesicular body protein 5	CHMP5	5	5	5	37.4	37.4	37.4	24.57	0	67.161	2270100000	96
Microfibrillar-associated protein 1	MFAP1	5	5	5	16.4	16.4	16.4	51.958	0	112.85	2267800000	43
Prefoldin subunit 4	PFDN4	5	5	5	38.1	38.1	38.1	15.314	0	103.62	2263800000	38
Calcium-regulated heat stable protein 1	CARHSP1	4	4	4	50.3	50.3	50.3	15.892	0	11.662	2261800000	18
Transcription activator BRG1	SMARCA4	17	17	14	14.9	14.9	12.3	184.64	0	55.989	2261100000	78
Oligoribonuclease, mitochondrial	REXO2	6	6	6	40.6	40.6	40.6	22.006	0	43.796	2258500000	41
Sorting nexin-3	SNX3	6	6	4	29	29	24.7	18.762	0	18.888	2254800000	36
UMP-CMP kinase	CMPK;CMPK1	8	8	8	40.8	40.8	40.8	25.855	0	116.34	2253900000	97
PITH domain-containing protein 1	PITHD1	5	5	5	39.8	39.8	39.8	24.178	0	34.887	2250400000	35
Cell growth-regulating nucleolar protein	LYAR	9	9	9	34	34	34	43.614	0	95.51	2250200000	44
Receptor expression-enhancing protein;Receptor expression-enhancing protein 5	REEP5	3	3	3	12.8	12.8	12.8	17.758	0	7.8044	2250000000	22
Transmembrane 9 superfamily member 4	TM9SF4	11	11	11	23.5	23.5	23.5	72.54	0	102.49	2246400000	47
NADH dehydrogenase [ubiquinone] iron-sulfur protein 8, mitochondrial	NDUFS8	3	3	3	21.5	21.5	21.5	19.213	0	22.054	2246100000	24
2,5-phosphodiesterase 12	PDE12	10	10	10	38.6	38.6	38.6	52.175	0	138.24	2245800000	72
Protein phosphatase 1F	PPM1F	7	7	7	27.4	27.4	27.4	49.701	0	119.8	2245000000	48
Acyl-coenzyme A thioesterase 9, mitochondrial	ACOT9	8	8	8	19.1	19.1	19.1	49.901	0	16.145	2243800000	63
Exosome component 10	EXOSC10	11	11	11	20.8	20.8	20.8	100.83	0	55.363	2242400000	66
Zinc finger protein 638	ZNF638	23	23	23	21.1	21.1	21.1	220.62	0	159.82	2240800000	107
KDEL motif-containing protein 2	KDELC2	7	7	7	25.1	25.1	25.1	46.934	0	55.351	2239800000	66
Glycogen debranching enzyme;4-alpha-glucanotransferase;Amylo-alpha-1,6-glucosidase	AGL	20	20	20	19.8	19.8	19.8	174.76	0	95.187	2236000000	123

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Phosphoribosyl pyrophosphate synthase-associated protein 2	PRPSAP2	7	7	6	24.1	24.1	20.3	40.883	0	32.726	2233700000	57
V-type proton ATPase subunit H	ATP6V1H	9	9	9	25.4	25.4	25.4	54.151	0	323.31	2233600000	51
Guanine nucleotide-binding protein G(i) subunit alpha-2	GNAI2;WUGSC:H_LUCA1 6.1	11	5	5	46.8	27.6	27.6	40.45	0	56.468	2232800000	38
AFG3-like protein 2	AFG3L2	11	11	11	20.8	20.8	20.8	84.444	0	134.38	2231700000	76
Bifunctional ATP-dependent dihydroxyacetone kinase/FAD-AMP lyase (cyclizing);ATP-dependent dihydroxyacetone kinase;FAD-AMP lyase (cyclizing)	DAK;TKFC	11	11	11	28.5	28.5	28.5	58.946	0	84.489	2212000000	99
		1	1	1	4	4	4	27.885	0.0026355	2.0433	2208900000	5
GDP-fucose protein O-fucosyltransferase 1	POFUT1	4	4	4	18	18	18	43.955	0	47.348	2208100000	54
Translocon-associated protein subunit gamma	SSR3	1	1	1	8	8	8	20.161	0	29.476	2207300000	12
Constitutive coactivator of PPAR-gamma-like protein 1	FAM120A	15	15	15	18.2	18.2	18.2	121.89	0	148.71	2205300000	61
Tenascin	TNC;TNC variant protein	19	19	19	13.5	13.5	13.5	240.91	0	81.617	2201000000	78
NADPH--cytochrome P450 reductase	POR;DKFZp686G04235	13	13	13	27.8	27.8	27.8	77.02	0	52.014	2198500000	48
Aspartyl/asparaginyl beta-hydroxylase	ASPH	6	6	6	15	15	15	85.862	0	70.866	2197300000	55
DDRGK domain-containing protein 1	DDRGK1	6	6	6	35	35	35	35.61	0	131.79	2197200000	52
DnaJ homolog subfamily C member 3	DNAJC3	14	14	14	36.5	36.5	36.5	57.579	0	107.27	2196900000	46
Cytochrome c oxidase assembly factor 6 homolog	COA6	5	5	2	27.7	27.7	10.3	18.006	0	127.88	2195900000	41
Uridine 5-monophosphate synthase;Orotate phosphoribosyltransferase;Orotidine 5-phosphate decarboxylase;Orotidine 5-phosphate decarboxylase	UMPS	12	12	12	38.1	38.1	38.1	52.276	0	125.63	2195000000	92
Ras-related protein Rab-23	RAB23	7	7	7	35	35	35	26.659	0	74.516	2194900000	47
GTP:AMP phosphotransferase AK3, mitochondrial	AK3	8	8	1	37.9	37.9	3.5	25.565	0	58.759	2191700000	52
Transformer-2 protein homolog alpha	HSU53209;TRA2A	3	3	3	16.3	16.3	16.3	32.688	0	58.543	2191000000	27
Cytochrome c oxidase subunit 6C	COX6C	4	4	4	37.3	37.3	37.3	8.7813	0	9.6582	2187500000	15
Nucleoporin NUP53	NUP35	6	6	6	27.6	27.6	27.6	34.814	0	68.505	2187100000	43
Adenosine kinase	ADK	5	5	5	25.5	25.5	25.5	38.737	0	57.988	2187000000	44
Heat shock protein beta-1	HEL-S-102;HSPB1	4	4	4	37.6	37.6	37.6	18.536	0	79.551	2186600000	40
CUGBP Elav-like family member 1	CELF1	5	5	5	12.3	12.3	12.3	55.142	0	122.37	2186100000	32
Inorganic pyrophosphatase 2, mitochondrial	PPA2	5	5	5	20.1	20.1	20.1	37.92	0	131.49	2185800000	27
Transcription initiation factor IIB	GTF2B	10	10	10	38	38	38	34.833	0	65.118	2183000000	67
Coiled-coil domain-containing protein 58	CCDC58	6	6	6	51.5	51.5	51.5	15.296	0	45.164	2182600000	26
CAAX prenyl protease 1 homolog	ZMPSTE24	4	4	4	11.6	11.6	11.6	54.812	0	25.867	2182600000	48
Dual specificity mitogen-activated protein kinase kinase 2	MAP2K2	9	9	7	34	34	25.5	44.424	0	95.09	2176400000	83
G patch domain and KOW motifs-containing protein	GPKOW	10	10	10	37.6	37.6	37.6	52.228	0	162.04	2176400000	80
Cell adhesion molecule 1	CADM1	7	7	7	27.4	27.4	27.4	45.676	0	163.53	2173000000	52
Transcriptional activator protein Pur-alpha	PURA	5	5	1	31.6	31.6	11.6	32.015	0	185.15	2172000000	59

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Bifunctional 3-phosphoadenosine 5-phosphosulfate synthase 2;Sulfate adenylyltransferase;Adenylyl-sulfate kinase	PAPSS2	11	10	10	21.7	19.4	19.4	69.5	0	54.286	2171900000	51
Probable E3 ubiquitin-protein ligase HECTD4	HECTD4	7	7	7	3.1	3.1	3.1	469.96	0	15.357	2171800000	14
Ubiquitin fusion degradation protein 1 homolog	ufd1;UFD1L	5	5	5	25.7	25.7	25.7	34.5	0	35.497	2170900000	33
Ragulator complex protein LAMTOR1	LAMTOR1	6	6	6	59	59	59	17.745	0	79.892	2169500000	48
EF-hand domain-containing protein D2	EFHD2	9	9	7	55.4	55.4	46.7	26.697	0	80.462	2167500000	60
Thymocyte nuclear protein 1	THYN1	5	5	5	25.8	25.8	25.8	25.697	0	13.023	2167300000	31
Malignant T-cell-amplified sequence 1	MCTS1	7	7	7	38.7	38.7	38.7	20.555	0	49.595	2167000000	73
AP-1 complex subunit gamma-1	AP1G1	10	10	10	17.3	17.3	17.3	91.756	0	162.77	2158400000	48
RNA polymerase-associated protein RTF1 homolog	RTF1	11	11	11	19.3	19.3	19.3	80.313	0	42.192	2158200000	51
DNA-directed RNA polymerases I and III subunit RPAC1	POLR1C	9	9	9	35.2	35.2	35.2	38.461	0	111.55	2153300000	96
Probable ATP-dependent RNA helicase DDX41	DDX41	10	10	10	20.5	20.5	20.5	71.648	0	40.088	2152300000	54
Caseinolytic peptidase B protein homolog	CLPB	9	9	9	17	17	17	78.728	0	38.778	2150900000	32
Serine/threonine-protein phosphatase 6 regulatory subunit 3	PPP6R3;SAPS3	10	10	10	20.8	20.8	20.8	92.407	0	165.34	2149300000	62
Retinol dehydrogenase 11	RDH11	7	7	7	31.8	31.8	31.8	35.386	0	75.604	2146500000	47
Ribonuclease UK114	HRSP12	3	3	3	27	27	27	14.494	0	17.997	2142400000	28
NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 1	NDUFB1	1	1	1	19	19	19	6.9611	0	3.2687	2138300000	13
Probable E3 ubiquitin-protein ligase HERC1	HERC1	4	4	4	1.7	1.7	1.7	532.22	0.001548	2.4181	2135200000	10
U1 small nuclear ribonucleoprotein A	SNRPA	4	4	4	27.7	27.7	27.7	20.136	0	82.473	2134000000	72
Acyl carrier protein, mitochondrial;Acyl carrier protein	NDUFAB1	4	4	4	17.9	17.9	17.9	17.417	0	19.488	2132600000	91
28S ribosomal protein S18b, mitochondrial	MRPS18B	5	5	5	30.2	30.2	30.2	29.395	0	36.934	2130000000	42
SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily E member 1	SMARCE1	6	6	6	24.8	24.8	24.8	46.649	0	46.332	2129000000	57
Exocyst complex component 4	EXOC4	10	10	10	16.7	16.7	16.7	110.5	0	181.28	2122100000	91
Acyl-protein thioesterase 1	LYPLA1	4	4	4	30.1	30.1	30.1	17.981	0	7.8787	2119500000	24
Exosome complex component RRP42	EXOSC7	5	5	5	27.5	27.5	27.5	31.874	0	92.615	2117900000	29
Translation initiation factor eIF-2B subunit alpha	EIF2B1	8	8	8	41	41	41	33.712	0	65.972	2116000000	60
E3 ubiquitin-protein ligase CBL	CBL	10	10	10	19.8	19.8	19.8	99.632	0	78.554	2106400000	57
ATP-dependent RNA helicase DDX50	DDX50;DKFZp761E0323	14	12	4	25.2	21	5.9	72.157	0	62.532	2104400000	66
Lysosome-associated membrane glycoprotein 1	LAMP1	2	2	2	5.1	5.1	5.1	42.585	0	5.4905	2103300000	16
Targeting protein for Xklp2	HCTP4;TPX2	19	19	19	35.7	35.7	35.7	85.652	0	135.69	2100000000	90
Matrix-remodeling-associated protein 7	MXRA7	3	3	3	25.5	25.5	25.5	21.466	0	223.87	2097400000	23
Ubiquitin-conjugating enzyme E2 S	UBE2S	5	5	1	37.8	37.8	12.6	23.845	0	126.57	2096600000	45
Protein 4.1	EPB41	12	12	11	23	23	21.3	97.016	0	62.753	2095400000	48
Kynurenine--oxoglutarate transaminase 3	CCBL2;hCG_23341	9	9	9	26.9	26.9	26.9	51.4	0	58.048	2095300000	61
Transcription factor AP-1	JUN	6	6	6	36	36	36	35.675	0	103.88	2091300000	61
Mitochondrial Rho GTPase 2	RHOT2	8	8	8	24.8	24.8	24.8	68.117	0	126.02	2083300000	69

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Probable leucine--tRNA ligase, mitochondrial	LARS2	17	17	17	33.2	33.2	33.2	101.97	0	69.05	2081200000	92
CLIP-associating protein 2	CLASP2;DKFZp686D11262	20	20	1	24.5	24.5	1.3	138.86	0	300.93	2079400000	120
Vacuolar protein sorting-associated protein 29	DKFZp667O202;VPS29	2	2	2	12.7	12.7	12.7	20.392	0	61.102	2079000000	17
Condensin complex subunit 2	NCAPH	12	12	12	29	29	29	80.129	0	136.96	2078300000	75
Serine/threonine-protein kinase WNK1	WNK1	16	16	16	13.3	13.3	13.3	222.7	0	143.23	2077900000	103
UPF0160 protein MYG1, mitochondrial	C12orf10;MST024	8	8	8	24.7	24.7	24.7	42.508	0	43.295	2077800000	53
Serine/arginine-rich splicing factor 11	SRSF11;SFRS11;DKFZp686D02116;DKFZp686P22142	4	4	4	12.4	12.4	12.4	53.542	0	15.743	2076700000	63
Paired amphipathic helix protein Sin3a	SIN3A	11	11	11	14.2	14.2	14.2	145.17	0	116.47	2076600000	39
Spartin	SPG20	7	7	7	18.8	18.8	18.8	72.831	0	128.02	2073300000	66
Cytochrome c oxidase subunit NDUFA4	NDUFA4	2	2	2	27.2	27.2	27.2	9.3697	0	4.994	2072500000	23
Dihydrofolate reductase	DYR;DHFR	7	7	7	47.1	47.1	47.1	21.452	0	55.52	2072200000	63
Hsp70-binding protein 1	HSPBP1	9	9	9	32.9	32.9	32.9	39.474	0	71.786	2063100000	62
Receptor-type tyrosine-protein phosphatase F	PTPRF;LAR	19	19	17	17	17	15.9	212.88	0	163.03	2062600000	84
Zinc finger CCCH domain-containing protein 18	ZC3H18	9	9	9	21.4	21.4	21.4	108.94	0	56.927	2061100000	53
Dynein light chain Tctex-type 1	DYNLT1	4	4	4	69.9	69.9	69.9	12.452	0	119.46	2056000000	53
Eukaryotic translation initiation factor 4B	EIF4B	8	8	8	21.6	21.6	21.6	66.127	0	36.028	2055900000	34
E3 ubiquitin/ISG15 ligase TRIM25	TRIM25	9	9	3	21.1	21.1	8.3	70.973	0	65.44	2048600000	63
Epsin-1	EPN1	12	12	12	46	46	46	60.293	0	170.36	2047500000	112
AT-rich interactive domain-containing protein 1A	ARID1A;ARID1A variant protein	20	20	19	15.8	15.8	15	242.06	0	193.1	2046900000	82
Cancer-related nucleoside-triphosphatase	C1orf57;NTPCR	7	7	7	52.6	52.6	52.6	20.713	0	33.349	2046600000	45
NADH dehydrogenase [ubiquinone] iron-sulfur protein 6, mitochondrial	NDUFS6	4	4	4	49.2	49.2	49.2	13.711	0	35.557	2046400000	31
Protein FAM136A	FAM136A	5	5	5	23.7	23.7	23.7	26.776	0	13.391	2042300000	35
Methionine adenosyltransferase 2 subunit beta	MAT2B	5	5	5	21.3	21.3	21.3	37.551	0	61.568	2040900000	29
Cyclin-dependent kinase inhibitor 2A	CDKN2A;p16ink4a;p14ARF	4	4	4	40.4	40.4	40.4	16.532	0	18.912	2038900000	34
Signal recognition particle 14 kDa protein	SRP14	4	4	4	33.8	33.8	33.8	14.57	0	57.074	2038700000	54
Proteasome-associated protein ECM29 homolog	KIAA0368;ECM29	23	23	23	17.8	17.8	17.8	223.69	0	201.99	2036300000	85
Endothelial differentiation-related factor 1	EDF1	2	2	2	16.9	16.9	16.9	16.368	0	11.533	2035200000	14
Spectrin beta chain, non-erythrocytic 2	SPTBN2	20	18	18	14.8	14	14	271.32	0	138.26	2034300000	86
Serine/threonine-protein kinase OSR1	OXSR1	9	9	6	26.4	26.4	19.7	58.022	0	106.67	2029800000	62
Aspartate--tRNA ligase, mitochondrial	DARS2	9	9	9	18	18	18	73.574	0	35.46	2019600000	59
Anaphase-promoting complex subunit 1	ANAPC1	5	5	5	3.8	3.8	3.8	216.5	0	19.046	2018000000	7
Non-specific serine/threonine protein kinase;Serine/threonine-protein kinase PAK 4	PAK4	10	10	10	28.4	28.4	28.4	63.965	0	54.487	2017300000	43
Lymphokine-activated killer T-cell-originated protein kinase	HEL164;PBK	7	7	7	36	36	36	36.085	0	81.91	2013100000	102
Epidermal growth factor receptor substrate 15	EPS15	17	17	17	31.5	31.5	31.5	98.655	0	262.4	2011500000	95
Cohesin subunit SA-2	DKFZp686C21148;STAG2;DKFZp686P16143;DKFZp686P168;DKFZp686I05169	15	15	11	19.9	19.9	16.6	134.06	0	184.01	2010000000	129
Transcription factor p65	RELA	7	7	7	18	18	18	60.218	0	67.997	2007800000	46
PRA1 family protein 2	PRAF2	3	3	3	22.5	22.5	22.5	19.29	0	27.268	2001000000	66

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Transmembrane protein 205	TMEM205;UNQ501	2	2	2	25	25	25	13.389	0	25.169	2000800000	23
Armadillo repeat-containing protein 6	ARMC6	5	5	5	12	12	12	54.141	0	84.69	2000000000	22
		13	13	1	30.9	30.9	2.6	68.797	0	123.57	1998800000	48
Nuclear pore complex protein Nup133	NUP133	15	15	15	20.6	20.6	20.6	128.98	0	90.23	1995500000	72
Myeloid-derived growth factor	MYDGF	2	2	2	32.1	32.1	32.1	9.5594	0	24.538	1995100000	14
Cilia- and flagella-associated protein 20	CFAP20	4	4	4	31.6	31.6	31.6	22.774	0	16.198	1994100000	43
28S ribosomal protein S31, mitochondrial	MRPS31	7	7	7	24.1	24.1	24.1	45.318	0	109.05	1993000000	81
Pyruvate dehydrogenase phosphatase regulatory subunit, mitochondrial	PDPR	11	11	11	16	16	16	99.363	0	35.841	1990600000	61
Cyclin-dependent kinase 11B;Cyclin-dependent kinase 11A	CDC2L2;CDC2L1;CDK11B;CDK11A	10	10	10	23.6	23.6	23.6	53.688	0	27.766	1989700000	52
RNA-binding protein 28	RBM28	12	12	12	19.6	19.6	19.6	85.737	0	35.738	1986200000	41
Casein kinase II subunit alpha	CSNK2A2	7	7	7	26.6	26.6	26.6	41.213	0	52.659	1983500000	54
Synaptosomal-associated protein;Synaptosomal-associated protein 23	SNAP23	8	8	8	64.5	64.5	64.5	23.354	0	98.934	1983200000	44
Serine/threonine-protein kinase VRK1	VRK1	8	8	8	32.1	32.1	32.1	45.476	0	197.1	1983200000	58
28S ribosomal protein S17, mitochondrial	MRPS17;hCG_1984214	2	2	2	29.5	29.5	29.5	14.374	0	29.49	1982400000	29
Tubulin beta-4A chain	TUBB4A	19	3	2	58.6	10.4	6.3	49.585	0	93.162	1980800000	34
DnaJ homolog subfamily C member 11	DNAJC11	5	5	5	13.2	13.2	13.2	58.841	0	11.91	1979600000	24
Tubulin-specific chaperone E	TBCE	11	10	6	25.4	24.1	13.3	59.345	0	16.627	1977400000	46
CAP-Gly domain-containing linker protein 2	CLIP2	4	2	2	4.6	2.1	2.1	111.72	0	9.1956	1976000000	11
Elongation factor Ts, mitochondrial	TSFM	5	5	5	24.3	24.3	24.3	35.39	0	65.076	1974300000	44
40S ribosomal protein S23	RPS23	4	4	4	35	35	35	15.807	0	15.779	1968900000	30
Protein transport protein Sec16A	SEC16A	21	21	21	22.2	22.2	22.2	251.89	0	167.04	1963900000	180
Signal recognition particle 19 kDa protein	SRP19	3	3	3	38.5	38.5	38.5	11.85	0	72.955	1959900000	55
Peripheral plasma membrane protein CASK	CASK	10	10	10	13.8	13.8	13.8	104.47	0	122.06	1956400000	43
Queuine tRNA-ribosyltransferase	QTRT1	8	8	8	32.5	32.5	32.5	43.989	0	86.798	1954900000	58
Ubiquilin-2	UBQLN2	8	6	5	26.4	21.6	18.9	65.695	0	198.47	1954000000	42
Acetyl-CoA carboxylase 1;Biotin carboxylase	ACACA;hCG_30204	16	16	16	12	12	12	265.55	0	83.75	1953500000	63
Pentatricopeptide repeat domain-containing protein 3, mitochondrial	PTCD3	9	9	9	20.8	20.8	20.8	78.549	0	42.965	1951900000	93
28S ribosomal protein S29, mitochondrial	DAP3	8	8	8	23.1	23.1	23.1	45.566	0	24.917	1951400000	58
Translation initiation factor eIF-2B subunit epsilon	EIF2B5	9	9	9	20.9	20.9	20.9	80.379	0	101.86	1951300000	59
NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 11, mitochondrial	NDUFB11	3	3	3	32.3	32.3	32.3	17.942	0	62.086	1950900000	20
Remodeling and spacing factor 1	RSF1	22	22	22	23.2	23.2	23.2	163.82	0	165.8	1943500000	88
Transmembrane and ubiquitin-like domain-containing protein 1	TMUB1;C7orf21	3	3	3	33.6	33.6	33.6	16.12	0	52.571	1939700000	38
NHL repeat-containing protein 2	NHLRC2	11	11	11	28.2	28.2	28.2	79.443	0	91.546	1939200000	90
Serine/threonine-protein phosphatase PP1-gamma catalytic subunit;Serine/threonine-protein phosphatase	PPP1CC;PPP1CB	9	1	1	34.1	3.1	3.1	36.983	0	4.0936	1938500000	12

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Serine/threonine-protein phosphatase;Serine/threonine-protein phosphatase 6 catalytic subunit;Serine/threonine-protein phosphatase 6 catalytic subunit, N-terminally processed	PPP6C	9	9	9	43.9	43.9	43.9	35.144	0	54.926	1937400000	59
WD repeat-containing protein 36	WDR36	18	18	18	28.2	28.2	28.2	99.365	0	323.31	1935500000	74
Cytoskeleton-associated protein 2	CKAP2	9	9	9	18.3	18.3	18.3	76.986	0	50.219	1934600000	39
NADH-cytochrome b5 reductase 1	CYB5R1	7	7	7	24.9	24.9	24.9	34.094	0	12.324	1932900000	30
Nuclear protein localization protein 4 homolog	NPLOC4	10	10	10	28.3	28.3	28.3	68.119	0	121.99	1928700000	108
Lethal(2) giant larvae protein homolog 1	LLGL1	11	11	11	17.2	17.2	17.2	115.42	0	89.58	1918400000	55
2-deoxynucleoside 5-phosphate N-hydrolase 1	DNPH1	4	4	4	35	35	35	25.868	0	38.521	1916200000	29
Zinc finger CCCH domain-containing protein 11A	ZC3H11A	14	14	12	27.2	27.2	23.7	82.771	0	51.366	1912700000	47
Multifunctional methyltransferase subunit TRM112-like protein	TRMT112;HSPC152	2	2	2	34.6	34.6	34.6	9.2555	0	85.634	1912300000	25
ATPase WRNIP1	WRNIP1	13	13	13	26.2	26.2	26.2	72.132	0	45.968	1910500000	58
Cytochrome c oxidase assembly factor 3 homolog, mitochondrial	COA3;hCG_16955	3	3	3	27.4	27.4	27.4	11.731	0	11.634	1904600000	24
Thymidylate kinase	DTYMK	6	6	6	27.8	27.8	27.8	23.819	0	11.936	1903000000	33
Zinc finger CCCH domain-containing protein 14	ZC3H14;FLJ11806	15	15	15	31.4	31.4	31.4	82.875	0	124.9	1897400000	84
Tubulin gamma-1 chain;Tubulin gamma chain;Tubulin gamma-2 chain	TUBG1;TUBG2	9	9	9	34.6	34.6	34.6	51.169	0	186.89	1890800000	72
Peroxidasin homolog	PXDN	14	14	14	17.7	17.7	17.7	165.27	0	131.37	1890500000	80
	ARPC1B	11	11	0	21.5	21.5	0	75.872	0	108.52	1890100000	38
E3 ubiquitin-protein ligase RNF126	RNF126	4	4	4	19.1	19.1	19.1	30.785	0	47.562	1886200000	34
Unconventional myosin-Ib	MYO1B	14	14	14	18	18	18	128.48	0	56.477	1884000000	44
DDB1- and CUL4-associated factor 7	DCAF7	6	6	6	29.8	29.8	29.8	38.926	0	30.787	1883500000	36
3-mercaptopyruvate sulfurtransferase;Sulfurtransferase	MPST	8	8	3	38.4	38.4	14.8	33.178	0	55.656	1879100000	79
	HSPA8	12	1	1	71	6.6	6.6	19.955	0	3.1727	1877800000	12
Cleavage and polyadenylation specificity factor subunit 1	CPSF1	9	9	9	8.6	8.6	8.6	151.98	0	180.43	1871700000	57
28S ribosomal protein S7, mitochondrial	MRPS7	8	8	8	36.8	36.8	36.8	28.134	0	27.167	1866900000	43
39S ribosomal protein L49, mitochondrial	MRPL49	3	3	3	23.5	23.5	23.5	19.198	0	18.95	1864000000	38
Methyltransferase-like protein 7A	METTL7A	3	3	3	23.3	23.3	23.3	20.662	0	76.866	1863300000	24
Integrin beta-1	ITGB1	11	11	11	19.4	19.4	19.4	88.414	0	55.236	1862200000	56
Ubiquinone biosynthesis protein COQ9, mitochondrial	COQ9;hCG_2025883	4	4	4	41.5	41.5	41.5	22.926	0	67.723	1861900000	64
Tropomodulin-3	DKFZp686E1899;TMOD3	11	11	10	40.3	40.3	38.1	39.554	0	49.225	1861300000	67
WW domain-binding protein 11	WBP11	12	12	12	30.7	30.7	30.7	64.907	0	44.043	1860200000	69
39S ribosomal protein L37, mitochondrial	MRPL37	9	9	9	26	26	26	48.117	0	47.601	1850300000	43
Dehydrogenase/reductase SDR family member 7	DHRS7	7	7	7	29.5	29.5	29.5	38.298	0	60.76	1849200000	65
Nucleolar protein 11	NOL11	9	9	9	19.3	19.3	19.3	81.123	0	97.815	1847100000	53
Translation initiation factor eIF-2B subunit beta	EIF2B2	6	6	6	19.7	19.7	19.7	39.003	0	15.504	1846700000	66
Carboxypeptidase D	CPD	15	15	15	16.3	16.3	16.3	152.93	0	112.83	1845500000	96
Eukaryotic translation initiation factor 3 subunit M	EIF3M	8	8	8	32.9	32.9	32.9	42.502	0	110.9	1843900000	51

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MAGUK p55 subfamily member 6	MPP6	12	11	11	32.7	31.1	31.1	48.757	0	19.529	1841100000	37
Nucleolar and coiled-body phosphoprotein 1	NOLC1	7	7	7	18	18	18	73.603	0	86.288	1838600000	48
Aldose 1-epimerase	GALM;Ibd1	4	4	4	16.7	16.7	16.7	37.765	0	17.351	1837500000	22
Tetratricopeptide repeat protein 1	TTC1	7	7	7	33.2	33.2	33.2	33.454	0	170.85	1837400000	62
Histone H1.2	HIST1H1C	9	1	1	25.4	7.5	7.5	21.364	0	15.593	1832800000	17
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 9, mitochondrial	NDUFA9	8	8	8	31.4	31.4	31.4	38.441	0	48.471	1829900000	72
ADP-ribosylation factor 6	ARF6	4	4	4	33.1	33.1	33.1	20.082	0	39.489	1828600000	44
Signal transducer and activator of transcription 1-alpha/beta;Signal transducer and activator of transcription	STAT1	11	11	11	20.5	20.5	20.5	87.334	0	83.141	1828000000	58
Mitochondrial glutamate carrier 1	SLC25A22	6	6	6	31.9	31.9	31.9	34.47	0	47.924	1827500000	43
Growth factor receptor-bound protein 2	GRB2	5	5	5	33.2	33.2	33.2	25.148	0	36.294	1827000000	21
Septin-5	SEPT5;CDCrel-1	7	7	7	23.8	23.8	23.8	42.777	0	31.661	1825400000	52
Eukaryotic translation initiation factor 3 subunit H	EIF3S3;EIF3H	10	10	10	31	31	31	39.93	0	46.094	1825000000	32
Alpha-synuclein	SNCA	7	7	7	68.6	68.6	68.6	14.46	0	38.529	1824900000	33
GTP-binding protein SAR1b	SAR1B;DKFZp434B2017	5	5	4	36.5	36.5	30	19.047	0	43.519	1823000000	54
Fructose-2,6-bisphosphatase TIGAR	TIGAR	7	7	7	33.7	33.7	33.7	30.062	0	111.87	1819500000	49
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 8	NDUFA8	7	7	7	39	39	39	20.105	0	18.312	1819400000	34
Rho-associated protein kinase 1;Rho-associated protein kinase	ROCK1	16	16	12	17	17	13.5	158.17	0	75.772	1819000000	75
DCC-interacting protein 13-alpha	APPL1	15	15	15	39.8	39.8	39.8	79.663	0	152.86	1817700000	110
Condensin complex subunit 3	NCAPG	12	12	12	21.9	21.9	21.9	114.33	0	111.69	1817200000	72
Serine/threonine-protein phosphatase 2A activator	PPP2R4	5	5	5	29.2	29.2	29.2	37.375	0	91.565	1816400000	63
Zinc phosphodiesterase ELAC protein 2	ELAC2	14	14	14	26.6	26.6	26.6	90.6	0	58.839	1815800000	97
Ubiquitin carboxyl-terminal hydrolase;Ubiquitin carboxyl-terminal hydrolase 14	USP14	10	10	10	31	31	31	56.041	0	175.44	1813200000	43
NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 3	NDUFB3	3	3	3	29.2	29.2	29.2	7.5855	0	4.8142	1812700000	11
Dihydropyrimidinase-related protein 5	DPYSL5	9	9	9	30.5	30.5	30.5	61.421	0	58.196	1811500000	25
Ras GTPase-activating protein-binding protein 2	G3BP2	6	5	5	22.5	19.8	19.8	50.816	0	96.543	1806500000	23
1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase	ADI1	3	3	3	22.9	22.9	22.9	21.498	0	44.554	1801400000	25
Ubiquinone biosynthesis monooxygenase COQ6, mitochondrial	COQ6	3	3	3	4.9	4.9	4.9	50.869	0	3.317	1800600000	73
Cullin-1	CUL1	11	11	11	20.9	20.9	20.9	87.387	0	80.323	1797500000	61
Signal peptidase complex subunit 3	SPCS3	2	2	2	11.7	11.7	11.7	20.312	0	20.792	1793200000	19
Casein kinase II subunit alpha;Casein kinase II subunit alpha 3	CSNK2A1;CSNK2A3	7	7	7	25.8	25.8	25.8	45.143	0	46.925	1789600000	57
DNA-3-methyladenine glycosylase	MPG	5	5	5	36.3	36.3	36.3	27.295	0	49.829	1785100000	43
TBC1 domain family member 4	TBC1D4	12	12	12	17.8	17.8	17.8	146.56	0	115.03	1781300000	93
ATP-binding cassette sub-family F member 2	ABCF2	16	16	16	28.4	28.4	28.4	71.289	0	33.845	1775600000	48
Pterin-4-alpha-carbinolamine dehydratase	PCBD;PCBD1	4	4	4	38.5	38.5	38.5	12.009	0	41.726	1774400000	86

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Copine-1	CPNE1	8	8	8	19.4	19.4	19.4	59.058	0	29.112	1768700000	73
Ribosomal RNA processing protein 1 homolog A	RRP1	7	7	7	23.5	23.5	23.5	46.15	0	66.067	1768600000	40
Endophilin-B1	SH3GLB1	8	8	8	25.9	25.9	25.9	44.26	0	84.034	1768300000	56
ADP-ribosylation factor GTPase-activating protein 1	ARFGAP1	11	11	11	50.5	50.5	50.5	44.667	0	178.81	1766800000	62
Proteasomal ATPase-associated factor 1	PAAF1;WDR71	9	9	9	32.1	32.1	32.1	42.19	0	39.154	1766500000	63
Glycogen synthase kinase-3 alpha	GSK3A;DKFZp686D0638	6	5	5	26.9	24.8	24.8	50.98	0	172.32	1766200000	71
Cullin-3	CUL3	11	11	11	20.5	20.5	20.5	86.465	0	143.55	1766000000	65
Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit STT3B	STT3B	6	6	6	10	10	10	93.673	0	32.725	1765000000	28
Splicing factor, arginine/serine-rich 15	SFRS15;SCAF4	7	6	6	13.9	12.8	12.8	125.74	0	134.43	1761700000	63
CD166 antigen	ALCAM	7	7	7	21.3	21.3	21.3	61.94	0	68.301	1761500000	64
Protein HEXIM1	HEXIM1	5	5	5	27.6	27.6	27.6	40.607	0	67.35	1758900000	32
ATP-binding cassette sub-family D member 3	ABCD3	11	11	11	23.4	23.4	23.4	75.475	0	62.129	1756000000	53
Zinc finger CCCH domain-containing protein 15	ZC3H15	8	8	8	29.3	29.3	29.3	44.89	0	41.371	1754600000	42
CDK5 regulatory subunit-associated protein 3	CDK5RAP3	9	9	9	30.6	30.6	30.6	56.92	0	87.426	1752200000	60
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 2	NDUFA2	4	4	4	41.4	41.4	41.4	10.921	0	71.491	1750100000	25
WD repeat-containing protein 3	WDR3	9	9	9	17.2	17.2	17.2	106.1	0	162.89	1738800000	92
V-type proton ATPase subunit d 1	ATP6V0D1	8	8	8	24.2	24.2	24.2	40.317	0	80.669	1738600000	58
Copper transport protein ATOX1	ATOX1	4	4	4	59.3	59.3	59.3	6.3304	0	32.333	1736900000	25
Protein transport protein Sec23B	SEC23B	14	12	12	26.1	22.6	22.6	83.809	0	148.08	1735200000	57
Probable global transcription activator SNF2L1	SMARCA1	15	10	10	17.9	13	13	124.33	0	66.307	1730300000	41
Exosome complex component RRP45	EXOSC9	7	7	7	23	23	23	43.561	0	37.373	1727400000	34
DnaJ homolog subfamily B member 6	DNAJB6	5	5	4	20.9	20.9	17.8	36.087	0	16.252	1727400000	24
E3 ubiquitin-protein ligase BRE1B	RNF40	13	12	12	20.9	19.5	19.5	113.65	0	28.612	1727300000	39
Ribonucleases P/MRP protein subunit POP1	POP1	10	10	10	18.8	18.8	18.8	114.71	0	153.94	1726800000	71
E3 ubiquitin-protein ligase RNF114	RNF114;ZNF313	4	4	4	39.4	39.4	39.4	17.641	0	51.363	1721600000	40
Probable ATP-dependent RNA helicase YTHDC2	YTHDC2	19	19	19	18.8	18.8	18.8	160.25	0	79.961	1719400000	64
Nucleoporin SEH1	SEH1L	7	7	7	32.5	32.5	32.5	39.648	0	60.357	1715200000	52
Clathrin light chain B	CLTB	4	4	4	13.5	13.5	13.5	25.19	0	14.519	1715100000	23
Non-specific protein-tyrosine kinase;Tyrosine-protein kinase CSK	CSK	9	9	9	26.1	26.1	26.1	50.617	0	37.691	1712100000	54
MAP7 domain-containing protein 1	RPRC1;MAP7D1	13	13	13	22.3	22.3	22.3	92.691	0	69.674	1711300000	40
Syntenin-1	SDCBP	7	7	1	44.6	44.6	6	32.444	0	180.77	1710400000	32
Heparan sulfate 2-O-sulfotransferase 1	HS2ST1	4	4	4	14.9	14.9	14.9	41.881	0	54.637	1710300000	40
Beta-1,4-glucuronyltransferase 1	B3GNT6;B4GAT1	6	6	6	22.7	22.7	22.7	47.104	0	24.03	1710200000	31
GMP reductase 2;GMP reductase	GMPR2	6	6	6	29.3	29.3	29.3	37.874	0	73.751	1709800000	48
Microsomal glutathione S-transferase 2	MGST2	1	1	1	9.5	9.5	9.5	16.62	0	4.4178	1707600000	11
Pyruvate dehydrogenase protein X component, mitochondrial	PDHX	9	9	9	21.4	21.4	21.4	54.122	0	83.604	1705600000	40
Peroxisomal membrane protein PEX14	PEX14	7	7	7	40.1	40.1	40.1	41.236	0	90.99	1704300000	53
Methionine aminopeptidase 1	METAP1;DKFZp781C0419	5	5	5	16.8	16.8	16.8	43.215	0	92.644	1702700000	31

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Pyridoxal phosphate phosphatase	PDXP	5	4	4	27.7	23	23	31.698	0	49.821	1697900000	36
Niemann-Pick C1 protein	NPC1	8	8	2	9.7	9.7	2.5	142.15	0	46.205	1697600000	34
Rho guanine nucleotide exchange factor 7	ARHGEF7;KIAA0142	11	11	11	22.1	22.1	22.1	81.404	0	70.713	1697100000	37
OCIA domain-containing protein 1	OCIAD1	6	6	6	20.4	20.4	20.4	27.626	0	17.489	1695700000	51
Branched-chain-amino-acid aminotransferase;Branched-chain-amino-acid aminotransferase, mitochondrial	BCAT2	9	9	9	25.8	25.8	25.8	44.273	0	138.03	1695100000	41
Nuclear factor NF-kappa-B p100 subunit;Nuclear factor NF-kappa-B p52 subunit	NFKB2	11	11	11	16.6	16.6	16.6	91.922	0	92.405	1694700000	64
Endophilin-B2	SH3GLB2	7	7	7	21	21	21	43.973	0	30.502	1693900000	38
Tubulin beta-6 chain	TUBB6	16	2	2	48.9	6.1	6.1	49.857	0	17.969	1689200000	48
N-terminal Xaa-Pro-Lys N-methyltransferase 1;N-terminal Xaa-Pro-Lys N-methyltransferase 1, N-terminally processed	NTMT1;C9orf32	4	4	4	28.7	28.7	28.7	25.387	0	105.46	1687800000	42
Activity-dependent neuroprotector homeobox protein	ADNP	13	13	13	18.7	18.7	18.7	123.45	0	69.019	1687300000	55
Neurolysin, mitochondrial	NLN	8	8	8	13.4	13.4	13.4	80.677	0	26.232	1685500000	38
Vacuolar protein sorting-associated protein 4A	VPS4A;DKFZp434E0418	7	6	6	26.1	23.3	23.3	48.897	0	69.744	1683400000	60
ATP-dependent RNA helicase DDX54	DDX54	12	12	12	24.4	24.4	24.4	98.594	0	91.62	1682700000	44
Peptidyl-prolyl cis-trans isomerase;Peptidyl-prolyl cis-trans isomerase-like 3	PPIL3	4	4	4	34.2	34.2	34.2	18.154	0	17.335	1682600000	37
Charged multivesicular body protein 2a	CHMP2A	5	5	5	22.1	22.1	22.1	25.104	0	64.395	1682200000	28
Ribosomal biogenesis protein LAS1L	LAS1L	9	9	9	22.9	22.9	22.9	83.064	0	105.14	1681700000	67
Oligosaccharyltransferase complex subunit OSTC	DC2;OSTC;OSTCL	2	2	2	14.1	14.1	14.1	16.829	0	18.52	1681000000	27
Zinc finger protein ZPR1	ZPR1	10	10	10	40.4	40.4	40.4	42.542	0	113.57	1680400000	78
Peptidyl-prolyl cis-trans isomerase-like 4	PPIL4	9	9	9	20.7	20.7	20.7	57.224	0	23.389	1679500000	43
Golgin subfamily A member 3	GOLGA3	20	20	20	21	21	21	167.35	0	169.54	1673400000	68
Serine/threonine-protein kinase N2	PKN2	14	14	13	22.2	22.2	21.3	112.03	0	82.064	1672600000	68
Sodium/potassium-transporting ATPase subunit beta-1	ATP1B1	5	5	5	27.1	27.1	27.1	28.627	0	23.792	1672500000	34
Ras-related protein Rab-10	RAB10	5	4	4	23	17.5	17.5	22.541	0	82.415	1668000000	46
Putative peptidyl-tRNA hydrolase PTRHD1	PTRHD1	4	4	4	25.7	25.7	25.7	15.805	0	19.153	1662300000	31
Cleavage and polyadenylation specificity factor subunit 2	CPSF2	7	7	7	16.1	16.1	16.1	88.486	0	101.81	1660900000	46
ATP synthase F(0) complex subunit B1, mitochondrial	hCG_39985;ATP5F1	6	6	6	28.9	28.9	28.9	28.908	0	83.244	1659700000	18
Monocarboxylate transporter 1	SLC16A1	6	2	2	11.2	4.4	4.4	51.836	0	40.825	1657600000	14
Transmembrane emp24 domain-containing protein 1	TMED1	3	3	3	18.5	18.5	18.5	25.206	0	23.889	1654600000	12
Leucine zipper transcription factor-like protein 1	LZTFL1	8	8	8	32.8	32.8	32.8	34.592	0	31.294	1653800000	43
Tricarboxylate transport protein, mitochondrial	SLC25A1	4	4	4	11.3	11.3	11.3	34.787	0	33.95	1652100000	33
Valine--tRNA ligase, mitochondrial	VARS2	10	10	10	13.1	13.1	13.1	121.56	0	20.945	1649800000	44
Fatty aldehyde dehydrogenase	ALDH3A2;DKFZp686E23276	9	9	9	28.2	28.2	28.2	54.847	0	33.396	1649100000	62
ARF GTPase-activating protein GIT1	GIT1;DKFZp686G1540	10	10	9	22.6	22.6	21.4	85.899	0	41.967	1648600000	70
Geranylgeranyl transferase type-2 subunit alpha	RABGGTA	10	10	10	26.1	26.1	26.1	65.041	0	37.235	1647000000	67

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F-box-like/WD repeat-containing protein TBL1XR1	TBL1XR1	6	6	4	29.8	29.8	22.1	40.756	0	82.721	1639700000	39
Choline transporter-like protein 2	SLC44A2	6	6	6	10.9	10.9	10.9	79.907	0	18.769	1639200000	28
Polypeptide N-acetylgalactosaminyltransferase 2;Polypeptide N-acetylgalactosaminyltransferase 2 soluble form;Polypeptide N-acetylgalactosaminyltransferase	GALNT2	10	10	10	24.7	24.7	24.7	64.732	0	81.152	1638600000	50
WD repeat and FYVE domain-containing protein 1	WDFY1	7	7	7	23.7	23.7	23.7	46.323	0	75.99	1637200000	49
Pumilio homolog 1	PUM1	6	6	1	8	8	1.3	120.11	0	61.763	1636800000	47
CWF19-like protein 1	CWF19L1	8	8	8	17.3	17.3	17.3	60.618	0	38.938	1634200000	39
GTP-binding protein Rheb	RHEB	2	2	2	32.9	32.9	32.9	8.6739	0	37.214	1633400000	24
COP9 signalosome complex subunit 5	COPS5	6	6	6	28.1	28.1	28.1	37.578	0	25.804	1632600000	20
	CBFB	4	4	1	28.9	28.9	9.6	21.919	0	96.864	1632600000	23
Serine/threonine-protein kinase mTOR	MTOR;FRAP1	20	20	20	12	12	12	288.89	0	80.028	1631900000	65
Transmembrane 9 superfamily member 2	TM9SF2	6	6	6	15.4	15.4	15.4	65.43	0	88.033	1625900000	68
GDP-mannose 4,6 dehydratase	GMDS	6	6	6	21	21	21	41.949	0	28	1625800000	32
DNA-directed RNA polymerase II subunit RPB1	POLR2A	18	18	18	15.6	15.6	15.6	217.17	0	113.28	1624700000	74
Coiled-coil domain-containing protein 47	CCDC47	7	7	7	22.6	22.6	22.6	55.873	0	85.394	1624600000	62
Nucleoporin Nup37	NUP37	6	6	6	23.6	23.6	23.6	36.707	0	35.694	1623500000	35
Chromosome alignment-maintaining phosphoprotein 1	CHAMP1	10	10	10	17	17	17	89.098	0	42.516	1623000000	54
Alpha-internexin	INA	13	12	12	29.3	27.5	27.5	55.39	0	36.81	1622400000	43
	RANBP3	8	8	1	33.8	33.8	5.7	52.937	0	202.63	1619800000	48
Glutamate--cysteine ligase regulatory subunit	GCLM	4	4	4	23.2	23.2	23.2	28.615	0	73.401	1619200000	37
COP9 signalosome complex subunit 8	COPS8	5	5	5	42.1	42.1	42.1	23.225	0	23.717	1619100000	40
Nicalin	NCLN	8	8	6	23.2	23.2	18.7	61.758	0	252.2	1613000000	39
		2	2	2	9.3	9.3	9.3	54.003	0.0088177	1.5265	1609900000	9
Collagen alpha-1(II) chain;Collagen alpha-1(II) chain;Chondrocalcin	COL2A1	8	8	8	7.3	7.3	7.3	141.78	0	68.675	1609500000	45
Protein RER1	RER1	2	2	2	16.6	16.6	16.6	21.024	0	37.421	1609500000	15
Very-long-chain enoyl-CoA reductase	TECR	5	5	5	16.6	16.6	16.6	36.053	0	13.307	1605900000	86
Long-chain-fatty-acid--CoA ligase 4	ACSL4;FACL4	8	7	7	14.9	12.4	12.4	79.187	0	52.476	1600100000	32
Nucleoporin Nup43	NUP43	5	5	5	22.6	22.6	22.6	31.614	0	54.353	1598000000	31
AP-3 complex subunit mu-1	AP3M1;DKFZp586G1518	12	12	12	48.9	48.9	48.9	41.026	0	65.965	1597600000	59
Leukocyte surface antigen CD47	CD47	2	2	2	10.4	10.4	10.4	20.313	0	3.5364	1595200000	16
Beta-catenin-like protein 1	CTNNBL1	7	7	7	14.4	14.4	14.4	65.173	0	24.545	1594700000	45
RNA polymerase II-associated factor 1 homolog	PAF1	12	12	12	29	29	29	59.975	0	58.482	1594400000	88
Bifunctional polynucleotide phosphatase/kinase;Polynucleotide 3-phosphatase;Polynucleotide 5-hydroxyl-kinase	PNKP	7	7	7	17.9	17.9	17.9	53.119	0	26.623	1594200000	40
Bleomycin hydrolase	BLMH	7	7	7	19.1	19.1	19.1	52.562	0	43.051	1591000000	47
T-box brain protein 1	TBR1	1	1	1	1.8	1.8	1.8	74.052	0.004253	1.7982	1590400000	33
DNA-directed RNA polymerases I, II, and III subunit RPABC3	POLR2H	4	4	4	45.3	45.3	45.3	16.925	0	50.369	1589600000	22
CCAAT/enhancer-binding protein zeta	CEBPZ	11	11	11	14.3	14.3	14.3	120.97	0	71.405	1586800000	38
Periodic tryptophan protein 2 homolog	PWP2	10	10	10	17.8	17.8	17.8	102.45	0	41.876	1586200000	69

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Mitogen-activated protein kinase kinase kinase kinase 4	MAP4K4;HEL-S-31	10	10	8	13.1	13.1	11.1	144.92	0	169.36	1584300000	41
Na(+)/H(+) exchange regulatory cofactor NHE-RF1;Na(+)/H(+) exchange regulatory cofactor NHE-RF	SLC9A3R1	6	6	6	28.8	28.8	28.8	38.868	0	33.827	1583900000	39
Protoporphyrinogen oxidase	PPOX	7	7	7	24.1	24.1	24.1	50.765	0	40.356	1583300000	62
5-AMP-activated protein kinase subunit gamma-1	PRKAG1	6	6	5	19	19	16	37.579	0	9.0484	1582500000	23
Protein kinase C;Protein kinase C alpha type	PRKCA	9	9	7	24	24	18.5	76.749	0	82.237	1580300000	61
Gamma-tubulin complex component 2	TUBGCP2	10	10	10	15.3	15.3	15.3	102.45	0	157.76	1580300000	48
Negative elongation factor E	NELFE;RDBP;NELF-E	9	9	9	32.5	32.5	32.5	42.968	0	97.928	1577700000	48
Apolipoprotein O	APOO	4	4	4	31.5	31.5	31.5	20.08	0	31.515	1576900000	22
Arginine/serine-rich coiled-coil protein 2	RSRC2;FLJ11021	4	4	4	13.8	13.8	13.8	50.559	0	145.28	1576300000	35
NudC domain-containing protein 2	NUDCD2	4	4	4	35.7	35.7	35.7	17.676	0	51.225	1574900000	32
Thimet oligopeptidase	THOP1	8	8	8	19.9	19.9	19.9	78.823	0	55.896	1572500000	55
TBC1 domain family member 19	TBC1D19	3	3	3	19.3	19.3	19.3	25.438	0.0088209	1.5268	1570600000	2
Dehydrogenase/reductase SDR family member 4	DHRS4;DHRS4L2	6	6	6	24.5	24.5	24.5	29.537	0	38.014	1569400000	47
Probable tRNA N6-adenosine threonylcarbamoyltransferase	OSGEP	7	7	7	34.3	34.3	34.3	36.426	0	90.536	1569100000	37
Atlastin-3	ATL3	6	6	6	20.7	20.7	20.7	60.541	0	119.38	1567300000	48
Methionine synthase	MTR;DKFZp686A22123	19	19	19	23.7	23.7	23.7	140.6	0	52.592	1567100000	73
E3 ubiquitin-protein ligase ARIH2	ARIH2	7	7	7	21.7	21.7	21.7	57.818	0	144.45	1563100000	58
Complex III assembly factor LYRM7	LYRM7	3	3	3	40.4	40.4	40.4	11.955	0	49.242	1562500000	33
Transmembrane protein 263	TMEM263	4	4	4	44	44	44	11.748	0	14.683	1559400000	27
LanC-like protein 2	LANCL2	6	6	6	27.1	27.1	27.1	48.884	0	105.17	1558000000	38
CD2 antigen cytoplasmic tail-binding protein 2	CD2BP2	6	6	6	31.1	31.1	31.1	37.646	0	75.478	1557600000	41
Negative elongation factor B	NELFB	10	10	10	25.8	25.8	25.8	70.038	0	83.45	1552100000	54
Negative elongation factor A	NELFA;WHSC2	9	9	9	39.7	39.7	39.7	49.686	0	80.059	1549000000	51
Kinesin-like protein;Kinesin-like protein KIFC1	KIFC1	13	13	13	30.5	30.5	30.5	73.678	0	259.46	1548700000	56
Ubiquitin carboxyl-terminal hydrolase;Ubiquitin carboxyl-terminal hydrolase 11	USP11	12	12	12	20.2	20.2	20.2	105.03	0	45.315	1548100000	54
Thymidine kinase;Thymidine kinase, cytosolic	TK1	6	6	6	37.1	37.1	37.1	28.594	0	30.887	1547400000	27
Proteolipid protein 2	PLP2	1	1	1	8.6	8.6	8.6	16.691	0	18.238	1542600000	8
General transcription factor 3C polypeptide 4	GTF3C4	13	13	13	28.5	28.5	28.5	91.981	0	147.54	1541900000	72
Ribosomal RNA small subunit methyltransferase NEP1	EMG1	5	5	5	27.9	27.9	27.9	26.692	0	22	1541700000	31
ATP-dependent Clp protease proteolytic subunit;ATP-dependent Clp protease proteolytic subunit, mitochondrial	CLPP	5	5	5	40	40	40	20.568	0	52.407	1540700000	46
NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 8, mitochondrial	NDUFB8	4	4	4	27.4	27.4	27.4	21.766	0	25.543	1540600000	39
Ras GTPase-activating-like protein IQGAP2	IQGAP2	19	19	19	16.9	16.9	16.9	180.59	0	64.84	1540200000	69
Protein lunapark	KIAA1715;LNP	7	7	7	34.8	34.8	34.8	39.457	0	55.925	1539300000	47
Nucleoside diphosphate-linked moiety X motif 19, mitochondrial	NUDT19	5	5	5	27.5	27.5	27.5	42.233	0	63.935	1536800000	78

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UBX domain-containing protein 7	UBXN7	9	9	9	27.4	27.4	27.4	54.862	0	148.44	1535200000	80
Ankyrin repeat and KH domain-containing protein 1	ANKHD1;FLJ00246	18	18	12	14.7	14.7	11	269.45	0	129.51	1533700000	78
Opioid growth factor receptor	OGFR	9	9	9	24.8	24.8	24.8	73.324	0	201.74	1533500000	57
Cullin-4B	CUL4B	11	8	8	16.1	12.9	12.9	103.98	0	64.367	1532300000	37
60S ribosomal protein L38	RPL38	1	1	1	14.3	14.3	14.3	8.2178	0.0001995	2.9113	1530700000	38
Mitotic spindle assembly checkpoint protein MAD1	MAD1L1	7	7	7	13	13	13	91.72	0	22.579	1530000000	32
Translation initiation factor eIF-2B subunit delta	EIF2B4	6	6	1	18.6	18.6	3.9	59.714	0	201.63	1529700000	55
Proto-oncogene tyrosine-protein kinase Src	SRC	7	7	5	18.1	18.1	13.6	59.834	0	26.334	1529500000	46
Rho-associated protein kinase 2	ROCK2	15	11	11	16.1	12.8	12.8	160.9	0	51.33	1527500000	40
Dual specificity protein phosphatase 3	DUSP3	6	6	6	44.3	44.3	44.3	20.577	0	45.71	1527000000	28
BRI3-binding protein	BRI3BP	3	3	3	16.7	16.7	16.7	27.835	0	131.52	1527000000	32
Prolyl 3-hydroxylase 1	LEPRE1	9	9	9	22	22	22	83.393	0	68.881	1522000000	53
Mitochondrial carrier homolog 1	PIG60;MTCH1	5	5	5	16.1	16.1	16.1	38.237	0	20.308	1519800000	24
Utrophin	UTRN	32	32	32	14.2	14.2	14.2	394.46	0	126.16	1516800000	74
Transferrin receptor protein 1;Transferrin receptor protein 1, serum form	TFRC	8	8	8	14.7	14.7	14.7	84.872	0	80.545	1516400000	43
Adenylate kinase isoenzyme 1	AK1	7	7	6	45.9	45.9	41.2	21.635	0	51.506	1515100000	77
Metalloproteinase inhibitor 1	TIMP1	5	5	5	49.7	49.7	49.7	16.057	0	54.729	1513600000	39
Mannose-1-phosphate guanyltransferase beta	GMPPB	7	7	7	27.4	27.4	27.4	42.621	0	111.35	1512200000	33
Arfaptin-1	ARFIP1	10	10	10	41	41	41	41.738	0	78.78	1508500000	45
Prostaglandin F2 receptor negative regulator	PTGFRN	8	8	8	10.9	10.9	10.9	98.555	0	19.577	1507900000	39
Nucleobindin-2;Nesfatin-1	NUCB2;Nucb2	7	7	7	22.5	22.5	22.5	40.368	0	83.882	1500000000	43
Transmembrane 9 superfamily member 1	CHMP4A;TM9SF1	8	8	4	16.3	16.3	7	92.386	0	32.161	1499100000	25
CD99 antigen	CD99	1	1	1	7.6	7.6	7.6	18.947	0	64.021	1496300000	20
Glutathione S-transferase Mu 2	GSTM2;GSTmu3	6	5	5	42	37	37	21.362	0	27.177	1495300000	27
HLA class I histocompatibility antigen, A-69 alpha chain;HLA class I histocompatibility antigen, A-2 alpha chain;HLA class I histocompatibility antigen, A-68 alpha chain;Beta-2-microglobulin;HLA class I histocompatibility antigen, A-24 alpha chain;HLA class I histocompatibility antigen, A-23 alpha chain;HLA class I histocompatibility antigen, A-80 alpha chain	HLA-A;HLA-A*02;HLA-A*0226;MHC class I HLA-A;HLA A;HLA-A24AK	4	4	0	13.7	13.7	0	40.921	0	41.21	1492400000	26
Midasin	MDN1	22	22	22	6.6	6.6	6.6	632.81	0	85.217	1491600000	101
Rho GTPase-activating protein 17	ARHGAP17	9	9	9	18	18	18	95.436	0	99.603	1491100000	81
Beta-hexosaminidase;Beta-hexosaminidase subunit alpha	HEXA	9	9	9	18.7	18.7	18.7	62.013	0	87.258	1489400000	63
Pyruvate carboxylase;Pyruvate carboxylase, mitochondrial	PC	12	12	12	16	16	16	129.63	0	66.698	1488600000	51
Protein phosphatase methylesterase 1	PPME1	6	6	6	19.7	19.7	19.7	42.315	0	79.314	1488300000	57
Bifunctional coenzyme A synthase;Phosphopantetheine adenylyltransferase;Dephospho-CoA kinase	COASY	6	6	6	23.8	23.8	23.8	62.328	0	42.339	1485700000	68
Ataxin-2	ATXN2	12	12	12	29.2	29.2	29.2	90.166	0	67.404	1485400000	56
Cytochrome c-type heme lyase	HCCS;DKFZp779I1858	6	6	6	32.8	32.8	32.8	30.601	0	46.591	1482500000	56

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ATP-dependent RNA helicase DDX39A	DDX39A;DDX39	13	4	4	36.8	12.9	12.9	49.129	0	17.347	1480900000	27
Dynein heavy chain 5, axonemal	DNAH5	3	3	3	2	2	2	225.93	0.0069444	1.666	1480600000	3
Nuclear fragile X mental retardation-interacting protein 2	NUFIP2	10	10	10	24	24	24	76.12	0	136.74	1479700000	66
Ras-related protein Rap-2b	DKFZp547A0616;RAP2B	6	6	3	49.7	49.7	23.8	20.294	0	68.262	1478700000	51
Rac GTPase-activating protein 1	RACGAP1	7	7	7	19.9	19.9	19.9	70.968	0	46.174	1477100000	87
Dynactin subunit 4	DCTN4	13	13	13	52.6	52.6	52.6	52.337	0	189.34	1473100000	112
ATPase family AAA domain-containing protein 3B	ATAD3B	15	5	2	28.9	11.4	6.3	72.572	0	51.807	1468200000	26
Palladin	PALLD	11	11	11	14.4	14.4	14.4	150.56	0	147.68	1467200000	67
Centrosomal protein of 170 kDa	CEP170	22	22	13	23.7	23.7	14.5	175.29	0	120.23	1465900000	83
Leucine-rich repeat flightless-interacting protein 1	LRRFIP1	10	10	6	17.2	17.2	10.8	82.688	0	159.42	1465100000	40
Prolyl 4-hydroxylase subunit alpha-2	P4HA2;DKFZp686M0919	6	6	6	15.3	15.3	15.3	57.377	0	95.469	1464700000	30
NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 9	NDUFB9	5	5	5	34.5	34.5	34.5	20.383	0	83.648	1463300000	41
Gamma-taxilin	TXLNG	10	10	10	26.3	26.3	26.3	60.585	0	65.459	1463200000	41
Uncharacterized protein CXorf57	CXorf57	9	9	9	19.5	19.5	19.5	97.553	0	57.648	1460900000	56
Serine/arginine-rich splicing factor 10	SRSF10	7	7	5	34.3	34.3	27.3	20.913	0	15.834	1459900000	27
Maleylacetoacetate isomerase	GSTZ1	3	3	3	18.4	18.4	18.4	19.373	0	7.9692	1457500000	27
Inhibitor of nuclear factor kappa-B kinase-interacting protein	IKBIP;IKIP	6	6	6	19.4	19.4	19.4	39.309	0	55.271	1456400000	30
Splicing factor 3B subunit 6	SF3B6	4	4	4	39.2	39.2	39.2	14.585	0	24.761	1454400000	25
Sideroflexin;Sideroflexin-3	SFXN3	2	2	2	13.6	13.6	13.6	19.605	0	4.574	1453100000	10
Cation-independent mannose-6-phosphate receptor	IGF2R	17	17	17	12.1	12.1	12.1	274.37	0	55.369	1452200000	79
Phosphatidate cytidylyltransferase;Phosphatidate cytidylyltransferase 2	CDS2	4	4	4	11.2	11.2	11.2	51.359	0	121.71	1451400000	33
LEM domain-containing protein 2	LEMD2	7	7	7	16.9	16.9	16.9	56.974	0	39.937	1451200000	42
Ras-related protein Rab-4A	RAB4A	4	4	4	24.4	24.4	24.4	23.902	0	13.535	1451000000	23
Adaptin ear-binding coat-associated protein 2	NECAP2	3	3	3	34.6	34.6	34.6	28.338	0	43.119	1449600000	107
Lysophosphatidylcholine acyltransferase 1	AYTL2;LPCAT1	5	5	5	13.8	13.8	13.8	54.189	0	8.3084	1448800000	13
Transmembrane protein 65	TMEM65	5	5	5	22.5	22.5	22.5	25.498	0	14.538	1447200000	45
Ubiquitin carboxyl-terminal hydrolase 24	USP24	16	16	16	10.4	10.4	10.4	294.36	0	64.849	1447200000	48
DnaJ homolog subfamily C member 5	DNAJC5;FLJ00095	5	5	5	46	46	46	22.149	0	67.991	1445800000	51
Protein FAM50A	FAM50A	6	6	3	25.4	25.4	11.8	40.241	0	18.565	1444900000	29
UPF0587 protein C1orf123	C1orf123	7	7	7	70	70	70	18.048	0	126.21	1444300000	58
Small nuclear ribonucleoprotein Sm D1	SNRPD1	5	5	5	54.6	54.6	54.6	13.281	0	70.183	1443500000	39
7,8-dihydro-8-oxoguanine triphosphatase	NUDT1	3	3	3	25.6	25.6	25.6	17.951	0	38.456	1442800000	28
Tubulin alpha-1A chain;Tubulin alpha-3C/D chain;Tubulin alpha-3E chain	TUBA1A;TUBA2;TUBA3C;TUBA3E	21	1	0	65.6	2.9	0	50.135	0	8.5347	1442200000	24
Cleavage stimulation factor subunit 1	CSTF1	7	7	7	29.9	29.9	29.9	48.357	0	105.59	1442000000	58
Sorting nexin-4	SNX4	8	8	8	23.8	23.8	23.8	51.908	0	78.147	1436900000	47
Ras-related protein Rab-2B	RAB2B;DKFZp313C1541	6	3	3	38.9	22.2	22.2	24.214	0	80.899	1435400000	24
RNA-binding protein 42	RBM42	4	4	4	16.8	16.8	16.8	48.024	0	95.814	1433900000	80
RRP12-like protein	RRP12	8	8	8	8.9	8.9	8.9	143.67	0	45.485	1433600000	43
Glycogen synthase kinase-3 beta	GSK3B	7	7	6	31.4	31.4	29	46.744	0	88.984	1433300000	44

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Vesicle-associated membrane protein 8	VAMP8	3	3	3	33	33	33	11.438	0	10.325	1433000000	13
Acyl-CoA synthetase family member 2, mitochondrial	ACSF2	7	7	7	18	18	18	63.652	0	38.911	1432600000	45
NudC domain-containing protein 3	NUDCD3;KIAA1068	8	8	8	42.1	42.1	42.1	40.779	0	100.44	1430300000	48
Heterogeneous nuclear ribonucleoprotein L-like	HNRNPLL;HNRPLL	12	12	12	41	41	41	59.666	0	63.238	1430200000	82
Exosome complex component RRP43	EXOSC8;DKFZp564C0482	8	8	8	44.9	44.9	44.9	30.039	0	97.046	1429100000	65
Fermitin family homolog 2	PLEKHC1;FERMT2	10	10	10	27.1	27.1	27.1	77.876	0	172.58	1427000000	164
Phosphoribosyl pyrophosphate synthase-associated protein 1	PRPSAP1	6	5	5	25.8	21.9	21.9	39.393	0	35.589	1426800000	32
TGF-beta-activated kinase 1 and MAP3K7-binding protein 1	MAP3K7IP1;TAB1	11	11	1	37.9	37.9	5.8	54.643	0	145.54	1426300000	61
UDP-glucose 4-epimerase	GALE	7	7	7	44.3	44.3	44.3	38.281	0	169.2	1425100000	67
Erlin-1	SPFH1;ERLIN1	6	4	4	21.1	14.2	14.2	38.911	0	34.556	1424600000	23
Polypyrimidine tract-binding protein 3	ROD1;PTBP3	6	4	4	19.4	16.1	16.1	59.689	0	74.752	1423500000	42
	ZNF185;DKFZp686B2213 0	8	8	1	31.5	31.5	3.6	47.401	0	155.07	1422900000	49
Signal transducer and activator of transcription 3;Signal transducer and activator of transcription	STAT3	8	8	8	16.2	16.2	16.2	88.067	0	98.585	1420800000	36
Coiled-coil domain-containing protein 22	CCDC22	11	11	11	24.2	24.2	24.2	70.755	0	120.7	1419600000	53
E3 ubiquitin-protein ligase HECTD1	HECTD1	12	12	12	8.4	8.4	8.4	289.63	0	116.98	1418800000	47
Nucleolar and spindle-associated protein 1	NUSAP1	8	8	8	24.3	24.3	24.3	49.451	0	70.592	1410500000	44
Cleft lip and palate transmembrane protein 1	CLPTM1	8	8	8	23.2	23.2	23.2	76.096	0	193.73	1408900000	53
Mitochondrial import inner membrane translocase subunit TIM50	TIMM50	6	6	6	18.2	18.2	18.2	50.478	0	106.62	1406300000	56
Nuclear pore complex protein Nup160	NUP160	14	14	14	15.8	15.8	15.8	148.86	0	45.645	1403700000	45
TRMT1-like protein	TRMT1L	9	9	9	28.2	28.2	28.2	81.775	0	189.98	1401300000	61
Mitogen-activated protein kinase;Mitogen-activated protein kinase 3	MAPK3;DKFZp686O0215	8	5	5	25.6	16.1	16.1	43.135	0	15.193	1400300000	25
Zinc finger protein-like 1	ZFPL1	5	5	5	22.6	22.6	22.6	34.114	0	24.783	1397700000	31
CD59 glycoprotein	CD59	3	3	3	22.2	22.2	22.2	11.985	0	15.012	1397200000	24
Serine/threonine-protein phosphatase 4 regulatory subunit 3A	SMEK1;KIAA2010	12	12	12	24.4	24.4	24.4	95.367	0	99.247	1394600000	131
Thyroid receptor-interacting protein 6	TRIP6;TRIP6i1	9	9	9	41.6	41.6	41.6	50.287	0	137.84	1390500000	56
Cyclin-dependent kinase 16	PCTK1;CDK16	7	6	4	17.5	15.9	11	56.375	0	65.801	1387100000	37
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex assembly factor 3	NDUFAF3	3	3	3	26.1	26.1	26.1	20.35	0	18.452	1384700000	35
SWI/SNF complex subunit SMARCC1	SMARCC1	11	7	7	17.2	13.5	13.5	122.91	0	109.1	1383100000	52
MICOS complex subunit MIC25	CHCHD6	3	3	3	21.1	21.1	21.1	28.817	0	56.629	1382600000	23
Guanine nucleotide-binding protein G(i) subunit alpha-1	GNAI1	11	5	5	41.8	22.6	22.6	40.361	0	62.643	1373300000	40
Delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial	ALDH4A1	10	10	10	29.1	29.1	29.1	61.719	0	65.854	1368300000	58
NAD(P)H dehydrogenase [quinone] 1	NQO1	2	2	2	15.3	15.3	15.3	22.793	0	30.841	1367400000	24
Bystin	BYSL	5	5	5	17.4	17.4	17.4	49.601	0	54.282	1366300000	34
Peroxisomal biogenesis factor 19	PEX19	5	5	5	31.1	31.1	31.1	26.137	0	209.03	1365700000	43
Protein HGH1 homolog	HGH1;C8orf30A	7	7	7	29.5	29.5	29.5	42.129	0	50.439	1364200000	53
Extracellular sulfatase Sulf-2	SULF2	8	8	8	11.3	11.3	11.3	100.45	0	71.911	1363100000	34

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Cartilage intermediate layer protein 2;Cartilage intermediate layer protein 2 C1;Cartilage intermediate layer protein 2 C2	CILP2		10	10	10	12.9	12.9	12.9	126.86	0	50.184	1362800000	53
NudC domain-containing protein 1	NUDCD1		8	8	8	19.7	19.7	19.7	66.755	0	197.73	1362200000	75
Metaxin-2	MTX2		4	4	4	16.9	16.9	16.9	23.643	0	103.81	1361700000	59
SNARE-associated protein Snapin	SNAPIN		3	3	3	26.5	26.5	26.5	14.874	0	29.04	1359600000	36
Poly(A) polymerase alpha	PAPOLA		9	9	9	18.9	18.9	18.9	82.842	0	41.087	1358500000	64
5-nucleotidase domain-containing protein 1	NT5DC1		7	7	7	21.3	21.3	21.3	51.844	0	53.319	1358000000	66
Protein BUD31 homolog	BUD31		5	5	5	34	34	34	17	0	21.552	1357100000	46
ATP-dependent RNA helicase DHX29	DHX29		12	12	12	14.4	14.4	14.4	155.29	0	91.22	1356100000	68
DnaJ homolog subfamily C member 9	DNAJC9;hCG_2024613		10	10	10	40	40	40	29.909	0	61.184	1354300000	79
ADP-ribosylation factor GTPase-activating protein 3	ARFGAP3		10	10	3	30.9	30.9	12.2	48.958	0	38.289	1353500000	34
Peptidyl-prolyl cis-trans isomerase D	PPID		10	10	10	37.3	37.3	37.3	40.772	0	21.319	1350700000	23
Epididymal secretory protein E1	NPC2		3	3	3	40.2	40.2	40.2	13.078	0	61.111	1350500000	39
Proteasome assembly chaperone 1	PSMG1		5	5	5	30.2	30.2	30.2	32.854	0	27.38	1349600000	26
E3 ubiquitin-protein ligase Midline-1	MID1		7	7	7	13.2	13.2	13.2	75.26	0	73.524	1348600000	33
Nuclear pore complex protein Nup88	NUP88		10	10	10	22.5	22.5	22.5	83.541	0	115.97	1346500000	51
Xaa-Pro dipeptidase	PEPD		8	8	8	17.2	17.2	17.2	54.582	0	26.669	1345600000	40
Transforming acidic coiled-coil-containing protein 3	TACC3		12	12	12	22.4	22.4	22.4	90.359	0	107.35	1344700000	47
Lysophospholipid acyltransferase 7	MBOAT7		3	3	3	9	9	9	50.563	0	51.662	1344600000	30
Serine hydroxymethyltransferase;Serine hydroxymethyltransferase, cytosolic	SHMT1		8	7	7	23.2	20.3	20.3	53.154	0	52.009	1344600000	38
Transcription factor BTF3	BTF3		5	5	5	41.7	41.7	41.7	22.168	0	81.768	1343100000	44
Inverted formin-2	INF2		16	16	16	25.9	25.9	25.9	135.62	0	266.66	1340400000	78
U3 small nucleolar RNA-interacting protein 2	RRP9		7	7	7	13.9	13.9	13.9	51.84	0	90.754	1340000000	31
Heat shock-related 70 kDa protein 2	HSPA2		15	8	8	35.7	22.2	22.2	70.02	0	53.774	1333000000	37
Sphingosine-1-phosphate lyase 1	SGPL1		6	6	6	19.9	19.9	19.9	63.523	0	42.44	1332300000	35
Glutamine-rich protein 1	QRICH1		6	6	6	11.3	11.3	11.3	86.435	0	77.467	1331500000	37
Survival motor neuron protein	SMN1;SMN2		5	5	5	23.5	23.5	23.5	31.848	0	54.137	1330200000	37
Activating signal cointegrator 1 complex subunit 3	ASCC3		15	15	15	10.7	10.7	10.7	251.46	0	84.88	1329500000	57
Protein kinase C and casein kinase substrate in neurons protein 2	PACSIN2		9	9	9	27.6	27.6	27.6	51.353	0	92.923	1328200000	42
ELKS/Rab6-interacting/CAST family member 1	ERC1		16	16	15	20.9	20.9	19.8	128.47	0	112.9	1328100000	56
Cullin-associated NEDD8-dissociated protein 2	CAND2		19	16	16	20.1	18.3	18.3	135.25	0	71.738	1325700000	79
Kinesin-like protein;Kinesin-like protein KIF23	KIF23		13	13	13	23.7	23.7	23.7	109.13	0	70.273	1323400000	59
RNA-binding protein Nova-2	NOVA2		9	9	9	26.8	26.8	26.8	49.008	0	17.309	1317400000	30
Septin-6		6-Sep	12	6	6	35.6	23	23	48.872	0	162.98	1316900000	46
Rapamycin-insensitive companion of mTOR	RICTOR		6	6	6	6.1	6.1	6.1	192.22	0	8.2643	1315900000	7
Putative oxidoreductase GLYR1	N-PAC;GLYR1		8	8	8	22.8	22.8	22.8	60.985	0	107.67	1315700000	58
Ankyrin repeat domain-containing protein 35	ANKRD35		3	3	3	3.5	3.5	3.5	100.3	0.0001988	2.8589	1315400000	8
Chromodomain-helicase-DNA-binding protein 1	CHD1		11	11	10	11.2	11.2	10.6	196.69	0	129.57	1313400000	61

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Phosphoinositide 3-kinase regulatory subunit 4	PIK3R4	9	9	9	9.1	9.1	9.1	153.19	0	34.493	1313000000	43
Protein sel-1 homolog 1	SEL1L	6	6	6	11.5	11.5	11.5	88.754	0	54.94	1311000000	37
Heat shock factor-binding protein 1	HSBP1	1	1	1	32.9	32.9	32.9	8.5435	0	30.198	1309800000	32
NF-kappa-B-repressing factor	NKRF;NRF	12	12	12	25.7	25.7	25.7	77.703	0	42.733	1307000000	31
Secernin-2	SCRN2	6	6	6	24.9	24.9	24.9	47.493	0	67.886	1305000000	37
Polycomb protein SUZ12	SUZ12	10	10	10	30.3	30.3	30.3	80.321	0	104.61	1305000000	43
Protein CLEC16A	CLEC16A	3	3	3	4.1	4.1	4.1	117.71	0	3.7428	1303200000	11
UPF0568 protein C14orf166	C14orf166	4	4	4	25.4	25.4	25.4	27.969	0	38.527	1303200000	46
LIM and senescent cell antigen-like-containing domain protein 1	LIMS1	7	7	2	27.1	27.1	7.7	37.251	0	16.611	1302100000	25
Protein LZIC	LZIC	6	6	6	44.7	44.7	44.7	21.494	0	68.466	1301500000	62
Tumor necrosis factor receptor superfamily member 10B	TNFRSF10B	7	7	7	29.4	29.4	29.4	45.099	0	32.095	1297800000	28
	SREK1;DKFZp667P103	4	4	2	12.5	12.5	5.3	58.202	0	16.493	1296400000	12
RNA polymerase II-associated protein 3	RPAP3	11	11	11	29.6	29.6	29.6	75.718	0	47.757	1295200000	55
Interferon regulatory factor 2-binding protein-like	IRF2BPL	9	9	7	22.4	22.4	19.1	82.658	0	76.109	1294200000	58
39S ribosomal protein L40, mitochondrial	MRPL40	5	5	5	34	34	34	24.49	0	23.995	1293900000	72
		18	4	4	53.5	12.1	12.1	67.017	0	124.38	1293500000	21
COP9 signalosome complex subunit 7a	COPS7A	4	4	4	20.7	20.7	20.7	30.276	0	94.21	1291000000	11
Serine/threonine-protein kinase N1	PKN1	9	8	8	19.3	18.5	18.5	103.93	0	66.895	1290500000	52
Melanoma inhibitory activity protein 3	MIA3	19	19	19	16.6	16.6	16.6	213.7	0	100.31	1289300000	36
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 12	NDUFA12	4	4	4	41.1	41.1	41.1	17.214	0	37.374	1282600000	29
Golgin subfamily A member 2	GOLGA2	16	16	16	30.5	30.5	30.5	111.66	0	166.2	1281900000	57
GDP-L-fucose synthase	TSTA3	7	7	7	30.8	30.8	30.8	35.892	0	19	1280900000	31
General transcription factor 3C polypeptide 1	GTF3C1;DKFZp686A111; DKFZp686O0870	19	19	19	12.8	12.8	12.8	238.87	0	70.137	1280100000	55
E3 ubiquitin-protein ligase listerin	LTN1	8	8	8	8.4	8.4	8.4	200.55	0	25.768	1279900000	65
H/ACA ribonucleoprotein complex subunit 2	NHP2	3	3	3	42.2	42.2	42.2	10.071	0	74.736	1278700000	32
Gem-associated protein 2	GEMIN2	4	4	4	23.6	23.6	23.6	24.495	0	38.2	1278200000	79
Focal adhesion kinase 1	PTK2;DKFZp666O0110;FAK	12	12	12	19.6	19.6	19.6	119.23	0	81.076	1276200000	86
Importin subunit alpha;Importin subunit alpha-4	KPNA3	7	5	5	18.8	15.9	15.9	57.81	0	42.685	1275400000	48
Lysosome-associated membrane glycoprotein 2	LAMP2	3	3	3	7.7	7.7	7.7	39.811	0	3.1568	1275400000	19
N6-adenosine-methyltransferase 70 kDa subunit	METTL3	9	9	9	22.9	22.9	22.9	64.473	0	84.355	1274700000	31
Ribonuclease H2 subunit C	AYP1;RNASEH2C	5	5	5	50	50	50	17.84	0	28.815	1270100000	21
D-dopachrome decarboxylase;D-dopachrome decarboxylase-like protein	DDT;DDTL	4	4	4	28.8	28.8	28.8	12.712	0	11.004	1270000000	36
Ribosome biogenesis protein BRX1 homolog	BRIX1;BXDC2	4	4	4	29.4	29.4	29.4	20.452	0	15.595	1269700000	20
Golgi phosphoprotein 3	GOLPH3	5	5	4	32.6	32.6	25.8	27.143	0	37.678	1267200000	35
Rab3 GTPase-activating protein non-catalytic subunit	RAB3GAP2	11	11	11	10.3	10.3	10.3	155.98	0	72.762	1265900000	24
Nuclear RNA export factor 1	NXF1	11	11	11	31.5	31.5	31.5	70.182	0	74.589	1263500000	83
Transducin-like enhancer protein 3	TLE3	8	7	7	17.6	16.2	16.2	83.416	0	69.19	1260600000	29
Developmentally-regulated GTP-binding protein 2	DRG2	5	5	5	19.2	19.2	19.2	38.129	0	18.004	1260100000	53
Serine dehydratase-like	SDSL	5	5	3	24	24	13.4	34.674	0	19.738	1259700000	29
PDZ domain-containing protein GIPC1	GIPC1	8	8	8	33.3	33.3	33.3	36.049	0	25.044	1259300000	30

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General transcription factor 3C polypeptide 3	GTF3C3	9	9	9	19.4	19.4	19.4	101.27	0	73.773	1259000000	45
Exosome complex component RRP40	EXOSC3;PNAS-3	5	5	5	33.1	33.1	33.1	29.572	0	121.03	1258500000	73
ADP-ribosylation factor-like protein 6-interacting protein 4	ARL6IP4;FLJ00169	6	6	6	33.5	33.5	33.5	24.575	0	97.133	1258300000	24
V-type proton ATPase subunit E 1	ATP6V1E1	7	7	7	31	31	31	26.145	0	33.668	1257500000	38
WD repeat-containing protein 43	WDR43	7	7	7	18.6	18.6	18.6	74.89	0	67.676	1257400000	64
Protein Dr1	DKFZp666G145;DR1	3	3	3	47.2	47.2	47.2	19.443	0	14.001	1257100000	17
Deoxycytidine kinase	DCK	8	8	8	40	40	40	30.518	0	49.995	1257000000	29
Copper chaperone for superoxide dismutase;Superoxide dismutase [Cu-Zn]	CCS	2	2	2	9.9	9.9	9.9	29.04	0	9.1798	1255000000	19
		4	1	1	50.3	12	12	18.807	0	36.601	1253000000	10
Transmembrane protein 165	TMEM165	4	4	4	19.4	19.4	19.4	34.905	0	90.537	1250100000	37
Glutamate--cysteine ligase catalytic subunit	GCLC	10	10	10	24.8	24.8	24.8	66.463	0	92.997	1248800000	67
Immunoglobulin-binding protein 1	IGBP1	6	6	6	21.2	21.2	21.2	39.221	0	90.91	1245200000	30
NFU1 iron-sulfur cluster scaffold homolog, mitochondrial	NFU1	6	6	6	39	39	39	28.462	0	46.722	1244600000	23
ER membrane protein complex subunit 4	EMC4;TMEM85	3	3	3	48.7	48.7	48.7	8.3403	0	49.574	1242500000	29
PIH1 domain-containing protein 1	FLJ20643;PIH1D1	6	6	6	33.1	33.1	33.1	32.431	0	104.53	1239800000	31
Probable Xaa-Pro aminopeptidase 3	XPNPEP3	6	6	6	21.9	21.9	21.9	57.033	0	60.435	1236200000	38
SUN domain-containing protein 2	UNC84B;SUN2	10	10	10	25.4	25.4	25.4	80.31	0	117.31	1235500000	55
Biogenesis of lysosome-related organelles complex 1 subunit 2	BLOC1S2	2	2	2	40.1	40.1	40.1	15.961	0	49.449	1234200000	20
Fibronectin type-III domain-containing protein 3A	FNDC3A	9	9	9	14.6	14.6	14.6	125.82	0	30.517	1233400000	16
Metaxin-1	MTX1	6	6	6	14.2	14.2	14.2	51.462	0	64.585	1232100000	40
Receptor-interacting serine/threonine-protein kinase 1	RIPK1	11	11	11	28.6	28.6	28.6	75.93	0	174.32	1231900000	43
Succinate dehydrogenase assembly factor 4, mitochondrial	C6orf57;SDHAF4	1	1	1	24.1	24.1	24.1	12.216	0	23.652	1231200000	15
39S ribosomal protein L4, mitochondrial	MRPL4	2	2	2	27.6	27.6	27.6	14.056	0	70.125	1230700000	30
Syntaxin-5	STX5;STX5A	5	5	5	31.8	31.8	31.8	39.672	0	70.946	1228600000	35
Nuclear pore complex protein Nup50	hCG_1989366;NUP50	11	11	11	40.6	40.6	40.6	50.144	0	71.812	1227900000	45
Probable histidine--tRNA ligase, mitochondrial	HARS2	11	5	5	26.6	12.6	12.6	49.246	0	36.254	1227700000	34
Peptidyl-prolyl cis-trans isomerase E;Peptidyl-prolyl cis-trans isomerase	PPIE	7	7	6	36.9	36.9	34.6	33.416	0	42.819	1221100000	28
Cleavage and polyadenylation specificity factor subunit 3	CPSF3	8	8	8	35.7	35.7	35.7	45.928	0	87.57	1219300000	38
Acyl-protein thioesterase 2	LYPLA2	4	4	4	37.2	37.2	37.2	17.659	0	38.023	1217900000	41
G2/mitotic-specific cyclin-B1	CCNB1;CCNB1V	4	4	4	16.2	16.2	16.2	48.337	0	49.686	1216500000	39
Arf-GAP domain and FG repeat-containing protein 1	HRB;AGFG1	5	5	5	20.3	20.3	20.3	46.506	0	159.54	1215400000	31
RNA polymerase II subunit A C-terminal domain phosphatase SSU72	SSU72	2	2	2	15.2	15.2	15.2	20.26	0	7.7638	1213600000	18
HCLS1-associated protein X-1	HAX1	4	4	4	43	43	43	17.167	0	16.204	1212600000	20
Protein phosphatase 1A	PPM1A	7	7	6	22.5	22.5	19.4	42.477	0	21.578	1211900000	30
UV excision repair protein RAD23 homolog A	RAD23A	8	8	8	41	41	41	39.609	0	62.159	1211800000	54
Mannose-1-phosphate guanyltransferase alpha	GMPPA	4	4	4	13.8	13.8	13.8	46.291	0	64.672	1211400000	34

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Mitochondrial amidoxime-reducing component 1	1-Mar	5	5	4	21.4	21.4	16.9	37.499	0	22.368	1208500000	31
DNA replication complex GINS protein PSF1	GINS1	5	5	5	32.7	32.7	32.7	22.988	0	59.466	1208400000	23
Endonuclease domain-containing 1 protein	ENDOD1	6	6	6	23.4	23.4	23.4	55.016	0	100.93	1206900000	42
U4/U6.U5 tri-snRNP-associated protein 2	USP39	13	13	13	28.2	28.2	28.2	62.043	0	74.543	1206200000	65
Elongator complex protein 2	ELP2	8	8	8	18	18	18	92.499	0	65.682	1205100000	44
RNA-binding protein 34	RBM34	8	8	8	28.6	28.6	28.6	48.564	0	44.497	1204900000	37
Cytosolic Fe-S cluster assembly factor NUBP1	NUBP1	7	7	7	29.7	29.7	29.7	34.534	0	32.667	1200500000	55
Plastin-1	PLS1	10	8	8	28	24.3	24.3	70.253	0	57.742	1199900000	39
Ubiquitin-like-conjugating enzyme ATG3	ATG3	4	4	4	12.4	12.4	12.4	35.864	0	23.248	1198400000	24
WD repeat-containing protein 11	WDR11;DKFZp434L1715	11	11	11	21.2	21.2	21.2	96.377	0	122.91	1197800000	64
Galectin;Galectin-3	LGALS3;hCG_22119	5	5	5	46.3	46.3	46.3	13.897	0	13.141	1197100000	18
Phosphatidylinositol 5-phosphate 4-kinase type-2 gamma	PIP4K2C	3	3	3	13.6	13.6	13.6	40.202	0	33.569	1196800000	18
Redox-regulatory protein FAM213A	FAM213A	7	7	7	31.9	31.9	31.9	25.764	0	24.45	1196500000	46
NADH-ubiquinone oxidoreductase chain 3	ND3;NADH3;MT-ND3	1	1	1	28.3	28.3	28.3	6.0853	0	15.761	1195800000	12
DNA mismatch repair protein Msh3	MSH3	10	10	10	13.3	13.3	13.3	126.76	0	34.545	1193800000	32
Delta(14)-sterol reductase	TM7SF2	2	2	2	7.6	7.6	7.6	34.185	0	5.117	1193500000	12
Ubiquinol-cytochrome-c reductase complex assembly factor 2	UQCC2	5	5	5	55.6	55.6	55.6	14.875	0	54.052	1190400000	24
Probable 2-oxoglutarate dehydrogenase E1 component DHKTD1, mitochondrial	DHTKD1	6	6	6	13.5	13.5	13.5	103.08	0	73.892	1184000000	56
Protein O-GlcNAcase	MGEA5	9	9	9	23	23	23	102.91	0	77.954	1183600000	77
Mitotic spindle assembly checkpoint protein MAD2A	MAD2L1	3	3	3	17.1	17.1	17.1	23.51	0	11.831	1181600000	20
BH3-interacting domain death agonist;BH3-interacting domain death agonist p15;BH3-interacting domain death agonist p13;BH3-interacting domain death agonist p11	BID	2	2	2	21	21	21	21.994	0	18.997	1180500000	20
Heme oxygenase 2	HMOX2	5	5	5	25	25	25	36.014	0	79.919	1179900000	55
Threonine--tRNA ligase, mitochondrial	TARS2	12	12	12	25.6	25.6	25.6	81.035	0	96.277	1179900000	51
	STRN3	9	9	1	19.5	19.5	2.8	77.717	0	61.443	1179200000	24
Nitric oxide synthase-interacting protein	NOSIP	5	5	5	30.9	30.9	30.9	33.184	0	69.148	1178300000	39
Nipped-B-like protein	NIPBL	20	20	20	12.4	12.4	12.4	316.06	0	70.465	1176600000	67
Hexokinase;Hexokinase-2	DKFZp686M1669;HK2	12	10	10	17.9	15.9	15.9	98.915	0	86.428	1175800000	29
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 5	NDUFA5	4	4	4	57.8	57.8	57.8	13.459	0	14.295	1174100000	38
	THRAP3	5	1	1	25.7	8	8	41.6	0	100.49	1174000000	12
Dolichol-phosphate mannosyltransferase subunit 1	DPM1	3	3	3	14.6	14.6	14.6	29.634	0	38.721	1173500000	34
Acyl-coenzyme A oxidase;Peroxisomal acyl-coenzyme A oxidase 1	ACOX1	9	9	9	25.5	25.5	25.5	74.441	0	79.623	1172700000	65
Nucleolar protein 6	NOL6	11	11	11	17.1	17.1	17.1	112.16	0	90.263	1172200000	45
39S ribosomal protein L22, mitochondrial	MRPL22	6	6	6	28.4	28.4	28.4	26.475	0	14.043	1171900000	27
Mediator of RNA polymerase II transcription subunit 14	MED14	7	7	7	8	8	8	160.61	0	11.16	1171800000	28
Protein NDRG3	NDRG3	4	4	4	28.4	28.4	28.4	29.72	0	192.14	1170900000	35
Adapter molecule crk	CRK	8	8	8	37.2	37.2	37.2	33.83	0	72.703	1170100000	34
CGG triplet repeat-binding protein 1	CGGBP1	6	6	6	47.3	47.3	47.3	18.82	0	43.891	1169100000	50

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BUB3-interacting and GLEBS motif-containing protein ZNF207	ZNF207;DKFZp761N202	2	2	2	5.3	5.3	5.3	52.541	0	6.4392	1168400000	14
Iron-sulfur cluster assembly enzyme ISCU, mitochondrial	NIFUN;ISCU	6	6	6	51.4	51.4	51.4	15.263	0	28.438	1167100000	20
39S ribosomal protein L9, mitochondrial	MRPL9	6	6	6	27.7	27.7	27.7	30.243	0	8.9654	1167100000	23
Protein flightless-1 homolog	FLII	11	11	6	12.8	12.8	5.8	144.75	0	67.028	1167000000	58
28S ribosomal protein S9, mitochondrial	MRPS9	5	5	5	18.7	18.7	18.7	45.834	0	53.967	1166900000	21
Intraflagellar transport protein 27 homolog	IFT27	7	7	7	53.8	53.8	53.8	20.48	0	28.825	1165400000	46
Pre-mRNA-splicing regulator WTAP	WTAP;DKFZp686F20131	8	8	8	32.1	32.1	32.1	44.217	0	116.72	1163700000	30
Isoaspartyl peptidase/L-asparaginase;Isoaspartyl peptidase/L-asparaginase alpha chain;Isoaspartyl peptidase/L-asparaginase beta chain	ASRGL1	7	7	7	42.5	42.5	42.5	32.054	0	185.61	1162100000	36
Pre-mRNA-splicing factor RBM22	RBM22	7	7	7	24.3	24.3	24.3	46.895	0	67.029	1162100000	31
Polyglutamine-binding protein 1	PQBP1	7	7	7	45.3	45.3	45.3	30.472	0	23.479	1161400000	32
Erythrocyte band 7 integral membrane protein	STOM	7	7	7	31.6	31.6	31.6	31.73	0	69.538	1160400000	38
Serine/threonine-protein phosphatase;Serine/threonine-protein phosphatase 4 catalytic subunit	PPP4C	5	4	4	25.7	21.2	21.2	35.079	0	21.113	1154100000	29
Striatin	STRN	9	8	8	22.4	21.5	21.5	86.131	0	56.504	1153600000	51
Thymosin beta-4;Hematopoietic system regulatory peptide	TMSB4X	2	2	2	43.2	43.2	43.2	5.0526	0	37.796	1152600000	25
Rab3 GTPase-activating protein catalytic subunit	RAB3GAP1	11	11	11	14.6	14.6	14.6	110.52	0	38.457	1152600000	36
Chromosome transmission fidelity protein 18 homolog	CHTF18;RUVBL	11	11	10	18.7	18.7	17.9	107.43	0	64.659	1151600000	49
Pericentriolar material 1 protein	PCM1	10	10	10	7.8	7.8	7.8	227.67	0	77.147	1151100000	26
7SK snRNA methylphosphate capping enzyme	MEPCE	9	9	9	25.7	25.7	25.7	74.326	0	93.49	1150600000	61
Ras-related protein Rap-1A	RAP1A	8	3	3	39.7	19	19	20.987	0	12.747	1149800000	14
Carnitine O-acetyltransferase	CRAT	9	9	9	18.2	18.2	18.2	70.857	0	28.383	1148900000	50
GRIP1-associated protein 1	GRIPAP1	20	20	20	39.4	39.4	39.4	95.989	0	144.87	1148700000	56
Golgi-specific brefeldin A-resistance guanine nucleotide exchange factor 1	GBF1	15	15	15	15	15	15	206.44	0	111.26	1147800000	50
RNA-binding protein 12B	RBM12B	9	9	9	9.3	9.3	9.3	118.1	0	14.017	1146900000	45
CDKN2A-interacting protein	CDKN2AIP	9	9	9	34.5	34.5	34.5	61.124	0	149.8	1145700000	48
EH domain-containing protein 1	EHD1	7	7	7	29.1	29.1	29.1	53.768	0	69.209	1143300000	51
Gigaxonin	GAN	3	3	3	9.9	9.9	9.9	67.638	0	3.2034	1142800000	2
Regulator of microtubule dynamics protein 3	FAM82C;RMDN3	11	11	11	34	34	34	52.118	0	65.812	1140500000	58
3-ketodihydrosphingosine reductase	KDSR;FVT1	3	3	3	15.1	15.1	15.1	32.726	0	39.691	1140400000	22
Neurofilament light polypeptide	NEFL;DKFZp761K0922	11	10	10	25	23.4	23.4	61.488	0	30.409	1139200000	33
		11	1	1	37.6	6.8	6.8	51.251	0	71.32	1130400000	19
Tyrosine-protein phosphatase non-receptor type 23;Protein-tyrosine-phosphatase	PTPN23	13	13	13	14.9	14.9	14.9	178.97	0	46.811	1127200000	52
Bloom syndrome protein	BLM	4	4	4	4.1	4.1	4.1	144.47	0	8.5857	1123100000	18
39S ribosomal protein L2, mitochondrial	MRPL2	2	2	2	26.2	26.2	26.2	16.033	0	51.179	1121800000	27
Insulin-degrading enzyme	IDE	11	11	11	14.6	14.6	14.6	117.97	0	35.991	1121500000	57
Protein S100-A13	S100A13	3	3	3	43.1	43.1	43.1	5.8526	0	7.0476	1121400000	20
Transcription elongation factor B polypeptide 3	TCEB3	7	7	7	15.4	15.4	15.4	87.229	0	47.173	1121300000	51

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Antigen peptide transporter 1	TAP1	4	4	4	15.7	15.7	15.7	59.939	0	143.34	1121000000	35
PH-interacting protein	PHIP	14	14	14	13.9	13.9	13.9	206.69	0	90.619	1120600000	71
Probable ATP-dependent RNA helicase DDX56	DDX56	5	5	5	32.4	32.4	32.4	20.342	0	14.665	1120300000	19
Unconventional myosin-Ic	MYO1C	10	10	3	14	14	4.1	118.99	0	51.393	1119500000	48
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 11	NDUFA11	4	4	4	58.3	58.3	58.3	12.671	0	15.017	1116500000	35
MOB kinase activator 1A;MOB kinase activator 1B	MOB1A;MOB1B;MOBKL 1A;MOB4A	4	4	4	27.3	27.3	27.3	25.079	0	17.407	1115900000	19
WD repeat-containing protein 75	WDR75	7	7	7	14.9	14.9	14.9	92.249	0	52.579	1112300000	31
PERQ amino acid-rich with GYF domain-containing protein 2	TNRC15;GIGYF2	12	12	12	14.4	14.4	14.4	149.94	0	159.09	1111100000	45
Propionyl-CoA carboxylase beta chain, mitochondrial	PCCB;DKFZp451E113	9	9	9	25	25	25	58.215	0	158.11	1110600000	43
Prefoldin subunit 6	PFDN6;HKE2	2	2	2	15.5	15.5	15.5	14.582	0	13.573	1108100000	26
Histone deacetylase complex subunit SAP18	SAP18	3	3	3	24.4	24.4	24.4	19.526	0	27.921	1106800000	39
Exosome complex component RRP4	EXOSC2	6	6	6	28	28	28	32.789	0	15.977	1105400000	22
Reticulon-1;Reticulon	RTN1	10	10	10	28.1	28.1	28.1	83.617	0	72.333	1105300000	64
FLYWCH family member 2	FLYWCH2	4	4	4	56.4	56.4	56.4	14.563	0	60.522	1105300000	29
Twinfilin-2	TWF2	4	4	4	25.2	25.2	25.2	28.882	0	83.893	1104300000	34
Rho-related GTP-binding protein RhoC	RHOC;hCG_2043376	6	2	2	54.3	19.1	19.1	21.523	0	13.573	1103100000	6
Exocyst complex component 7	EXOC7;DKFZp686P1551	11	11	11	23.7	23.7	23.7	78.808	0	51.504	1102300000	37
GPI transamidase component PIG-S	PIGS	6	6	6	18.2	18.2	18.2	61.643	0	29.346	1102000000	31
Endoplasmic reticulum-Golgi intermediate compartment protein 1	ERGIC1	3	3	3	13.6	13.6	13.6	26.259	0	7.5907	1101200000	26
39S ribosomal protein L12, mitochondrial	MRPL12;MRPL7/L12	6	1	1	43.9	6.6	6.6	21.348	0	4.097	1100100000	32
Cysteine dioxygenase type 1	CDO1	2	2	2	7.5	7.5	7.5	22.972	0.0005928	2.7553	1098600000	7
Transportin-2	TNPO2;TNPO2 variant protein	6	3	3	12.2	8.5	8.5	99.665	0	21.308	1094800000	22
Programmed cell death protein 2-like	PDCD2L	5	5	5	26.8	26.8	26.8	39.416	0	50.73	1094300000	22
Rootletin	CROCC	3	3	3	3.4	3.4	3.4	129.52	0.0013611	2.4856	1093000000	8
Coiled-coil domain-containing protein 6	CCDC6	7	7	7	24.3	24.3	24.3	38.163	0	84.526	1092900000	37
Acetyl-coenzyme A transporter 1	SLC33A1	3	3	3	10	10	10	60.908	0	5.6248	1090400000	6
Mitochondrial import receptor subunit TOM6 homolog	TOMM6	1	1	1	18.9	18.9	18.9	8.0019	0	15.37	1089800000	15
Telomere-associated protein RIF1	RIF1	17	17	17	11.8	11.8	11.8	274.46	0	148.85	1088700000	73
Casein kinase I isoform epsilon;Casein kinase I isoform delta	CSNK1E;CSNK1D	6	6	6	19.2	19.2	19.2	47.315	0	11.767	1087900000	28
Set1/Ash2 histone methyltransferase complex subunit ASH2	ASH2L	6	6	6	16.2	16.2	16.2	68.745	0	197.71	1087200000	37
Synaptophysin-like protein 1	SYPL;SYPL1	3	3	3	19.7	19.7	19.7	28.566	0	19.011	1086000000	42
39S ribosomal protein L47, mitochondrial	MRPL47	5	5	5	18	18	18	29.45	0	8.0713	1084600000	21
A-kinase anchor protein 8	AKAP8;DKFZp586B1222	11	11	11	29	29	29	76.165	0	96.954	1083800000	65
Calcium/calmodulin-dependent protein kinase type 1	CAMK1	8	8	5	35.9	35.9	26.5	41.279	0	101.56	1083200000	45
40S ribosomal protein S29	RPS29	2	2	2	28.3	28.3	28.3	6.1152	0.0019168	2.3129	1082500000	11
Nibrin	NBN	9	9	9	22	22	22	84.927	0	54.183	1076500000	69
39S ribosomal protein L53, mitochondrial	MRPL53	3	3	3	27.7	27.7	27.7	12.107	0	12.715	1076200000	17
Ribosome biogenesis regulatory protein homolog	RRS1	4	4	4	16.7	16.7	16.7	41.193	0	39.698	1075200000	53

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Fibronectin;Anastellin;Ugl-Y1;Ugl-Y2;Ugl-Y3	FN1;DKFZp686O12165;DKFZp686L11144	12	12	12	8.3	8.3	8.3	262.62	0	111.67	1074800000	49
Recombining binding protein suppressor of hairless	RBPSUH;RBPJ	6	6	6	22.6	22.6	22.6	47.18	0	35.31	1074200000	28
Zinc finger protein 281	ZNF281	2	2	2	9.1	9.1	9.1	50.381	0	4.5202	1073500000	3
Macrophage-capping protein	HEL-S-66;CAPG	7	7	7	27.8	27.8	27.8	36.248	0	19.588	1073400000	35
1,4-alpha-glucan-branching enzyme	GBE1	4	4	4	14	14	14	53.354	0	40.078	1073100000	16
Stromal membrane-associated protein 1	SMAP1	5	5	4	15.7	15.7	13.9	47.708	0	34.025	1068900000	30
COP9 signalosome complex subunit 7b	COPS7B	5	5	5	30.4	30.4	30.4	26.424	0	74.895	1068800000	30
Chromatin assembly factor 1 subunit B	CHAF1B	7	7	7	14.3	14.3	14.3	61.518	0	38.035	1068300000	23
Deoxynucleotidyltransferase terminal-interacting protein 2	DNTTIP2	9	9	9	18.9	18.9	18.9	84.468	0	59.253	1067500000	29
Wings apart-like protein homolog	WAPAL	10	10	10	16.1	16.1	16.1	132.94	0	94.061	1065700000	39
Nesprin-2	SYNE2;TROPH	26	26	26	5.8	5.8	5.8	796.43	0	82.835	1063800000	37
DNA-directed RNA polymerase I subunit RPA34	CD3EAP	11	11	11	44.7	44.7	44.7	54.958	0	126.78	1063600000	62
Annexin A3;Annexin	ANXA3	9	9	9	32.2	32.2	32.2	36.375	0	51.53	1063400000	32
CLIP-associating protein 1	CLASP1	16	14	1	16.9	15	1.1	169.45	0	73.232	1062800000	49
Telomeric repeat-binding factor 2	TERF2	6	6	6	20.1	20.1	20.1	59.593	0	35.593	1061900000	40
Tumor susceptibility gene 101 protein	TSG101	7	7	7	29	29	29	40.917	0	59.918	1060400000	42
Aladin	AAAS	7	7	7	27.9	27.9	27.9	38.518	0	31.066	1060200000	32
Tuftelin-interacting protein 11	TFIP11	11	11	11	20.1	20.1	20.1	96.793	0	29.5	1060100000	51
Isochorismatase domain-containing protein 2, mitochondrial	ISOC2	4	4	4	44.9	44.9	44.9	22.337	0	71.534	1060000000	59
Ribosyldihydronicotinamide dehydrogenase [quinone]	NQO2	5	5	5	32.9	32.9	32.9	25.952	0	20.939	1059400000	18
Myotubularin-related protein 5	SBF1	13	13	13	12.2	12.2	12.2	208.44	0	104.83	1057200000	54
Hydroxymethylglutaryl-CoA lyase, mitochondrial	HMGCL	4	4	4	21	21	21	31.735	0	43.634	1056200000	27
C-Myc-binding protein	MYCBP	2	2	2	19.4	19.4	19.4	11.953	0	4.2558	1055400000	16
Chitinase domain-containing protein 1	CHID1	3	3	3	8	8	8	44.117	0	9.6238	1054500000	16
Neuroblastoma-amplified sequence	NBAS	12	12	12	8.3	8.3	8.3	268.57	0	57.032	1053900000	63
Proteasome assembly chaperone 3	MGC10911;PSMG3	4	4	4	50.8	50.8	50.8	13.104	0	15.504	1052800000	21
Calsyntenin-1;Soluble Alc-alpha;CTF1-alpha	CLSTN1	9	9	9	13.4	13.4	13.4	109.79	0	20.201	1051900000	39
Kinesin light chain 4	KLC4	12	8	7	23.1	16.5	15.2	68.639	0	98.533	1051200000	40
Endoplasmic reticulum lectin 1	HEL117;ERLEC1	6	6	6	15.9	15.9	15.9	54.858	0	23.677	1050800000	46
DNA polymerase delta subunit 2	POLD2	10	10	10	35.2	35.2	35.2	47.171	0	60.903	1050100000	44
Cell surface glycoprotein MUC18	MCAM	9	9	9	27.9	27.9	27.9	71.635	0	59.131	1048600000	39
28S ribosomal protein S5, mitochondrial	MRPS5	5	5	5	13.5	13.5	13.5	48.006	0	43.001	1048400000	21
Aldehyde dehydrogenase X, mitochondrial	ALDH1B1	6	5	5	13.9	12.4	12.4	57.206	0	19.301	1046400000	14
BRO1 domain-containing protein BROX	BROX	7	7	2	29.4	29.4	10.5	46.476	0	46.489	1046400000	45
DNA-directed RNA polymerases I, II, and III subunit RPABC1	POLR2E	4	4	4	24	24	24	23.566	0	40.662	1043000000	32
Sororin	CDCA5	5	5	5	38.5	38.5	38.5	27.6	0	15.576	1041500000	29
Sequestosome-1	SQSTM1	9	9	9	43.4	43.4	43.4	47.687	0	188.84	1041100000	42
		3	1	0	16.1	7.3	0	31.854	0	51.892	1039300000	12
Rab GTPase-activating protein 1	RABGAP1	11	11	11	15.2	15.2	15.2	121.74	0	100.07	1038500000	32
Phosphomannomutase 2;Phosphomannomutase	PMM2	6	6	6	24.4	24.4	24.4	28.082	0	13.398	1036200000	21

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HD domain-containing protein 2	HDDC2	5	5	5	24.5	24.5	24.5	23.39	0	20.998	1033900000	17
Alpha-ketoglutarate-dependent dioxygenase FTO	FTO	8	8	8	28.7	28.7	28.7	48.605	0	150.52	1031800000	63
Translocation protein SEC62	SEC62;TLOC1	3	3	3	30.6	30.6	30.6	9.8703	0	5.399	1031600000	18
Programmed cell death protein 6	PDCD6	5	5	5	33	33	33	21.868	0	48.566	1031600000	24
39S ribosomal protein L24, mitochondrial	MRPL24	3	3	3	23.1	23.1	23.1	24.915	0	12.913	1031200000	25
Protein VAC14 homolog	VAC14	6	6	6	11	11	11	87.972	0	22.707	1030000000	16
Ras-related GTP-binding protein C	RRAGC	6	6	2	26.3	26.3	14	44.223	0	46.417	1030000000	13
DCN1-like protein;DCN1-like protein 1	DCUN1D1	3	3	3	35.9	35.9	35.9	14.665	0	107.33	1029300000	24
Death domain-associated protein 6	DAXX	8	8	8	24.7	24.7	24.7	81.228	0	108.95	1029200000	43
ATP synthase subunit epsilon-like protein, mitochondrial;ATP synthase subunit epsilon, mitochondrial	ATP5EP2;ATP5E	1	1	1	15.7	15.7	15.7	5.8068	0.0069432	1.6647	1029100000	3
Peptidyl-prolyl cis-trans isomerase CWC27 homolog	CWC27	8	8	8	28.4	28.4	28.4	53.846	0	27.966	1025900000	59
EH domain-containing protein 4	EHD4	8	8	7	20.1	20.1	18.1	61.174	0	70.899	1025200000	35
Polypeptide N-acetylgalactosaminyltransferase;Polypeptide N-acetylgalactosaminyltransferase 1;Polypeptide N-acetylgalactosaminyltransferase 1 soluble form	GALNT1	8	8	8	21.1	21.1	21.1	64.218	0	43.259	1025200000	42
Protein TBRG4	TBRG4	5	5	5	13	13	13	65.007	0	45.557	1024800000	30
[3-methyl-2-oxobutanoate dehydrogenase [lipoamide]] kinase, mitochondrial	BCKDK	3	3	3	11.4	11.4	11.4	46.36	0	12.157	1023700000	13
StAR-related lipid transfer protein 9	STARD9	5	5	5	1.4	1.4	1.4	516.34	0.0001987	2.8485	1023100000	8
Prolow-density lipoprotein receptor-related protein 1;Low-density lipoprotein receptor-related protein 1 85 kDa subunit;Low-density lipoprotein receptor-related protein 1 515 kDa subunit;Low-density lipoprotein receptor-related protein 1 intracellular domain	LRP1	13	13	13	4.7	4.7	4.7	504.6	0	141.74	1021800000	41
BRISC and BRCA1-A complex member 1	BABAM1;HSPC142	3	3	3	23.6	23.6	23.6	28.164	0	179.19	1021700000	37
Transcriptional repressor protein YY1	YY1	5	5	5	20.8	20.8	20.8	44.712	0	133.46	1020900000	31
Liprin-alpha-1	PPFIA1	11	11	11	14.9	14.9	14.9	135.78	0	240.28	1019900000	37
Evolutionarily conserved signaling intermediate in Toll pathway, mitochondrial	ECSIT	4	4	4	20	20	20	49.148	0	92.412	1019800000	31
BAG family molecular chaperone regulator 2	BAG2	6	6	6	38.4	38.4	38.4	23.772	0	47.918	1019500000	28
NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 7	NDUFB7	3	3	3	27	27	27	16.402	0	15.157	1016500000	74
Immediate early response 3-interacting protein 1	IER3IP1	2	2	2	40.6	40.6	40.6	7.6079	0	48.613	1016100000	12
N-acetyl-D-glucosamine kinase	NAGK	6	6	6	23.5	23.5	23.5	36.888	0	15.055	1015500000	28
Zinc transporter 7	SLC30A7	2	2	2	28.7	28.7	28.7	9.8382	0	23.675	1015100000	14
V-type proton ATPase subunit G 1	ATP6V1G1	1	1	1	9.3	9.3	9.3	13.757	0	15.809	1014100000	15
Osteoclast-stimulating factor 1	OSTF1	4	4	4	21.5	21.5	21.5	23.714	0	10.419	1012600000	16
Coiled-coil domain-containing protein 25	CCDC25	5	5	5	30.5	30.5	30.5	20.848	0	12.323	1009100000	24

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28S ribosomal protein S35, mitochondrial	MRPS35	8	8	8	34.7	34.7	34.7	36.844	0	124.97	1008700000	46
WD repeat-containing protein 26	WDR26	6	6	6	15.1	15.1	15.1	72.123	0	15.89	1003100000	30
39S ribosomal protein L38, mitochondrial	MRPL38	5	5	5	20.8	20.8	20.8	44.596	0	21.029	1000100000	17
	HLA-C;HLA-B	1	1	1	7.7	7.7	7.7	20.825	0	10.836	996200000	10
Peflin	PEF1	2	2	2	8.1	8.1	8.1	30.381	0	5.1383	995530000	12
DNA ligase 1;DNA ligase	LIG1	12	12	12	20	20	20	101.73	0	88.935	995120000	52
Rho guanine nucleotide exchange factor 2	ARHGEF2	9	9	9	13.6	13.6	13.6	116	0	81.414	994310000	42
Mth938 domain-containing protein	AAMDC	2	2	2	18.4	18.4	18.4	15.588	0	16.074	993990000	13
Eukaryotic translation initiation factor 2D	EIF2D	9	9	9	27.4	27.4	27.4	64.706	0	31.02	993660000	72
Fibroblast growth factor-binding protein 1	FGFBP1	2	2	2	15.4	15.4	15.4	26.264	0	16.889	992800000	16
Nuclear pore complex protein Nup85	NUP85	8	8	8	18.1	18.1	18.1	75.019	0	50.4	991390000	40
Mitofusin-2	MFN2	9	9	9	16.4	16.4	16.4	86.401	0	43.851	991010000	22
Basic leucine zipper and W2 domain-containing protein 2	BZW2	8	8	8	20.9	20.9	20.9	45.308	0	29.294	990140000	32
14 kDa phosphohistidine phosphatase	HEL-S-132P;PHP14;PHPT1	3	3	3	20.8	20.8	20.8	13.832	0	45.066	989880000	23
Prostaglandin reductase 2	HEL-S-298;PTGR2	4	4	4	26.5	26.5	26.5	31.743	0	30.136	988270000	62
Rho GTPase-activating protein 1	ARHGAP1	8	8	8	23.5	23.5	23.5	50.435	0	19.249	988200000	29
ATP-dependent RNA helicase SUPV3L1, mitochondrial	SUPV3L1	5	5	5	11.4	11.4	11.4	71.102	0	46.739	986650000	24
Alpha-galactosidase A	GLA	4	4	4	14.7	14.7	14.7	48.766	0	103.62	986630000	32
	UBA52	5	1	1	29	6.5	6.5	15.476	0	9.5569	985670000	23
Fibrillin-2	FBN2	19	17	17	10	9.2	9.2	314.77	0	58.815	985540000	35
Conserved oligomeric Golgi complex subunit 4	COG4	10	10	10	17.4	17.4	17.4	86.646	0	33.556	984320000	42
Coxsackievirus and adenovirus receptor	CXADR	6	6	5	26	26	22.7	40.029	0	21.093	984260000	27
Myosin light chain 1/3, skeletal muscle isoform;Myosin light chain 3	MYL1;MYL3	2	2	2	11.4	11.4	11.4	15.603	0	27.325	983550000	12
Gamma-soluble NSF attachment protein	NAPG	8	8	8	45.2	45.2	45.2	34.746	0	70.339	982480000	54
Zinc finger MYM-type protein 4	ZMYM4	16	16	15	17.7	17.7	17.1	172.79	0	109.09	981770000	55
Zinc transporter 9	SLC30A9	7	7	7	15.5	15.5	15.5	63.514	0	44.53	979650000	25
Peptidyl-tRNA hydrolase 2, mitochondrial	PTRH2	4	4	4	35	35	35	19.325	0	172.05	979350000	37
MICOS complex subunit MIC27	APOOL;DKFZp779P1227	6	6	6	30	30	30	28.761	0	31.036	975560000	21
COP9 signalosome complex subunit 2	COPS2	9	9	9	34.6	34.6	34.6	44.228	0	29.103	974850000	29
Gamma-aminobutyric acid receptor-associated protein-like 2	GABARAPL2	3	3	3	23.1	23.1	23.1	13.667	0	11.128	974630000	19
cAMP-dependent protein kinase type II-beta regulatory subunit	PRKAR2B	7	5	5	30.6	24.2	24.2	44.866	0	77.122	974580000	67
Biorientation of chromosomes in cell division protein 1-like 1	BOD1L1	14	14	12	9.4	9.4	8.6	330.46	0	85.538	973390000	53
Phospholipase D3	PLD3	2	2	2	6.9	6.9	6.9	54.705	0	15.199	972630000	16
Mediator of RNA polymerase II transcription subunit 17	MED17	5	5	3	9.2	9.2	4.7	93.444	0	13.955	972120000	27
WD repeat-containing protein 82	TMEM113;WDR82	7	7	7	35.1	35.1	35.1	35.079	0	47.902	969710000	24
Eukaryotic translation initiation factor 1;Eukaryotic translation initiation factor 1b	SUI1;GC20;EIF1;EIF1B	5	5	5	49.6	49.6	49.6	12.732	0	69.264	969710000	20
E3 ubiquitin-protein ligase RING2	RNF2	9	9	7	38.7	38.7	29.8	37.655	0	44.015	968420000	40
Adenylosuccinate lyase	ADSL	8	8	8	23.1	23.1	23.1	54.889	0	35.636	967060000	24

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Isovaleryl-CoA dehydrogenase, mitochondrial	IVD	7	7	7	22.5	22.5	22.5	46.319	0	23.175	964440000	38
Striatin-4	STRN4	9	8	8	26.2	25.1	25.1	68.584	0	29.825	962690000	26
Intron-binding protein aquarius	AQR	10	10	10	9.8	9.8	9.8	156.84	0	57.164	961590000	14
TBC1 domain family member 13	TBC1D13	6	6	6	22.2	22.2	22.2	46.553	0	22.22	961060000	50
Nucleoplasmin-3	NPM3	3	3	3	32	32	32	19.343	0	85.288	958430000	25
Sorting nexin-5	SNX5	6	6	6	18.6	18.6	18.6	46.815	0	19.09	958110000	27
ADP-ribosylation factor 5	ARF5	5	3	3	34.4	16.7	16.7	20.529	0	24.486	957540000	10
Surfeit locus protein 4	SURF4	3	3	3	28	28	28	21.127	0	34.239	956750000	14
Large neutral amino acids transporter small subunit 1	SLC7A5;lat1	4	4	4	11.2	11.2	11.2	55.01	0	31.242	955650000	18
Ubiquitin-like modifier-activating enzyme 5	UBA5	5	5	5	22.8	22.8	22.8	44.863	0	82.529	955270000	40
E3 ubiquitin-protein ligase SHPRH	SHPRH	2	2	2	1.9	1.9	1.9	100.97	0.0051632	1.7665	952960000	5
Lysocardiolipin acyltransferase 1	LCLAT1	3	3	3	13.4	13.4	13.4	38.772	0	7.3527	952550000	10
Ceramide synthase 2	CERS2	5	5	5	21.6	21.6	21.6	44.848	0	6.1471	951540000	15
Enolase-phosphatase E1	ENOPH1	5	5	5	32.2	32.2	32.2	28.932	0	63.188	948520000	28
Receptor protein-tyrosine kinase;Ephrin type-A receptor 2	EPHA2	8	8	8	17.1	17.1	17.1	108.27	0	60.947	948480000	23
Ubiquitin-like protein 4A	UBL4A	7	7	7	50.3	50.3	50.3	17.776	0	17.199	948410000	25
Calcium-transporting ATPase;Calcium-transporting ATPase type 2C member 1	ATP2C1	14	14	14	23.2	23.2	23.2	104.71	0	71.695	947750000	34
E3 ubiquitin-protein ligase UBR5	UBR5	14	14	14	10.2	10.2	10.2	308.57	0	111.29	947630000	88
ProSAAS;KEP;Big SAAS;Little SAAS;Big PEN-LEN;PEN;Little LEN;Big LEN	PCSK1N	4	4	4	26.5	26.5	26.5	27.372	0	94.226	945660000	31
Syntaxin-17	STX17;DKFZp762D1813	4	4	4	19.5	19.5	19.5	33.304	0	25.252	944560000	18
Forkhead box protein C1	FOXC1	7	7	7	25.1	25.1	25.1	56.788	0	84.012	942020000	34
Tyrosine-protein phosphatase non-receptor type;Tyrosine-protein phosphatase non-receptor type 6;Protein-tyrosine-phosphatase	PTPN6	5	5	5	12.8	12.8	12.8	67.608	0	44.109	941430000	23
Protein pelota homolog	hCG_2002731;PELO	6	6	6	13.2	13.2	13.2	43.377	0	14.55	941370000	20
Serine/threonine-protein phosphatase;Serine/threonine-protein phosphatase PP1-beta catalytic subunit	HEL-S-80p;PPP1CB	10	3	3	38.2	11.9	11.9	37.186	0	3.8486	940390000	6
Synaptobrevin homolog YKT6	YKT6	7	7	7	41.4	41.4	41.4	21.606	0	41.427	938950000	27
Cap-specific mRNA (nucleoside-2-O-)-methyltransferase 1	CMTR1	9	9	9	15.4	15.4	15.4	95.32	0	56.768	938690000	37
Glycerol kinase;Putative glycerol kinase 3	GK;GK3P	7	7	7	20	20	20	61.244	0	23.849	937880000	42
28S ribosomal protein S30, mitochondrial	MRPS30	6	6	6	23.4	23.4	23.4	50.004	0	42.916	937130000	57
Retinoblastoma-binding protein 5	RBBP5	7	7	7	26	26	26	59.152	0	78.796	936480000	37
Nucleoredoxin	NXN	8	8	8	27.4	27.4	27.4	48.392	0	29.737	933870000	38
Serine protease 23	PRSS23	3	3	3	15.9	15.9	15.9	43.059	0	28.814	931610000	30
Cob(I)yrinic acid a,c-diamide adenosyltransferase, mitochondrial	MMAB	3	3	3	25.6	25.6	25.6	27.357	0	127.15	930580000	22

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Amyloid beta A4 protein;N-APP;Soluble APP-alpha;Soluble APP-beta;C99;Beta-amyloid protein 42;Beta-amyloid protein 40;C83;P3(42);P3(40);C80;Gamma-secretase C-terminal fragment 59;Gamma-secretase C-terminal fragment 57;Gamma-secretase C-terminal fragment 50;C31	APP	6	6	6	14.2	14.2	14.2	75.149	0	26.404	930470000	21
Nucleotide exchange factor SIL1	SIL1	2	2	2	5.3	5.3	5.3	44.512	0	5.0729	929580000	14
Ribosomal protein S6 kinase alpha-3	RPS6KA3	10	5	5	18.4	9.3	9.3	80.583	0	13.123	929230000	27
39S ribosomal protein L39, mitochondrial	MRPL39	4	4	4	17.2	17.2	17.2	38.711	0	23.737	927950000	24
Carboxymethylenebutenolidase homolog	CMBL	6	6	6	27.8	27.8	27.8	28.058	0	11.526	926980000	18
RNA polymerase II-associated protein 1	RPAP1	14	14	14	21.2	21.2	21.2	130.4	0	129.14	925800000	51
Aspartyl aminopeptidase	DNPEP	10	10	10	39.1	39.1	39.1	51.998	0	17.24	922480000	19
Protein MAK16 homolog	MAK16	4	4	4	13.7	13.7	13.7	35.368	0	36.123	922410000	17
Protein CMSS1	CMSS1;hCG_2023567	4	4	4	18.7	18.7	18.7	26.228	0	8.8884	922370000	33
Ras-related GTP-binding protein A	RRAGA;RRAGB	3	3	1	10.5	10.5	4.2	36.566	0	8.8635	922300000	20
Suppressor of SWI4 1 homolog	PPAN;PPAN-P2RY11	5	5	5	25.7	25.7	25.7	47.144	0	69.387	921890000	17
39S ribosomal protein L44, mitochondrial	MRPL44	5	5	5	24.7	24.7	24.7	37.535	0	67.431	921480000	68
Coiled-coil domain-containing protein 43	CCDC43	3	3	3	15.2	15.2	15.2	25.248	0	7.4492	920800000	10
40S ribosomal protein S27;40S ribosomal protein S27-like	RPS27L	3	2	2	26.8	13.4	13.4	10.886	0	7.7088	919100000	14
Epithelial cell-transforming sequence 2 oncogene-like	ECT2L	1	1	1	1.2	1.2	1.2	87.159	0.0040824	1.841	917740000	4
		7	1	1	23.7	9.5	9.5	38.568	0	41.334	916770000	63
Delta(24)-sterol reductase	Nbla03646;DHCR24	2	2	2	5.2	5.2	5.2	49.436	0	8.2673	915910000	20
Protein Hook homolog 1	HOOK1	9	9	9	18.5	18.5	18.5	84.647	0	94.071	915780000	38
Sterol-4-alpha-carboxylate 3-dehydrogenase, decarboxylating	NSDHL	6	6	6	25.2	25.2	25.2	41.9	0	26.954	914540000	22
Non-specific serine/threonine protein kinase;Serine/threonine-protein kinase PAK 1	PAK1	9	6	5	29.7	19.9	17.4	58.202	0	150.47	914310000	32
Ubiquitin carboxyl-terminal hydrolase 15	USP15	10	10	10	12.3	12.3	12.3	112.42	0	31.211	913510000	36
MKI67 FHA domain-interacting nucleolar phosphoprotein	NIFK	9	9	9	36.9	36.9	36.9	34.222	0	150.51	910140000	35
Protein LSM12 homolog	LSM12	3	3	3	26.2	26.2	26.2	21.701	0	6.2281	909320000	9
Cytosolic Fe-S cluster assembly factor NUBP2	NUBP1;NUBP2	5	5	5	34	34	34	28.222	0	38.392	908840000	69
TBC1 domain family member 10B	TBC1D10B	8	8	8	22.5	22.5	22.5	87.198	0	53.799	908420000	29
Conserved oligomeric Golgi complex subunit 5	COG5	10	10	10	19.3	19.3	19.3	92.742	0	96.686	908050000	24
Astrocytic phosphoprotein PEA-15	PEA15	1	1	1	9.3	9.3	9.3	12.53	0.0001996	2.9238	905110000	10
Uncharacterized protein C19orf43	C19orf43	3	3	3	21.6	21.6	21.6	18.419	0	22.652	905020000	23
WASH complex subunit FAM21C	FAM21C	14	14	2	21.9	21.9	4	138.01	0	87.35	903920000	70
Alpha-1,2-mannosyltransferase ALG9	ALG9	4	4	4	6.2	6.2	6.2	95.952	0	21.059	903080000	20
Retinol dehydrogenase 14	RDH14	4	4	4	20.5	20.5	20.5	36.864	0	208.44	903070000	30
Exocyst complex component 1	EXOC1	10	10	10	18.8	18.8	18.8	100.28	0	32.41	903010000	59
Down syndrome critical region protein 3	DSCR3	5	5	5	28.9	28.9	28.9	27.958	0	78.913	902690000	50
Nicastrin	NCSTN	4	4	4	15.6	15.6	15.6	30.045	0	10.477	902510000	28

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Importin-8	IPO8	7	7	7	8.8	8.8	8.8	119.94	0	28.207	902440000	37
Katanin p60 ATPase-containing subunit A-like 2	KATNAL2	1	1	1	9.4	9.4	9.4	13.999	0.0037182	1.8586	900940000	11
U6 snRNA-associated Sm-like protein LSm6	LSM6	3	3	3	55	55	55	9.1275	0	12.697	900380000	13
Transcriptional regulator ATRX	ATRX	10	10	10	7.2	7.2	7.2	282.58	0	89.77	900320000	35
Calcium/calmodulin-dependent protein kinase type II subunit gamma	CAMK2G	9	7	0	28.9	23.3	0	62.606	0	119.62	899220000	50
Twinfilin-1	TWF1	6	6	6	19.4	19.4	19.4	40.282	0	30.859	897260000	26
Syntaxin-8	STX8	7	7	7	47.9	47.9	47.9	26.906	0	37.473	896840000	60
Peptidyl-prolyl cis-trans isomerase G;Peptidyl-prolyl cis-trans isomerase	PPIG	6	6	6	15.8	15.8	15.8	51.715	0	49.058	896400000	28
Propionyl-CoA carboxylase alpha chain, mitochondrial	PCCA	8	8	8	19	19	19	67.232	0	26.532	896350000	25
Coiled-coil domain-containing protein 51	CCDC51	3	3	3	11.9	11.9	11.9	45.811	0	23.087	895370000	13
39S ribosomal protein L16, mitochondrial	MRPL16	5	5	5	25.9	25.9	25.9	28.449	0	11.824	894960000	21
Forkhead box protein K1	FOXK1	8	8	2	19.6	19.6	6.5	75.456	0	66.082	893900000	54
U3 small nucleolar RNA-associated protein 18 homolog	UTP18	6	6	6	17.3	17.3	17.3	57.707	0	10.345	892480000	16
Protein S100-A16	S100A16	2	2	2	23.3	23.3	23.3	11.801	0	6.7508	891710000	14
ADP-ribosylation factor GTPase-activating protein 2	ARFGAP2	5	5	5	27.5	27.5	27.5	41.177	0	24.82	891560000	28
LIM and cysteine-rich domains protein 1	LMCD1	8	8	8	32.3	32.3	32.3	40.832	0	29.157	890670000	28
	MRPL43	4	4	0	29	29	0	15.961	0	6.7967	886510000	8
Synembryn-A	RIC8A	10	10	10	32.8	32.8	32.8	59.709	0	48.244	886130000	63
Adrenodoxin, mitochondrial	FDX1	2	2	2	16.3	16.3	16.3	19.393	0	29.567	884280000	44
Paxillin	PXN	10	10	10	37.2	37.2	37.2	64.232	0	135.61	882550000	43
E3 ubiquitin-protein ligase TRIP12	TRIP12	11	11	11	8.5	8.5	8.5	220.43	0	120.69	881140000	45
UPF0687 protein C20orf27	C20orf27	1	1	1	8	8	8	19.291	0.000981	2.6136	880780000	12
Brefeldin A-inhibited guanine nucleotide-exchange protein 1	ARFGEF1	4	4	4	3.4	3.4	3.4	208.76	0	13.599	880670000	24
Serine protease HTRA2, mitochondrial	HTRA2	5	5	5	16.3	16.3	16.3	45.112	0	21.47	879940000	41
Tether containing UBX domain for GLUT4	ASPSCR1	6	6	6	20.3	20.3	20.3	60.182	0	64.133	877600000	35
Vacuolar ATPase assembly integral membrane protein VMA21	VMA21	1	1	1	11.9	11.9	11.9	11.354	0	4.0883	876610000	22
Neuroguidin	NGDN	7	7	7	29.2	29.2	29.2	35.894	0	36.452	875940000	25
Neural cell adhesion molecule 1	NCAM1	8	8	8	16.5	16.5	16.5	93.329	0	96.17	874830000	34
DnaJ homolog subfamily A member 2	DNAJA2	8	8	8	34	34	34	45.745	0	81.087	874100000	89
Caspase-3;Caspase-3 subunit p17;Caspase-3 subunit p12	CASP3;DKFZp686N1815	2	2	2	11.9	11.9	11.9	31.608	0	30.589	873090000	10
Cleft lip and palate transmembrane protein 1-like protein	CLPTM1L	4	4	1	13.9	13.9	6.5	62.228	0	25.378	872200000	23
E3 ubiquitin-protein ligase MARCH5	5-Mar	5	5	5	22.7	22.7	22.7	31.231	0	18.952	872020000	13
Protein lin-7 homolog C	LIN7C	7	3	3	43.1	16.2	16.2	21.834	0	7.1963	871550000	21
tRNA (adenine(58)-N(1))-methyltransferase non-catalytic subunit TRM6	TRMT6	3	3	3	8.5	8.5	8.5	55.799	0	11.882	870990000	15
E3 ubiquitin-protein ligase BRE1A	RNF20	14	14	13	20.4	20.4	19	113.66	0	50.233	868860000	44
Protein dpy-30 homolog	LOC84661;DPY30	1	1	1	9.2	9.2	9.2	13.866	0.0001997	2.9327	868290000	10
Coiled-coil domain-containing protein 134	CCDC134	4	4	4	18.8	18.8	18.8	26.56	0	22.868	866950000	26
SH3 domain-binding protein 1	SH3BP1	9	9	1	20.5	20.5	2.6	75.712	0	100.96	866910000	40
G-rich sequence factor 1	GRSF1	7	7	7	27.3	27.3	27.3	41.574	0	72.965	866530000	21
Crooked neck-like protein 1	DKFZp762M013;CRNKL1; crn	12	12	12	20.3	20.3	20.3	87.366	0	38.755	866290000	41

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Small integral membrane protein 13	SMIM13	1	1	1	33	33	33	10.351	0	71.21	865930000	14
DNA replication complex GINS protein PSF3	GINS3	5	5	5	31	31	31	24.534	0	128.29	863980000	31
Metal-response element-binding transcription factor 2	MTF2	3	3	3	13	13	13	55.724	0	50.647	863120000	24
cAMP-dependent protein kinase catalytic subunit alpha	PRKACA;KIN27;PRKACB	7	7	3	19.4	19.4	8.8	40.589	0	46.624	862180000	29
Peptidyl-prolyl cis-trans isomerase;Peptidyl-prolyl cis-trans isomerase F, mitochondrial	PPIF	5	4	4	36.7	33.3	33.3	22.039	0	139.82	862060000	40
Galectin-3-binding protein	LGALS3BP	6	6	6	15.7	15.7	15.7	65.33	0	51.542	861130000	22
Kanadaptin	SLC4A1AP	8	8	8	19.9	19.9	19.9	82.89	0	51.214	860870000	36
SRSF protein kinase 2;SRSF protein kinase 2 N-terminal;SRSF protein kinase 2 C-terminal	SRPK2	9	7	7	24.6	21.7	21.7	77.526	0	47.492	860840000	43
Rho-related GTP-binding protein RhoG	ARHG;RHOG	6	5	5	36.6	30.9	30.9	21.308	0	38.119	860440000	27
mRNA-decapping enzyme 1A	Nbla00360;DCP1A	9	9	9	31.4	31.4	31.4	63.246	0	136.01	860420000	38
Dolichyl-phosphate beta-glucosyltransferase	ALG5	5	5	5	27.8	27.8	27.8	25.365	0	16.043	859280000	18
Estradiol 17-beta-dehydrogenase 11	HSD17B11	5	5	5	25	25	25	28.102	0	69.082	858790000	30
Ragulator complex protein LAMTOR2	LAMTOR2	4	4	4	61.6	61.6	61.6	13.507	0	52.98	857130000	44
Sister chromatid cohesion protein DCC1	DCC1;DSCC1	5	5	5	17.1	17.1	17.1	61.728	0	20.514	856830000	33
Proteasomal ubiquitin receptor ADRM1	ADRM1;DKFZp686G2045	4	4	4	9.3	9.3	9.3	42.153	0	34.319	856710000	34
Lipoamide acyltransferase component of branched-chain alpha-keto acid dehydrogenase complex, mitochondrial	DBT	5	5	5	17.4	17.4	17.4	53.486	0	29.244	856290000	31
Myc-associated zinc finger protein	MAZ	3	3	2	25.6	25.6	22	48.607	0	20.784	855590000	80
PRKC apoptosis WT1 regulator protein	PAWR	5	5	5	28.5	28.5	28.5	36.567	0	56.198	855130000	39
Nicotinamide-nucleotide adenylyltransferase;Nicotinamide/nicotinic acid mononucleotide adenylyltransferase 1	NMNAT1	5	5	5	21.9	21.9	21.9	31.92	0	14.462	853820000	21
AP-1 complex subunit sigma-1A	AP1S1	2	2	2	15.9	15.9	15.9	18.602	0	86.553	853490000	24
Sorting nexin-27	SNX27	10	10	10	30.7	30.7	30.7	61.264	0	33.901	852420000	19
Ras-related protein Rab-5B	RAB5B	5	2	2	27.9	13	13	23.707	0	13.132	852320000	18
BRCA1-A complex subunit BRE	BRE	3	3	3	13.4	13.4	13.4	31.972	0	15.437	852270000	22
Translation initiation factor IF-2, mitochondrial	MTIF2	5	5	5	10.5	10.5	10.5	81.316	0	46.778	851170000	43
CDP-diacylglycerol--inositol 3-phosphatidyltransferase	CDIPT	2	2	2	11.4	11.4	11.4	20.246	0	4.4348	849510000	14
Mitochondrial Rho GTPase 1;Mitochondrial Rho GTPase	RHOT1	10	10	10	25.9	25.9	25.9	70.783	0	65.812	849460000	52
Ribosomal protein S6 kinase beta-1;Ribosomal protein S6 kinase	RPS6KB1	4	4	3	15.8	15.8	14.3	59.139	0	22.486	846890000	29
Plexin-B2	PLXNB2;Nbla00445	12	12	10	11.9	11.9	10	205.12	0	99.217	845750000	34
NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 6	NDUFB6	3	3	3	36.1	36.1	36.1	11.716	0	24.608	843040000	69
Ras-related protein Rab-5A	RAB5A	6	3	3	41.4	26.5	26.5	23.658	0	9.2124	842170000	21
Neutral amino acid transporter B(0);Amino acid transporter	SLC1A5	5	5	1	18.9	18.9	3.7	56.598	0	57.058	841220000	44
Armadillo repeat-containing X-linked protein 3	ARMCX3	4	4	4	16.1	16.1	16.1	42.5	0	97.978	840580000	44

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BRISC complex subunit Abro1	FAM175B	7	7	7	26	26	26	46.9	0	21.491	840420000	27
Nucleolar GTP-binding protein 2	GNL2	7	7	7	12.2	12.2	12.2	83.654	0	27.449	840350000	33
AMP deaminase 2	AMPD2	9	9	9	18.9	18.9	18.9	98.401	0	45.956	839340000	35
Serine/threonine-protein kinase 4;Serine/threonine-protein kinase 4 37kDa subunit;Serine/threonine-protein kinase 4 18kDa subunit	STK4;DKFZp686A2068	9	6	6	24.3	16	16	57.88	0	30.847	836810000	34
Phosphatidylinositol 3,4,5-trisphosphate 5-phosphatase 2	INPPL1	12	12	12	16.7	16.7	16.7	138.6	0	24.829	835590000	58
Arf-GAP with GTPase, ANK repeat and PH domain-containing protein 3	CENTG3;AGAP3	7	7	6	15.5	15.5	13.7	95.043	0	64.708	833790000	32
U3 small nucleolar RNA-associated protein 14 homolog A	UTP14A	9	9	9	21.8	21.8	21.8	87.977	0	75.96	832640000	46
2-oxoisovalerate dehydrogenase subunit alpha, mitochondrial	BCKDHA;DKFZp313C0640	6	6	6	19.1	19.1	19.1	50.399	0	30.357	831780000	26
Rap1 GTPase-GDP dissociation stimulator 1	RAP1GDS1	9	9	9	22.2	22.2	22.2	66.378	0	29.938	831670000	25
NADH dehydrogenase [ubiquinone] iron-sulfur protein 7, mitochondrial	NDUFS7	4	4	4	23.9	23.9	23.9	23.563	0	8.6995	831650000	21
Choline-phosphate cytidylyltransferase A;Choline-phosphate cytidylyltransferase B	hCG_2002711;PCYT1A;PCYT1B	4	4	4	22.5	22.5	22.5	30.039	0	9.5546	831630000	22
Phosphopantothenate--cysteine ligase	PPCS	4	4	4	12.5	12.5	12.5	34.005	0	11.285	830950000	14
Double-stranded RNA-specific adenosine deaminase	ADAR	29	1	1	34.6	1.4	1.4	136.06	0	8.5199	829960000	12
Nucleoporin p58/p45	NUPL1	3	3	3	11.1	11.1	11.1	46.068	0	11.55	828940000	16
	MKKS	1	1	1	27	27	27	7.2634	0	27.121	828590000	13
Arsenite methyltransferase	AS3MT	9	9	9	28.3	28.3	28.3	41.747	0	23.53	828120000	26
UPF0609 protein C4orf27;Putative UPF0609 protein C4orf27-like	C4orf27	6	6	6	26.3	26.3	26.3	39.436	0	22.937	827750000	29
THO complex subunit 6 homolog	THOC6	7	7	7	35.8	35.8	35.8	37.535	0	19.616	827420000	23
Cyclin-dependent kinase 9	CDK9	6	5	5	21	18.8	18.8	42.778	0	55.601	826670000	32
Cullin-2	CUL2	6	6	6	9.3	9.3	9.3	86.982	0	35.467	826590000	16
GTPase NRas;GTPase HRas;GTPase HRas, N-terminally processed	NRAS;HRAS	6	3	3	45	19	19	21.229	0	28.913	825340000	20
Abl interactor 2	ABI2;ABI-2	5	3	3	15	9.8	9.8	52.789	0	45.681	824060000	25
Splicing factor, arginine/serine-rich 19	SR-A1;SCAF1	11	11	11	15	15	15	139.26	0	51.557	823620000	67
Protein FAM114A2	FAM114A2	5	5	1	18.4	18.4	4.6	55.468	0	70.321	823240000	15
Ras-related protein Rab-8A	RAB8A	4	3	3	21.7	16.4	16.4	23.668	0	4.185	822470000	13
Proline-rich protein PRCC	PRCC	6	6	6	36.4	36.4	36.4	48.959	0	86.143	822180000	100
High mobility group nucleosome-binding domain-containing protein 5	HMGN5	5	5	5	54.1	54.1	54.1	16.496	0	152.15	821920000	19
Glucosamine 6-phosphate N-acetyltransferase	GNPNAT1	5	5	5	51.1	51.1	51.1	20.749	0	51.535	821570000	22
Tudor and KH domain-containing protein	TDRKH	8	8	8	22.3	22.3	22.3	61.52	0	20.014	821210000	23
V-type proton ATPase subunit C 1	ATP6V1C1	5	5	5	22.5	22.5	22.5	35.708	0	64.255	818280000	41
Phosphatidylinositol 5-phosphate 4-kinase type-2 beta	PIP4K2B	3	3	1	9.6	9.6	3.4	47.377	0	122.87	817870000	33
Rab-like protein 6	RABL6	7	7	1	14.4	14.4	2.1	79.635	0	44.753	817800000	36
	C11orf98;C11orf48	3	3	3	32.5	32.5	32.5	14.234	0	11.368	817550000	27
Oxysterol-binding protein-related protein 11	OSBPL11	10	10	10	28.8	28.8	28.8	83.642	0	111.12	816620000	37
Putative transferase CAF17, mitochondrial	IBA57	4	4	4	27	27	27	38.155	0	57.869	816010000	39

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Craniofacial development protein 1	CFDP1	4	4	4	18.7	18.7	18.7	33.592	0	12.726	815820000	13
Cat eye syndrome critical region protein 5	CECR5	4	4	4	18.2	18.2	18.2	46.321	0	79.711	813660000	25
Exosome complex component RRP46	EXOSC5	5	5	5	34.9	34.9	34.9	25.249	0	43.513	813180000	48
	DYNC1I2	12	1	1	47.5	8.9	8.9	34.913	0	17.164	812570000	59
Sorting nexin;Sorting nexin-9	SNX9	4	4	4	11.9	11.9	11.9	66.561	0	174.88	812470000	46
Nucleoporin NDC1	NDC1	8	8	8	37.2	37.2	37.2	37.928	0	51.091	812160000	20
Uracil-DNA glycosylase	UNG	3	3	3	22.7	22.7	22.7	34.645	0	16.755	811410000	19
Cytochrome c oxidase assembly protein COX15 homolog	COX15	3	3	3	9.5	9.5	9.5	46.03	0	5.0806	809700000	18
Glutamyl-tRNA(Gln) amidotransferase subunit C, mitochondrial	GATC	3	3	3	31.5	31.5	31.5	18.606	0	28.586	808970000	24
Protein-glutamate O-methyltransferase	ARMT1	5	5	5	19.7	19.7	19.7	51.172	0	26.39	806960000	42
H/ACA ribonucleoprotein complex subunit 1	NOLA1;GAR1	3	3	3	16.6	16.6	16.6	22.348	0	29.723	806540000	20
39S ribosomal protein L45, mitochondrial	MRPL45	2	2	2	14.5	14.5	14.5	29.408	0	16.984	805150000	12
Prefoldin subunit 1	PFDN1	3	3	3	23.9	23.9	23.9	13.466	0	7.0648	804910000	11
Cyclin-dependent kinase 4	CDK4	7	6	5	30.7	28.1	23.1	33.729	0	26.461	802250000	25
U6 snRNA-associated Sm-like protein LSm7	LSM7	2	2	2	69.4	69.4	69.4	5.5062	0	12.675	802020000	31
Selenocysteine-specific elongation factor	EEFSEC	8	8	8	20.5	20.5	20.5	65.304	0	18.247	801570000	34
	GSTP1	5	2	2	53	22.5	22.5	16.667	0	72.507	800990000	9
Trans-2-enoyl-CoA reductase, mitochondrial	MECR	3	3	3	26.9	26.9	26.9	22.917	0	29.129	800120000	17
Endoplasmic reticulum metallopeptidase 1	ERMP1	5	5	5	6.9	6.9	6.9	93.159	0	18.047	799040000	28
Membrane magnesium transporter 1	MMGT1	2	2	2	25.2	25.2	25.2	14.686	0	31.321	798290000	19
Peptidase M20 domain-containing protein 2	PM20D2	7	7	7	18.8	18.8	18.8	47.776	0	12.093	796430000	13
Angio-associated migratory cell protein	AAMP	6	6	6	22.7	22.7	22.7	44.693	0	13.938	795080000	23
Serine/threonine-protein phosphatase 2B catalytic subunit alpha isoform;Serine/threonine-protein phosphatase	PPP3CA	5	5	3	10.4	10.4	6.3	57.658	0	7.7987	794450000	18
E3 ubiquitin-protein ligase ARIH1	ARIH1	4	4	4	14.5	14.5	14.5	64.117	0	54.574	794060000	30
39S ribosomal protein L21, mitochondrial	MRPL21	4	4	4	26.3	26.3	26.3	22.814	0	19.636	793470000	47
Myotubularin-related protein 1	MTMR1	5	5	5	25.1	25.1	25.1	39.822	0	43.753	792050000	30
UPF0769 protein C21orf59	C21orf59	3	3	3	31.6	31.6	31.6	13.334	0	28.805	790390000	10
Kinesin light chain 2	KLC2	10	7	7	19.9	15.4	15.4	68.934	0	25.134	787830000	25
GC-rich sequence DNA-binding factor 2	GCFC2	11	11	11	21	21	21	89.384	0	85.689	787800000	33
Acyl-CoA dehydrogenase family member 11	ACAD11	5	5	5	9	9	9	87.282	0	12.925	787310000	21
Serine/threonine-protein phosphatase 4 regulatory subunit 2	PPP4R2	14	14	14	43.4	43.4	43.4	46.898	0	135.74	787030000	25
Zinc finger CCCH domain-containing protein 4	ZC3H4	10	10	10	23.4	23.4	23.4	95.425	0	64.65	785920000	35
Dehydrogenase/reductase SDR family member 7B	DHRS7B	5	5	5	20.6	20.6	20.6	33.524	0	51.005	784010000	27
Ras-related protein Rab-18	RAB18	7	7	7	43.7	43.7	43.7	22.977	0	57.193	784010000	54
Aldehyde dehydrogenase family 16 member A1	ALDH16A1	8	8	8	19.2	19.2	19.2	85.126	0	33.286	783390000	38
Hepatocyte growth factor-regulated tyrosine kinase substrate	HGS	5	5	5	14.1	14.1	14.1	74.854	0	32.418	781270000	44
Antigen peptide transporter 2	TAP2;TAP2-G;ABCB3	4	4	4	7.7	7.7	7.7	77.765	0	8.4884	781190000	8
Ragulator complex protein LAMTOR5	LAMTOR5	3	3	3	81	81	81	8.2153	0	98.701	780280000	22

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39S ribosomal protein L11, mitochondrial	MRPL11	5	5	5	31.2	31.2	31.2	20.655	0	21.932	779390000	32
Conserved oligomeric Golgi complex subunit 3	COG3	12	12	12	28.5	28.5	28.5	94.095	0	70.218	778990000	69
39S ribosomal protein L17, mitochondrial	MRPL17	3	3	3	18.9	18.9	18.9	20.05	0	5.552	778590000	2
NADH dehydrogenase [ubiquinone] 1 subunit C2;NADH dehydrogenase [ubiquinone] 1 subunit C2, isoform 2	NDUFC2;KCTD14;NDUFC2-KCTD14	3	3	3	19.3	19.3	19.3	14.187	0	4.176	778370000	16
Golgi to ER traffic protein 4 homolog	C7orf20;GET4	3	3	3	14.1	14.1	14.1	31.801	0	9.6727	778180000	23
Growth arrest and DNA damage-inducible proteins-interacting protein 1	GADD45GIP1	5	5	5	36	36	36	25.384	0	17.172	777680000	30
Inositol polyphosphate 5-phosphatase OCRL-1	OCRL	5	5	5	7.8	7.8	7.8	103.18	0	20.289	777570000	25
Ras-related protein R-Ras2	RRAS2	4	4	3	21.6	21.6	13.7	23.399	0	65.782	777310000	23
Target of rapamycin complex subunit LST8	MLST8	3	3	3	17.5	17.5	17.5	30.234	0	41.238	775490000	21
Regulatory-associated protein of mTOR	RPTOR	11	11	11	12.3	12.3	12.3	149.04	0	70.269	772870000	25
Protein virilizer homolog	KIAA1429	12	12	12	12.3	12.3	12.3	202.02	0	55.642	772790000	55
Vacuolar protein sorting-associated protein 4B	VPS4B	9	9	8	32	32	29.3	49.272	0	18.993	771960000	52
Intraflagellar transport protein 25 homolog	HSPB11	3	3	3	27.8	27.8	27.8	16.297	0	40.011	770950000	27
5-nucleotidase domain-containing protein 2	NT5DC2	5	5	4	9.2	9.2	7.3	60.718	0	9.5927	770470000	21
Transmembrane protein 97	TMEM97	1	1	1	8.7	8.7	8.7	10.976	0.0044313	1.7818	770430000	13
Cysteine protease ATG4B	ATG4B	4	4	4	19.7	19.7	19.7	35.907	0	56.954	770020000	26
Adenosylhomocysteinase;Putative adenosylhomocysteinase 2;Putative adenosylhomocysteinase 3	AHCYL1;FGFR2-AHCYL1;AHCYL2	6	6	6	13.9	13.9	13.9	56.468	0	10.375	769000000	21
Bromodomain-containing protein 3	BRD3	8	6	6	16.8	13.8	13.8	79.541	0	22.263	767690000	38
Protein PML	PML;PML-RAR	9	9	9	19	19	19	93.635	0	70.138	767330000	23
Adseverin	SCIN	10	10	10	25.2	25.2	25.2	80.488	0	70.13	767190000	35
YTH domain-containing family protein 3	DKFZp451A052;YTHDF3;DKFZp451J085	8	6	5	23	20	17.8	58.309	0	50.268	767180000	17
Ubiquitin-conjugating enzyme E2 variant 2	UBE2V2;UBE2V1	6	3	3	46.9	25.5	25.5	16.363	0	48.826	767090000	19
Sigma non-opioid intracellular receptor 1	hCG_20471;SIGMAR1	3	3	3	17.2	17.2	17.2	21.482	0	7.2899	767000000	21
A-kinase anchor protein 12	AKAP12	13	13	6	13.9	13.9	6.4	191.48	0	76.609	766840000	26
28S ribosomal protein S36, mitochondrial	MRPS36	4	4	4	56.3	56.3	56.3	11.466	0	37.742	766750000	37
Dynein assembly factor 5, axonemal	DNAAF5;FLJ20397	13	13	13	22.9	22.9	22.9	93.52	0	55.385	766450000	71
Golgi pH regulator B;Golgi pH regulator A	GPR89B;GPR89A	4	4	4	15.2	15.2	15.2	46.536	0	23.473	766220000	22
DTW domain-containing protein 2	DTWD2	4	4	4	23.5	23.5	23.5	33.415	0	11.486	764650000	36
Phosducin-like protein 3	PDCL3	6	6	6	31.4	31.4	31.4	27.614	0	17.57	764280000	16
Estradiol 17-beta-dehydrogenase 8	HSD17B8	5	5	5	27.6	27.6	27.6	26.973	0	23.067	763780000	16
mRNA cap guanine-N7 methyltransferase	RNMT	9	9	9	22.4	22.4	22.4	57.75	0	22.081	763580000	24
RanBP2-like and GRIP domain-containing protein 3;RanBP2-like and GRIP domain-containing protein 4;RANBP2-like and GRIP domain-containing protein 1;RANBP2-like and GRIP domain-containing protein 2	RGPD3;RGPD4;RGPD1;RGPD2	17	1	1	11.1	0.7	0.7	197.62	0	5.7002	762570000	10
Tetratricopeptide repeat protein 38	FLJ20699;TTC38	5	5	5	16.5	16.5	16.5	45.8	0	26.747	762270000	17
Protein YIF1B	YIF1B	3	3	3	12.1	12.1	12.1	34.435	0	26.756	761690000	12
DNA topoisomerase 2-binding protein 1	TOPBP1	4	4	4	6.6	6.6	6.6	160.55	0	21.786	761430000	39

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Uncharacterized protein C17orf85	C17orf85	3	3	3	6.3	6.3	6.3	70.592	0	22.645	759970000	27
tRNA (guanine(37)-N1)-methyltransferase	TRMT5	7	7	7	19.6	19.6	19.6	58.246	0	45.392	758040000	24
Pre-mRNA-splicing factor ATP-dependent RNA helicase PRP16	DHX38	11	11	11	13.3	13.3	13.3	140.47	0	47.514	757110000	45
Nucleolar complex protein 2 homolog	NOC2L	7	7	7	10.8	10.8	10.8	84.918	0	44.944	756090000	21
Macrophage erythroblast attacher	MAEA	3	3	3	12.4	12.4	12.4	45.287	0	18.341	755310000	24
NADH dehydrogenase [ubiquinone] iron-sulfur protein 4, mitochondrial	NDUFS4	2	2	2	13.7	13.7	13.7	20.108	0	6.4862	754890000	10
Protein transport protein Sec24B	SEC24B	8	8	8	13.6	13.6	13.6	137.42	0	39.179	754480000	60
PDZ and LIM domain protein 3	PDLIM3	5	5	5	34.1	34.1	34.1	30.157	0	62.686	754280000	31
Biogenesis of lysosome-related organelles complex 1 subunit 1	BLOC1S1	4	4	4	52	52	52	8.5676	0	7.4917	754190000	23
Mediator of RNA polymerase II transcription subunit 20	MED20	4	4	4	41.4	41.4	41.4	15.923	0	69.055	753580000	23
Regulation of nuclear pre-mRNA domain-containing protein 2	RPRD2	12	12	12	13.3	13.3	13.3	156.02	0	69.842	753300000	33
WD repeat-containing protein 70	WDR70	7	7	7	17.6	17.6	17.6	73.2	0	38.825	752180000	37
A-kinase anchor protein 9	AKAP9	17	17	10	6.2	6.2	4.1	453.49	0	22.636	751840000	21
Lysosomal Pro-X carboxypeptidase	PRCP	4	4	4	12.3	12.3	12.3	43.933	0	14.39	751190000	28
Zinc finger protein ubi-d4	DPF2	6	6	6	26.6	26.6	26.6	44.155	0	37.921	750530000	70
Abl interactor 1	ABI1	8	8	6	30.2	30.2	23.7	42.637	0	24.395	749390000	22
Sentrin-specific protease 3	SENP3;SENP3-EIF4A1	5	5	5	16.7	16.7	16.7	65.009	0	70.703	748930000	25
Cyclin-T1	CCNT1	5	5	5	11.6	11.6	11.6	80.684	0	37.03	748770000	8
Gephyrin;Molybdopterin adenylyltransferase;Molybdopterin molybdenumtransferase	GPHN	9	9	9	18.2	18.2	18.2	76.331	0	21.061	748750000	29
Plakophilin-2	PKP2	9	9	9	21.8	21.8	21.8	91.239	0	58.512	748360000	28
Dr1-associated corepressor	DRAP1	5	5	5	27.8	27.8	27.8	23.205	0	15.241	746400000	23
Peptidyl-prolyl cis-trans isomerase FKBP9	FKBP9	7	7	7	15.1	15.1	15.1	63.067	0	36.799	746190000	30
Proteasome activator complex subunit 4	PSME4	7	7	7	5.5	5.5	5.5	211.33	0	39.163	745640000	22
Protein transport protein Sec24A	SEC24A	6	6	6	7.7	7.7	7.7	119.75	0	60.212	745320000	23
Mitochondrial import inner membrane translocase subunit TIM14	DNAJC19	2	2	2	19	19	19	12.498	0	13.529	745260000	11
DNA-directed RNA polymerase;DNA-directed RNA polymerase, mitochondrial	POLRMT	8	8	8	13.8	13.8	13.8	121.23	0	72.624	744170000	60
Zinc finger protein 24	ZNF24	5	5	5	27.2	27.2	27.2	42.128	0	85.094	743550000	60
LIM domain only protein 7	LMO7	9	9	9	9.9	9.9	9.9	192.69	0	64.255	743460000	30
E3 ubiquitin-protein ligase RBBP6	RBBP6	13	13	13	10.7	10.7	10.7	201.56	0	55.945	743110000	22
Ubiquitin domain-containing protein UBFD1	UBFD1	5	5	5	28	28	28	32.64	0	28.524	740000000	22
H/ACA ribonucleoprotein complex subunit 3	NOP10	1	1	1	25	25	25	7.7059	0	3.6964	739580000	14
tRNA (guanine-N(7)-)-methyltransferase	METTL1	2	2	2	15.2	15.2	15.2	31.471	0	9.5285	736880000	16
YTH domain-containing family protein 1	YTHDF1	7	5	5	21.6	17.5	17.5	55.344	0	138.04	735830000	23
Geranylgeranyl pyrophosphate synthase	GGPS1	5	5	5	17.3	17.3	17.3	34.87	0	11.189	735640000	21
Saccharopine dehydrogenase-like oxidoreductase	SCCPDH	5	5	5	14.7	14.7	14.7	47.151	0	9.712	735400000	19
Proteasome subunit alpha type;Proteasome subunit alpha type-2	PSMA2	6	6	6	46.6	46.6	46.6	25.84	0	29.185	734450000	53

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Exosome complex component CSL4	EXOSC1	3	3	3	26.6	26.6	26.6	15.705	0	35.01	734390000	19
Probable RNA-binding protein EIF1AD	MGC11102;EIF1AD	2	2	2	18.8	18.8	18.8	19.053	0	27.581	734230000	15
Exocyst complex component 5	EXOC5;DKFZp666H126	6	6	6	13.9	13.9	13.9	75.593	0	37.469	734110000	35
Catalase	CAT	6	6	6	24.3	24.3	24.3	59.755	0	68.707	733930000	44
ADP-ribosylation factor-like protein 8B	ARL8B	3	1	1	15.8	5.1	5.1	20.598	0.0040801	1.8336	731890000	8
28S ribosomal protein S23, mitochondrial	MRPS23	6	6	6	43.7	43.7	43.7	21.77	0	14.073	730950000	15
Ribonucleoside-diphosphate reductase subunit M2 B	RRM2B;DKFZp686M05248	6	5	5	23.3	19.6	19.6	46.966	0	47.831	730560000	62
ER membrane protein complex subunit 3	EMC3	5	5	5	29.1	29.1	29.1	29.952	0	80.545	730500000	39
Ribonuclease;Ribonuclease H2 subunit A	RNASEH2A;JUNB	6	6	6	29.1	29.1	29.1	33.425	0	32.867	729360000	25
Glutaminase kidney isoform, mitochondrial	GLS	4	4	2	9.6	9.6	5.4	73.508	0	34.081	728410000	21
Chromodomain-helicase-DNA-binding protein 1-like	CHD1L	6	6	6	10.5	10.5	10.5	89.974	0	11.866	728190000	20
28S ribosomal protein S11, mitochondrial	MRPS11	3	3	3	30.9	30.9	30.9	20.665	0	47.225	727670000	15
Spindlin-1	SPIN;SPIN1	5	5	5	30.2	30.2	30.2	29.6	0	17.461	727660000	14
TLD domain-containing protein 1	KIAA1609;TLDC1	5	5	5	20.2	20.2	20.2	51.032	0	48.349	727570000	28
General transcription factor 3C polypeptide 5	GTF3C5	5	5	5	14.4	14.4	14.4	52.29	0	29.975	727270000	24
UPF0488 protein C8orf33	C8orf33	4	4	4	34.9	34.9	34.9	24.992	0	161.61	726240000	29
E3 ubiquitin-protein ligase Praja-2	Pe7Fe14;PJA2	8	8	6	17	17	14.2	96.276	0	97.561	726130000	58
Ubiquitin-conjugating enzyme E2 D1;Ubiquitin-conjugating enzyme E2 D4	UBE2D1;UBE2D4	3	2	2	51.4	34.9	34.9	12.421	0	7.2905	723790000	22
		21	1	1	58.3	4.7	4.7	58.661	0	30.357	723790000	33
Tetraspanin;Tetraspanin-6	TSPAN6	3	3	3	27.7	27.7	27.7	15.609	0	22.871	723260000	20
39S ribosomal protein L14, mitochondrial	MRPL14	5	5	5	48.3	48.3	48.3	15.947	0	24.592	722840000	28
Charged multivesicular body protein 2b	CHMP2B	4	4	4	21.9	21.9	21.9	20.772	0	6.9574	722760000	15
Bifunctional UDP-N-acetylglucosamine 2-epimerase/N-acetylmannosamine kinase;UDP-N-acetylglucosamine 2-epimerase (hydrolyzing);N-acetylmannosamine kinase	GNE	7	7	7	15	15	15	79.304	0	35.088	722740000	20
Transcription factor Sp1	SP1;Sp1	4	4	4	16.9	16.9	16.9	80.692	0	161.62	722330000	19
Cirhin	CIRH1A	6	6	6	14.3	14.3	14.3	77.942	0	38.131	720350000	49
U3 small nucleolar RNA-associated protein 15 homolog	UTP15	7	7	7	17.4	17.4	17.4	58.414	0	56.244	719520000	33
Nardilysin	NRD1	7	7	7	11.1	11.1	11.1	139.41	0	20.538	718960000	22
Guanylate kinase	DKFZp666D023;GUK1	3	3	3	26.6	26.6	26.6	18.722	0	9.2369	718280000	13
Gamma-interferon-inducible protein 16	IFI16	5	5	5	9	9	9	88.255	0	27.045	715970000	24
Collagen alpha-1(IV) chain;Arresten;Collagen alpha-5(IV) chain	COL4A5;COL4A1	1	1	1	6.1	6.1	6.1	25.331	0	4.3286	715090000	6
PHD finger protein 3	PHF3	10	10	10	10.3	10.3	10.3	229.48	0	57.418	714440000	48
Oxysterol-binding protein;Oxysterol-binding protein-related protein 8	OSBPL8;DKFZp686C0249	6	6	6	14	14	14	79.052	0	42.568	714320000	41
Protein-S-isoprenylcysteine O-methyltransferase	ICMT	2	2	2	14.4	14.4	14.4	21.735	0	6.6941	714010000	18
Thymidylate synthase	TYMS	4	4	4	19.8	19.8	19.8	35.716	0	110.95	713330000	24
Deoxyribonuclease-2-alpha	DNASE2	3	3	3	10.8	10.8	10.8	38.181	0	7.6502	712870000	17
Ras-related protein Rab-9A	RAB9A	4	4	4	24.9	24.9	24.9	22.837	0	15.639	712310000	18
ATPase ASNA1	ASNA1	5	5	5	18.1	18.1	18.1	37.119	0	9.994	709580000	21
Nuclear cap-binding protein subunit 2	NCBP2;DKFZp686G18222	2	2	2	12.2	12.2	12.2	18.001	0	4.1998	709090000	10
Atypical kinase ADCK3, mitochondrial	CABC1;ADCK3	6	6	6	16.8	16.8	16.8	42.476	0	11.15	708440000	28

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Ubiquitin-conjugating enzyme E2 E3	UBE2E3	3	3	1	35.6	35.6	19	19.13	0	59.525	708150000	14
Protein arginine N-methyltransferase 3	PRMT3	6	6	6	14.7	14.7	14.7	59.902	0	18.693	707960000	22
Protein CYR61	CYR61	6	6	6	26.6	26.6	26.6	39.679	0	12.386	704780000	18
2-oxoisovalerate dehydrogenase subunit beta, mitochondrial	BCKDHB	4	4	4	16.5	16.5	16.5	35.507	0	8.497	703920000	15
Bcl-2-like protein 13	BCL2L13	8	8	8	31.8	31.8	31.8	52.723	0	67.002	703910000	58
28S ribosomal protein S15, mitochondrial	MRPS15	3	3	3	11.7	11.7	11.7	29.842	0	7.4752	703090000	18
Ribulose-phosphate 3-epimerase	RPE	2	2	2	20.9	20.9	20.9	20.972	0	39.714	702620000	41
Dynactin subunit 3	DCTN3	6	6	6	51	51	51	17.299	0	27.292	702020000	21
CCR4-NOT transcription complex subunit 3	CNOT3;FLJ00420	5	5	5	14.2	14.2	14.2	76.568	0	22.521	702010000	42
Protein NipSnap homolog 3A	NIPSNAP3A	2	2	2	13.4	13.4	13.4	28.466	0	18.331	701340000	33
Glutaredoxin-1	GLRX	3	3	3	57.5	57.5	57.5	11.776	0	68.374	700930000	23
Malic enzyme;NADP-dependent malic enzyme	ME1	9	9	9	26.2	26.2	26.2	64.135	0	60.182	700800000	57
Tetratricopeptide repeat protein 4	TTC4	5	5	5	24.5	24.5	24.5	44.678	0	53.441	700490000	31
Protein argonaute-2;Protein argonaute	AGO2;EIF2C2	6	6	4	9.2	9.2	6.1	97.207	0	18.629	699840000	29
Migration and invasion enhancer 1	MIEN1	3	3	3	24.3	24.3	24.3	12.403	0	3.9696	699410000	9
GDH/6PGL endoplasmic bifunctional protein;Glucose 1-dehydrogenase;6-phosphogluconolactonase	H6PD	5	5	5	8.2	8.2	8.2	90.172	0	57.626	698990000	28
Transmembrane and coiled-coil domain-containing protein 1	TMCO1	2	2	2	21.2	21.2	21.2	11.372	0	7.9987	698850000	20
Adaptin ear-binding coat-associated protein 1	NECAP1	5	5	5	37.5	37.5	37.5	25.948	0	22.766	698680000	23
LYR motif-containing protein 4	LYRM4	2	2	2	28.6	28.6	28.6	10.758	0	16.098	698390000	11
Cytochrome b-c1 complex subunit 9	UQCR10	1	1	1	27	27	27	7.3084	0	56.995	696930000	10
Dynein light chain Tctex-type 3	DYNLT3	1	1	1	11.2	11.2	11.2	16.979	0	20.757	696670000	12
Ferrochelatase;Ferrochelatase, mitochondrial	DKFZp686P18130;FECH	4	4	4	20.6	20.6	20.6	32.283	0	15.346	696620000	12
Kinesin-like protein;Kinesin-like protein KIF1A	KIF1A	10	10	9	12.1	12.1	10.8	191.02	0	60.574	696090000	37
Chromodomain-helicase-DNA-binding protein 8	CHD8	11	11	9	8.8	8.8	7.9	290.52	0	51.924	693320000	23
Integrin alpha-V;Integrin alpha-V heavy chain;Integrin alpha-V light chain	ITGAV	7	7	7	11.7	11.7	11.7	116.04	0	37.723	691660000	32
Diphosphomevalonate decarboxylase	MVD	7	7	7	23.8	23.8	23.8	43.404	0	19.466	690050000	21
Protein NEDD1	NEDD1	5	5	5	15.5	15.5	15.5	71.925	0	258.32	688980000	41
28S ribosomal protein S18a, mitochondrial	MRPS18A	3	3	3	12.5	12.5	12.5	29.613	0	19.39	688940000	27
UPF0553 protein C9orf64	C9orf64	5	5	5	18.2	18.2	18.2	39.028	0	18.788	688670000	37
Ganglioside-induced differentiation-associated protein 1	GDAP1	3	3	3	10.6	10.6	10.6	41.345	0	44.046	687700000	8
Elongation factor G, mitochondrial	GFM1	7	7	7	13.7	13.7	13.7	83.471	0	16.002	686380000	31
Protein polybromo-1	PBRM1	16	16	16	14.9	14.9	14.9	192.95	0	37.931	685930000	36
Lactadherin;Lactadherin short form;Medin	MFGE8	5	5	5	20.3	20.3	20.3	42.459	0	46.99	685860000	21
Switch-associated protein 70	SWAP70	7	7	7	14.9	14.9	14.9	68.997	0	7.9092	683840000	14
Protein FAM91A1	FAM91A1	6	6	6	15.1	15.1	15.1	88.986	0	83.178	683810000	15
RAC-alpha serine/threonine-protein kinase	AKT1	5	5	4	18.5	18.5	14.2	55.629	0	29.079	683620000	22
Peptidyl-prolyl cis-trans isomerase;Peptidyl-prolyl cis-trans isomerase C	PPIC	1	1	1	6.1	6.1	6.1	22.717	0	5.8538	683260000	12

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Tetraspanin;CD63 antigen	CD63	2	2	2	13.5	13.5	13.5	14.265	0	4.0718	683220000	9
THO complex subunit 2	THOC2	9	9	9	9.5	9.5	9.5	169.58	0	30.745	682710000	34
Ral GTPase-activating protein subunit beta	RALGAPB	10	10	10	13.7	13.7	13.7	166.8	0	87.873	680740000	63
Histidine triad nucleotide-binding protein 3	HINT3	5	5	5	47.8	47.8	47.8	20.361	0	28.315	679980000	14
Zinc finger matrin-type protein 2	ZMAT2	2	2	2	16.1	16.1	16.1	23.612	0	56.754	679680000	11
Splicing factor 3A subunit 2	SF3A2	2	2	2	8.9	8.9	8.9	51.475	0	19.109	679130000	29
Sepiapterin reductase	SPR	3	3	3	19.9	19.9	19.9	28.048	0	12.962	678330000	42
Phosphatidylinositide phosphatase SAC1	SACM1L	6	6	6	17.5	17.5	17.5	66.966	0	25.492	678130000	21
Chloride channel CLIC-like protein 1	CLCC1	4	4	4	14	14	14	56.266	0	228.54	677380000	25
Probable ergosterol biosynthetic protein 28	C14orf1	2	2	2	13.7	13.7	13.7	15.75	0	4.4411	676040000	7
Surfeit locus protein 6	SURF6	4	4	4	23.3	23.3	23.3	41.508	0	58.517	675420000	24
	DRIP4	27	1	1	43.8	3.5	3.5	96.078	0	20.258	674860000	12
28S ribosomal protein S27, mitochondrial	MRPS27	7	7	7	25.1	25.1	25.1	41.329	0	113.75	674080000	21
Protein DPCD	DPCD	5	5	5	34	34	34	23.239	0	14.801	674000000	28
TP53-regulating kinase	TP53RK	4	4	4	19.8	19.8	19.8	28.16	0	83.948	672670000	21
Magnesium transporter protein 1	MAGT1	1	1	1	4.1	4.1	4.1	24.378	0.0019139	2.2771	671550000	11
SPRY domain-containing protein 4	SPRYD4	3	3	3	23.3	23.3	23.3	14.456	0	4.746	671530000	18
Synaptosomal-associated protein 29;Synaptosomal-associated protein	SNAP29	5	5	5	26.7	26.7	26.7	28.97	0	39.244	670670000	20
Charged multivesicular body protein 6	CHMP6	2	2	2	23.9	23.9	23.9	12.939	0	32.194	670330000	14
Putative deoxyribonuclease TATDN1	TATDN1	6	6	6	21.4	21.4	21.4	36.418	0	10.548	670020000	15
Msx2-interacting protein	SPEN	17	17	17	8.9	8.9	8.9	402.24	0	58.33	669960000	30
Glycogen [starch] synthase, muscle	GYS1	6	6	3	9	9	5.2	83.857	0	7.2525	668790000	22
Syntaxin-binding protein 1	STXBP1;stxbp1	7	7	7	24.6	24.6	24.6	47.334	0	23.615	667600000	38
Dolichol-phosphate mannosyltransferase subunit 3	DPM3	1	1	1	10.6	10.6	10.6	10.294	0	4.1975	666720000	4
Enhancer of mRNA-decapping protein 3	EDC3	8	8	8	33.1	33.1	33.1	56.077	0	95.582	666360000	74
Phosphatidylinositol-binding clathrin assembly protein	PICALM	6	6	2	20	20	2.8	66.393	0	70.807	665180000	42
Protein FAM195B	FAM195B;hCG_1818442	3	3	3	41.3	41.3	41.3	10.463	0	25.848	663700000	13
DCN1-like protein;DCN1-like protein 5	DCUN1D5	4	4	4	19.8	19.8	19.8	27.508	0	13.9	663650000	22
[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 3, mitochondrial	PDK3	7	7	7	23.6	23.6	23.6	46.938	0	19.545	663230000	39
EGF-like repeat and discoidin I-like domain-containing protein 3	EDIL3	5	5	5	14.8	14.8	14.8	53.764	0	36.114	661590000	20
Fragile X mental retardation protein 1	FMR1	5	3	3	11.6	7.3	7.3	71.204	0	14.141	660890000	16
alpha-1,2-Mannosidase;Endoplasmic reticulum mannosyl-oligosaccharide 1,2-alpha-mannosidase	MAN1B1	3	3	3	11.9	11.9	11.9	46.027	0	14.453	660680000	12
RNA-binding protein 33	RBM33	8	8	8	13.8	13.8	13.8	129.98	0	31.014	660420000	19
Calcineurin B homologous protein 1	CHP;CHP1	3	3	3	24.1	24.1	24.1	22.456	0	56.891	659930000	22
Cell cycle control protein 50A	TMEM30A	3	3	3	11	11	11	39.218	0	76.31	659840000	14
Testis-expressed sequence 10 protein	TEX10	6	6	6	10.8	10.8	10.8	90.647	0	11.284	659260000	18
Protein GPR107	GPR107	2	2	2	5.3	5.3	5.3	61.931	0.0001998	2.9359	658470000	3
Cleavage and polyadenylation specificity factor subunit 4	CPSF4	6	6	6	33.5	33.5	33.5	30.255	0	47.109	658250000	25
Argininosuccinate synthase	ASS;ASS1	7	7	7	20.9	20.9	20.9	46.53	0	26.106	657910000	35

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Transmembrane protein 126A	TMEM126A	4	4	4	31.8	31.8	31.8	21.527	0	27.044	656640000	33
Kinesin light chain 3	KLC3	10	8	8	34.8	29.3	29.3	43.826	0	25.28	655550000	27
Calcium uniporter protein, mitochondrial	MCU	3	3	3	10.8	10.8	10.8	39.866	0	21.076	655110000	10
Paralemmin-1	PALM	7	7	7	37.3	37.3	37.3	37.157	0	150.44	654200000	19
Protein C10	C12orf57	3	3	3	50.5	50.5	50.5	9.639	0	29.222	654040000	29
Collagen type IV alpha-3-binding protein	COL4A3BP	4	4	4	12.5	12.5	12.5	59.269	0.000788	2.6885	653930000	2
N-acetyltransferase 14	NAT14	2	2	2	31.1	31.1	31.1	21.65	0	27.778	652940000	15
MMS19 nucleotide excision repair protein homolog	MMS19	8	8	8	16.7	16.7	16.7	113.29	0	104.32	652580000	30
Methylcrotonoyl-CoA carboxylase subunit alpha, mitochondrial	MCCC1;DKFZp686B2026 7	7	7	7	22.2	22.2	22.2	68.331	0	37.351	651740000	19
E3 ubiquitin-protein ligase RING1	RING1	7	5	5	42.2	31.6	31.6	29.74	0	147.88	651230000	15
O-acetyl-ADP-ribose deacetylase 1	C6orf130;OARD1	2	2	2	21.7	21.7	21.7	17.025	0	13.42	651210000	12
Ribosome-recycling factor, mitochondrial	MRRF	3	3	3	13.7	13.7	13.7	36.962	0	21.294	651180000	16
26S proteasome non-ATPase regulatory subunit 9	PSMD9	5	5	5	37.3	37.3	37.3	16.913	0	30.867	650700000	22
Conserved oligomeric Golgi complex subunit 1	COG1	9	9	9	17.8	17.8	17.8	99.283	0	125.36	650650000	42
Testis-specific chromodomain protein Y 2	CDY2A;CDY2B	1	1	1	2.5	2.5	2.5	62.067	0.0026365	2.0536	649290000	1
Cytochrome b5	CYB5A	3	3	3	32.6	32.6	32.6	14.572	0	14.408	648900000	12
Disks large-associated protein 5	DLGAP5	10	10	10	23.9	23.9	23.9	88.928	0	45.376	648000000	26
Mitogen-activated protein kinase 15	MAPK15	1	1	1	2.9	2.9	2.9	30.955	0.0042577	1.8142	647690000	6
Alpha-mannosidase;Alpha-mannosidase 2	MAN2A1	6	6	6	7	7	7	131.04	0	18.597	647420000	15
Cysteine-rich with EGF-like domain protein 2	CRELD2	1	1	1	4.5	4.5	4.5	38.191	0	70.526	647400000	12
Rab-like protein 3	RABL3	4	4	4	31.8	31.8	31.8	26.422	0	49.064	645800000	23
Mitochondrial genome maintenance exonuclease 1	MGME1	4	4	4	21.2	21.2	21.2	39.42	0	39.997	645650000	16
Adenosine deaminase	ADA	7	7	3	24.2	24.2	13.8	40.763	0	20.304	643780000	25
Protein phosphatase inhibitor 2-like protein 3;Protein phosphatase inhibitor 2	PPP1R2P3;PPP1R2	3	3	3	35.1	35.1	35.1	23.106	0	166.81	643590000	16
Exosome complex component RRP41	EXOSC4	3	3	3	13.8	13.8	13.8	28.342	0	31.352	643160000	14
E3 ubiquitin-protein ligase TRIM33	TRIM33	8	8	8	16.1	16.1	16.1	122.52	0	27.693	643140000	17
Mitogen-activated protein kinase kinase kinase 7	MAP3K7;DKFZp586F042 0	8	8	8	21.8	21.8	21.8	64.271	0	46.714	643120000	38
Wiskott-Aldrich syndrome protein family member 2	WASF2	8	8	8	20.1	20.1	20.1	54.283	0	64.822	642910000	47
Protein YIF1A	YIF1A	1	1	1	19	19	19	8.7513	0	5.0008	642070000	9
Exportin-T	XPOT	13	13	13	22.5	22.5	22.5	109.92	0	45.66	641980000	37
Signal peptidase complex subunit 2	SPCS2	5	5	5	55.2	55.2	55.2	10.163	0	91.642	641780000	46
Golgin subfamily A member 5	GOLGA5	8	8	8	17.4	17.4	17.4	83.023	0	96.123	641600000	39
Lys-63-specific deubiquitinase BRCC36	BRCC3	6	6	6	19.3	19.3	19.3	36.072	0	42.997	641470000	32
39S ribosomal protein L19, mitochondrial	MRPL19	3	3	3	15.4	15.4	15.4	32.38	0	23.828	640300000	18
RNA 3-terminal phosphate cyclase-like protein	RCL1	4	4	4	16.1	16.1	16.1	40.842	0	48.29	639840000	22
Malonyl-CoA-acyl carrier protein transacylase, mitochondrial	MCAT	5	5	5	25.1	25.1	25.1	42.961	0	47.764	639780000	37
Synaptojanin-2-binding protein	SYNJ2BP;SYNJ2BP-COX16	5	5	5	44.1	44.1	44.1	15.928	0	30.452	639600000	23
Polycomb protein EED	EED	5	5	5	13.8	13.8	13.8	50.197	0	9.8663	639400000	15
Eukaryotic translation elongation factor 1 epsilon-1	EEF1E1;EEF1E1-BLOC1S5	3	3	3	29.4	29.4	29.4	15.228	0	72.359	639030000	12
General transcription factor 3C polypeptide 2	GTF3C2	7	7	7	12.6	12.6	12.6	100.68	0	16.514	638720000	25

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DNA-directed RNA polymerase II subunit RPB3	POLR2C	5	5	5	29.8	29.8	29.8	31.441	0	39.138	638340000	18
WD repeat-containing protein 46	C6orf11;WDR46	5	5	5	15.6	15.6	15.6	61.749	0	62.98	637830000	36
GPI transamidase component PIG-T	PIGT	4	4	4	8.1	8.1	8.1	65.699	0	11.146	637250000	5
Calcium-transporting ATPase;Plasma membrane calcium-transporting ATPase 4	ATP2B4;DKFZp686M088	16	9	9	22.7	14.4	14.4	128.78	0	28.668	636270000	22
Importin subunit alpha;Importin subunit alpha-5;Importin subunit alpha-5, N-terminally processed	KPNA1	6	4	4	17.3	11.9	11.9	60.308	0	31.942	636150000	27
DNA replication complex GINS protein SLD5;DNA replication complex GINS protein SLD5, N-terminally processed;DNA replication complex GINS protein SLD5	GINS4	5	5	5	30.5	30.5	30.5	26.047	0	11.369	635720000	23
39S ribosomal protein L3, mitochondrial	MRPL3	2	2	1	13.8	13.8	3.9	40.47	0	9.6698	635270000	50
Histone-arginine methyltransferase CARM1	CARM1	4	4	4	6.7	6.7	6.7	65.853	0	7.0951	634560000	15
STE20/SPS1-related proline-alanine-rich protein kinase	STK39	8	5	5	26.6	19.9	19.9	57.697	0	43.82	633580000	27
Stromal cell-derived factor 2	SDF2	2	2	2	18.5	18.5	18.5	23.026	0	104.07	633100000	17
Legumain	LGMN	3	3	3	7.1	7.1	7.1	47.071	0	41.534	633020000	54
	RPL10	4	1	1	25.2	11	11	18.565	0	36.723	632630000	14
RNA-binding protein PNO1	PNO1	3	3	3	15.1	15.1	15.1	27.924	0	72.225	632530000	14
Peptidylprolyl isomerase domain and WD repeat-containing protein 1	PPWD1	9	9	9	20.9	20.9	20.9	73.574	0	68.036	632280000	32
Citron Rho-interacting kinase	CIT	11	11	11	9.9	9.9	9.9	187.3	0	26.944	632000000	25
		22	4	0	27.8	4.3	0	109.15	0	7.8783	631970000	13
Protein FAM3C	FAM3C	4	4	4	26.4	26.4	26.4	24.68	0	26.968	631770000	16
TRAF-type zinc finger domain-containing protein 1	TRAFD1	7	7	7	21.3	21.3	21.3	64.84	0	24.162	631750000	22
Annexin	ANXA6	27	2	2	46.5	3	3	75.276	0	59.879	631370000	19
THUMP domain-containing protein 1	THUMPD1;DKFZp686C10 54;44M2.1	5	5	5	28.6	28.6	28.6	39.315	0	43.053	630170000	11
Proline synthase co-transcribed bacterial homolog protein	PROSC	6	6	6	22.3	22.3	22.3	34.042	0	9.2428	630130000	16
Coiled-coil domain-containing protein 93	CCDC93	7	7	7	14.7	14.7	14.7	73.197	0	37.92	630080000	21
Mitochondrial import receptor subunit TOM7 homolog	TOMM7;TOM7	1	1	1	33.3	33.3	33.3	5.6718	0	8.1369	629200000	51
SUN domain-containing protein 1	SUN1;UNC84A	6	6	6	12.2	12.2	12.2	90.063	0	15.356	628980000	14
Serine/threonine-protein phosphatase 6 regulatory subunit 1	PPP6R1;SAPS1	6	6	6	17.3	17.3	17.3	96.723	0	55.826	628490000	33
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 13	NDUFA13	2	2	2	21.7	21.7	21.7	14.085	0	4.5958	627810000	10
N-acetylglucosamine-6-sulfatase	DKFZp686E12166;GNS	3	3	3	7.9	7.9	7.9	53.42	0	7.0403	626660000	10
HEAT repeat-containing protein 3	HEATR3	5	5	5	10.4	10.4	10.4	74.582	0	99.725	626300000	33
CD109 antigen	CD109	7	7	7	7.6	7.6	7.6	161.69	0	31.81	626290000	38
Mitotic checkpoint serine/threonine-protein kinase BUB1	BUB1	3	3	3	8	8	8	92.485	0.0019106	2.2604	626130000	12
Dual specificity mitogen-activated protein kinase kinase 1	MAP2K1	7	5	5	27.5	18.3	18.3	41.378	0	25.027	624880000	17
Heat shock 70 kDa protein 13	HSPA13	2	2	2	5.5	5.5	5.5	51.867	0.0037223	1.8687	624740000	5
Retinal dehydrogenase 2	ALDH1A2	7	6	6	26.1	24.5	24.5	56.723	0	21.823	624490000	29

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tRNA (uracil-5-)-methyltransferase homolog A	TRMT2A	8	8	8	17.4	17.4	17.4	70.834	0	17.767	624330000	34
Serine/threonine-protein kinase A-Raf	ARAF	9	6	6	19.5	14.4	14.4	67.585	0	15.589	624260000	30
Histone deacetylase complex subunit SAP130	SAP130	3	3	3	5	5	5	72.873	0	5.3023	623810000	13
Mitochondrial fission 1 protein	FIS1	2	2	2	15.8	15.8	15.8	16.937	0	9.077	623800000	7
Protein kinase C-binding protein 1	ZMYND8;DKFZp564P1772	10	10	10	15.7	15.7	15.7	121.25	0	69.298	622850000	37
3-oxoacyl-[acyl-carrier-protein] synthase, mitochondrial	OXSM	4	4	4	17.9	17.9	17.9	48.842	0	24.003	622780000	32
Proteasome assembly chaperone 4	PSMG4	3	3	3	37.4	37.4	37.4	13.775	0	67.321	622270000	17
28S ribosomal protein S34, mitochondrial	MRPS34	6	6	6	32.6	32.6	32.6	25.65	0	19.148	622140000	24
		10	10	1	21.1	21.1	3.1	85.154	0	39.549	621600000	31
Protein YIPF;Protein YIPF5	YIPF5	2	2	2	8.2	8.2	8.2	28.031	0	12.218	621540000	12
Phosphatidylinositol 4-kinase type 2-alpha	PI4K2A	5	5	2	17.3	17.3	9.2	54.022	0	12.936	621400000	26
Condensin-2 complex subunit D3	NCAPD3	5	5	5	7.7	7.7	7.7	168.89	0	58.541	621090000	31
Protein canopy homolog 3	TNRC5;CNPY3	6	6	6	30.2	30.2	30.2	30.774	0	91.368	620170000	17
Cyclin-K	CCNK	4	4	4	12.4	12.4	12.4	64.239	0	57.325	620030000	23
Guanidinoacetate N-methyltransferase	HEL-S-20;GAMT	3	3	3	22.5	22.5	22.5	23.804	0	10.674	618800000	16
BUD13 homolog	BUD13	4	4	4	6.9	6.9	6.9	70.52	0	3.578	618680000	5
Transformation/transcription domain-associated protein	TRRAP	12	12	12	5.6	5.6	5.6	405.81	0	55.553	617250000	23
Peptidyl-prolyl cis-trans isomerase;FK506-binding protein 15	FKBP15	10	10	10	14.9	14.9	14.9	136.27	0	128.42	616850000	38
SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily D member 1	SMARCD1	5	4	4	11	8.2	8.2	66.028	0	25.972	616780000	18
Microtubule-associated protein 1A;MAP1A heavy chain;MAP1 light chain LC2	MAP1A	15	14	14	9.6	9.3	9.3	331.25	0	30.05	615270000	24
Potassium-transporting ATPase alpha chain 1	DKFZp666G172;ATP4A	5	2	2	5.6	2.1	2.1	110.79	0.0026291	2.0035	615020000	2
Ribonuclease H2 subunit B	RNASEH2B	4	4	4	18.9	18.9	18.9	35.138	0	10.788	613250000	9
Bisphosphoglycerate mutase;Phosphoglycerate mutase	BPGM	3	3	3	13.2	13.2	13.2	27.991	0	15.092	612120000	19
Deleted in autism protein 1	C3orf58	5	5	5	15.6	15.6	15.6	49.481	0	15.011	612020000	19
	HNRNPK	24	1	1	65.8	2.7	2.7	48.51	0	3.3199	611980000	5
Cyclic AMP-dependent transcription factor ATF-3	ATF3	3	3	3	27.5	27.5	27.5	17.643	0	46.964	611490000	12
V-type proton ATPase subunit D	VATD;ATP6V1D	5	5	5	27.1	27.1	27.1	28.161	0	31.848	611180000	20
1-acyl-sn-glycerol-3-phosphate acyltransferase;1-acyl-sn-glycerol-3-phosphate acyltransferase alpha	AGPAT1	2	2	2	24.6	24.6	24.6	18.756	0	39.57	610510000	59
U3 small nucleolar ribonucleoprotein protein MPP10	MPHOSPH10	4	4	4	12.3	12.3	12.3	78.863	0	32.529	610170000	29
Coronin;Coronin-1A	CORO1A	4	4	4	11.3	11.3	11.3	51.026	0	51.15	609020000	30
Fibronectin type III and SPRY domain-containing protein 1	FSD1	6	6	6	22.4	22.4	22.4	49.193	0	28.659	608640000	39
Procollagen C-endopeptidase enhancer 2	PCOLCE2	3	3	3	11.6	11.6	11.6	33.807	0	15.358	608040000	17
Oxysterol-binding protein	OSBPL9	8	8	1	22.9	22.9	5.6	73.873	0	19.996	607880000	35
Beta-arrestin-1	ARRB1	6	6	6	24.9	24.9	24.9	47.065	0	29.091	607290000	18
Mitochondrial import inner membrane translocase subunit Tim10	TIMM10	1	1	1	15.6	15.6	15.6	10.333	0	22.465	607250000	12
A-kinase anchor protein 1, mitochondrial	AKAP1	9	9	9	18.7	18.7	18.7	97.34	0	25.526	606550000	19

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Thrombospondin-1	THBS1	6	6	6	8.9	8.9	8.9	129.35	0	22.17	606220000	10
Vacuolar protein sorting-associated protein 28 homolog	VPS28	4	4	4	31.7	31.7	31.7	18.469	0	18.371	605940000	13
Zinc finger protein 428	ZNF428	3	3	3	20.6	20.6	20.6	23.568	0	25.756	605920000	16
Protein IWS1 homolog	IWS1	5	5	5	9.5	9.5	9.5	82.121	0	24.818	605910000	39
Protein LSM14 homolog A	LSM14A	7	7	7	31.5	31.5	31.5	50.529	0	164.69	605560000	45
RING-box protein 2	RNF7	2	2	2	18.6	18.6	18.6	12.741	0	27.367	604040000	23
Aconitate hydratase;Cytoplasmic aconitate hydratase	IRP1;HEL60;ACO1	7	7	7	15.7	15.7	15.7	87.088	0	33.188	603560000	49
Protein regulator of cytokinesis 1	PRC1	6	6	6	16.9	16.9	16.9	71.664	0	35.021	603390000	23
ADP-ribosylation factor-like protein 2	hCG_23373;ARL2;ARL2-SNX15	5	5	5	28.3	28.3	28.3	20.878	0	8.6873	603290000	17
Kinesin-like protein KIF13B;Kinesin-like protein	KIF13B	10	10	10	7.4	7.4	7.4	202.79	0	15.329	602790000	21
Protein kinase C;Protein kinase C iota type	PRKCI	10	10	10	25.6	25.6	25.6	67.199	0	68.915	602370000	45
Protein LSM14 homolog B	LSM14B	7	7	0	35.1	35.1	0	42.07	0	87.257	600970000	24
ATP synthase mitochondrial F1 complex assembly factor 2	ATPAF2	6	6	6	29.8	29.8	29.8	32.772	0	24.618	599830000	29
	SYNCRIP	17	1	1	35.2	1.9	1.9	59.606	0.0003968	2.811	599820000	10
Williams-Beuren syndrome chromosomal region 16 protein	WBSCR16	6	6	6	22.8	22.8	22.8	49.996	0	22.876	599720000	33
Alpha/beta hydrolase domain-containing protein 14B	HEL-S-299;ABHD14B	2	2	2	18.9	18.9	18.9	19.796	0	16.386	599550000	20
Nuclear receptor-binding protein	NRBP1	3	3	3	8.3	8.3	8.3	57.957	0	13.941	598150000	14
FAST kinase domain-containing protein 2	KIAA0971;FASTKD2	9	9	9	19.3	19.3	19.3	81.462	0	26.247	597790000	40
Ras-related protein Rab-6B	RAB6B	5	2	2	30.8	17.3	17.3	23.433	0	4.5841	597590000	10
39S ribosomal protein L23, mitochondrial	MRPL23	4	4	4	25.5	25.5	25.5	17.797	0	10.661	597320000	16
Probable ATP-dependent RNA helicase DDX20	DDX20	7	7	7	12.9	12.9	12.9	92.155	0	28.95	596070000	25
Transmembrane protein 209	TMEM209	5	5	5	16.2	16.2	16.2	62.921	0	73.276	595890000	31
39S ribosomal protein L46, mitochondrial	MRPL46	2	2	2	9.7	9.7	9.7	31.705	0	9.1457	595800000	12
Nuclear-interacting partner of ALK	ZC3HC1;NIPA	4	4	4	15	15	15	50.562	0	96.279	595340000	28
Niban-like protein 1	C9orf88;FAM129B	4	4	4	13.6	13.6	13.6	82.682	0	71.592	595060000	25
CCR4-NOT transcription complex subunit 11	CNOT11	1	1	1	15.7	15.7	15.7	14.248	0	18.315	594950000	12
Squalene synthase	FDFT1	4	4	4	13.4	13.4	13.4	48.115	0	50.48	594580000	26
Basal cell adhesion molecule	BCAM;LU	8	8	8	21	21	21	67.404	0	19.046	594220000	24
Heat shock factor protein 1	HSF1	3	3	3	11.1	11.1	11.1	53.593	0	17.203	593990000	22
Unconventional myosin-XVIIIa	MYO18A;hCG_27198	10	10	10	7.9	7.9	7.9	231.1	0	63.401	593290000	33
TNF receptor-associated factor 6	TRAF6	3	3	3	12.8	12.8	12.8	59.573	0	6.3085	592380000	8
Ribosomal RNA-processing protein 8	RRP8	6	6	6	20.4	20.4	20.4	50.714	0	33.79	592240000	21
ATP synthase protein 8	ATP8;atp8;ATPase 8;MT-ATP8	1	1	1	100	100	100	1.1814	0	3.1404	592210000	14
Syntaxin-4	STX4;STX4A	4	4	4	25.6	25.6	25.6	34.18	0	43.012	591390000	33
Probable dolichyl pyrophosphate Glc1Man9GlcNAc2 alpha-1,3-glucosyltransferase	ALG8	1	1	1	10.3	10.3	10.3	9.6744	0.0081982	1.6333	590680000	6
Serine/threonine-protein kinase TBK1	TBK1	7	7	7	21.6	21.6	21.6	57	0	42.277	589710000	22
Protein FAM192A	FAM192A;NIP30	3	3	3	16.9	16.9	16.9	28.912	0	29.559	587520000	21
NF-kappa-B-activating protein	NKAP	6	6	6	23.9	23.9	23.9	47.138	0	44.693	586890000	18
Programmed cell death protein 10	PDCD10	4	4	4	40.2	40.2	40.2	14.117	0	43.239	585900000	17
Protein kinase C and casein kinase substrate in neurons protein 3	PACSIN3	6	6	6	20.7	20.7	20.7	48.531	0	37.983	585710000	21

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Glutamyl-tRNA(Gln) amidotransferase subunit A, mitochondrial	QRSL1	10	10	10	36.9	36.9	36.9	57.46	0	84.683	585660000	49
Cysteine-rich protein 2	CRIP2	3	3	3	34.9	34.9	34.9	20.6	0	167.65	585380000	30
Carnitine O-palmitoyltransferase 1, liver isoform	CPT1A	4	4	4	6.6	6.6	6.6	88.339	0	8.3104	585260000	17
Porphobilinogen deaminase	HMBS	5	5	5	19.7	19.7	19.7	35.761	0	7.9989	585040000	21
Junctional adhesion molecule A	F11R	4	4	4	23.7	23.7	23.7	30.197	0	183.62	585000000	32
Spermatogenesis-associated protein 5	SPATA5	9	8	8	15.8	14.4	14.4	97.903	0	28.835	584790000	27
MORF4 family-associated protein 1	MRFAP1	1	1	1	23.3	23.3	23.3	11.852	0	28.419	583900000	11
Ankyrin repeat and SAM domain-containing protein 1A	ANKS1A	6	6	6	9.3	9.3	9.3	123.11	0	37.486	583300000	13
THO complex subunit 1	THOC1	8	8	8	16.6	16.6	16.6	75.651	0	55.357	583200000	35
Structural maintenance of chromosomes protein 6	SMC6	7	7	7	10.2	10.2	10.2	126.32	0	42.753	582990000	28
Nucleolar complex protein 3 homolog	NOC3L	6	6	6	15.2	15.2	15.2	92.547	0	23.468	582940000	31
Glycerol-3-phosphate dehydrogenase 1-like protein;Glycerol-3-phosphate dehydrogenase [NAD(+)]	GPD1L	6	6	6	25.1	25.1	25.1	38.418	0	51.758	582830000	21
Long-chain fatty acid transport protein 3	SLC27A3	6	6	6	18.1	18.1	18.1	78.643	0	62.288	582400000	61
Methylthioribulose-1-phosphate dehydratase	APIP	5	5	5	23.1	23.1	23.1	27.125	0	52.087	582110000	16
DNA methyltransferase 1-associated protein 1	DMAP1	4	4	4	16.6	16.6	16.6	51.861	0	15.035	581600000	23
Alanyl-tRNA editing protein Aarsd1	AARSD1;PTGES3L-AARSD1	5	5	5	28.4	28.4	28.4	45.479	0	60.649	580610000	32
Zinc finger CCCH domain-containing protein 13	ZC3H13	4	4	4	4.4	4.4	4.4	196.63	0	53.557	580320000	24
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex assembly factor 4	NDUFAF4	3	3	3	20.6	20.6	20.6	20.266	0	22.709	580150000	12
Arfaptin-2	ARFIP2	4	4	4	24.9	24.9	24.9	37.855	0	84.013	580090000	27
Inhibitor of growth protein;Inhibitor of growth protein 1	ING1	1	1	1	21.6	21.6	21.6	12.566	0	61.949	579430000	8
WD repeat domain phosphoinositide-interacting protein 2	WIPI2	4	4	4	20.3	20.3	20.3	49.392	0	125.2	578030000	42
Chromobox protein homolog 8	CBX8	4	4	4	16.5	16.5	16.5	43.395	0	50.695	577060000	32
BAG family molecular chaperone regulator 5	BAG5	4	4	4	15.2	15.2	15.2	51.24	0	12.455	576510000	11
		1	1	1	3.2	3.2	3.2	37.69	0.0088098	1.5152	574880000	5
WD repeat-containing protein 7	WDR7	3	3	3	5.4	5.4	5.4	163.81	0	11.668	574480000	16
Mitochondrial intermembrane space import and assembly protein 40	CHCHD4	2	2	2	27.1	27.1	27.1	17.385	0	35.259	574150000	13
Nucleosome-remodeling factor subunit BPTF	BPTF	7	7	7	4.9	4.9	4.9	271.53	0	43.861	574010000	23
SAP30-binding protein	SAP30BP	5	5	5	21.4	21.4	21.4	33.87	0	10.296	574000000	13
FERM, RhoGEF and pleckstrin domain-containing protein 1	FARP1	5	5	2	7	7	2.6	122.09	0	26.049	573760000	13
Actin-related protein 2/3 complex subunit 1B	ARPC1B	8	2	2	31.5	8.6	8.6	40.949	0	8.6128	573630000	4
Integrin-linked protein kinase	HEL-S-28;ILK	5	5	5	13.1	13.1	13.1	51.419	0	8.8168	573490000	25
Vacuolar protein sorting-associated protein 11 homolog	VPS11;DKFZp564P2364	6	6	6	8.2	8.2	8.2	107.37	0	16.845	572570000	8
Tapasin	TAPBP	2	2	2	14.1	14.1	14.1	16.442	0	6.2249	571660000	15

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Peroxisomal membrane protein 11B	PEX11B	4	4	4	25.9	25.9	25.9	28.431	0	8.9545	571180000	20
DnaJ homolog subfamily C member 10	DNAJC10	6	6	6	8.7	8.7	8.7	91.079	0	30.319	570960000	14
GTP-binding protein SAR1a	SARA1;SAR1A	4	3	3	26.8	21.2	21.2	22.338	0	33.12	570880000	33
RNA exonuclease 4	REXO4	7	7	7	26.1	26.1	26.1	46.671	0	11.696	570620000	40
ATP-dependent RNA helicase DHX36	DHX36	7	7	7	13	13	13	91.43	0	50.242	570600000	23
Carboxypeptidase E	CPE	5	5	5	20.7	20.7	20.7	47.311	0	37.885	570510000	19
Dihydroorotate dehydrogenase (quinone), mitochondrial	DHODH	5	5	5	18.7	18.7	18.7	42.867	0	28.58	568790000	21
Parafibromin	CDC73	6	6	6	13.9	13.9	13.9	60.576	0	10.963	567450000	22
Activating signal cointegrator 1 complex subunit 2	ASCC2	4	4	4	9.2	9.2	9.2	86.359	0	19.2	567150000	41
Rab11 family-interacting protein 1	RAB11FIP1	10	10	10	13.1	13.1	13.1	137.17	0	17.979	566580000	16
Nuclear valosin-containing protein-like	NVL	8	8	8	15.4	15.4	15.4	95.078	0	70.285	566440000	25
Histone-lysine N-methyltransferase NSD3	WHSC1L1	8	8	8	11.3	11.3	11.3	161.61	0	41.563	565770000	26
Ubiquitin thioesterase otulin	OTULIN	5	5	5	19.3	19.3	19.3	40.262	0	13.135	565380000	19
Transmembrane emp24 domain-containing protein 2	TMED2;RNP24	2	2	2	16.9	16.9	16.9	18.488	0	9.3002	565040000	13
5-3 exoribonuclease 1	XRN1	9	9	9	8.3	8.3	8.3	194.1	0	99.138	564950000	36
Elongation of very long chain fatty acids protein 1;Elongation of very long chain fatty acids protein	ELOVL1	2	2	2	9.3	9.3	9.3	32.662	0	18.248	564600000	16
Unconventional prefoldin RPB5 interactor 1	C19orf2;URI1	6	6	6	19.6	19.6	19.6	55.468	0	21.536	564260000	30
Protein AATF	AATF	6	6	6	18.8	18.8	18.8	63.132	0	19.937	562930000	25
A-kinase anchor protein 17A	AKAP17A;SFRS17A	4	4	4	8.1	8.1	8.1	80.735	0	12.145	562270000	18
Sal-like protein 2	SALL2	4	4	4	11	11	11	95.411	0	48.89	559970000	26
Ufm1-specific protease 2	UFSP2	4	4	4	15.5	15.5	15.5	44.162	0	14.167	559560000	17
Histone acetyltransferase KAT7;Histone acetyltransferase	KAT7	4	4	4	11	11	11	70.642	0	36.218	559450000	34
Pre-rRNA-processing protein TSR1 homolog	TSR1	5	5	5	9.7	9.7	9.7	91.809	0	22.728	559350000	20
Centromere protein H	CENPH	5	5	5	25.1	25.1	25.1	28.481	0	61.303	559220000	12
Sulfhydryl oxidase;FAD-linked sulfhydryl oxidase ALR	GFER	3	3	3	35.3	35.3	35.3	15.795	0	68.211	559070000	18
Serine/threonine-protein kinase Chk2	CHEK2	6	6	6	33.7	33.7	33.7	31.057	0	20.301	558670000	25
RNA-binding motif, single-stranded-interacting protein 1	RBMS1	3	3	3	22.8	22.8	22.8	41.965	0	17.24	557940000	17
Ribosomal protein L19;60S ribosomal protein L19	RPL19	2	2	2	10.4	10.4	10.4	20.819	0	81.664	555310000	13
E3 ubiquitin-protein ligase RNF138	RNF138	3	3	3	18.4	18.4	18.4	28.192	0	28.059	554120000	23
Ectonucleotide pyrophosphatase/phosphodiesterase family member 1;Alkaline phosphodiesterase I;Nucleotide pyrophosphatase	ENPP1	3	3	3	6.2	6.2	6.2	104.92	0	13.97	553810000	16
		2	2	2	19.1	19.1	19.1	19.86	0.0042608	1.8218	551980000	3
Mitochondrial ornithine transporter 1	SLC25A15	3	3	3	22	22	22	25.945	0	41.001	551780000	41
Kinesin-like protein;Kinesin-like protein KIF3C	KIF3C;DKFZp686G1646	4	4	3	10.3	10.3	8.6	75.829	0	43.117	550680000	12
Biogenesis of lysosome-related organelles complex 1 subunit 3	BLOC1S3	4	4	4	28.7	28.7	28.7	21.255	0	58.669	549100000	17
General transcription factor IIF subunit 1	GTF2F1	4	4	4	12.7	12.7	12.7	48.481	0	18.7	549010000	14
Ras-related protein Rab-32	RAB32	5	5	4	28.4	28.4	23.6	24.997	0	24.969	547670000	12

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Mitochondrial inner membrane protein OXA1L	OXA1L	2	2	2	17.9	17.9	17.9	12.728	0	6.9263	547080000	7
Transmembrane protein 214	TMEM214;DKFZp761L13 14	7	7	7	11.1	11.1	11.1	75.439	0	10.344	546990000	11
39S ribosomal protein L15, mitochondrial	MRPL15	7	7	7	40.1	40.1	40.1	27.236	0	20.228	546650000	16
Mitochondrial assembly of ribosomal large subunit protein 1	MALSU1	2	2	2	23.9	23.9	23.9	26.17	0	26.265	546640000	39
Vacuolar protein sorting-associated protein 51 homolog	VPS51	6	6	6	11.4	11.4	11.4	86.041	0	92.321	546000000	32
Ubiquilin-1	UBQLN1	8	4	4	29.5	18.8	18.8	62.484	0	56.848	545990000	91
Methyl-CpG-binding domain protein 3	MBD3	3	3	3	22.2	22.2	22.2	20.6	0	25.714	544860000	20
HIRA-interacting protein 3	HIRIP3	7	7	7	20.5	20.5	20.5	61.956	0	45.065	544620000	19
Ras-related protein Rab-12	RAB12	4	4	4	20.9	20.9	20.9	27.248	0	40.345	544600000	13
Tax1-binding protein 3	TAX1BP3	1	1	1	13.7	13.7	13.7	13.735	0	20.975	544040000	14
Vitamin K-dependent gamma-carboxylase	GGCX	2	2	2	4.9	4.9	4.9	66.259	0	7.683	543340000	16
Vesicle-associated membrane protein 7	SYBL1;VAMP7	3	3	3	27.5	27.5	27.5	17.379	0	19.47	543020000	20
Laminin subunit beta-1	LAMB1	10	10	10	9	9	9	200.48	0	62.094	541920000	62
Far upstream element-binding protein 1	FUBP1	12	1	1	29	3.3	3.3	67.603	0	3.8025	541190000	7
NAD-dependent protein deacylase sirtuin-5, mitochondrial	SIRT5	4	4	4	22.3	22.3	22.3	33.881	0	25.836	540770000	15
RING finger protein 214	DKFZp547C195;RNF214	6	6	6	11.2	11.2	11.2	77.667	0	71.067	540150000	17
Golgi integral membrane protein 4	GOLIM4	5	5	5	10.6	10.6	10.6	81.879	0	21.23	540040000	11
TBC1 domain family member 9B	TBC1D9B	8	8	8	11	11	11	138.54	0	19.067	539070000	29
Protein kinase C delta type;Protein kinase C delta type;Protein kinase C delta type regulatory subunit;Protein kinase C delta type catalytic subunit;Protein kinase C	PRKCD	8	8	8	17	17	17	77.504	0	38.435	539060000	28
Splicing factor, suppressor of white-apricot homolog	SFSWAP;SFRS8	7	7	7	14.4	14.4	14.4	104.82	0	42.934	538310000	39
Activating transcription factor 7-interacting protein 1	ATF7IP	6	6	6	9.6	9.6	9.6	136.39	0	35.918	538150000	27
MICAL-like protein 1	MICALL1;MICAL-L1	8	8	8	19.1	19.1	19.1	93.44	0	58.408	536810000	34
L-2-hydroxyglutarate dehydrogenase, mitochondrial	L2HGDH	4	4	4	15.6	15.6	15.6	50.387	0	14.486	536700000	27
THO complex subunit 5 homolog	hCG_2011153;THOC5	6	6	6	16.7	16.7	16.7	78.507	0	89.073	536480000	39
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 6	NDUFA6	3	3	3	39.4	39.4	39.4	8.5099	0	6.084	536390000	10
Ubiquitin-conjugating enzyme E2 E1	UBE2E1	2	1	1	19.7	12.2	12.2	16.21	0	11.98	535700000	11
AP2-associated protein kinase 1	AAK1	7	7	6	14.5	14.5	11.6	93.449	0	24.816	535060000	31
Electron transfer flavoprotein-ubiquinone oxidoreductase, mitochondrial	ETFDH	6	6	6	15.8	15.8	15.8	61.384	0	15.545	532130000	19
TBC1 domain family member 15	TBC1D15	7	7	7	13.2	13.2	13.2	79.49	0	22.516	531670000	17
Striatin-interacting protein 1	STRIP1	3	3	3	7	7	7	95.575	0	19.201	531360000	33
Glucose-6-phosphate translocase	SLC37A4	1	1	1	3.1	3.1	3.1	44.58	0	6.417	529940000	16
Melanoma-associated antigen G1	NDNL2	2	2	2	7.6	7.6	7.6	34.308	0.0011719	2.5624	529770000	7
Eukaryotic translation initiation factor 4E-binding protein 2	EIF4EBP2	2	2	2	50	50	50	12.969	0	80.962	529650000	18

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Conserved oligomeric Golgi complex subunit 6	COG6	6	6	6	16.4	16.4	16.4	68.411	0	21.22	529230000	18
NF-kappa-B essential modulator	IKBKG	8	8	5	27.3	27.3	17.5	47.256	0	29.427	528510000	15
Spondin-1	SPON1	4	4	4	10.2	10.2	10.2	90.973	0	82.069	528160000	17
Beta-adducin	ADD2	5	4	4	9.7	8.6	8.6	78.832	0	8.5433	528140000	21
SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily D member 2	SMARCD2	5	5	3	16	16	9.6	52.238	0	102.65	527930000	16
Microtubule-associated protein RP/EB family member 3	MAPRE3	6	4	4	35.8	27.1	27.1	24.582	0	40.054	527830000	20
Serine/threonine-protein kinase 24;Serine/threonine-protein kinase 24 36 kDa subunit;Serine/threonine-protein kinase 24 12 kDa subunit	STK24;HEL-S-95	8	4	3	26.9	17.7	14.6	45.835	0	25.005	526420000	30
Type 1 phosphatidylinositol 4,5-bisphosphate 4-phosphatase	TMEM55B	4	4	3	19.5	19.5	15.9	29.469	0	17.249	526220000	15
Protein PAXX	C9orf142	5	5	5	35.8	35.8	35.8	21.639	0	35.077	526060000	21
Phosphorylated CTD-interacting factor 1	PCIF1	7	7	7	16.8	16.8	16.8	80.669	0	36.129	525940000	26
Zinc finger protein 687	ZNF687	8	8	8	21.1	21.1	21.1	80.819	0	29.883	525600000	31
Vasodilator-stimulated phosphoprotein	VASP	6	6	6	35.5	35.5	35.5	35.299	0	53.081	525150000	34
28S ribosomal protein S14, mitochondrial	MRPS14	2	2	2	18.8	18.8	18.8	15.139	0	23.948	524780000	16
Telomere length regulation protein TEL2 homolog	TELO2	5	5	5	8.7	8.7	8.7	91.746	0	18.097	524610000	21
		3	3	3	27.6	27.6	27.6	13.262	0	88.568	524400000	14
Mortality factor 4-like protein 2	MORF4L2	5	5	5	20	20	20	29.132	0	16.483	524280000	13
M-phase-specific PLK1-interacting protein	C7orf11;MPLKIP	2	2	2	22.3	22.3	22.3	19.147	0	95.392	524190000	14
DnaJ homolog subfamily C member 2;DnaJ homolog subfamily C member 2, N-terminally processed	DNAJC2	6	6	6	14.3	14.3	14.3	71.996	0	20.885	522530000	19
Synaptogyrin;Synaptogyrin-2	SYNGR2	2	2	2	8.9	8.9	8.9	24.81	0	3.8205	522490000	8
28S ribosomal protein S21, mitochondrial	MRPS21	2	2	2	29.9	29.9	29.9	10.688	0	11.063	522130000	16
ATP synthase subunit a	ATP6	2	2	1	9.3	9.3	4.9	24.8	0	10.101	520460000	12
NADH dehydrogenase [ubiquinone] iron-sulfur protein 5	NDUFS5	3	3	3	29.2	29.2	29.2	12.517	0	8.9041	520110000	16
Rho-related GTP-binding protein RhoB	RHOB	3	2	2	27	18.4	18.4	22.123	0	9.845	519970000	26
Angiomotin-like protein 1	AMOTL1	3	2	2	4.6	3.6	3.6	106.57	0	22.955	519860000	3
Parkinson disease 7 domain-containing protein 1	PDDC1	2	2	2	34.5	34.5	34.5	8.9472	0	10.595	519180000	24
Secretory carrier-associated membrane protein 2	SCAMP2	3	3	3	13.7	13.7	13.7	36.535	0	130.4	518620000	15
Charged multivesicular body protein 1a	CHMP1A	2	2	2	12.4	12.4	12.4	15.301	0	3.0369	518440000	13
Ubiquitin-conjugating enzyme E2 E2	UBE2E2	3	1	1	21.9	7.5	7.5	22.255	0	7.2403	517880000	7
STAM-binding protein	STAMBP	3	3	3	10.6	10.6	10.6	48.076	0	4.1905	517500000	5
Nuclear export mediator factor NEMF	NEMF	3	3	3	3.2	3.2	3.2	122.95	0	11.822	517350000	17
Tetraspanin;CD9 antigen	CD9	1	1	1	7.1	7.1	7.1	15.906	0	3.9742	516600000	6
Actin-binding protein anillin	ANLN	8	8	8	14.7	14.7	14.7	119.9	0	91.763	516410000	34
Protein ELYS	AHCTF1	12	12	12	8.9	8.9	8.9	252.5	0	47.481	516010000	43
Glycogenin-1	GYG1	4	4	4	23.9	23.9	23.9	37.246	0	14.711	515990000	11
	IMMT	21	1	0	45.9	4.4	0	73.382	0	9.8724	515520000	17
UDP-N-acetylhexosamine pyrophosphorylase;UDP-N-acetylgalactosamine pyrophosphorylase;UDP-N-acetylglucosamine pyrophosphorylase	UAP1	3	3	3	9	9	9	58.768	0	27.653	515300000	19

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Trafficking protein particle complex subunit 12	TRAPPC12;CGI-87	7	7	7	14.8	14.8	14.8	79.374	0	34.346	514970000	34
Acetyl-coenzyme A synthetase;Acetyl-coenzyme A synthetase 2-like, mitochondrial	DKFZp666G0810;ACSS1; DKFZp666B209	6	6	6	26.9	26.9	26.9	44.539	0	31.521	514450000	19
Interferon regulatory factor 2-binding protein 1	IRF2BP1	6	6	6	17.8	17.8	17.8	61.713	0	12.992	513260000	21
AP-3 complex subunit sigma-1	AP3S1	5	5	5	28.5	28.5	28.5	21.732	0	14.994	512900000	9
DNA polymerase beta	POLB	4	4	4	25.6	25.6	25.6	26.559	0	72.186	511140000	33
Cysteine-rich secretory protein LCCL domain-containing 1	CRISPLD1	3	3	3	14.4	14.4	14.4	35.055	0	18.952	511090000	17
Protein transport protein Sec24D	SEC24D	7	7	7	11.7	11.7	11.7	100.25	0	42.095	511020000	21
Endoplasmic reticulum aminopeptidase 1	ERAP1;ARTS-1	4	4	4	5.1	5.1	5.1	107.23	0	7.099	511010000	11
Ubiquitin-conjugating enzyme E2 Q1	UBE2Q1	6	6	6	29.4	29.4	29.4	46.126	0	19.587	506540000	22
Actin-related protein 2/3 complex subunit 1A	HEL-68;ARPC1A	6	1	1	19.5	2.7	2.7	41.569	0.0001991	2.8892	505960000	6
ER membrane protein complex subunit 6	EMC6	1	1	1	9.1	9.1	9.1	12.017	0	3.0832	505000000	12
Nidogen-2	NID2;DKFZp686D12108	8	8	8	11.6	11.6	11.6	151.25	0	67.773	504760000	32
Ras-related protein Rab-24	RAB24	4	4	4	31.6	31.6	31.6	19.671	0	18.199	503700000	16
Polymerase delta-interacting protein 2	POLDIP2	5	5	5	18	18	18	39.871	0	22.333	502490000	13
Leucine-rich repeat and calponin homology domain-containing protein 1	LRCH1	5	5	5	11.7	11.7	11.7	80.874	0	7.4444	501940000	4
Protein spinster homolog 1	SPNS1	1	1	1	7.9	7.9	7.9	18.967	0	7.0169	501920000	9
Guanine nucleotide-binding protein subunit alpha-13	GNA13	3	3	3	12.2	12.2	12.2	40.975	0	17.016	501890000	12
Cytokine receptor-like factor 3	CRLF3	4	4	4	14.7	14.7	14.7	49.765	0	37.164	500890000	18
Mitochondrial carnitine/acylcarnitine carrier protein	SLC25A20	3	3	3	14.6	14.6	14.6	32.943	0	11.24	500780000	21
Actin-related protein 2/3 complex subunit 5	ARPC5	2	1	1	28.5	23.2	23.2	16.32	0	41.615	500360000	15
Phosphatidylinositol 4-kinase alpha	PIK4CA variant protein;PI4KA;hCG_1999854	4	4	4	3	3	3	236.75	0	5.9774	499930000	3
NLR family member X1	NLRX1	9	9	9	19.2	19.2	19.2	107.61	0	46.367	499470000	29
GPALPP motifs-containing protein 1	GPALPP1;KIAA1704	4	4	4	11.2	11.2	11.2	37.971	0	11.886	499380000	24
Regulator of nonsense transcripts 3B	UPF3B	4	4	4	27.6	27.6	27.6	25.232	0	5.507	497340000	13
Carbonyl reductase family member 4	CBR4	5	5	5	36.3	36.3	36.3	25.301	0	68.392	497170000	9
Protein FRG1	FRG1	2	2	2	25	25	25	12.516	0	15.437	496730000	10
MAP/microtubule affinity-regulating kinase 3	MARK3	10	6	6	19.1	11.8	11.8	84.428	0	57.091	496720000	29
Coiled-coil domain-containing protein 97	MGC20255;CCDC97	3	3	3	15.6	15.6	15.6	44.753	0	44.27	496020000	18
Brain-specific angiogenesis inhibitor 1-associated protein 2-like protein 1	BAIAP2L1	7	7	7	22.1	22.1	22.1	56.882	0	138.55	495050000	16
Cyclin-dependent kinase 12	CDK12	9	8	8	11.7	11.1	11.1	164.15	0	53.552	494530000	17
Cytochrome b-c1 complex subunit 6, mitochondrial	UQCRH	3	3	3	58.2	58.2	58.2	10.739	0	45.052	494470000	30
Solute carrier family 2, facilitated glucose transporter member 1	SLC2A1	1	1	1	5.8	5.8	5.8	45.869	0	28.243	493830000	5
Mitochondrial import inner membrane translocase subunit Tim8 B	TIMM8B	2	2	2	22.4	22.4	22.4	11.155	0	6.9742	493380000	13
Syntaxin-18	STX18	5	5	5	29	29	29	38.673	0	33.883	493140000	14
Uncharacterized protein C12orf43	C12orf43	3	3	3	16.4	16.4	16.4	31.693	0	30.643	492560000	13
60S ribosomal export protein NMD3	NMD3	4	4	4	13.2	13.2	13.2	60.125	0	19.486	492160000	22
Syntaxin-binding protein 3	STXBP3	6	6	6	13.7	13.7	13.7	67.764	0	15.107	491920000	32

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Menin	MEN1	5	5	5	18.8	18.8	18.8	63.717	0	98.598	489890000	27
Ubiquitin-fold modifier-conjugating enzyme 1	UFC1	3	3	3	28.1	28.1	28.1	19.458	0	6.4325	489720000	14
Receptor protein-tyrosine kinase;Vascular endothelial growth factor receptor 1	FLT1	6	6	6	11.1	11.1	11.1	74.925	0	17.125	489610000	24
Trafficking protein particle complex subunit 4	TRAPPC4	4	4	4	33.3	33.3	33.3	14.15	0	5.5909	489540000	4
cTAGE family member 5;Melanoma inhibitory activity protein 2	CTAGE5;MIA2	7	7	7	12.1	12.1	12.1	91.742	0	95.032	489310000	24
Ran-binding protein 9	RANBP9	10	10	9	21.3	21.3	18.9	77.846	0	24.093	489100000	30
Acyl-CoA dehydrogenase family member 10	ACAD10	2	2	2	2.3	2.3	2.3	118.83	0	28.379	488680000	12
DNA-directed RNA polymerase;DNA-directed RNA polymerase I subunit RPA1	POLR1A	8	8	8	12	12	12	137.03	0	49.186	488510000	28
Ceroid-lipofuscinosis neuronal protein 5	CLN5	5	5	5	21.4	21.4	21.4	35.444	0	12.166	488420000	33
mRNA-capping enzyme;Polynucleotide 5-triphosphatase;mRNA guanylyltransferase	RNGTT	4	4	4	11.1	11.1	11.1	65.219	0	15.654	487590000	9
Queuine tRNA-ribosyltransferase subunit QTRTD1	QTRTD1	5	5	5	19.5	19.5	19.5	46.712	0	22.931	487500000	41
CCA tRNA nucleotidyltransferase 1, mitochondrial	TRNT1	3	3	3	10.8	10.8	10.8	50.143	0	18.884	486710000	19
39S ribosomal protein L28, mitochondrial	MRPL28	4	4	4	27.3	27.3	27.3	30.156	0	8.7418	485290000	5
Biorientation of chromosomes in cell division protein 1	BOD1	3	1	1	19.5	5.9	5.9	19.196	0.0038997	1.8499	484930000	5
		1	1	1	3.2	3.2	3.2	30.064	0.0081788	1.6153	484080000	16
ADP/ATP translocase 1	SLC25A4	10	1	1	36.9	3.7	3.7	33.064	0.0019161	2.3051	484010000	6
ESF1 homolog	ESF1	5	5	5	10	10	10	98.795	0	30.549	483690000	24
RING finger protein 219	RNF219	6	6	6	12.1	12.1	12.1	81.116	0	28.997	483480000	22
RNA-binding protein 5	RBM5	3	3	3	3.9	3.9	3.9	92.153	0	3.0996	482920000	7
Homeobox protein cut-like 1;Protein CASP	CUX1	9	9	9	9.9	9.9	9.9	164.19	0	74.441	482890000	44
Manganese-transporting ATPase 13A1	ATP13A1	6	6	6	8.5	8.5	8.5	121.11	0	34.876	482170000	25
Phorbol-12-myristate-13-acetate-induced protein 1	PMAIP1	1	1	1	25.9	25.9	25.9	6.03	0	29.687	481990000	11
BSD domain-containing protein 1	BSDC1	5	5	5	21.6	21.6	21.6	47.163	0	73.46	481690000	44
F-box only protein 2	FBXO2	3	3	3	15.9	15.9	15.9	33.327	0	6.7893	480860000	14
28S ribosomal protein S26, mitochondrial	MRPS26	4	4	4	23.4	23.4	23.4	24.211	0	8.1889	480790000	18
Regulator of microtubule dynamics protein 1	RMDN1	4	4	4	22	22	22	35.808	0	21.047	480550000	22
Cyclic AMP-dependent transcription factor ATF-1	EWSR1/ATF1 fusion;ATF1	3	2	1	10.6	6.1	4.8	57.066	0	12.08	480450000	18
SET and MYND domain-containing protein 5	SMYD5	2	2	2	12.6	12.6	12.6	34.411	0	17.909	479370000	13
5-AMP-activated protein kinase catalytic subunit alpha-2	PRKAA2	8	5	5	26.1	17	17	62.305	0	38.962	476990000	41
DDB1- and CUL4-associated factor 13	DCAF13	6	6	6	15.2	15.2	15.2	67.55	0	10.942	476790000	14
FAD synthase;Molybdenum cofactor biosynthesis protein-like region;FAD synthase region	FLAD1	5	5	5	20.8	20.8	20.8	50.141	0	42.522	476090000	53
Calcium/calmodulin-dependent protein kinase type IV	CAMK4	3	3	3	11.8	11.8	11.8	51.939	0	9.9131	475900000	18
Zinc finger protein 787	ZNF787	5	5	5	29.8	29.8	29.8	40.428	0	42.363	475750000	28
Insulin-like growth factor-binding protein 2	IGFBP2	5	5	5	25.5	25.5	25.5	34.814	0	19.162	475260000	7
Multiple myeloma tumor-associated protein 2	MMTAG2	5	5	5	24.7	24.7	24.7	29.411	0	9.426	474090000	10

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Transcription elongation factor A protein-like 4	TCEAL4	2	2	2	27.1	27.1	27.1	14.328	0	59.449	474050000	19
Non-histone chromosomal protein HMG-14	HMGN1;hCG_1979072	4	4	4	41.1	41.1	41.1	9.5355	0	285.31	473560000	15
Mitotic spindle-associated MMXD complex subunit MIP18	FAM96B	4	4	4	50.3	50.3	50.3	17.663	0	17.135	473330000	11
Integrin-linked kinase-associated serine/threonine phosphatase 2C	ILKAP;ILKAP2;ILKAP3	6	6	6	31.6	31.6	31.6	42.906	0	54.806	471580000	52
Glia-derived nexin	SERPINE2	4	4	4	16.8	16.8	16.8	37.157	0	19.418	471560000	29
	CFAP99	1	1	1	1.1	1.1	1.1	74.944	0.0083348	1.5918	471410000	24
Ribosome biogenesis protein BMS1 homolog	BMS1	6	6	6	9	9	9	145.81	0	27.464	471350000	28
Leucine-rich repeat-containing protein 57	LRRC57	3	3	3	24.3	24.3	24.3	16.324	0	4.7263	471190000	9
Calcium-binding mitochondrial carrier protein Aralar1	SLC25A12	9	6	6	17	11.9	11.9	74.777	0	27.678	471180000	27
Pre-mRNA-splicing factor CWC22 homolog	CWC22	5	5	5	4.6	4.6	4.6	85.576	0	156.17	470700000	33
Poly [ADP-ribose] polymerase 2	PARP2	4	4	4	12.4	12.4	12.4	60.214	0	10.082	470550000	14
Leucine-rich repeat and WD repeat-containing protein 1	LRWD1	7	7	7	17.9	17.9	17.9	70.86	0	128.13	469090000	20
	DKFZp686P17171;SERBP 1	15	1	1	41.1	11.1	11.1	42.426	0	100.82	468810000	16
Trafficking protein particle complex subunit 11	TRAPPC11	4	4	4	7.2	7.2	7.2	128.91	0	19.984	468250000	21
Intercellular adhesion molecule 5	ICAM5	6	6	6	18.2	18.2	18.2	84.616	0	27.285	468050000	19
Kinesin-like protein KIF20A	KIF20A	9	9	9	16.5	16.5	16.5	100.28	0	77.149	467960000	36
Testis-expressed sequence 264 protein	TEX264	4	4	4	26.2	26.2	26.2	34.187	0	83.89	467890000	24
RNA-binding protein Musashi homolog 2	MSI2	3	2	2	27.9	22.1	22.1	15.46	0	12.019	466320000	17
Serine palmitoyltransferase 2	SPTLC2	5	5	5	11.2	11.2	11.2	62.924	0	21.03	466310000	34
cAMP-dependent protein kinase type I-alpha regulatory subunit;cAMP-dependent protein kinase type I-alpha regulatory subunit, N-terminally processed	PRKAR1A;DKFZp779L046 8	3	3	3	34.6	34.6	34.6	17.347	0	30.253	465500000	12
Clathrin light chain A	CLTA	1	1	1	4.1	4.1	4.1	21.102	0.004433	1.7867	465420000	6
Histone H3;Histone H3.3;Histone H3.1t	H3F3B;H3F3A;HIST3H3	5	1	1	44.7	24.2	24.2	14.914	0	46.43	464790000	50
Notchless protein homolog 1	NLE1	5	5	5	15.1	15.1	15.1	53.32	0	80.294	464460000	23
Protein FAM83H	FAM83H	9	9	9	18	18	18	96.337	0	29.884	464420000	37
Ubiquitin conjugation factor E4 B	UBE4B	8	8	8	13.1	13.1	13.1	146.18	0	63.764	463660000	26
Uridine phosphorylase 1	UPP1	7	7	7	30	30	30	33.934	0	10.202	463510000	20
SH3 domain-containing kinase-binding protein 1	SH3KBP1	5	5	5	17.1	17.1	17.1	44.234	0	28.287	463350000	21
Transmembrane protein 230	TMEM230	2	2	2	19.2	19.2	19.2	13.188	0	7.2038	462750000	20
RalBP1-associated Eps domain-containing protein 1	REPS1	6	6	5	13.2	13.2	11.8	80.847	0	32.637	462440000	22
Proteasome inhibitor PI31 subunit	PSMF1	3	3	3	30.6	30.6	30.6	20.197	0	9.6597	462150000	34
Neurogenic locus notch homolog protein 3;Notch 3 extracellular truncation;Notch 3 intracellular domain	NOTCH3	5	5	5	2.9	2.9	2.9	243.63	0	20.333	462050000	25
UPF0585 protein C16orf13	C16orf13	4	4	4	31	31	31	20.428	0	20.627	461620000	22
Maestro heat-like repeat-containing protein family member 6	MROH6	1	1	1	1.7	1.7	1.7	77.185	0.0093123	1.4806	461400000	4
N-alpha-acetyltransferase 30	NAA30	5	5	5	20.7	20.7	20.7	39.319	0	17.709	460930000	23

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Serine/threonine-protein kinase PLK;Serine/threonine-protein kinase PLK1	PLK1	6	6	6	15.6	15.6	15.6	68.264	0	29.009	460480000	23
UDP-N-acetylglucosamine--peptide N-acetylglucosaminyltransferase 110 kDa subunit	OGT	9	9	9	13	13	13	116.92	0	23.228	460010000	22
Probable helicase with zinc finger domain	HELZ	5	5	5	3.8	3.8	3.8	219.03	0	11.95	458900000	8
Interferon regulatory factor 3	IRF3	5	5	5	23.9	23.9	23.9	47.219	0	51.52	458880000	16
Mediator of RNA polymerase II transcription subunit 15	MED15;DKFZp762B1216	5	5	2	10.4	10.4	3.6	86.753	0	31.566	458800000	32
	SLC35A4	1	1	1	22.3	22.3	22.3	11.133	0	27.631	458790000	9
Chromatin assembly factor 1 subunit A	CHAF1A	3	3	3	7.1	7.1	7.1	106.94	0	14.401	456770000	13
39S ribosomal protein L50, mitochondrial	MRPL50	3	3	3	27.8	27.8	27.8	18.325	0	21.131	456400000	19
Zinc finger protein 598	ZNF598	8	8	8	18.4	18.4	18.4	98.636	0	34.154	455250000	22
SPARC-related modular calcium-binding protein 1	SMOC1	5	5	5	12.7	12.7	12.7	48.162	0	55.619	454730000	19
COMM domain-containing protein 9	COMMD9	4	4	4	28.3	28.3	28.3	21.819	0	16.789	453240000	15
Probable ATP-dependent RNA helicase DDX49	DDX49	4	4	2	14.7	14.7	6.8	54.284	0	26.62	453130000	46
cAMP-regulated phosphoprotein 19	ARPP19;ARPP-19	2	1	1	52.1	36.6	36.6	7.6866	0	11.167	452650000	11
Peptidyl-tRNA hydrolase ICT1, mitochondrial	ICT1	3	3	3	17	17	17	23.63	0	5.5231	452650000	8
Ubiquinol-cytochrome-c reductase complex assembly factor 1	UQCC1;UQCC	3	3	3	23.9	23.9	23.9	26.189	0	47.697	452190000	11
Kinetochore protein Spc24	SPC24	5	5	5	54.2	54.2	54.2	19.001	0	54.266	451210000	26
182 kDa tankyrase-1-binding protein	TNKS1BP1	14	14	14	19	19	19	181.79	0	60.073	450850000	53
Muscleblind-like protein 1	MBNL1	3	3	3	19.6	19.6	19.6	31.663	0	43.696	450600000	15
Persulfide dioxygenase ETHE1, mitochondrial	ETHE1	3	3	3	18.9	18.9	18.9	24.956	0	6.1113	450360000	6
		90	1	0	46.7	0.6	0	226.51	0	3.8766	449960000	6
Acylpyruvase FAHD1, mitochondrial	FAHD1	4	4	4	37.5	37.5	37.5	24.843	0	29.506	448930000	39
PRA1 family protein 3	ARL6IP5	2	2	2	18.2	18.2	18.2	19.206	0	7.4532	448810000	16
Neurofibromin;Neurofibromin truncated	NF1	9	9	9	6.3	6.3	6.3	281.21	0	19.716	448540000	22
Thioredoxin-related transmembrane protein 4	TMX4	1	1	1	3.4	3.4	3.4	38.952	0	3.8596	448110000	6
WD repeat-containing protein 48	WDR48	5	5	5	11.5	11.5	11.5	76.21	0	44.523	446620000	14
Retinal rod rhodopsin-sensitive cGMP 3,5-cyclic phosphodiesterase subunit delta	PDE6D	2	2	2	33.3	33.3	33.3	10.759	0	12.516	446470000	14
Beta-glucuronidase	GUSB	2	2	2	11.4	11.4	11.4	41.467	0	11.395	446060000	10
Protein SCO2 homolog, mitochondrial	SCO2	2	2	2	18	18	18	29.81	0	114.84	445600000	44
Pre-mRNA-splicing factor SYF1	XAB2;DKFZp762C1015	9	9	9	17.1	17.1	17.1	100.01	0	35.785	445090000	27
Cysteine-rich with EGF-like domain protein 1	CRELD1	5	5	5	19.8	19.8	19.8	45.407	0	118.42	444560000	14
Exocyst complex component 2	EXOC2	6	6	6	9.5	9.5	9.5	104.07	0	20.989	444540000	28
Fanconi anemia group I protein	FANCI	9	9	9	10.9	10.9	10.9	149.33	0	34.056	444370000	7
Protein SCAF8	SCAF8;DKFZp434J2412	9	9	8	13.4	13.4	12.5	145.16	0	71.678	444230000	61
COMM domain-containing protein 3	COMMD3-BMI1;COMMD3	3	3	3	13.2	13.2	13.2	53.293	0	28.03	444100000	15
UPF0505 protein C16orf62	C16orf62	7	7	7	14.4	14.4	14.4	98.875	0	21.651	443980000	46
		5	1	1	10.7	3.7	3.7	66.205	0	37.677	443660000	9
Ubiquitin-like protein 5	UBL5	1	1	1	16.4	16.4	16.4	8.5468	0	3.4826	443640000	4
Inner nuclear membrane protein Man1	LEMD3	11	11	11	21	21	21	99.996	0	148.34	443550000	24
Ribosomal RNA-processing protein 7 homolog A	RRP7A	6	6	6	30.7	30.7	30.7	32.334	0	27.712	443390000	15

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Poliovirus receptor	PVR	3	3	3	14.1	14.1	14.1	39.579	0	6.6254	442950000	7
Huntingtin-interacting protein 1	HIP1	9	9	9	13.7	13.7	13.7	116.22	0	17.525	441990000	17
NADH-ubiquinone oxidoreductase chain 5	MT-ND5;ND5;NADH5;ndh5	3	3	3	6.1	6.1	6.1	67.026	0	29.282	441780000	10
Probable cytosolic iron-sulfur protein assembly protein CIAO1	CIAO1	3	3	3	15.6	15.6	15.6	37.84	0	13.785	441260000	10
Putative RNA-binding protein Luc7-like 1	LUC7L	4	2	2	16.9	8	8	38.405	0	41.792	440820000	14
	MXRA7	2	2	2	100	100	100	1.9121	0	16.48	440570000	13
60S ribosomal protein L7-like 1	RPL7L1	2	2	2	10.2	10.2	10.2	29.669	0	5.262	440430000	9
VIP36-like protein	LMAN2L	4	4	4	22.4	22.4	22.4	24.141	0	6.0637	440360000	15
RNA demethylase ALKBH5	ALKBH5	5	5	5	19.8	19.8	19.8	44.255	0	54.3	440140000	40
5-nucleotidase domain-containing protein 3	NT5DC3	4	4	4	8.2	8.2	8.2	63.419	0	10.839	440010000	17
Motor neuron and pancreas homeobox protein 1	MNX1;homeobox gene	4	4	4	14.2	14.2	14.2	40.569	0	17.849	439620000	11
Glycosyltransferase-like protein LARGE2;Xylosyltransferase LARGE2;Beta-1,3-glucuronyltransferase LARGE2	GYLTL1B	2	1	1	2.6	1.4	1.4	78.646	0.0011749	2.5894	438770000	4
Beta-galactosidase	GLB1	3	3	3	7.4	7.4	7.4	76.068	0	7.8502	437770000	8
Neurochondrin	NCDN	6	6	6	14	14	14	78.863	0	21.49	437140000	56
Uridine kinase;Uridine-cytidine kinase 2	UCK2	4	4	4	22.1	22.1	22.1	27.408	0	5.9151	436460000	13
Serine/threonine-protein phosphatase 1 regulatory subunit 10	PPP1R10	5	5	5	21.2	21.2	21.2	34.733	0	32.025	436220000	35
Proteasome assembly chaperone 2	PSMG2	3	3	3	13.3	13.3	13.3	28.616	0	6.3319	435910000	35
Solute carrier family 25 member 46	SLC25A46	4	4	4	23	23	23	46.173	0	54.023	435830000	23
Colorectal mutant cancer protein	MCC;DKFZp686J1286	5	5	5	12.4	12.4	12.4	86.059	0	24.394	435220000	13
General transcription factor IIF subunit 2	GTF2F2	4	4	4	28.9	28.9	28.9	28.38	0	17.355	434730000	10
Glutamine and serine-rich protein 1	QSER1	3	3	3	3.1	3.1	3.1	189.97	0	9.1517	434710000	14
	EPB41L3	20	3	3	43.1	5.2	5.2	84.683	0	46.628	434430000	16
Mitogen-activated protein kinase;Mitogen-activated protein kinase 14	MAPK14	4	4	4	20.8	20.8	20.8	32.357	0	24.492	434420000	20
Dihydroxyacetone phosphate acyltransferase	GNPAT	7	7	7	13.4	13.4	13.4	77.161	0	18.361	434150000	14
Frataxin, mitochondrial;Frataxin intermediate form;Frataxin(56-210);Frataxin(78-210);Frataxin mature form	FXN	2	2	2	21.5	21.5	21.5	14.91	0	13.326	433590000	12
Unconventional myosin-Id	DKFZp686A01173;MYO1D	6	6	6	9.7	9.7	9.7	105.8	0	38.971	432970000	15
Centrin-2	CETN2	5	5	5	50.6	50.6	50.6	19.738	0	45.598	432110000	29
Ras-related protein Rab-22A;Ras-related protein Rab-31	RAB22A;RAB31	2	2	2	16.5	16.5	16.5	21.855	0	14.75	431610000	14
Methylthioribose-1-phosphate isomerase	MRI1	5	5	5	16.8	16.8	16.8	39.149	0	11.417	431510000	14
60S ribosomal protein L37a	RPL37A	2	2	2	44.1	44.1	44.1	7.624	0	108.11	431330000	12
Zinc finger protein 346	ZNF346	4	4	4	20	20	20	34.645	0	16.016	430700000	15
Lysophospholipid acyltransferase 5	LPCAT3	2	2	2	4.5	4.5	4.5	56.034	0	4.0736	430610000	11
Ras-related protein Rab-3B	RAB3B	4	4	4	25.1	25.1	25.1	24.76	0	37.812	430270000	39
Dystrobrevin alpha	DTNA	4	4	2	23.6	23.6	14.2	40.886	0	96.763	429560000	20
Myeloid leukemia factor 2	MLF2	3	3	3	18.5	18.5	18.5	28.147	0	7.8423	429530000	9
Alpha-globin transcription factor CP2	TFCP2	5	5	5	14.1	14.1	14.1	57.255	0	11.3	429420000	15
Breast cancer type 1 susceptibility protein	BRCA1	3	3	3	3.3	3.3	3.3	205.05	0	4.6788	429390000	3

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Exonuclease 3-5 domain-containing protein 2	EXD2	7	7	7	20.6	20.6	20.6	56.353	0	20.603	428810000	15
39S ribosomal protein L41, mitochondrial	MRPL41	3	3	3	42.3	42.3	42.3	15.383	0	38.525	428460000	29
Uncharacterized protein C6orf203	C6orf203	1	1	1	9	9	9	28.457	0	19.283	428420000	16
	PRPH	2	1	1	10.6	5.8	5.8	24.519	0.0011726	2.5637	427540000	22
Deoxycytidylate deaminase	DCTD	1	1	1	30.5	30.5	30.5	6.5463	0	117.35	427370000	12
Conserved oligomeric Golgi complex subunit 2	COG2	4	4	4	12.1	12.1	12.1	69.776	0	87.057	427260000	21
TBC1 domain family member 23	TBC1D23	5	5	5	11.2	11.2	11.2	78.321	0	29.778	427150000	16
	XPNPEP1	10	1	1	32.3	4.5	4.5	49.595	0	3.7183	426750000	10
Non-specific serine/threonine protein kinase;Serine/threonine-protein kinase MRCK beta	CDC42BPB	13	13	12	12.3	12.3	11.6	194.31	0	27.345	425860000	19
Axin interactor, dorsalization-associated protein	AIDA	5	5	5	33.5	33.5	33.5	29.149	0	34.074	425390000	16
Nucleolar protein 10	NOL10	6	6	6	18.6	18.6	18.6	80.301	0	107.07	423760000	33
Rho guanine nucleotide exchange factor 16	ARHGEF16	6	6	6	12.3	12.3	12.3	80.104	0	8.34	423710000	13
Lipolysis-stimulated lipoprotein receptor	LSR	5	5	5	16.3	16.3	16.3	66.175	0	25.359	423680000	39
Beta-lactamase-like protein 2	LACTB2	6	6	6	34.4	34.4	34.4	32.805	0	11.751	423560000	16
WD repeat-containing protein 92	DKFZp434B156;HZGJ;WDR92	3	3	3	29.9	29.9	29.9	20.81	0	9.8093	423140000	20
WW domain-binding protein 2	WBP2	4	4	4	29.3	29.3	29.3	25.807	0	18.634	422110000	4
Bcl-2 homologous antagonist/killer	BAK1;BAK;DKFZp686D0345	2	2	2	41.8	41.8	41.8	15.582	0	29.941	421560000	17
CAP-Gly domain-containing linker protein 1	RSN;CLIP1	11	11	9	10.1	10.1	8.3	160.99	0	43.49	420290000	20
Armadillo repeat-containing protein 1	ARMC1	5	5	5	29.4	29.4	29.4	31.28	0	48.044	419940000	26
Ragulator complex protein LAMTOR3	LAMTOR3	1	1	1	8.1	8.1	8.1	13.562	0.0001987	2.8572	419840000	12
Cysteine and glycine-rich protein 1	CSRP1;DKFZp686P2249;DKFZp686M148	3	3	3	29.2	29.2	29.2	17.822	0	29.028	418810000	17
28S ribosomal protein S6, mitochondrial	MRPS6	2	2	2	16.8	16.8	16.8	14.226	0	3.2949	417520000	4
Phospholysine phosphohistidine inorganic pyrophosphate phosphatase	LHPP	4	4	4	27.4	27.4	27.4	29.165	0	21.259	417510000	34
Cysteine protease ATG4A	ATG4A	3	3	3	13.8	13.8	13.8	45.377	0	9.5275	417340000	7
POU domain protein;POU domain, class 2, transcription factor 1	POU2F1	3	3	3	11.1	11.1	11.1	58.683	0	36.946	417010000	23
Ubiquitin carboxyl-terminal hydrolase;Ubiquitin carboxyl-terminal hydrolase 19	USP19	6	6	6	9.7	9.7	9.7	158.97	0	71.655	416620000	28
ATP-dependent RNA helicase DHX8	DHX8	9	8	8	10.1	9.3	9.3	134	0	23.014	415990000	19
Something about silencing protein 10	UTP3	2	2	2	8.1	8.1	8.1	54.557	0	51.012	414700000	12
ATP-binding cassette sub-family B member 10, mitochondrial	ABCB10	5	5	5	12.7	12.7	12.7	79.147	0	22.036	414060000	24
RRP15-like protein	RRP15	2	2	2	7.8	7.8	7.8	31.484	0	5.4218	413130000	15
Histone-lysine N-methyltransferase EZH2	EZH2	6	6	6	13.2	13.2	13.2	86.017	0	21.971	413120000	20
Rho guanine nucleotide exchange factor 12	ARHGEF12	8	8	8	12.1	12.1	12.1	143.95	0	66.777	412760000	15
Dynactin subunit 6	DCTN6	1	1	1	37.8	37.8	37.8	3.7263	0	3.1837	412430000	12
Ribosome production factor 2 homolog	RPF2	1	1	1	4.2	4.2	4.2	35.572	0.0005925	2.7492	410150000	2
Alpha-parvin	PARVA	4	4	4	19.7	19.7	19.7	46.589	0	45.648	410140000	32
Constitutive coactivator of peroxisome proliferator-activated receptor gamma	FAM120B	10	10	10	15.8	15.8	15.8	105.25	0	28.803	409020000	21

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ATP-dependent zinc metalloprotease YME1L1	YME1L1;FTSH	6	6	6	10.6	10.6	10.6	79.844	0	35.652	409000000	28
Ubiquitin carboxyl-terminal hydrolase 47	USP47	9	9	9	10	10	10	157.31	0	60.665	407730000	24
Kinesin-like protein;Chromosome-associated kinesin KIF4A	KIF4A	11	11	11	14.1	14.1	14.1	140.34	0	100.04	407700000	36
Growth hormone-inducible transmembrane protein	GHITM;DKFZp566C0746	4	4	4	9.9	9.9	9.9	35.778	0	7.6636	407590000	11
Calsyntenin-3	CLSTN3	3	3	3	4.3	4.3	4.3	106.09	0	15.146	406590000	14
Microfibrillar-associated protein 2	MFAP2	3	3	3	22.4	22.4	22.4	20.825	0	36.691	405590000	12
Ankyrin repeat domain-containing protein 17	ANKRD17	10	4	4	7.4	3.7	3.7	263.25	0	72.753	404270000	23
UPF0562 protein C7orf55	C7orf55	1	1	1	10.6	10.6	10.6	12.749	0.0039004	1.8516	404210000	10
Tumor necrosis factor alpha-induced protein 8	TNFAIP8	1	1	1	29.4	29.4	29.4	7.935	0	19.383	403960000	16
Dihydropyrimidinase-related protein 4	DPYSL4	5	5	5	18	18	18	61.877	0	15.701	403770000	18
Phosphoserine phosphatase	PSPH	2	2	2	14.4	14.4	14.4	20.745	0	6.8765	403510000	9
G patch domain-containing protein 4	GPATCH4	3	3	3	13.5	13.5	13.5	50.411	0	25.78	402760000	22
E3 SUMO-protein ligase PIAS1;E3 SUMO-protein ligase PIAS2	PIAS1;PIAS2	2	2	2	5.3	5.3	5.3	70.861	0	12.669	402270000	31
Nucleolar protein 3	NOL3	6	6	6	68.1	68.1	68.1	14.924	0	26.229	402080000	17
Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A beta isoform	PPP2R1B	11	7	7	23.7	14.7	14.7	73.554	0	21.474	401990000	26
39S ribosomal protein L32, mitochondrial	MRPL32	4	4	4	25.5	25.5	25.5	21.405	0	39.974	400980000	9
E3 SUMO-protein ligase PIAS4	PIAS4	1	1	1	3.1	3.1	3.1	56.431	0.0017298	2.3438	400610000	1
V-type proton ATPase subunit F	ATP6V1F	2	2	2	26.1	26.1	26.1	13.37	0	20.059	400080000	8
Tyrosine-protein kinase receptor;Myosin phosphatase Rho-interacting protein	MPRIP;Mprip-Ntrk1 fusion gene	12	12	12	18.9	18.9	18.9	118.05	0	43.394	399880000	24
MAP kinase-activated protein kinase 5	MAPKAPK5	1	1	1	10.8	10.8	10.8	8.3384	0.0088272	1.5302	399170000	9
Protein FAM84B	FAM84B	5	5	5	38.1	38.1	38.1	34.532	0	41.792	399140000	35
DnaJ homolog subfamily C member 13	DNAJC13	8	8	8	6.1	6.1	6.1	254.41	0	31.333	398810000	30
Mediator of RNA polymerase II transcription subunit 16	MED16	6	6	6	12	12	12	96.792	0	10.001	398300000	5
Actin-related protein 10	ACTR10	4	4	4	28.3	28.3	28.3	37.76	0	26.819	397650000	48
Sideroflexin-4	SFXN4	3	3	3	13.4	13.4	13.4	37.998	0	102.31	396710000	11
	LRBA	28	1	0	18.1	0.5	0	286.97	0	8.0503	396410000	6
	ADCY1	1	1	1	12.5	12.5	12.5	8.7119	0.0017338	2.377	396400000	18
Mevalonate kinase	MVK	3	3	3	18	18	18	37.171	0	22.266	395630000	18
Protein Hikeshi	C11orf73	3	3	3	35.6	35.6	35.6	21.069	0	20.767	395360000	27
Leucine zipper protein 1	LUZP1	11	11	11	15.4	15.4	15.4	120.3	0	19.261	395070000	17
Unconventional myosin-IXb	MYO9B variant protein;MYO9B	10	10	10	9	9	9	229.71	0	33.916	394730000	38
Protein QIL1	QIL1;C19orf70	3	3	3	43.6	43.6	43.6	15.436	0	13.139	394260000	20
Gamma-adducin	ADD3	7	7	7	13.9	13.9	13.9	78.213	0	29.658	394000000	30
Vacuolar protein sorting-associated protein 18 homolog	VPS18	3	3	3	6.5	6.5	6.5	110.18	0	9.1201	393930000	20
Nucleolar protein 14	NOP14	7	7	7	10.6	10.6	10.6	97.669	0	43.359	393530000	19
Transmembrane protein 87A	TMEM87A	3	3	3	13.2	13.2	13.2	56.715	0	22.342	393490000	15
Deubiquitinating protein VCIP135	VCPIP1	7	7	7	9.7	9.7	9.7	134.32	0	34.616	393360000	21
Ribonuclease P protein subunit p20	POP7	1	1	1	10.9	10.9	10.9	15.324	0	3.5074	393300000	6
Vesicle transport protein SEC20	BNIP1	4	4	4	25.4	25.4	25.4	26.132	0	41.799	393270000	22
BTB/POZ domain-containing protein KCTD5	KCTD5	3	3	3	24.8	24.8	24.8	26.092	0	21.291	393170000	13

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NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 7	NDUFA7	3	3	3	24.6	24.6	24.6	13.18	0	40.678	393080000	13
Tyrosine--tRNA ligase, mitochondrial;Tyrosine--tRNA ligase	YARS2	6	6	6	18.9	18.9	18.9	53.198	0	74.48	392200000	49
Glypican-4;Secreted glypican-4	GPC4	6	6	5	18	18	14.9	62.411	0	49.904	392180000	28
Eukaryotic translation initiation factor 4E type 2	EIF4E2;tmp_locus_9	4	4	4	23.6	23.6	23.6	26.816	0	33.527	392110000	13
Protein Wnt-5b;Protein Wnt	WNT5B	3	3	3	12.8	12.8	12.8	40.323	0	16.565	392050000	20
Inactive hydroxysteroid dehydrogenase-like protein 1	HSDL1	3	3	3	9.4	9.4	9.4	36.971	0	3.9979	391880000	6
Serine/threonine-protein kinase SMG1	SMG1	11	11	11	5.5	5.5	5.5	398.84	0	37.789	391480000	13
Pleckstrin homology domain-containing family A member 5	PLEKHA5	9	9	9	12.9	12.9	12.9	134.32	0	22.066	390980000	20
Dysbindin	DTNBP1	2	2	2	11.5	11.5	11.5	24.3	0	6.0521	390640000	13
Transcriptional activator protein Pur-beta	PURB	4	4	4	37.2	37.2	37.2	33.24	0	72.955	390410000	87
EF-hand calcium-binding domain-containing protein 5	EFCAB5	3	3	3	3.3	3.3	3.3	173.4	0.0013561	2.4365	390380000	5
Mitotic-spindle organizing protein 1	MZT1	1	1	1	19.5	19.5	19.5	8.4787	0	13.874	389270000	6
Nucleoporin NUP188 homolog	NUP188	11	11	11	10.8	10.8	10.8	196.04	0	44.328	389190000	26
Oxidation resistance protein 1	OXR1	6	6	6	11.7	11.7	11.7	97.969	0	49.434	389130000	38
Cartilage-associated protein	CRTAP	5	5	5	34.2	34.2	34.2	26.189	0	23.915	389000000	35
DNA (cytosine-5)-methyltransferase 3A	DNMT3A	5	5	5	9.2	9.2	9.2	86.721	0	53.439	388810000	10
Arf-GAP with SH3 domain, ANK repeat and PH domain-containing protein 1	ASAP1	5	5	5	9	9	9	124.77	0	17.897	387970000	11
Latexin	LXN	3	3	3	27.5	27.5	27.5	25.75	0	42.062	387770000	14
NSFL1 cofactor p47	NSFL1C	13	1	1	46.5	5.1	5.1	40.572	0	52.296	385620000	12
CCR4-NOT transcription complex subunit 2	CNOT2	3	3	3	21	21	21	29.925	0	47.169	385270000	9
	HNRPK	24	1	1	65.7	1.7	1.7	51.058	0.0042553	1.8064	384020000	7
[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 1, mitochondrial	PDK1	6	6	5	18.1	18.1	16.1	49.244	0	57.475	383750000	23
Syntaxin-16	STX16-NPEPL1;STX16	3	3	3	16.2	16.2	16.2	31.057	0	14.203	382940000	13
Pseudouridylate synthase 7 homolog	PUS7	8	8	8	19.8	19.8	19.8	75.036	0	48.849	382370000	23
Protein XRP2	RP2	1	1	1	2.6	2.6	2.6	39.641	0.0013659	2.5528	379820000	6
Histone RNA hairpin-binding protein	SLBP	4	4	4	21.9	21.9	21.9	31.285	0	10.879	379780000	24
ERI1 exoribonuclease 3	PRNPIP;ERI3	1	1	1	5.6	5.6	5.6	18.185	0.0028043	1.9202	379230000	6
Helicase ARIP4	RAD54L2	4	4	1	4	4	1.4	162.77	0	9.2324	378900000	23
Prostaglandin E synthase 2;Prostaglandin E synthase 2 truncated form	PTGES2	3	3	3	19.2	19.2	19.2	29.13	0	58.747	378840000	23
Mothers against decapentaplegic homolog;Mothers against decapentaplegic homolog 3;Mothers against decapentaplegic homolog 2;Mothers against decapentaplegic homolog 9	SMAD3;SMAD2;SMAD9	1	1	1	20.6	20.6	20.6	7.3142	0.002653	2.1648	378770000	1
Aurora kinase B	AURKB	5	5	2	22.6	22.6	6.5	26.698	0	23.574	378220000	24
Cell division cycle protein 23 homolog	CDC23	6	6	6	15.7	15.7	15.7	68.833	0	47.805	378030000	19
DNA-directed RNA polymerase III subunit RPC3	POLR3C	6	6	6	26.3	26.3	26.3	46.189	0	52.824	377970000	44
Neuronal-specific septin-3	3-Sep	5	5	5	23.4	23.4	23.4	32.997	0	18.814	377790000	21
Pre-mRNA-splicing factor 38B	PRPF38B;DKFZp434O1172	4	4	4	10.8	10.8	10.8	64.467	0	11.213	377790000	15
Transmembrane emp24 domain-containing protein 5	TMED5	2	2	2	9.6	9.6	9.6	26.005	0	7.0169	377640000	10

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Smad nuclear-interacting protein 1	SNIP1	3	3	3	11.6	11.6	11.6	45.777	0	5.329	377140000	7
Cell division cycle-associated protein 3	CDCA3	6	6	6	46.3	46.3	46.3	28.998	0	19.496	376730000	45
		15	1	1	40.9	3.8	3.8	64.969	0	10.023	376520000	13
Retinoic acid-induced protein 3	GPRC5A	3	3	3	18.5	18.5	18.5	40.251	0	22.622	376320000	12
Vacuolar protein-sorting-associated protein 36	VPS36	3	3	3	17.4	17.4	17.4	25.335	0	11.579	376010000	18
Smoothelin	SMTN	3	3	1	5.5	5.5	1.5	99.058	0.0019186	2.3269	375610000	5
Protein RUFY3	RUFY3	4	4	4	15.6	15.6	15.6	49.188	0	21.294	375490000	13
Geranylgeranyl transferase type-1 subunit beta	PGGT1B	2	2	2	8	8	8	42.368	0	29.123	374810000	18
La-related protein 4B	LARP4B	6	6	6	11.9	11.9	11.9	80.551	0	22.471	374320000	16
5-aminolevulinate synthase;5-aminolevulinate synthase, nonspecific, mitochondrial	ALAS1	3	3	3	9.2	9.2	9.2	70.58	0	10.162	374120000	11
Collagen alpha-1(XIV) chain	COL14A1	6	6	6	6.8	6.8	6.8	193.51	0	23.314	373510000	26
SCY1-like protein 2	SCYL2	9	9	9	16.3	16.3	16.3	104.11	0	41.755	373130000	15
		9	1	0	22.4	1.6	0	62.615	0.0015474	2.4165	373050000	12
N-acetylgalactosaminyltransferase 7;Polypeptide N-acetylgalactosaminyltransferase	GALNT7	6	6	6	16.1	16.1	16.1	75.388	0	11.351	372680000	30
3-ketoacyl-CoA thiolase, peroxisomal	ACAA1	8	8	8	32.3	32.3	32.3	44.292	0	130.19	372520000	39
Dystroglycan;Alpha-dystroglycan;Beta-dystroglycan	DAG1	5	5	5	12.2	12.2	12.2	97.539	0	26.99	372520000	52
Plasminogen receptor (KT)	PLGRKT	3	3	3	21.8	21.8	21.8	17.201	0	5.5216	372510000	16
Guanosine-3,5-bis(diphosphate) 3-pyrophosphohydrolase MESH1	HDDC3	4	4	4	30.8	30.8	30.8	15.956	0	6.647	372480000	12
Ubiquitin carboxyl-terminal hydrolase 48	USP48	4	4	4	8.4	8.4	8.4	112.99	0	165.97	371950000	41
p53 and DNA damage-regulated protein 1	PDRG1	1	1	1	9.8	9.8	9.8	15.511	0	5.7873	371370000	9
Protein unc-119 homolog A	UNC119	1	1	1	6.2	6.2	6.2	26.962	0	29.97	371140000	14
Non-syndromic hearing impairment protein 5	DFNA5	4	4	4	14	14	14	47.735	0	15.705	370870000	19
Monoacylglycerol lipase ABHD12	ABHD12	5	5	5	15.6	15.6	15.6	45.096	0	75.325	370770000	25
Breast carcinoma-amplified sequence 3	BCAS3	7	7	7	13.5	13.5	13.5	99.663	0	40.419	370720000	15
Glycylpeptide N-tetradecanoyltransferase;Glycylpeptide N-tetradecanoyltransferase 2	NMT2	5	3	3	17.7	10.9	10.9	56.716	0	4.4821	370470000	4
Polyhomeotic-like protein 2	PHC2;HPH2	4	4	4	9.5	9.5	9.5	50.403	0	6.9784	370340000	19
Arylsulfatase A;Arylsulfatase A component B;Arylsulfatase A component C	DKFZp686G12235;ARSA	5	5	5	17.4	17.4	17.4	53.588	0	13.395	369890000	27
Poly(A) RNA polymerase, mitochondrial	MTPAP	4	4	4	12.9	12.9	12.9	66.171	0	10.634	369510000	12
Putative protein arginine N-methyltransferase 9	PRMT9	4	4	4	6	6	6	94.5	0	4.91	369440000	9
YTH domain-containing protein 1	YTHDC1	4	4	4	10.3	10.3	10.3	84.699	0	32.026	369320000	27
ADP-ribose pyrophosphatase, mitochondrial	NUDT9	4	4	4	16.6	16.6	16.6	39.041	0	12.704	369260000	3
Alpha/beta hydrolase domain-containing protein 11	ABHD11	2	2	2	12.9	12.9	12.9	22.604	0	28.573	368540000	19
Coilin	COIL	5	5	5	11.1	11.1	11.1	62.608	0	21.022	368430000	23
Serine/threonine-protein phosphatase 6 regulatory subunit 2	PPP6R2;SAPS2	9	9	9	18.6	18.6	18.6	104.94	0	28.855	368200000	37

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Presenilin-1;Presenilin-1 NTF subunit;Presenilin-1 CTF subunit;Presenilin-1 CTF12;Presenilin	PSEN1	5	5	4	17.3	17.3	15.4	52.667	0	90.178	367820000	24
Protein yippee-like 5	YPEL5	2	2	2	23.1	23.1	23.1	13.841	0	58.604	367120000	17
UBX domain-containing protein 6	UBXN6	5	5	5	24.9	24.9	24.9	49.753	0	13.046	366540000	25
Vacuolar protein sorting-associated protein 16 homolog	VPS16	5	5	5	7.6	7.6	7.6	94.693	0	11.282	366330000	12
Mitochondrial import inner membrane translocase subunit Tim23;Putative mitochondrial import inner membrane translocase subunit Tim23B	TIMM23B;TIMM23	2	2	2	26.4	26.4	26.4	14.6	0	69.997	366060000	20
Vesicle-associated membrane protein 2	VAMP2;VAMP3	3	1	1	35.4	14.2	14.2	12.251	0	35.366	365720000	9
Vitamin K epoxide reductase complex subunit 1-like protein 1	VKORC1L1	1	1	1	5.7	5.7	5.7	19.775	0.0013632	2.5156	364780000	12
Protein Smaug homolog 2	SAMD4B	5	5	5	16	16	16	72.413	0	60.667	364310000	22
SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily A containing DEAD/H box 1	SMARCAD1	4	4	4	6.8	6.8	6.8	117.4	0	11.42	363830000	9
Nuclear transcription factor Y subunit gamma	NFYC	3	3	3	22.5	22.5	22.5	14.909	0	4.0898	363620000	6
Protein TSSC1	TSSC1	4	4	4	12.3	12.3	12.3	46.319	0	8.5638	363170000	16
Terpene cyclase/mutase family member;Lanosterol synthase	LSS	4	4	4	7.4	7.4	7.4	83.423	0	15.739	362910000	24
Bis(5-nucleosyl)-tetraphosphatase [asymmetrical]	NUDT2	3	3	3	29.9	29.9	29.9	16.829	0	6.515	361410000	9
Ras GTPase-activating protein 1	RASA1	4	4	4	6.1	6.1	6.1	95.087	0	5.0523	360240000	15
Trafficking protein particle complex subunit 8	TRAPPC8;KIAA1012	5	5	5	9.7	9.7	9.7	104.24	0	26.478	360060000	24
Probable ATP-dependent RNA helicase DDX10	DDX10	6	6	6	11.5	11.5	11.5	90.315	0	15.899	359300000	22
ADP-dependent glucokinase	DKFZp667C1917;ADPGK	2	2	2	14.4	14.4	14.4	23.51	0	64.984	359020000	18
Intersectin-2	ITSN2	5	5	5	6.2	6.2	6.2	151.01	0	4.8942	358950000	6
Allograft inflammatory factor 1-like	AIF1L	2	2	2	16.1	16.1	16.1	17.473	0	6.705	358700000	11
Deoxyribose-phosphate aldolase	DERA	4	4	4	22.6	22.6	22.6	35.23	0	12.837	358700000	7
Hypoxia-inducible factor 1-alpha inhibitor	HIF1AN	5	5	5	24.9	24.9	24.9	40.285	0	32.172	358440000	30
TSC22 domain family protein 2	TSC22D2	4	4	3	14.5	14.5	13.3	79.227	0	103.77	357300000	24
Serine/threonine-protein kinase PRP4 homolog	PRPF4B	5	5	5	10.6	10.6	10.6	68.4	0	8.8449	357030000	20
	ACTN4	7	1	1	47.3	8.8	8.8	21.43	0	3.3269	356330000	9
Transmembrane protein 192	TMEM192	4	4	4	15.1	15.1	15.1	30.922	0	14.201	355540000	14
Ral GTPase-activating protein subunit alpha-1	RALGAPA1	7	7	7	5.3	5.3	5.3	280.41	0	37.785	355320000	15
pre-mRNA 3 end processing protein WDR33	WDR33	8	8	8	10.5	10.5	10.5	145.89	0	16.852	355140000	39
Surfeit locus protein 2	SURF2	2	2	2	12.5	12.5	12.5	29.647	0	4.911	355110000	6
Polycomb group RING finger protein 1	PCGF1	2	2	2	14.3	14.3	14.3	30.346	0	16.137	355090000	22
Valacyclovir hydrolase	BPHL	2	2	2	9.1	9.1	9.1	31.106	0	5.2489	354980000	5
Adrenodoxin-like protein, mitochondrial	FDX1L	2	2	2	16.7	16.7	16.7	19.902	0	4.7581	354610000	31
Phosphatidylinositol transfer protein alpha isoform	HEL-S-36;PITPNA	4	2	2	19.6	13.3	13.3	31.806	0	7.6646	353540000	21
	HUWE1	57	1	1	31.1	0.4	0.4	374.19	0	8.8509	352870000	11
Probable dimethyladenosine transferase	DIMT1	4	4	4	14.1	14.1	14.1	35.236	0	7.908	352810000	25

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TPR and ankyrin repeat-containing protein 1	TRANK1	3	3	3	2	2	2	341.26	0.004264	1.8292	352730000	3
Endoribonuclease Dicer	DICER1	9	9	6	7.4	7.4	5.1	218.68	0	43.418	352380000	23
Myeloid-associated differentiation marker	MYADM;hCG_1640809	1	1	1	15.8	15.8	15.8	15.864	0	61.172	352060000	9
Adenomatous polyposis coli protein	APC variant protein;APC	6	6	6	3.5	3.5	3.5	311.66	0	22.372	351500000	9
Insulin receptor substrate 2	IRS2	9	9	9	15	15	15	137.32	0	102.08	351350000	20
tRNA modification GTPase GTPBP3, mitochondrial	GTPBP3	6	6	6	22.6	22.6	22.6	37.005	0	27.081	351140000	30
Ras-related protein Rab-35	RAB35	4	4	4	32.8	32.8	32.8	23.025	0	34.1	351080000	28
Pre-mRNA-splicing factor ISY1 homolog	ISY1	5	5	5	21.1	21.1	21.1	32.992	0	17.188	350410000	12
Zinc finger protein 384	ZNF384	3	3	2	11.6	11.6	9.9	63.09	0	15.263	350350000	10
Ras suppressor protein 1	RSU1	5	5	5	28.9	28.9	28.9	31.54	0	8.12	349050000	24
Copper homeostasis protein cutC homolog	CUTC	4	4	4	24.9	24.9	24.9	29.341	0	21.409	348990000	14
14-3-3 protein sigma	SFN	7	4	4	28.2	18.1	18.1	27.774	0	7.6796	348670000	7
Importin-11	IPO11	1	1	1	1.6	1.6	1.6	99.707	0	8.1349	348650000	9
Leukocyte elastase inhibitor	HEL57;SERPINB1	2	2	2	8.8	8.8	8.8	38.685	0	44.961	348520000	12
E3 ubiquitin-protein ligase TRIM36	TRIM36	4	4	4	10.6	10.6	10.6	83.013	0	16.753	347940000	11
Coiled-coil-helix-coiled-coil-helix domain-containing protein 1	CHCHD1	1	1	1	11.3	11.3	11.3	10.957	0	3.2386	346460000	8
Protein asunder homolog	ASUN	3	3	3	6.1	6.1	6.1	80.224	0	8.243	346260000	11
Histone deacetylase 6	HDAC6;DKFZp566E044	7	7	7	9.6	9.6	9.6	131.42	0	6.0795	346170000	7
Deoxyhypusine synthase	DHPS	5	5	4	24.9	24.9	20.4	34.978	0	9.8428	345950000	22
Protein syndesmos	NUDT16L1	2	2	2	16.4	16.4	16.4	18.944	0.002644	2.108	345930000	14
Phosphatidylinositol 5-phosphate 4-kinase type-2 alpha	PIP4K2A	3	1	1	9.9	3.4	3.4	46.224	0	29.998	345500000	10
Protein phosphatase 1 regulatory subunit 14C	PPP1R14C	2	2	2	23	23	23	17.843	0	127.45	345210000	12
DmX-like protein 1	DMXL1	11	11	11	8.2	8.2	8.2	318.64	0	37.481	345170000	42
Endonuclease III-like protein 1	NTHL1	3	3	3	17.9	17.9	17.9	34.389	0	31.732	345120000	20
Catenin alpha-2	CTNNA2	7	2	2	10.2	3.5	3.5	105.31	0	5.5544	344850000	14
Carboxypeptidase;Lysosomal protective protein;Lysosomal protective protein 32 kDa chain;Lysosomal protective protein 20 kDa chain	CTSA;PPGB	3	3	3	6.9	6.9	6.9	54.269	0	17.641	344270000	10
PDZ domain-containing protein 11	PDZD11	1	1	1	17.1	17.1	17.1	16.131	0	28.212	344010000	10
Huntingtin	HTT;HD	7	7	7	3.7	3.7	3.7	347.6	0	74.018	343860000	31
Inosine-5-monophosphate dehydrogenase;Inosine-5-monophosphate dehydrogenase 1	IMPDH1;IMPDH;DKFZp781N0678	4	4	4	11.9	11.9	11.9	55.277	0	4.2823	343830000	10
Double-stranded RNA-binding protein Staufen homolog 2	STAU2;STAU2 variant protein	4	4	4	10	10	10	62.608	0	17.298	343010000	19
Ubiquitin-conjugating enzyme E2 T	UBE2T	4	4	4	21.8	21.8	21.8	22.521	0	5.8153	342080000	10
Retinoblastoma-associated protein	RB1	3	3	3	5.7	5.7	5.7	104.15	0	32.969	341630000	11
Poly(A)-specific ribonuclease PARN	PARN	5	5	5	10.2	10.2	10.2	73.45	0	14.165	341490000	24
Tyrosine-protein kinase;Tyrosine-protein kinase SYK	SYK	3	3	3	11.6	11.6	11.6	69.509	0	10.915	341350000	5
Small nuclear ribonucleoprotein G;Putative small nuclear ribonucleoprotein G-like protein 15	SNRPG;SNRPGP15	4	4	4	79.7	79.7	79.7	7.1013	0	16.899	341300000	21
Vacuolar protein sorting-associated protein 45	VPS45	3	3	3	9.7	9.7	9.7	50.43	0	43.472	341220000	23
	CSDA	14	1	1	59.7	7.9	7.9	31.947	0	19.966	341060000	7
Structural maintenance of chromosomes protein 5	SMC5	8	8	8	10.7	10.7	10.7	128.81	0	32.036	340870000	18
Peptidyl-prolyl cis-trans isomerase-like 2	PPIL2	5	5	5	18.7	18.7	18.7	58.76	0	31.055	340770000	24

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Ras-related protein Rab-34	RAB34	3	3	3	14.3	14.3	14.3	29.044	0	13.127	340560000	8
Complex I intermediate-associated protein 30, mitochondrial	NDUFAF1	2	2	2	22	22	22	21.556	0	6.9032	340560000	7
BAG family molecular chaperone regulator 3	BAG3	8	8	8	27.1	27.1	27.1	61.594	0	43.532	340530000	45
TATA box-binding protein-like protein 1	TBPL1	2	2	2	16.1	16.1	16.1	20.886	0	7.659	340310000	13
DNA-directed RNA polymerase II subunit RPB4	POLR2D	3	3	3	34.5	34.5	34.5	16.311	0	28.657	339960000	18
Phosphatidylglycerophosphatase and protein-tyrosine phosphatase 1	PTPMT1	4	4	4	24.4	24.4	24.4	22.843	0	34.482	339620000	16
COMM domain-containing protein 8	COMMD8	3	3	3	24	24	24	21.09	0	19.738	339030000	20
Glutaryl-CoA dehydrogenase, mitochondrial	GCDH	6	6	6	29	29	29	48.127	0	65.11	338130000	27
2-hydroxyacyl-CoA lyase 1	HACL1	6	6	6	19.2	19.2	19.2	63.728	0	16.325	337670000	8
Torsin-1A-interacting protein 2	TOR1AIP2	4	4	4	17.2	17.2	17.2	51.263	0	28.85	337320000	32
Rap1 GTPase-activating protein 1	RAP1GAP;RAP1GA1	3	3	3	6.6	6.6	6.6	66.98	0	3.9484	337130000	10
Serine/arginine-rich splicing factor 12	SRSF12	5	3	3	14.2	9.6	9.6	30.512	0	4.3096	337020000	5
Serine/threonine-protein kinase 38	STK38	5	5	4	16.3	16.3	14	54.239	0	39.398	336990000	12
Kinesin heavy chain isoform 5C;Kinesin-like protein	KIF5C	13	8	8	19.3	11.8	11.8	109.49	0	25.847	336750000	12
Ataxin-3	ATXN3	5	5	1	22.4	22.4	6.4	41.25	0	43.264	335710000	34
Ketosamine-3-kinase	FN3KRP	3	3	3	12.2	12.2	12.2	21.963	0	4.6716	334910000	6
Autophagy protein 5	ATG5	5	5	5	19.3	19.3	19.3	32.375	0	13.814	334860000	9
Protein numb homolog	NUMB	4	4	4	8.1	8.1	8.1	70.803	0	31.393	334400000	15
Calcium uptake protein 2, mitochondrial	MICU2	3	3	3	13.8	13.8	13.8	49.666	0	58.048	334130000	14
Ribosome biogenesis protein NSA2 homolog	CDK105;NSA2	4	4	4	19.2	19.2	19.2	30.065	0	9.1892	333790000	12
Tetraspanin-13	TM4SF13;TSPAN13	1	1	1	10.3	10.3	10.3	22.147	0	3.912	333640000	8
Tropomodulin-1	TMOD1	8	7	7	34.3	32	32	40.569	0	26.074	333350000	11
CREB-binding protein	CREBBP	10	10	8	9.3	9.3	8.3	265.35	0	65.661	333120000	24
Transcription initiation factor IIE subunit beta	GTF2E2	3	3	3	15.1	15.1	15.1	33.043	0	5.8641	332750000	11
Long-chain-fatty-acid--CoA ligase 1	ACSL1	7	7	6	12	12	10.5	77.951	0	17.161	332210000	16
CUGBP Elav-like family member 2	CELF2	5	5	5	10.9	10.9	10.9	55.731	0	20.585	332200000	13
Neuroplastin	NPTN;DKFZp566H1924	2	2	2	8.8	8.8	8.8	44.387	0	7.7333	332150000	8
Solute carrier family 25 member 36	SLC25A36	3	3	3	17	17	17	34.282	0	22.418	332130000	22
Transcription initiation factor TFIID subunit 10	TAF10	2	2	2	17.9	17.9	17.9	21.711	0	112.53	331490000	11
Mitochondrial 2-oxodicarboxylate carrier	SLC25A21	2	2	2	8.7	8.7	8.7	33.303	0	6.5282	331260000	7
alpha-1,2-Mannosidase;Mannosyl-oligosaccharide 1,2-alpha-mannosidase IB	MAN1A2	2	2	2	16.7	16.7	16.7	23.027	0	9.8395	331120000	9
39S ribosomal protein L54, mitochondrial	MRPL54	3	3	3	48.6	48.6	48.6	15.819	0	12.558	330940000	26
NIF3-like protein 1	DKFZp762L015;NIF3L1	4	4	4	17.8	17.8	17.8	37.029	0	9.5211	330490000	9
Surfeit locus protein 1	SURF1	3	3	3	22.7	22.7	22.7	26.752	0	8.8719	330290000	10
Protein IMPACT	IMPACT	6	6	6	29.7	29.7	29.7	36.462	0	58.83	330270000	11
Signal transducer and activator of transcription;Signal transducer and activator of transcription 5B	STAT5B	4	4	3	7.4	7.4	5.8	89.965	0	6.7633	330140000	7
Serine/arginine-rich splicing factor 8	SRP46;SRSF8	2	1	1	8.9	6	6	32.287	0	27.06	329770000	12
Stromal interaction molecule 1	STIM1	7	7	3	16.5	16.5	8.2	77.406	0	46.806	329770000	18
Mitochondrial fission regulator 1-like	MTFR1L	3	3	3	17.8	17.8	17.8	31.941	0	12.09	329760000	32
Vinexin	SORBS3	3	3	3	14.9	14.9	14.9	30.02	0	23.388	329150000	13

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SH3 domain-binding glutamic acid-rich-like protein 3	HEL-S-297;SH3BGRL3	3	3	3	23	23	23	23.838	0	29.222	328560000	6
RUN and FYVE domain-containing protein 1	RUFY1	7	7	7	12.9	12.9	12.9	79.817	0	13.503	328520000	8
EKC/KEOPS complex subunit LAGE3	LAGE3	1	1	1	16.1	16.1	16.1	14.804	0	3.4893	328360000	5
Multiple coagulation factor deficiency protein 2	MCFD2	1	1	1	13.4	13.4	13.4	14.404	0	44.481	327740000	12
SLIT-ROBO Rho GTPase-activating protein 2;SLIT-ROBO Rho GTPase-activating protein 2C	SRGAP2;SRGAP2C	6	6	5	9.2	9.2	8.1	120.87	0	37.659	327180000	14
Rabankyrin-5	ANKFY1;DKFZp686M19106	5	5	5	7	7	7	128.4	0	45.669	327030000	19
5-formyltetrahydrofolate cyclo-ligase	ST20-MTHFS;MTHFS	1	1	1	9.8	9.8	9.8	14.011	0	3.8629	326600000	8
Protein diaphanous homolog 2	DIAPH2	8	8	8	12.5	12.5	12.5	124.3	0	10.871	326400000	9
Carbonic anhydrase-related protein	CA8	3	3	3	35.3	35.3	35.3	17.282	0	16.182	326050000	17
Pentatricopeptide repeat-containing protein 1, mitochondrial	ATP5J2-PTCD1;PTCD1	3	3	3	7.1	7.1	7.1	84.109	0	8.7209	325460000	16
NADH dehydrogenase [ubiquinone] flavoprotein 3, mitochondrial	NDUFV3	1	1	1	14.8	14.8	14.8	11.94	0.0007893	2.728	325300000	7
Nuclear receptor 2C2-associated protein	NR2C2AP	2	2	2	25.9	25.9	25.9	15.876	0	10.412	324870000	31
Metaxin-3	MTX3	3	3	3	12.2	12.2	12.2	35.093	0	29.619	324820000	11
Embryonic stem cell-specific 5-hydroxymethylcytosine-binding protein	HMCES	3	3	3	28.6	28.6	28.6	15.976	0	8.8968	324760000	13
FH1/FH2 domain-containing protein 1	FHOD1	8	8	8	14.9	14.9	14.9	129.31	0	44.721	324720000	46
Protein phosphatase 1 regulatory subunit 21	PPP1R21	7	7	7	16.8	16.8	16.8	88.313	0	25.754	323580000	30
Male-enhanced antigen 1	MEA1	1	1	1	7.6	7.6	7.6	18.544	0	8.5669	323280000	14
Signal transducing adapter molecule 1	STAM	4	4	4	13.1	13.1	13.1	59.149	0	33.548	323000000	18
TFIIH basal transcription factor complex helicase XPD subunit	ERCC2	3	3	3	7.1	7.1	7.1	80.511	0	6.9477	322640000	9
EKC/KEOPS complex subunit TPRKB	TPRKB	4	4	4	44	44	44	19.689	0	24.077	322600000	46
Vacuolar protein sorting-associated protein 53 homolog	VPS53;HCCS1	4	4	4	18.6	18.6	18.6	62.167	0	35.885	322120000	37
U4/U6.U5 small nuclear ribonucleoprotein 27 kDa protein	hCG_1994066;SNRNP27	3	3	3	29.7	29.7	29.7	18.86	0	18.337	320890000	14
ELAV-like protein;ELAV-like protein 2;ELAV-like protein 4	ELAVL2;ELAVL4	7	6	6	22.6	20.3	20.3	42.632	0	17.072	320610000	17
Baculoviral IAP repeat-containing protein 6	BIRC6	9	9	9	3.9	3.9	3.9	530.25	0	54.092	320290000	40
Exocyst complex component 8	EXOC8	5	5	5	11.9	11.9	11.9	81.798	0	17.854	320230000	15
Probable ATP-dependent RNA helicase DDX52	DDX52	4	4	4	13.5	13.5	13.5	67.497	0	29.035	319340000	48
Bromodomain adjacent to zinc finger domain protein 2A	BAZ2A	8	8	8	6.4	6.4	6.4	207.81	0	29.504	317860000	16
Anaphase-promoting complex subunit 7	ANAPC7	3	3	3	9.3	9.3	9.3	56.313	0	22.313	317000000	10
Diphosphoinositol polyphosphate phosphohydrolase 2	NUDT4	4	4	3	49.4	49.4	41.1	20.306	0	23.825	316820000	14
Ankyrin-3	ANK3	7	7	6	12.1	12.1	10.5	110.97	0	15.369	316490000	21
Synaptogyrin-1	SYNGR1	2	1	1	14.2	7.1	7.1	18.465	0.0017364	2.3873	316040000	8
Mitochondrial chaperone BCS1	BCS1L	4	4	4	10.7	10.7	10.7	47.535	0	4.0751	314650000	9
Bcl2-associated agonist of cell death	BAD	1	1	1	10.7	10.7	10.7	16.293	0	27.149	314570000	5

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Origin recognition complex subunit 3	ORC3	4	4	4	8.7	8.7	8.7	82.253	0	13.025	314260000	14
Synaptic vesicle membrane protein VAT-1 homolog-like	VAT1L;DKFZp547P162	4	4	4	21	21	21	45.899	0	45.21	313840000	16
		6	6	1	16.2	16.2	2.2	69.871	0	15.013	313450000	10
Biogenesis of lysosome-related organelles complex 1 subunit 4	BLOC1S4	3	3	3	17.1	17.1	17.1	23.351	0	9.7113	313430000	11
Acyl-CoA desaturase	SCD	1	1	1	3.6	3.6	3.6	42.337	0	4.1793	313300000	10
Integrator complex subunit 7	INTS7	5	5	5	8.2	8.2	8.2	106.83	0	89.074	312990000	31
WAS protein family homolog 6;Putative WAS protein family homolog 3;WAS protein family homolog 2;WAS protein family homolog 1	WASH;WASH6P;DKFZp434K1323;DKFZp686C24272;WASH3P;WASH2P;WASH1	3	3	3	11	11	11	43.824	0	107.75	312530000	20
UPF0317 protein C14orf159, mitochondrial	C14orf159;C14orf159 variant protein	4	4	3	8.4	8.4	6.2	66.436	0.0007868	2.6794	312240000	7
Zinc finger MYM-type protein 2	ZNF198;ZMYM2	5	5	5	7.2	7.2	7.2	139.73	0	15.305	311370000	16
Versican core protein	VCAN;CSPG2;DKFZp686K06110	4	4	4	2.8	2.8	2.8	176.83	0	7.2758	311240000	7
Myelin protein zero-like protein 1	MPZL1	2	2	2	11.5	11.5	11.5	26.551	0	9.1398	311140000	5
Nuclear transcription factor Y subunit beta	NFYB	1	1	1	9.9	9.9	9.9	14.548	0	3.3338	311110000	6
La-related protein 4	LARP4	3	3	3	13.6	13.6	13.6	42.504	0	17.406	310750000	15
Large subunit GTPase 1 homolog	LSG1	5	5	5	10.6	10.6	10.6	75.225	0	6.2729	310650000	8
39S ribosomal protein L55, mitochondrial	MRPL55	3	3	3	30.5	30.5	30.5	15.128	0	5.3086	310360000	6
Trafficking protein particle complex subunit 13	C5orf44;TRAPPC13	2	2	2	12.8	12.8	12.8	44.631	0	19.147	309820000	30
UPF0696 protein C11orf68	C11orf68	2	2	2	9.6	9.6	9.6	27.354	0	4.846	309210000	7
Prenylcysteine oxidase-like	PCYOX1L	3	3	3	5.5	5.5	5.5	54.646	0	4.2354	309060000	21
Phospholipid-transporting ATPase;Probable phospholipid-transporting ATPase IH	ATP11A	6	6	6	8.5	8.5	8.5	106.48	0	20.886	308910000	10
Mortality factor 4-like protein 1	MORF4L1	5	5	5	28.9	28.9	28.9	26.878	0	21.019	308890000	13
Transmembrane protein 201	TMEM201	3	3	3	8.2	8.2	8.2	59.729	0	15.393	308170000	15
DnaJ homolog subfamily B member 4	DNAJB4	6	5	5	26.5	23	23	38.612	0	25.719	307860000	6
Apoptotic protease-activating factor 1	APAF1	3	3	3	4.9	4.9	4.9	132.46	0	4.6799	306240000	9
Negative elongation factor C/D	NELFCD;TH1L	4	4	4	9.6	9.6	9.6	66.432	0	23.798	305900000	9
Golgi-associated plant pathogenesis-related protein 1	C9orf19;GLIPR2	3	3	3	14.8	14.8	14.8	37.784	0	23.082	304400000	19
Serine/threonine-protein phosphatase 2A 56 kDa regulatory subunit epsilon isoform	PPP2R5E	5	4	4	13.8	11	11	50.737	0	18.388	304310000	17
Sphingomyelin phosphodiesterase 4	SMPD4	6	6	6	11	11	11	94.584	0	37.714	303920000	26
Prenylated Rab acceptor protein 1	RABAC1	2	2	2	12.6	12.6	12.6	17.056	0	9.1095	303620000	4
Atlastin-2	ATL2	3	3	3	10.9	10.9	10.9	47.418	0	30.572	302880000	17
Glucose 1,6-bisphosphate synthase	PGM2L1	7	7	7	14.6	14.6	14.6	70.441	0	11.435	302810000	12
Diphthine synthase	DPH5	3	3	3	13.7	13.7	13.7	31.651	0	7.7945	302590000	8
Titin	TTN	8	8	8	0.4	0.4	0.4	3713.7	0	3.2544	302560000	6
GRIP and coiled-coil domain-containing protein 2	GCC2	11	11	11	8.9	8.9	8.9	195.91	0	26.883	302530000	26
Neural Wiskott-Aldrich syndrome protein	WASL	5	5	5	16	16	16	54.826	0	19.633	302460000	26
RING finger protein unkempt homolog	hCG_1776081;UNK	6	6	6	16.4	16.4	16.4	88.084	0	47.489	302100000	12
Tissue alpha-L-fucosidase	FUCA1	2	2	2	6.4	6.4	6.4	53.688	0	5.6471	302060000	18
Peroxisome biogenesis factor 1	PEX1;PEX1R633Ter	2	2	2	2.2	2.2	2.2	119.6	0	5.4202	301440000	8

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Ubiquinone biosynthesis O-methyltransferase, mitochondrial	COQ3	2	2	2	8.9	8.9	8.9	41.054	0	18.084	301380000	13
Inositol 1,4,5-trisphosphate receptor type 1	ITPR1	9	7	6	5.2	4.6	4.2	313.93	0	19.899	300840000	12
Vesicle transport protein USE1	USE1	2	2	2	16.8	16.8	16.8	17.799	0	16.788	299990000	12
YrdC domain-containing protein, mitochondrial	YRDC	5	5	5	19.7	19.7	19.7	29.328	0	10.67	299810000	6
Spliceosome-associated protein CWC15 homolog	CWC15	2	2	2	14	14	14	26.624	0	75.161	299630000	37
Armadillo repeat-containing protein 8	ARMC8	6	6	1	12	12	1.8	75.509	0	26.401	299460000	18
Active regulator of SIRT1	RPS19BP1	1	1	1	9.6	9.6	9.6	15.434	0	6.1885	299320000	11
Solute carrier family 41 member 3	SLC41A3	1	1	1	27.7	27.7	27.7	6.7137	0	3.4602	299220000	1
Lanosterol 14-alpha demethylase	CYP51A1	3	3	3	9.4	9.4	9.4	51.422	0	5.9698	298840000	12
Protein FAM49A	FAM49A	3	2	2	13	9	9	37.312	0	9.1426	298340000	11
Latent-transforming growth factor beta-binding protein 4	LTBP4	8	8	8	6.9	6.9	6.9	169.46	0	11.7	298320000	10
DNA fragmentation factor subunit beta	DFFB	2	2	2	8.8	8.8	8.8	41.956	0	28.586	298280000	13
Conserved oligomeric Golgi complex subunit 7	COG7	6	6	6	11.8	11.8	11.8	86.343	0	10.088	297970000	7
1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase beta-3	PLCB3	5	5	5	7.2	7.2	7.2	138.8	0	85.916	297190000	28
Mannose-P-dolichol utilization defect 1 protein	MPDU1;HBEBP2BPA	1	1	1	19.2	19.2	19.2	5.7856	0.0019124	2.2678	297080000	24
rRNA-processing protein FCF1 homolog	FCF1;DKFZp686O2396	1	1	1	18	18	18	7.0253	0.0031675	1.8836	296800000	5
Mitotic-spindle organizing protein 2A;Mitotic-spindle organizing protein 2B	MZT2B;MZT2A	1	1	1	18.2	18.2	18.2	12.386	0	61.977	296000000	10
Protein SMG8	SMG8	6	6	6	11.2	11.2	11.2	109.68	0	83.217	295910000	15
FYVE and coiled-coil domain-containing protein 1	FYCO1	5	5	5	7.1	7.1	7.1	166.98	0	77.352	295820000	16
Acid ceramidase;Acid ceramidase subunit alpha;Acid ceramidase subunit beta	ASAH1	4	4	4	14.9	14.9	14.9	44.659	0	19.606	295580000	15
Histone H1x	H1FX	3	3	3	15.5	15.5	15.5	22.487	0	21.237	295340000	4
Thioredoxin-like protein 1	HEL-S-114;TXNL1	2	2	2	12.8	12.8	12.8	32.251	0	8.5262	295210000	10
Integral membrane protein GPR180	GPR180	1	1	1	3.4	3.4	3.4	49.395	0	40.508	295070000	10
Protein JTB	JTB	1	1	1	8.9	8.9	8.9	16.358	0.0002004	3.0068	294080000	11
OTU domain-containing protein 6B	OTUD6B	3	3	3	23.2	23.2	23.2	37.325	0	7.1221	293390000	15
Gem-associated protein 4	GEMIN4	4	4	4	7	7	7	118.79	0	11.353	293320000	18
Long-chain fatty acid transport protein 4	SLC27A4	3	3	3	14.8	14.8	14.8	42.622	0	8.1112	293190000	9
Non-specific protein-tyrosine kinase;Tyrosine-protein kinase Yes	YES1	3	1	1	10.4	6	6	61.386	0	33.096	292770000	12
Eukaryotic translation initiation factor 2-alpha kinase 4	EIF2AK4	5	5	5	5.9	5.9	5.9	161.12	0	17.474	292650000	7
Coiled-coil domain-containing protein 90B, mitochondrial	CCDC90B	3	3	3	15.4	15.4	15.4	29.505	0	6.013	292630000	11
Origin recognition complex subunit 6	ORC6L;ORC6	2	2	2	10.7	10.7	10.7	28.046	0	4.3764	292610000	5
E3 ubiquitin-protein ligase UHRF1	UHRF1	6	6	5	11.4	11.4	10.2	91.099	0	33.33	292390000	9
Ribosomal protein 63, mitochondrial	MRP63;MRPL57	1	1	1	12.7	12.7	12.7	12.266	0	4.209	291930000	6
Spectrin alpha chain, non-erythrocytic 1	SPTAN1	96	1	0	51.2	0.7	0	284.54	0	57.05	291890000	7
Uncharacterized protein C14orf142	C14orf142	3	3	3	67	67	67	10.859	0	34.578	291420000	23
3-beta-hydroxysteroid-Delta(8),Delta(7)-isomerase	EBP	2	2	2	9.6	9.6	9.6	26.352	0	5.6379	290870000	13

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Stromal membrane-associated protein 2	SMAP2	5	4	4	17.5	15.6	15.6	46.382	0	13.108	290810000	24
Ganglioside GM2 activator;Ganglioside GM2 activator isoform short	GM2A	2	2	2	16.1	16.1	16.1	20.838	0	4.1258	290510000	10
Zinc finger CCHC domain-containing protein 8	ZCCHC8	5	5	5	15.4	15.4	15.4	78.576	0	13.808	289830000	18
Cdc42 effector protein 4	CDC42EP4	6	6	6	31.7	31.7	31.7	37.979	0	39.995	289650000	14
Solute carrier family 35 member F6	SLC35F6	1	1	1	27.5	27.5	27.5	5.6775	0	4.2439	289220000	8
Cell division cycle protein 16 homolog	CDC16	4	4	4	8.6	8.6	8.6	71.454	0	24.971	289190000	9
Exocyst complex component 6B	EXOC6B	8	8	8	15.5	15.5	15.5	94.685	0	14.792	288920000	31
ARF GTPase-activating protein GIT2	GIT2	5	4	4	15.7	14.4	14.4	76.045	0	28.641	288710000	43
Cyclin-L1	CCNL1	1	1	1	2.9	2.9	2.9	59.633	0	16.744	288420000	10
SHC-transforming protein 1	SHC1	4	4	4	16.9	16.9	16.9	56.177	0	38.099	287950000	9
Myosin light chain 6B	MYL6B	4	2	2	23.1	11.5	11.5	22.764	0.0022853	2.2221	287560000	4
Activator of basal transcription 1	ABT1	3	3	3	15.4	15.4	15.4	31.079	0	4.9305	287460000	6
Fanconi anemia group D2 protein	FANCD2	4	4	4	5.1	5.1	5.1	164.13	0	101.77	286750000	18
Cytochrome c oxidase subunit 7A-related protein, mitochondrial	COX7A2L	2	2	2	58.2	58.2	58.2	8.8399	0	9.8182	286520000	8
Band 4.1-like protein 5	EPB41L5	4	4	4	10.6	10.6	10.6	81.855	0	27.437	285620000	31
MAP kinase-interacting serine/threonine-protein kinase 1	MKNK1	1	1	1	10.2	10.2	10.2	13.244	0.0081833	1.6198	285260000	1
Phosphatidylinositol 3-kinase;Phosphatidylinositol 3-kinase catalytic subunit type 3	PIK3C3	4	4	4	6.4	6.4	6.4	94.398	0	18.215	284440000	13
Alpha-tubulin N-acetyltransferase 1	ATAT1	3	3	3	10.2	10.2	10.2	46.81	0	5.99	283870000	13
rRNA-processing protein UTP23 homolog	UTP23	2	2	2	10	10	10	28.402	0	4.4653	283840000	5
Protein prune homolog	PRUNE	4	4	4	15.5	15.5	15.5	50.199	0	8.908	283700000	24
Chromodomain-helicase-DNA-binding protein 2	CHD2	7	6	6	7.2	6.6	6.6	200.56	0	26.891	283610000	17
Uncharacterized protein C1orf50	C1orf50	3	3	3	21.1	21.1	21.1	21.876	0	20.135	283570000	21
39S ribosomal protein L18, mitochondrial	MRPL18	3	3	3	17.9	17.9	17.9	20.435	0	5.4748	283530000	6
Paladin	KIAA1274;PALD1	8	8	8	14.6	14.6	14.6	96.753	0	14.544	282680000	9
GA-binding protein alpha chain	GABPA	8	8	8	27.1	27.1	27.1	51.281	0	32.283	282550000	17
Segment polarity protein dishevelled homolog DVL-2	DVL2	3	3	3	12.3	12.3	12.3	78.375	0	11.188	282330000	0
DNA-directed RNA polymerase III subunit RPC8	POLR3H	1	1	1	14.2	14.2	14.2	22.918	0	45.539	282020000	10
Formin-binding protein 4	FNBP4	8	8	8	15.5	15.5	15.5	110.25	0	157.61	280870000	32
Four and a half LIM domains protein 3	FHL3	5	5	5	45.7	45.7	45.7	31.192	0	10.401	280850000	26
		5	2	2	26.2	16	16	27.168	0	11.571	280640000	19
Ethylmalonyl-CoA decarboxylase	ECHDC1	4	4	4	19.9	19.9	19.9	33.698	0	39.8	280590000	23
Cochlin	COCH	4	4	4	11	11	11	44.448	0	8.0261	280200000	15
Microsomal glutathione S-transferase 1	MGST1	2	2	2	18.2	18.2	18.2	8.8863	0	7.7309	279990000	10
CREB-regulated transcription coactivator 1	CRTC1	3	3	3	14.7	14.7	14.7	67.299	0	9.3029	279600000	18
Enteropeptidase;Enteropeptidase non-catalytic heavy chain;Enteropeptidase catalytic light chain	TMPRSS15	2	2	2	2.4	2.4	2.4	112.93	0.0094795	1.4662	279480000	3
AT-rich interactive domain-containing protein 3A	ARID3A	5	5	5	9.1	9.1	9.1	62.888	0	24.632	279480000	8
Homeobox protein CDX-2	CDX2	2	2	2	45.1	45.1	45.1	16.151	0	11.838	279140000	47
Dynein light chain 2, cytoplasmic	DYNLL2	3	3	1	49.4	49.4	24.7	10.35	0	277.39	279070000	6
SH3 domain-binding glutamic acid-rich-like protein 2	SH3BGRL2	1	1	1	11.2	11.2	11.2	12.326	0.0011735	2.5761	278410000	10

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Kinesin-like protein		16	1	1	35	2.7	2.7	75.028	0	11.854	278380000	8
WASH complex subunit strumpellin	KIAA0196	7	7	7	9.6	9.6	9.6	134.84	0	27.024	277730000	17
Laminin subunit alpha-5	LAMA5	9	9	9	3.5	3.5	3.5	399.73	0	11.693	276900000	12
Sulfhydryl oxidase 1;Sulfhydryl oxidase	QSOX1;BPGF-1	6	6	6	9.9	9.9	9.9	82.577	0	7.6426	276640000	11
Deoxyguanosine kinase, mitochondrial	hCG_40733;DGUOK	2	2	2	18	18	18	21.438	0	17.636	276320000	11
Putative heat shock protein HSP 90-alpha A4	HSP90AA4P	2	1	1	5.7	3.1	3.1	47.711	0	5.1406	276000000	3
	KRAS	5	1	1	40.4	6.4	6.4	21.424	0	3.3103	275870000	8
Zinc finger protein 512B	ZNF512B	4	4	4	7.3	7.3	7.3	97.263	0	5.6268	275100000	6
Uncharacterized protein KIAA2013	KIAA2013	4	4	4	10.4	10.4	10.4	69.156	0	15.046	274290000	20
ATPase family AAA domain-containing protein 2B	ATAD2B	1	1	1	1.8	1.8	1.8	71.948	0.0042632	1.8292	274070000	14
GPI-anchor transamidase	PIGK	1	1	1	6.6	6.6	6.6	34.313	0	8.7438	274060000	5
Protein MGARP	MGARP	1	1	1	13.3	13.3	13.3	25.389	0	57.932	273790000	11
C-type mannose receptor 2	MRC2	5	5	5	5.4	5.4	5.4	166.67	0	17.388	273230000	23
Glutamine-dependent NAD(+) synthetase	NADSYN1	3	3	3	5.7	5.7	5.7	79.284	0	21.909	272240000	12
U3 small nucleolar RNA-associated protein 6 homolog	UTP6	3	3	3	9.4	9.4	9.4	48.066	0	97.032	272040000	12
		2	2	1	3	3	2	89.863	0.0091381	1.4837	272020000	3
Gem-associated protein 6	GEMIN6	3	3	3	21.6	21.6	21.6	18.824	0	8.4313	270680000	8
Ribose-5-phosphate isomerase	RPIA	4	4	4	20.9	20.9	20.9	33.269	0	59.759	269690000	21
Serine/threonine-protein phosphatase;Serine/threonine-protein phosphatase 2A catalytic subunit beta isoform	PPP2CB	9	1	1	44	4.2	4.2	35.631	0.0009816	2.6257	269510000	4
Nucleolar protein 16	NOP16	5	5	5	31.3	31.3	31.3	17.198	0	6.8573	269120000	10
BCL-6 corepressor	BCOR-RARA;BCOR	9	9	8	5.1	5.1	4.5	337.72	0	12.271	268230000	10
DnaJ homolog subfamily C member 17	DNAJC17	2	2	2	10.5	10.5	10.5	34.687	0	19.736	267870000	14
Coronin-7;Coronin	CORO7;hCG_1787779	22	2	2	47.1	2.4	2.4	100.6	0	22.755	267810000	23
HAUS augmin-like complex subunit 6	HAUS6	6	6	6	8.3	8.3	8.3	108.62	0	11.787	267760000	17
28S ribosomal protein S28, mitochondrial	MRPS28	4	4	3	29.3	29.3	23.8	20.148	0	8.2579	267610000	16
Immunity-related GTPase family Q protein	IRGQ	6	6	6	17.2	17.2	17.2	62.717	0	18.871	267510000	35
C-X-C motif chemokine;Interleukin-8;MDNCF-a;Interleukin-8;IL-8(5-77);IL-8(6-77);IL-8(7-77);IL-8(8-77);IL-8(9-77)	CXCL8;IL8	1	1	1	16.8	16.8	16.8	10.697	0	12.107	267500000	6
Transcription elongation factor 1 homolog	ELOF1	2	2	2	64.4	64.4	64.4	10.182	0	13.135	266790000	6
Histone-lysine N-methyltransferase setd3	SETD3	5	5	5	14.8	14.8	14.8	67.256	0	14.971	266770000	19
NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 3	NDUFA3	3	3	3	50	50	50	9.2787	0	27.884	266650000	6
C2 domain-containing protein 5	KIAA0528;C2CD5	8	8	8	11	11	11	115.02	0	26.915	266620000	22
Sialidase-1	NEU1	3	3	3	11.8	11.8	11.8	45.493	0	12.453	266580000	16
Succinyl-CoA:3-ketoacid-coenzyme A transferase;Succinyl-CoA:3-ketoacid coenzyme A transferase 1, mitochondrial	OXCT1;OXCT	5	5	5	17.5	17.5	17.5	56.157	0	13.079	266570000	16
Spermatid perinuclear RNA-binding protein	HEL162;STRBP	7	3	3	11.7	6.5	6.5	72.131	0	3.7234	266410000	4
UAP56-interacting factor	FYTTD1	3	3	3	12.9	12.9	12.9	35.818	0	26.113	266200000	6
Magnesium transporter MRS2 homolog, mitochondrial	MRS2	4	4	4	12.9	12.9	12.9	50.317	0	37.392	265850000	13
RISC-loading complex subunit TARBP2	TARBP2	5	5	5	32.2	32.2	32.2	39.013	0	26.472	265840000	51
Glycosylphosphatidylinositol anchor attachment 1 protein	GPAA1	3	3	3	18.8	18.8	18.8	26.076	0.0067828	1.6885	265480000	7

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Nuclear transcription factor Y subunit alpha	NFYA	2	2	2	12.8	12.8	12.8	33.356	0	42.645	265280000	15
Amyloid beta A4 precursor protein-binding family B member 1	APBB1	5	5	5	11.3	11.3	11.3	77.243	0	30.25	264920000	21
DNA replication complex GINS protein PSF2	GINS2	3	3	3	24.3	24.3	24.3	21.427	0	13.351	264740000	15
Calmin	CLMN	2	2	2	2.7	2.7	2.7	111.64	0.0001989	2.8743	264720000	3
Egl nine homolog 1	EGLN1	5	5	5	18.5	18.5	18.5	46.02	0	15.652	264540000	19
LINE-1 retrotransposable element ORF1 protein	L1RE1	3	3	2	11.2	11.2	7.4	39.981	0	8.6377	263830000	10
Lariat debranching enzyme	DBR1	6	6	6	17.5	17.5	17.5	61.554	0	17.799	263500000	15
Syntaxin-binding protein 4	STXBP4	2	2	2	15.9	15.9	15.9	35.055	0.0026375	2.0645	263480000	3
Phospholipase DDHD2	DDHD2	3	3	3	5.2	5.2	5.2	80.961	0	8.8969	263170000	11
Cytoplasmic protein NCK2	NCK2	4	4	4	12.9	12.9	12.9	42.915	0	12.16	263130000	11
CD44 antigen	CD44	2	2	2	35.4	35.4	35.4	9.105	0	21.002	263100000	7
Multivesicular body subunit 12A	LOC93343;MVB12A	4	4	4	23.1	23.1	23.1	28.809	0	25.285	263030000	16
Mothers against decapentaplegic homolog;Mothers against decapentaplegic homolog 4	SMAD4	4	4	4	17.3	17.3	17.3	50.052	0	31.377	263000000	41
[Pyruvate dehydrogenase (acetyl-transferring)] kinase isozyme 2, mitochondrial	PDK2	4	3	3	14.7	12.5	12.5	46.153	0	7.454	262530000	6
Serine protease HTRA1	HTRA1	5	5	5	26.5	26.5	26.5	51.286	0	64.629	262530000	17
Elongation factor 1-alpha 2	EEF1A2	10	3	3	35	17.3	17.3	50.47	0	58.154	262450000	15
Probable RNA-binding protein 19	RBM19	4	4	4	5.7	5.7	5.7	107.33	0	24.567	262410000	13
Glucose-induced degradation protein 8 homolog	GID8	4	4	3	26.8	26.8	19.3	26.748	0	20.01	262250000	9
Uncharacterized protein C3orf17	C3orf17	3	3	3	9.5	9.5	9.5	46.101	0	11.143	261730000	20
DNA repair protein complementing XP-C cells	XPC	5	5	5	10.7	10.7	10.7	105.95	0	17.509	261500000	20
DNA-directed RNA polymerase;DNA-directed RNA polymerase III subunit RPC2	DKFZp686D10173;POLR3B	5	5	5	8.4	8.4	8.4	127.82	0	7.3874	261380000	15
		7	1	1	30.8	3.6	3.6	37.507	0	4.4721	261020000	4
WD repeat-containing protein 44	WDR44;DKFZp761M142	6	6	6	9.9	9.9	9.9	101.37	0	9.1797	260980000	10
NEDD8 ultimate buster 1	NYREN18;NUB1	4	4	4	10.6	10.6	10.6	69.118	0	9.9788	260800000	7
Thioredoxin, mitochondrial	TXN2	3	3	3	34.5	34.5	34.5	21.825	0	9.5631	260440000	39
Serine/threonine-protein phosphatase 6 regulatory ankyrin repeat subunit A	ANKRD28	9	9	9	16.8	16.8	16.8	112.96	0	29.758	260430000	30
Microtubule-associated protein;Microtubule-associated protein tau	MAPT	5	5	5	35.5	35.5	35.5	27.673	0	20.197	260140000	20
Transmembrane protein 164	RP13-360B22.2;TMEM164	1	1	1	7	7	7	29.231	0	4.554	259350000	9
Exocyst complex component 3	EXOC3;DKFZp762K123	6	6	6	13.4	13.4	13.4	85.566	0	10.643	259340000	23
WD repeat-containing protein 74	WDR74	4	4	4	25.6	25.6	25.6	36.405	0	18.765	259270000	19
Zinc finger and BTB domain-containing protein 21	DKFZp781N1974;ZBTB21	5	5	5	12.8	12.8	12.8	84.512	0	11.671	258290000	8
Protein NDRG2	NDRG2	4	4	4	30.3	30.3	30.3	24.139	0	15.532	258270000	9
Soluble calcium-activated nucleotidase 1	CANT1	2	2	2	6.2	6.2	6.2	44.839	0	47.687	257670000	10
Prolyl endopeptidase-like	PREPL	4	4	4	7.3	7.3	7.3	83.926	0	10.151	257530000	13
Mediator of RNA polymerase II transcription subunit 23	MED23	5	5	5	4.7	4.7	4.7	157.11	0	18.581	257050000	16
Cytosolic purine 5-nucleotidase	NT5C2	3	3	3	10.5	10.5	10.5	64.959	0	32.051	257020000	8
Protein Wiz	WIZ	8	8	8	15	15	15	103.28	0	8.8227	256980000	5
Rho GTPase-activating protein 35	ARHGAP35;GRLF1	4	4	4	5.3	5.3	5.3	170.51	0	11.313	256720000	11
tRNA pseudouridine synthase;tRNA pseudouridine synthase A, mitochondrial	PUS1	2	2	2	8.9	8.9	8.9	37.831	0	6.1783	256370000	17

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High affinity cationic amino acid transporter 1	SLC7A1	2	2	2	7.6	7.6	7.6	66.352	0.0026286	1.9982	255640000	5
Multiple inositol polyphosphate phosphatase 1	MINPP1	2	2	2	6.2	6.2	6.2	55.051	0	17.524	255220000	13
Ensconsin	MAP7	4	4	4	18.9	18.9	18.9	66.967	0	20.934	254870000	34
Immunoglobulin superfamily member 8	IGSF8	6	6	6	13.4	13.4	13.4	65.033	0	7.9992	254600000	13
	CTNND1	19	1	1	35.1	2.3	2.3	92.387	0	3.5043	253870000	4
COMM domain-containing protein 6	COMMD6	2	2	2	28.2	28.2	28.2	9.638	0	5.8118	253520000	7
DNA-directed RNA polymerase II subunit RPB7	POLR2G	2	2	2	18	18	18	19.294	0	7.1757	253180000	8
Serine/threonine-protein kinase tousled-like 2	TLK2	2	2	2	2.9	2.9	2.9	68.832	0.0088161	1.5246	253080000	3
Ubiquitin-conjugating enzyme E2 C	UBE2C	2	2	2	16.8	16.8	16.8	19.652	0	9.243	252800000	16
Syntaxin-binding protein 2	STXBP2	5	5	5	14.3	14.3	14.3	64.691	0	13.252	251220000	14
Schlafen family member 11	SLFN11	4	4	4	9.9	9.9	9.9	102.83	0	15.871	250870000	11
Pumilio homolog 2	PUM2	3	2	2	4.6	3.6	3.6	99.645	0	4.245	250740000	3
Stearoyl-CoA desaturase 5	SCD5	3	3	3	12.7	12.7	12.7	37.61	0.0005932	2.7603	250510000	8
DIS3-like exonuclease 2	DIS3L2	5	5	5	11.6	11.6	11.6	75.602	0	10.839	249740000	13
39S ribosomal protein L30, mitochondrial	MRPL30	2	2	2	24.8	24.8	24.8	11.935	0	5.6115	249450000	7
Death-inducer obliterator 1	DIDO1	7	7	7	5.2	5.2	5.2	243.87	0	10.084	248980000	18
Lysine-rich nucleolar protein 1	KNOP1	1	1	1	4.1	4.1	4.1	51.588	0	8.0535	248930000	8
SPATS2-like protein	SPATS2L;DNAPTP6	4	4	4	12.7	12.7	12.7	54.945	0	7.9483	248780000	4
Clathrin heavy chain 2	CLTCL1	13	1	1	8.7	1	1	142.46	0.0009814	2.6231	248720000	3
Zinc finger MYM-type protein 3	ZMYM3	9	8	8	12.1	11.3	11.3	141.79	0	28.413	248670000	21
Hyaluronan mediated motility receptor	HMMR	4	4	4	9.6	9.6	9.6	81.595	0	7.531	248530000	6
Coiled-coil domain-containing protein 86	CCDC86	4	4	4	18.9	18.9	18.9	40.235	0	9.4736	248090000	5
Abscission/NoCut checkpoint regulator	ZFYVE19	4	4	4	29.4	29.4	29.4	32.947	0	8.8754	247780000	11
Glutamyl-tRNA(Gln) amidotransferase subunit B, mitochondrial	PET112;GATB	4	4	4	15.1	15.1	15.1	57.653	0	8.8324	247780000	12
Integrin beta;Integrin beta-6	ITGB6	1	1	1	1.3	1.3	1.3	75.849	0.008167	1.6021	246960000	6
GPN-loop GTPase 1	MBDin;GPN1	2	2	2	13.6	13.6	13.6	41.74	0	3.7441	246800000	13
Haloacid dehalogenase-like hydrolase domain-containing protein 3	HDHD3	2	2	2	13.9	13.9	13.9	28.072	0	4.9845	246460000	13
ATP-dependent Clp protease ATP-binding subunit clpX-like, mitochondrial	CLPX;DKFZp586J151	5	5	5	12.3	12.3	12.3	69.223	0	6.4867	246260000	11
Glycine dehydrogenase (decarboxylating), mitochondrial	GLDC	3	3	3	4.9	4.9	4.9	112.73	0	7.8146	246090000	11
CWF19-like protein 2	CWF19L2	4	4	4	5	5	5	103.79	0.0007885	2.6972	245150000	3
E3 ubiquitin-protein ligase RNF213	RNF213	11	11	11	3.4	3.4	3.4	591.4	0	22.048	244470000	28
HCLS1-binding protein 3	HS1BP3	5	5	5	33.2	33.2	33.2	42.78	0	34.574	244250000	30
G patch domain-containing protein 8	GPATCH8	8	8	8	7	7	7	164.2	0	37.936	244090000	20
B-cell CLL/lymphoma 7 protein family member C	BCL7C	4	4	4	36.4	36.4	36.4	23.468	0	12.395	243800000	24
Dual specificity mitogen-activated protein kinase kinase 7	MAP2K7	4	4	4	19.1	19.1	19.1	47.484	0	41.012	242690000	12
Tumor protein D53	TPD52L1	3	3	3	29.8	29.8	29.8	20.987	0	5.8026	242390000	0
Zinc finger protein 629	ZNF629	3	3	3	9.3	9.3	9.3	96.619	0	23.092	242090000	25
Mitogen-activated protein kinase;Mitogen-activated protein kinase 9	MAPK9	2	2	1	6.6	6.6	3.7	43.679	0	5.4762	241610000	5
Sulfhydryl oxidase 2	QSOX2	3	3	3	6.9	6.9	6.9	77.528	0	7.6918	241590000	33
NAD kinase	NADK	2	2	2	8.3	8.3	8.3	49.251	0	5.1123	240950000	10
60S ribosomal protein L36a-like;60S ribosomal protein L36a	RPL36A;RPL36AL;RPL36A-HNRNPH2	3	3	3	20.4	20.4	20.4	16.378	0	3.3909	240810000	1

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Beta-2-microglobulin;Beta-2-microglobulin;Beta-2-microglobulin form pI 5.3	B2M	2	2	2	28.7	28.7	28.7	13.946	0	6.6788	240480000	10
Sodium-coupled neutral amino acid transporter 9	SLC38A9;FLJ90709	1	1	1	25.5	25.5	25.5	11.365	0	10.912	240330000	12
GTP cyclohydrolase 1 feedback regulatory protein	GCHFR	2	2	2	48.8	48.8	48.8	9.6791	0	7.1103	239380000	4
Sorting nexin-1	SNX1	5	3	3	13.9	9	9	50.099	0	7.5911	239240000	5
DNA-binding protein SMUBP-2	IGHMBP2	4	4	4	12.7	12.7	12.7	109.15	0	24.355	239170000	28
ERO1-like protein beta	ERO1LB	3	2	2	7.7	5.4	5.4	53.519	0	16.489	239110000	8
Cytoplasmic protein NCK1	NCK1	4	4	4	24.7	24.7	24.7	42.906	0	55.819	238820000	19
WD repeat-containing protein 54	WDR54	2	2	2	9.4	9.4	9.4	26.249	0	6.7299	238350000	12
MAGUK p55 subfamily member 5	MPP5	3	3	3	8	8	8	77.321	0	14.701	238340000	9
CXXC-type zinc finger protein 1	CXXC1	3	3	3	7.5	7.5	7.5	75.711	0	9.1134	238170000	7
Thioredoxin domain-containing protein 9	TXNDC9	2	2	2	14.6	14.6	14.6	26.534	0	6.6635	238020000	10
TSC22 domain family protein 1	TSC22D1	3	2	2	45.8	39.6	39.6	15.667	0	11.225	237980000	13
Unconventional myosin-XIX	MYO19;MYOHD1	7	7	7	11.3	11.3	11.3	109.14	0	15.156	237620000	9
	GANAB	27	1	1	39.8	2.2	2.2	96.543	0	33.291	237420000	6
UPF0598 protein C8orf82	C8orf82	2	2	2	11.9	11.9	11.9	28.487	0	23.56	237080000	12
Interferon-induced transmembrane protein 1;Interferon-induced transmembrane protein 2;Interferon-induced transmembrane protein 3	IFITM2;IFITM3;IFITM1	1	1	1	21.6	21.6	21.6	8.0866	0	11.845	236850000	10
Ubiquitin-like modifier-activating enzyme ATG7	ATG7	5	5	5	13.5	13.5	13.5	75.506	0	33.688	236120000	12
Vacuolar protein sorting-associated protein 33B	VPS33B	5	5	5	11.2	11.2	11.2	65.379	0	11.525	236050000	7
Putative E3 ubiquitin-protein ligase UBR7	UBR7	5	5	5	25.4	25.4	25.4	47.998	0	25.228	235680000	27
Protein Hook homolog 3	HOOK3	3	3	2	8.5	8.5	7.2	83.125	0	6.8791	235100000	11
Tyrosine-protein kinase transmembrane receptor;Tyrosine-protein kinase transmembrane receptor ROR2	ROR2	3	3	3	3.3	3.3	3.3	104.74	0.0062454	1.712	234680000	1
RNA binding protein fox-1 homolog;RNA binding protein fox-1 homolog 2	RBFOX2	2	2	2	27.3	27.3	27.3	23.543	0	33.645	234530000	11
Cytoplasmic FMR1-interacting protein 1	CYFIP1	9	2	2	8.2	2.2	2.2	145.17	0	7.8129	234200000	11
Galectin-related protein;Galectin	LGALSL	2	2	2	19.2	19.2	19.2	18.986	0	6.6388	233990000	10
Transcription intermediary factor 1-alpha	TRIM24	8	8	8	14	14	14	113.02	0	13.332	233600000	9
Metalloproteinase inhibitor 3	TIMP3	2	2	2	10.9	10.9	10.9	24.145	0	5.8001	233410000	4
Transmembrane protein 11, mitochondrial	TMEM11	1	1	1	5.2	5.2	5.2	19.474	0.0084807	1.5501	233150000	5
Cathepsin Z	CTSZ	2	2	2	10.9	10.9	10.9	33.868	0	6.7826	232440000	5
Cystathionine beta-synthase	CBS;DKFZp727E011	5	5	5	13.2	13.2	13.2	55.874	0	24.811	232340000	10
Ras-related protein Rab-3D	RAB3D	4	4	3	41.1	41.1	32.4	24.267	0	22.91	232160000	34
Centrosomal protein of 85 kDa	DKFZp434P232;CEP85	6	6	6	33.1	33.1	33.1	40.941	0	16.769	231920000	13
Transcription and mRNA export factor ENY2	ENY2	1	1	1	17	17	17	11.315	0	7.6286	231870000	14
RNA-binding protein NOB1	NOB1	3	3	3	10.7	10.7	10.7	46.674	0	16.324	231820000	20
Ras-related C3 botulinum toxin substrate 3	RAC3	6	1	1	30.2	7.3	7.3	21.379	0.0007869	2.6795	231560000	8
Chromobox protein homolog 2	CBX2	3	3	3	12.6	12.6	12.6	56.08	0	44.506	231270000	13
Methyl-CpG-binding domain protein 1	MBD1	6	6	6	21.8	21.8	21.8	66.617	0	20.966	230810000	35
ADP-ribosylation factor-like protein 6-interacting protein 6	ARL6IP6	1	1	1	5.3	5.3	5.3	24.644	0	3.8552	230490000	6

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DNA-directed RNA polymerase II subunit RPB9	POLR2I	3	3	3	59.1	59.1	59.1	10.245	0	92.227	230490000	19
Tight junction protein ZO-2	TJP2	5	5	1	8.1	8.1	1	124.88	0	55.118	229900000	22
Transcription factor AP-2-alpha	TFAP2A	3	3	1	9.8	9.8	4.6	48.321	0	9.0057	229640000	15
Grancalcin	GCA	3	3	3	21.7	21.7	21.7	22.109	0	12.246	229450000	13
Probable C-mannosyltransferase DPY19L1	DPY19L1	2	2	2	4.7	4.7	4.7	84.533	0	10.839	229250000	3
Ras-associated and pleckstrin homology domains-containing protein 1	RAPH1	2	2	2	8.6	8.6	8.6	67.176	0	52.092	229100000	10
Ubiquitin-conjugating enzyme E2 L3	UBE2L3	6	2	2	64.9	21.4	21.4	17.789	0	6.9809	228920000	11
DNA-directed RNA polymerase III subunit RPC4	POLR3D	2	2	2	11.3	11.3	11.3	31.764	0	74.815	228850000	11
U8 snoRNA-decapping enzyme	NUDT16	3	3	3	36.2	36.2	36.2	16.285	0	4.4443	228770000	12
Partitioning defective 3 homolog	PARD3	4	4	4	7.1	7.1	7.1	82.077	0	12.005	228650000	6
	DDX46	30	1	1	37.5	1.9	1.9	117.47	0	19.154	228490000	28
Semaphorin-6A	SEMA6A	4	4	4	6.1	6.1	6.1	114.33	0	40.126	228460000	15
Protein RTF2 homolog	RTFDC1	1	1	1	6.9	6.9	6.9	31.151	0	12.525	228450000	11
Receptor-type tyrosine-protein phosphatase S;Protein-tyrosine-phosphatase	PTPRS	5	3	3	3.6	2.6	2.6	217.04	0	6.1672	228410000	3
Vacuolar protein-sorting-associated protein 25	VPS25	1	1	1	19.2	19.2	19.2	11.57	0	42.067	228250000	11
Protein O-linked-mannose beta-1,2-N-acetylglucosaminyltransferase 1	POMGNT1	3	3	3	9.7	9.7	9.7	58.764	0	19.479	226870000	15
Metal transporter CNNM2;Metal transporter CNNM4;Metal transporter CNNM1	CNNM2;CNNM4;CNNM1	2	2	2	3.1	3.1	3.1	96.622	0	4.5761	226830000	8
Pituitary tumor-transforming gene 1 protein-interacting protein	PTTG1IP	1	1	1	16.8	16.8	16.8	11.598	0	16.77	226670000	12
Cell division cycle protein 27 homolog	CDC27	3	3	3	9.2	9.2	9.2	84.887	0	6.7216	225890000	11
E3 ubiquitin-protein ligase ZFP91	ZFP91-CNTF;hCG_2042749;ZFP91	1	1	1	4.7	4.7	4.7	59.57	0	8.0758	224740000	6
tRNA (guanine-N(7)-)-methyltransferase non-catalytic subunit WDR4	WDR4	2	2	2	11.2	11.2	11.2	45.489	0	5.6345	224090000	12
Epithelial splicing regulatory protein 1	ESRP1	6	3	2	8.3	5.2	4.6	118.62	0.0005947	2.8031	223840000	6
Serine/threonine-protein kinase TAO1	TAOK1	4	4	2	3.7	3.7	1.6	116.07	0	9.6328	222500000	7
CCR4-NOT transcription complex subunit 10	CNOT10	6	6	6	12.2	12.2	12.2	82.309	0	22.277	221980000	10
RILP-like protein 1	RILPL1	3	3	3	10.9	10.9	10.9	44.765	0	4.3334	221790000	7
V-type proton ATPase subunit S1	ATP6AP1;FLJ00383	4	4	4	17.8	17.8	17.8	31.61	0	10.481	221590000	16
Guanine nucleotide-binding protein G(q) subunit alpha	GNAQ	3	3	2	10.6	10.6	7.5	42.111	0	5.9478	221200000	6
Integrator complex subunit 2	INTS2	2	2	2	2.8	2.8	2.8	133.38	0.0019135	2.2758	221020000	7
Endoplasmic reticulum-Golgi intermediate compartment protein 2	ERGIC2	4	4	4	22	22	22	42.548	0	13.843	220360000	25
Catechol O-methyltransferase	COMT	4	4	4	25.8	25.8	25.8	24.479	0	9.2913	220320000	23
Disks large-associated protein 4	DLGAP4	1	1	1	41.3	41.3	41.3	4.9342	0.0028053	1.9259	220210000	3
Sulfurtransferase;Thiosulfate sulfurtransferase	TST	4	4	4	23	23	23	27.682	0	5.2764	220110000	4
Zinc finger protein 622	ZNF622	5	5	5	16.1	16.1	16.1	54.271	0	18.57	219540000	4
AP-1 complex subunit sigma-2	AP1S2	3	3	3	21.7	21.7	21.7	18.615	0	49.772	219490000	16

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Charged multivesicular body protein 4a	CHMP4A	6	2	2	44.6	10.4	10.4	25.098	0.0031669	1.8799	219230000	3
Protein jagunal homolog 1	JAGN1	1	1	1	6.6	6.6	6.6	21.371	0.0028111	1.9596	219210000	2
Kunitz-type protease inhibitor 2	SPINT2	2	2	2	13.3	13.3	13.3	21.828	0	7.9721	218890000	9
Stanniocalcin-1	STC1	1	1	1	7.9	7.9	7.9	20.487	0	6.7569	218560000	10
Ubiquitin carboxyl-terminal hydrolase	UCHL5	9	1	1	36.9	7	7	40.423	0	22.273	218130000	11
Leukocyte receptor cluster member 8	LENG8	6	6	6	10.2	10.2	10.2	88.156	0	27.422	218060000	16
Squalene monooxygenase	SQLE;ERG1;DKFZp686B0215	3	3	3	12.7	12.7	12.7	53.067	0	15.049	217920000	15
SLAIN motif-containing protein 2	hCG_17415;SLAIN2	4	4	4	10	10	10	62.543	0	7.7911	217900000	11
MRG/MORF4L-binding protein	MRGBP	2	2	2	13.7	13.7	13.7	22.417	0	66.644	217820000	8
DNA-binding protein RFX5	RFX5;DKFZp586K091	6	6	6	15.1	15.1	15.1	63.112	0	26.674	217570000	12
Disks large homolog 1	DLG1	6	6	6	15.7	15.7	15.7	99.813	0	86.691	217030000	19
ADP-ribosylation factor-binding protein GGA1	GGA1	4	3	3	10.6	9.5	9.5	70.383	0	49.677	216980000	18
Serine/threonine-protein kinase Chk1	CHEK1	2	2	2	8.3	8.3	8.3	49.019	0	5.1373	216810000	10
ELMO domain-containing protein 2	ELMOD2	2	2	2	12.6	12.6	12.6	20.147	0.0001997	2.9295	216790000	1
Ubiquitin carboxyl-terminal hydrolase 28;Ubiquitin carboxyl-terminal hydrolase	USP28	4	4	4	8.2	8.2	8.2	122.49	0	19.574	216650000	6
Transmembrane and ubiquitin-like domain-containing protein 2	TMUB2	3	3	3	19.6	19.6	19.6	33.788	0	17.378	216630000	7
La-related protein 6	LARP6	4	4	4	13.6	13.6	13.6	54.736	0	11.678	216510000	8
TBC1 domain family member 24	TBC1D24	3	3	3	15	15	15	38.37	0	14.826	216500000	10
Protein NDNF	NDNF	4	4	4	10	10	10	64.672	0	16.07	215890000	8
Ubiquitin-protein ligase E3C	UBE3C	3	3	3	4.5	4.5	4.5	106.52	0	7.654	215740000	9
Probable proline--tRNA ligase, mitochondrial	PARS2	3	3	3	11.8	11.8	11.8	53.262	0	23.833	215220000	11
Serine racemase	DKFZp762A2415;SRR	2	2	2	12.2	12.2	12.2	30.624	0	13.767	215220000	9
Nebulette	NEBL	2	2	2	11.7	11.7	11.7	26.565	0	11.849	214560000	9
REST corepressor 1	RCOR1	6	6	6	17.3	17.3	17.3	53.327	0	41.438	214500000	31
UPF0600 protein C5orf51	C5orf51	3	3	3	22.1	22.1	22.1	33.62	0	7.9528	214070000	8
Equilibrative nucleoside transporter 1	SLC29A1	1	1	1	5	5	5	50.215	0	27.935	213690000	11
Histone lysine demethylase PHF8	PHF8	6	6	6	7.3	7.3	7.3	117.86	0	11.448	213440000	9
Speckle targeted PIP5K1A-regulated poly(A) polymerase	URLC6;TUT1;FLJ00132	4	4	4	7.6	7.6	7.6	93.846	0	20.952	213270000	11
Solute carrier family 35 member F2	SLC35F2	2	2	2	15.9	15.9	15.9	24.708	0	11.477	213190000	14
Syntaxin-6	STX6	3	3	3	22.4	22.4	22.4	29.176	0	67.023	212860000	7
Histone-lysine N-methyltransferase SETD1A;Histone-lysine N-methyltransferase	SETD1A;hCG_1998636	7	7	6	6.4	6.4	5.8	186.03	0	15.854	212780000	14
Kynurenine--oxoglutarate transaminase 1	CCBL1	2	2	2	8.8	8.8	8.8	47.875	0	8.8437	212760000	9
COUP transcription factor 2;COUP transcription factor 1	NR2F2;NR2F1	4	4	4	11.1	11.1	11.1	45.571	0	6.1672	212650000	6
Thyroid receptor-interacting protein 11	TRIP11	7	7	1	5.7	5.7	0.7	227.58	0	55.14	212370000	10
Protein FAM8A1	FAM8A1	5	5	5	18.4	18.4	18.4	44.123	0	13.078	211870000	9
C-Jun-amino-terminal kinase-interacting protein 3	MAPK8IP3;DKFZp762N1113	6	5	5	6.8	6	6	146.68	0	35.226	211580000	12
Nucleolar protein 9	NOP9;DKFZp686E1893	3	3	3	5.8	5.8	5.8	69.437	0	7.5757	211560000	7
Tetratricopeptide repeat protein 27	TTC27	2	2	2	5.2	5.2	5.2	90.978	0	7.4874	210930000	9
F-box/LRR-repeat protein 18	FBXL18	4	4	4	8.7	8.7	8.7	72.396	0	12.207	210890000	19
Protein timeless homolog	TIMELESS	6	6	6	10.2	10.2	10.2	138.66	0	17.985	210730000	10
Protein SDA1 homolog	SDAD1	3	3	3	4.2	4.2	4.2	75.539	0.00265	2.1451	210580000	5
Calponin;Calponin-2	CNN2	5	4	1	29.9	26.1	4.6	31.011	0	11.13	210330000	15
	DNM1L	18	1	1	34	2.8	2.8	84.034	0	79.798	209950000	9
NF-kappa-B inhibitor beta	NFKBIB	1	1	1	6.4	6.4	6.4	25.119	0.0001987	2.8507	209900000	8

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V-type proton ATPase 116 kDa subunit a isoform 2;V-type proton ATPase subunit a	ATP6V0A2	3	3	3	5.3	5.3	5.3	98.081	0	4.873	209420000	11
Protein FAM118B	FAM118B;FLJ21103	3	3	3	11.3	11.3	11.3	39.079	0	7.383	209030000	14
Ras-responsive element-binding protein 1	RREB1	4	4	4	5.7	5.7	5.7	181.42	0	87.223	208720000	25
Coiled-coil-helix-coiled-coil-helix domain-containing protein 5	CHCHD5	3	3	3	40.9	40.9	40.9	12.395	0	22.549	208280000	2
Lipase maturation factor 2	LMF2	1	1	1	3	3	3	79.697	0	66.263	208210000	9
Nectin-2	PVRL2	4	4	4	15.6	15.6	15.6	48.152	0	12.868	207990000	14
M-phase phosphoprotein 8	MPHOSPH8	3	3	3	7.9	7.9	7.9	97.181	0	45.977	207560000	24
Transportin-3	TNPO3	6	6	6	11.9	11.9	11.9	104.23	0	21.067	207540000	19
Protein YIPF;Protein YIPF3;Protein YIPF3, 36 kDa form III	YIPF3	3	3	3	43.1	43.1	43.1	12.29	0	8.3429	207120000	8
Ras-related protein Rap-2c;Ras-related protein Rap-2a	RAP2C;RAP2A	6	3	3	44.8	19.1	19.1	20.745	0	5.2508	207120000	10
Reactive oxygen species modulator 1	ROMO1	2	2	2	31.6	31.6	31.6	8.1828	0	16.965	206610000	9
Engulfment and cell motility protein 2	ELMO2	3	3	3	11.5	11.5	11.5	52.604	0	25.24	206480000	8
Protein PRRC1	PRRC1	3	3	3	15.5	15.5	15.5	46.701	0	16.104	206430000	21
Zinc finger C3H1 domain-containing protein	ZFC3H1	9	9	9	7.8	7.8	7.8	226.35	0	16.762	205960000	12
Polynucleotide 5-hydroxyl-kinase NOL9	NOL9	3	3	3	8.5	8.5	8.5	79.322	0	11.816	205710000	24
Zinc finger protein 574	ZNF574;FP972;DKFZp564M2178	6	6	6	10.9	10.9	10.9	108.7	0	16.021	205690000	14
Dyslexia-associated protein KIAA0319-like protein	KIAA0319L	4	4	4	6.9	6.9	6.9	113.23	0	7.0722	205080000	7
Cathepsin L1;Cathepsin L1 heavy chain;Cathepsin L1 light chain	CTSL1;CTSL	2	2	2	7.8	7.8	7.8	37.53	0	4.8332	205070000	6
Ankyrin repeat and LEM domain-containing protein 2	ANKLE2	4	4	4	9	9	9	104.11	0	29.355	204950000	17
N-alpha-acetyltransferase 25, NatB auxiliary subunit	NAA25	7	7	7	9.4	9.4	9.4	112.19	0	5.5157	204850000	9
Choline/ethanolaminephospho transferase 1	CEPT1	2	2	2	12.5	12.5	12.5	31.293	0	5.7056	204290000	5
Epidermal growth factor receptor;Receptor protein-tyrosine kinase	EGFR	5	5	5	7.5	7.5	7.5	134.28	0	8.8919	204180000	23
Glycosaminoglycan xylosylkinase	FAM20B	4	4	4	17.8	17.8	17.8	46.432	0	14.854	204080000	10
Protein DGCR14	DGCR14	5	5	5	18.7	18.7	18.7	52.567	0	81.38	203970000	17
Vitamin K-dependent protein S	PROS1	3	3	3	9.5	9.5	9.5	60.356	0	5.3167	203920000	6
Receptor expression-enhancing protein;Receptor expression-enhancing protein 4	REEP4	1	1	1	9.2	9.2	9.2	28.214	0	3.1255	203530000	1
Non-structural maintenance of chromosomes element 4 homolog A	NSMCE4A	2	2	2	6.2	6.2	6.2	44.301	0	6.2178	203130000	8
C2 domain-containing protein 2-like	C2CD2L	3	3	3	18.2	18.2	18.2	41.278	0	18.028	202960000	7
Polyadenylate-binding protein-interacting protein 2	PAIP2	1	1	1	23.6	23.6	23.6	14.984	0	15.261	202940000	45
Vacuolar-sorting protein SNF8	SNF8	4	4	4	41.1	41.1	41.1	15.855	0	17.167	202920000	5
Acidic leucine-rich nuclear phosphoprotein 32 family member B	ANP32B	4	2	2	16.4	4.8	4.8	28.672	0.0015483	2.4182	202520000	6
Cyclin-A2	CCNA2	3	3	3	13	13	13	48.55	0	19.691	202210000	7
Metal transporter CNNM3	CNNM3	5	5	5	13.3	13.3	13.3	76.118	0	27.626	202040000	12
Glypican-3;Secreted glypican-3	GPC3	2	2	2	5.5	5.5	5.5	63.727	0	3.4442	201950000	11
Probable carboxypeptidase X1	CPXM1	3	3	3	9	9	9	81.667	0	20.608	201870000	9

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Dual specificity mitogen-activated protein kinase kinase 3	MAP2K3;hCG_28371	3	2	2	11.8	7.2	7.2	39.219	0	4.8813	201440000	9
F-box only protein 22	FBXO22	2	2	2	8.4	8.4	8.4	44.478	0	3.9216	201130000	2
Protein MON2 homolog	MON2	8	8	8	6.6	6.6	6.6	187.32	0	8.637	201040000	10
RNA-binding motif protein, X-linked 2	RBMX2	4	4	4	15.6	15.6	15.6	31.603	0	6.9136	200740000	4
TBC1 domain family member 5	TBC1D5	6	6	6	18.5	18.5	18.5	89.003	0	9.921	200720000	8
Transmembrane protein 184C	TMEM184C	1	1	1	3	3	3	50.141	0	4.4206	200420000	5
CD99 antigen-like protein 2	CD99L2	2	2	2	28.6	28.6	28.6	12.638	0	5.5887	199800000	7
Kinetochore-associated protein DSN1 homolog	DSN1	2	2	2	14.4	14.4	14.4	32.219	0	9.4741	199640000	6
RNA-binding protein Musashi homolog 1	MSI1	4	4	3	19.1	19.1	16.9	39.124	0	22.473	199340000	37
Heat shock 70 kDa protein 14	HSPA14	4	4	4	13	13	13	54.794	0	9.0447	199180000	10
Dephospho-CoA kinase domain-containing protein	DCAKD	1	1	1	4.8	4.8	4.8	24.177	0	3.0681	199140000	8
HAUS augmin-like complex subunit 1	HAUS1	3	3	3	16.5	16.5	16.5	31.863	0	11.242	198620000	19
Tyrosine-protein phosphatase non-receptor type 13	PTPN13	7	7	7	4	4	4	271.42	0	32.8	198600000	11
U6 snRNA-associated Sm-like protein LSm8	LSM8	3	3	3	52.1	52.1	52.1	10.403	0	9.0891	198560000	8
Oxysterol-binding protein-related protein 9	OSBPL9	8	1	1	21.2	5.8	5.8	83.184	0	5.0104	198420000	35
72 kDa type IV collagenase;PEX	MMP2	4	4	4	9.7	9.7	9.7	73.881	0	25.511	198180000	8
	RBM7	2	2	1	31.1	31.1	21.6	16.436	0	44.219	197430000	9
Mitochondrial amidoxime reducing component 2	2-Mar	4	3	3	14.6	10.1	10.1	38.023	0	9.9907	197270000	9
Uncharacterized protein C17orf80	C17orf80	3	3	3	7.7	7.7	7.7	60.833	0	3.0948	197150000	5
		1	1	1	6.7	6.7	6.7	13.319	0.0088193	1.5267	197100000	12
Epidermal growth factor receptor kinase substrate 8	EPS8	5	5	5	10.5	10.5	10.5	92.75	0	53.84	196430000	5
Protein THEM6	THEM6	1	1	1	3.8	3.8	3.8	23.865	0.0094761	1.4656	196430000	9
p21-activated protein kinase-interacting protein 1	PAK1IP1	3	3	3	7.9	7.9	7.9	43.963	0.0042561	1.8117	196340000	3
Cytoplasmic dynein 2 heavy chain 1	DYNC2H1	4	4	4	1.5	1.5	1.5	492.64	0	11.008	196270000	23
Type 2 phosphatidylinositol 4,5-bisphosphate 4-phosphatase	TMEM55A	4	3	3	47.6	41.6	41.6	17.745	0	3.4708	196270000	4
Transmembrane protein 70, mitochondrial	TMEM70	1	1	1	18.6	18.6	18.6	13.256	0	3.7432	195860000	4
Solute carrier family 12 member 4	SLC12A4	4	4	3	4.7	4.7	4	119.98	0	12.431	195840000	14
ER membrane protein complex subunit 10	EMC10	1	1	1	4.6	4.6	4.6	38.975	0	5.4915	195720000	10
PAX3- and PAX7-binding protein 1	PAXBP1	5	5	5	8.5	8.5	8.5	104.8	0	41.703	195700000	10
von Willebrand factor A domain-containing protein 9	VWA9	2	2	2	10.4	10.4	10.4	53.587	0	43.591	195640000	7
Desmocollin-2	DKFZp686I11137;DKFZp686P18250;DSC2	3	3	3	8.1	8.1	8.1	73.33	0	45.25	195390000	12
Zinc-binding alcohol dehydrogenase domain-containing protein 2	ZADH2	3	3	3	10.9	10.9	10.9	40.14	0	7.5048	194860000	6
	PICALM	2	1	1	39.6	20.9	20.9	13.906	0	16.793	194790000	9
	RPS10-NUDT3;RPS10	4	2	0	15.8	10.3	0	33.14	0	10.321	194600000	14
Arpin	C15orf38-AP3S2;ARPIN	2	2	2	6.3	6.3	6.3	43.881	0	5.03	194300000	5
tRNA (guanine(26)-N(2))-dimethyltransferase	TRMT1	6	6	6	13.1	13.1	13.1	72.147	0	18.821	194260000	10
Rab GTPase-binding effector protein 1	RABEP1	4	4	4	10.5	10.5	10.5	82.376	0	22.665	194040000	28
Glutaminyl-peptide cyclotransferase	QPCT	3	3	3	12.5	12.5	12.5	40.876	0	6.3056	193860000	6
Sorting nexin-12	SNX12	5	3	3	28.4	18.5	18.5	18.884	0	3.9199	193700000	6

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TBC1 domain family member 2B	TBC1D2B	3	3	3	18.2	18.2	18.2	32.949	0	18.752	193500000	12
Protein YIPF4	YIPF4	1	1	1	15.5	15.5	15.5	6.447	0.0085052	1.5746	193480000	9
28S ribosomal protein S2, mitochondrial	MRPS2	3	3	3	8.8	8.8	8.8	33.249	0	3.6525	193380000	5
Apolipoprotein E	APOE	3	3	3	18.8	18.8	18.8	19.91	0	20.655	193260000	12
TOX high mobility group box family member 4;TOX high mobility group box family member 3	TOX4;TOX3	4	4	4	9.8	9.8	9.8	59.39	0	7.4891	193160000	7
Huntingtin-interacting protein K	hCG_2003792;HYPK	3	3	3	20.2	20.2	20.2	14.665	0	62.132	192910000	8
Retinal dehydrogenase 1	HEL-S-53e;HEL-9;ALDH1A1	3	2	2	10.3	7.9	7.9	35.78	0	13.842	192910000	11
ATP-binding cassette sub-family F member 3	ABCF3	2	2	2	4.5	4.5	4.5	75.573	0	6.9398	192840000	8
Loss of heterozygosity 12 chromosomal region 1 protein	LOH12CR1	2	2	2	14.1	14.1	14.1	20.247	0	4.7264	192230000	10
RNA polymerase-associated protein CTR9 homolog	CTR9	4	4	4	6.3	6.3	6.3	133.5	0	6.8499	192040000	8
Leucine-rich repeat-containing protein 1	LRRC1	5	4	4	18.7	16.8	16.8	59.227	0	32.789	191990000	31
AT-rich interactive domain-containing protein 2	ARID2	6	6	6	7	7	7	175.15	0	9.8782	191980000	6
	DKFZp686M0430	8	1	1	13.7	2.2	2.2	125.08	0	30.565	191780000	12
Transmembrane protein 115	TMEM115	2	2	2	11.7	11.7	11.7	38.197	0	17.736	191670000	13
Spermatogenesis-associated serine-rich protein 2	SPATS2	5	5	5	15.6	15.6	15.6	59.544	0	45.647	191560000	7
Thiamine-triphosphatase	THTPA	5	5	5	43.5	43.5	43.5	25.566	0	25.351	191360000	20
Rho guanine nucleotide exchange factor 1	ARHGEF1	4	4	4	6.7	6.7	6.7	102.43	0	32.484	190900000	7
Dihydropyrimidinase-related protein 1	CRMP1	6	4	4	21.2	16.1	16.1	61.442	0	23.386	190770000	13
Thioredoxin reductase 1, cytoplasmic	TXNRD1	4	3	3	20.2	17	17	50.723	0	15.262	190330000	27
Lysyl oxidase homolog 2	LOXL2	1	1	1	8.2	8.2	8.2	22.279	0	5.7788	190170000	10
BRCA1-associated protein	BRAP	6	6	5	14.1	14.1	11.9	64.279	0	15.509	189270000	9
Methylsterol monooxygenase 1	MSMO1	2	2	2	8.5	8.5	8.5	35.215	0	11.348	189080000	5
Dehydrogenase/reductase SDR family member 1	DHRS1	3	3	3	16.9	16.9	16.9	33.909	0	11.623	188890000	8
Nephronectin	NPNT	3	3	3	9.7	9.7	9.7	49.791	0	7.47	188860000	7
G-protein-signaling modulator 1	GPSM1	8	8	8	20.6	20.6	20.6	74.481	0	35.875	188810000	12
Lysine-specific demethylase 3A	KDM3A	7	6	1	7.7	6.8	1.3	141.03	0	10.612	188620000	5
Seizure 6-like protein 2	SEZ6L2;PSK-1	2	2	2	6.4	6.4	6.4	63.13	0	20.144	188350000	6
Katanin p80 WD40 repeat-containing subunit B1	KATNB1	3	3	3	12.6	12.6	12.6	61.948	0	7.7292	188240000	14
Vacuolar protein sorting-associated protein 8 homolog	VPS8	4	4	4	4.1	4.1	4.1	161.75	0	9.0094	187920000	24
Vesicle-trafficking protein SEC22a	SEC22A	2	2	2	15.6	15.6	15.6	24.506	0	10.616	187760000	6
Mitogen-activated protein kinase kinase kinase MLT	pk;ZAK	4	4	4	12.3	12.3	12.3	51.582	0	18.768	187550000	16
Ribosomal protein S6 kinase beta-2;Ribosomal protein S6 kinase	RPS6KB2	4	3	3	7.7	6	6	53.455	0	5.6391	187470000	4
Translation machinery-associated protein 16	TMA16	3	3	3	15.3	15.3	15.3	27.571	0	35.427	187320000	32
Sperm-associated antigen 5	SPAG5	4	4	4	8.1	8.1	8.1	134.39	0	25.505	187170000	33
RELT-like protein 1	RELL1	2	2	2	24.7	24.7	24.7	27.245	0	27.3	186860000	17
Ankyrin repeat domain-containing protein 11	ANKRD11	3	3	3	2.6	2.6	2.6	297.91	0.0017334	2.3751	186830000	3
Gamma-tubulin complex component 4	TUBGCP4	4	4	4	8.8	8.8	8.8	76.088	0	7.4082	185850000	8
TRIO and F-actin-binding protein	TRIOBP	4	4	4	2.4	2.4	2.4	261.37	0	17.949	185620000	15
Aminoacylase-1	ACY1;HEL-S-5;ABHD14A-ACY1	3	3	3	12	12	12	45.884	0	9.263	185480000	7
Limbic system-associated membrane protein	LSAMP	1	1	1	9.8	9.8	9.8	22.979	0	12.498	185030000	8

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Clustered mitochondria protein homolog	CLUH	5	5	5	6.1	6.1	6.1	140.49	0	52.146	184860000	11
Protein cereblon	CRBN	2	2	2	11.2	11.2	11.2	45.341	0	4.9257	184810000	19
Centrosomal protein of 41 kDa	CEP41	4	4	4	17.2	17.2	17.2	41.368	0	25.148	184390000	11
Fumarylacetoacetase	FAH	3	3	3	11	11	11	46.374	0	5.5201	184010000	14
Leucine carboxyl methyltransferase 1	LCMT1	2	2	2	12	12	12	18.052	0	4.3098	183980000	9
Ribonuclease P protein subunit p38	RPP38	3	3	3	18.4	18.4	18.4	31.834	0	17.196	183650000	2
Helicase SRCAP	SRCAP	8	8	8	3.7	3.7	3.7	315.61	0	14.358	183630000	13
Nucleolar complex protein 4 homolog	NOC4L	3	3	3	8.5	8.5	8.5	58.467	0	10.427	183600000	15
Cyclic AMP-responsive element-binding protein 1	CREB1	3	2	2	15.3	13.1	13.1	35.136	0	28.469	183270000	12
Mitochondrial import inner membrane translocase subunit Tim22	TIMM22	1	1	1	7.7	7.7	7.7	20.031	0.0013629	2.5059	183080000	6
Zinc finger and BTB domain-containing protein 10	ZBTB10	3	3	3	6.3	6.3	6.3	94.893	0.0069521	1.6763	183020000	1
Histone deacetylase 8	HDAC8	3	3	3	29.2	29.2	29.2	26.089	0	10.239	182990000	12
Golgi phosphoprotein 3-like	GOLPH3L	2	1	1	10.9	5.3	5.3	32.767	0	8.9804	182780000	8
Transcription factor 25	TCF25	4	4	4	9.8	9.8	9.8	76.666	0	14.078	182490000	11
Wolframin	WFS1	3	3	3	22.6	22.6	22.6	28.733	0	40.943	181860000	32
DNA damage-regulated autophagy modulator protein 2	TMEM77;DRAM2	1	1	1	8.3	8.3	8.3	29.766	0.0094694	1.4536	180470000	5
ATPase family AAA domain-containing protein 2	ATAD2	5	5	5	5.5	5.5	5.5	158.55	0	6.9962	180210000	12
Neutral cholesterol ester hydrolase 1	NCEH1	5	5	5	18.4	18.4	18.4	49.062	0	12.977	180070000	17
Tyrosyl-DNA phosphodiesterase 2	TDP2	2	2	2	7.7	7.7	7.7	40.929	0	3.3849	180070000	5
Secretory carrier-associated membrane protein 4	SCAMP4	2	2	2	17	17	17	25.728	0	4.5722	180020000	15
Phosphatidate cytidylyltransferase, mitochondrial	TAMM41	2	2	2	6.9	6.9	6.9	51.066	0	5.9339	179820000	7
Latrophilin-2	ADGRL2;LPHN2	2	2	2	2	2	2	151.14	0.0001991	2.8858	179710000	10
G protein-regulated inducer of neurite outgrowth 1	GPRIN1	3	3	3	6.2	6.2	6.2	102.4	0	4.6114	179460000	8
Tetratricopeptide repeat protein 5	TTC5;DKFZp686D0419	4	4	4	14.9	14.9	14.9	42.555	0	6.7111	179440000	4
Vesicle transport protein GOT1B	GOLT1B	1	1	1	17.6	17.6	17.6	8.2139	0.0013563	2.4388	179360000	3
Type I inositol 3,4-bisphosphate 4-phosphatase	INPP4A	5	5	5	9.2	9.2	9.2	109.95	0	47.646	179220000	13
Protein AF1q	AF1Q;MLLT11	1	1	1	25.6	25.6	25.6	10.061	0	8.6834	178840000	18
Mesoderm induction early response protein 1	MIER1	4	4	4	10.4	10.4	10.4	57.983	0	8.2319	178810000	10
Protein FAM210B	FAM210B	2	2	2	12	12	12	20.424	0	29.08	178610000	13
Exportin-4	XPO4	3	3	3	3.8	3.8	3.8	130.15	0	37.976	178280000	5
Kinesin-like protein;Kinesin-like protein KIF3A	KIF3A	5	5	5	9	9	9	80.354	0	7.9184	178170000	7
Ubiquitin carboxyl-terminal hydrolase;Ubiquitin carboxyl-terminal hydrolase 13	USP13	2	2	2	4.5	4.5	4.5	97.326	0.0028158	1.9929	177320000	5
Metastasis-associated protein MTA3	MTA3;tmp_locus_6	7	3	3	17.5	8.2	8.2	58.726	0	14.375	177160000	9
HAUS augmin-like complex subunit 5	HAUS5	3	3	3	7.9	7.9	7.9	71.682	0	4.7073	177090000	4
Borealin	CDCA8	5	5	5	27.1	27.1	27.1	31.323	0	4.869	176390000	1
Guanine nucleotide-binding protein-like 3-like protein	GNL3L	4	4	4	11.5	11.5	11.5	65.352	0	6.5092	176310000	12
Biogenesis of lysosome-related organelles complex 1 subunit 5	BLOC1S5;BLOC1S5-TXNDC5	3	3	3	30.7	30.7	30.7	12.779	0	4.0592	176270000	8
Putative Polycomb group protein ASXL3	ASXL3	3	3	3	3	3	3	241.92	0.0091496	1.493	176160000	3
Pseudouridine-5-phosphatase	HDHD1	3	3	3	16.7	16.7	16.7	25.249	0	8.7521	176000000	25
Probable ATP-dependent RNA helicase DHX40	DHX40	4	4	4	7.7	7.7	7.7	88.559	0	34.176	175930000	10

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Trans-3-hydroxy-L-proline dehydratase	L3HYPDH	1	1	1	8.1	8.1	8.1	22.597	0	3.1825	175900000	10
Supervillin	SVIL	4	4	4	3.3	3.3	3.3	247.74	0	8.4318	175420000	6
	HMGA1	3	1	1	34.4	14.6	14.6	10.679	0	10.669	175350000	7
RNA-binding protein 4B	RBM4B	12	4	4	53.2	29.5	29.5	40.149	0	55.533	175270000	20
Glutaminyl-peptide cyclotransferase-like protein	QPCTL	2	2	2	18.2	18.2	18.2	13.98	0.0026505	2.153	175240000	8
Inositol monophosphatase 3	IMPAD1	5	5	5	22.3	22.3	22.3	38.681	0	5.0687	175180000	14
Protein CCSMST1	URLC5;CCSMST1	2	2	2	23.5	23.5	23.5	15.004	0	3.9048	175160000	2
Ras GTPase-activating-like protein IQGAP3	IQGAP3	6	6	6	6.6	6.6	6.6	179.48	0	7.562	174930000	20
Inositol hexakisphosphate and diphosphoinositol-pentakisphosphate kinase 2	PPIP5K2	6	6	6	6.9	6.9	6.9	143.48	0	7.646	174820000	12
Chromatin accessibility complex protein 1	CHRAC1	1	1	1	32.1	32.1	32.1	6.2643	0	7.7063	174560000	8
BolA-like protein 3	BOLA3	2	2	2	29.9	29.9	29.9	12.114	0	3.6439	174190000	3
Acetoacetyl-CoA synthetase	AACS	4	4	4	6.8	6.8	6.8	75.143	0	39.39	173870000	5
Intraflagellar transport protein 74 homolog	IFT74	4	4	4	10	10	10	69.239	0	5.958	173720000	5
28S ribosomal protein S10, mitochondrial	MRPS10	2	2	2	17.6	17.6	17.6	11.776	0	4.7667	173590000	5
Protein SCAF11	SCAF11;SFRS2IP	5	5	5	8.5	8.5	8.5	128.92	0	16.06	173490000	9
Melanoma-associated antigen D1	MAGED1;FLJ00163	3	2	2	6.3	4.8	4.8	86.16	0	44.548	173440000	9
Eukaryotic translation initiation factor 4E-binding protein 1	EIF4EBP1	3	3	3	53.4	53.4	53.4	12.58	0	4.2202	173100000	5
Formin-like protein 2	FMNL2;FMNL3;DKFZp762B245	2	2	1	1.9	1.9	0.6	123.32	0.0013613	2.4859	172960000	4
Complement decay-accelerating factor	CD55	3	3	3	12	12	12	35.695	0	15.619	172930000	7
Serine/threonine-protein kinase;Serine/threonine-protein kinase D1	PRKD1	3	3	2	5.1	5.1	3.5	101.85	0	4.4211	172790000	12
Kinesin-like protein;Kinesin-like protein KIF1B	KIF1B;KIF1Bbeta	3	2	2	3.2	1.9	1.9	183.9	0	38.033	172740000	11
RAD50-interacting protein 1	RINT1	4	4	4	9.2	9.2	9.2	90.631	0	6.8712	172730000	10
Na(+)/H(+) exchange regulatory cofactor NHE-RF2	SLC9A3R2	4	4	4	13.7	13.7	13.7	40.575	0	4.4369	172490000	4
Solute carrier family 12 member 7	SLC12A7	2	2	2	3	3	3	119.13	0	13.433	172410000	6
Methyltransferase-like protein 2B	METTL2B;METTL2A	2	2	1	13.2	13.2	5.4	27.442	0	13.955	172100000	6
Sacsin	SACS	3	3	3	1.1	1.1	1.1	521.12	0.0083303	1.5861	171370000	3
Golgi SNAP receptor complex member 1	GOSR1	3	3	3	28.2	28.2	28.2	20.045	0	6.4904	171320000	5
ADP-ribosylation factor-binding protein GGA2	GGA2	5	4	4	13.1	11.9	11.9	67.15	0	21.976	171320000	21
Plakophilin-3	PKP3	3	3	3	5.3	5.3	5.3	87.081	0	5.7703	170830000	8
Ran-binding protein 10	RANBP10	4	3	3	10.8	8.1	8.1	67.255	0	6.9049	170430000	22
Elongator complex protein 3	ELP3	4	4	4	11	11	11	62.258	0	7.0783	170420000	9
Optineurin	OPTN	3	3	3	13.1	13.1	13.1	59.559	0	9.0301	170340000	5
Sortilin	SORT1	2	2	2	3.5	3.5	3.5	92.036	0	5.4039	170030000	4
N-alpha-acetyltransferase 20	NAA20	2	2	2	13.5	13.5	13.5	20.368	0.0013637	2.519	169900000	5
28S ribosomal protein S16, mitochondrial	MRPS16	2	2	2	22.6	22.6	22.6	15.345	0	45.468	169880000	11
Kinesin-like protein KIF3B;Kinesin-like protein KIF3B, N-terminally processed	KIF3B	4	3	3	6.7	5.2	5.2	85.124	0	17.849	169490000	7
IQ calmodulin-binding motif-containing protein 1	IQCB1	4	4	4	8.7	8.7	8.7	68.928	0	13.218	168940000	8
Kinesin-like protein KIF21A;Kinesin-like protein	KIF21A	6	6	6	6.3	6.3	6.3	187.18	0	24.57	168850000	18
Phosphoinositide phospholipase C;1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase gamma-2	PLCG2	4	4	4	5.6	5.6	5.6	132.82	0	20.689	168780000	7
	EIF2B4;DKFZp586J0119	6	1	1	19.2	3.8	3.8	57.553	0	43.596	168470000	11

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Protein Njmu-R1	C17orf75	5	5	5	28	28	28	44.609	0	44.142	168400000	22
	ASNSD1	3	3	3	49	49	49	11.25	0	7.7788	168380000	9
	DKFZp686O15119	3	1	1	11.9	4.3	4.3	41.135	0	16.705	168170000	7
Kelch domain-containing protein 4	KLHDC4;DKFZp434G0522	2	2	2	6	6	6	57.804	0	34.435	168160000	3
Molybdopterin synthase catalytic subunit	MOCS2	3	3	3	17.6	17.6	17.6	20.944	0	12.538	167190000	6
TELO2-interacting protein 1 homolog	TTI1;KIAA0406	4	4	4	6.2	6.2	6.2	122.07	0	41.858	166990000	6
Leucyl-cystinyl aminopeptidase;Leucyl-cystinyl aminopeptidase, pregnancy serum form	LNPEP	6	6	6	6.4	6.4	6.4	117.34	0	13.263	166860000	8
Vacuolar protein sorting-associated protein 13C	VPS13C	5	5	5	1.9	1.9	1.9	422.39	0.0007876	2.686	166610000	2
Metalloendopeptidase;Bone morphogenetic protein 1;Tolloid-like protein 1;Tolloid-like protein 2	BMP1;TLL1;TLL2	2	2	2	3	3	3	90.63	0	4.2775	166600000	6
EPM2A-interacting protein 1	EPM2AIP1	2	2	2	5.8	5.8	5.8	70.369	0	4.3911	166570000	6
Probable asparagine--tRNA ligase, mitochondrial	NARS2	2	2	2	19.8	19.8	19.8	11.908	0	3.1832	166310000	8
Mediator of RNA polymerase II transcription subunit 11	MED11	1	1	1	16.2	16.2	16.2	13.198	0	4.8995	166250000	4
5-AMP-activated protein kinase subunit beta-2	PRKAB2	3	3	3	16.5	16.5	16.5	29.78	0	37.544	166010000	14
Histone-lysine N-methyltransferase NSD2	WHSC1	5	5	5	6.5	6.5	6.5	152.26	0	13.645	165930000	12
Echinoderm microtubule-associated protein-like 3	EML3	4	4	4	8.7	8.7	8.7	73.281	0	4.2338	165650000	6
Zinc finger protein 503	ZNF503	3	2	2	9.1	7.3	7.3	62.554	0	18.631	165520000	6
Replication initiator 1	REPIN1	3	3	3	8.3	8.3	8.3	62.291	0	67.212	165400000	10
Pleckstrin homology-like domain family B member 2	DKFZp686J162;PHLDB2;DKFZp686P22161	3	3	3	5.4	5.4	5.4	96.671	0	4.1743	165310000	3
Nuclear receptor coactivator 1	NCOA1	3	3	3	4.6	4.6	4.6	135.62	0.0060651	1.7228	165090000	3
5-nucleotidase;Cytosolic 5-nucleotidase 3A	NT5C3;NT5C3A	3	3	3	15.4	15.4	15.4	32.558	0	14.791	164710000	8
Membrane-associated tyrosine- and threonine-specific cdc2-inhibitory kinase	PKMYT1	4	4	4	12.6	12.6	12.6	54.521	0	23.564	164170000	20
Tubulin-specific chaperone C	TBCC	5	5	5	23.7	23.7	23.7	39.248	0	8.2898	163870000	5
Niemann-Pick C1-like protein 1	NPC1L1	1	1	1	0.6	0.6	0.6	140.39	0.0099715	1.4272	163770000	5
Glucosylceramidase	GBA	3	3	3	12.2	12.2	12.2	50.263	0.0017331	2.3729	163600000	3
WD repeat-containing protein 13	WDR13	5	5	5	18.9	18.9	18.9	58.715	0	11.573	163590000	17
Phosphorylase b kinase gamma catalytic chain, liver/testis isoform	PHKG2	3	3	3	15.7	15.7	15.7	29.158	0.0001989	2.862	163410000	4
TAF5-like RNA polymerase II p300/CBP-associated factor-associated factor 65 kDa subunit 5L	TAF5L	1	1	1	2	2	2	66.155	0	3.8546	163000000	10
Acyl-CoA synthetase family member 3, mitochondrial	ACSF3	3	3	3	10.4	10.4	10.4	64.129	0	10.126	162720000	24
Ubiquitin-associated protein 2	UBAP2	5	5	3	9.1	9.1	6.8	117.11	0	20.527	162350000	14
Ubiquitin-like domain-containing CTD phosphatase 1	UBLCP1	4	4	4	19.8	19.8	19.8	36.804	0	5.1324	162250000	4
Alpha-ketoglutarate-dependent dioxygenase alkB homolog 4	ALKBH4	2	2	2	14.6	14.6	14.6	33.837	0	9.3404	161660000	26
Biogenesis of lysosome-related organelles complex 1 subunit 6	BLOC1S6	1	1	1	13	13	13	20.265	0	19.756	161560000	13
	PSIP1	2	2	2	52.3	52.3	52.3	7.7875	0	12.021	161460000	5
Dual specificity mitogen-activated protein kinase kinase 6	MAP2K6;DKFZp686N0154	3	3	2	12.6	12.6	7.8	37.464	0	5.6491	161440000	8

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Polyamine-modulated factor 1	hCG_1999356;PMF1-BGLAP;PMF1	1	1	1	11.9	11.9	11.9	15.619	0	57.541	161140000	6
Nuclear envelope pore membrane protein POM 121C;Nuclear envelope pore membrane protein POM 121	POM121C;POM121	4	4	4	9	9	9	125.09	0	24.884	160840000	8
	CAMK2G	9	1	0	33.1	4	0	50.924	0	7.5617	160710000	6
Polyhomeotic-like protein 1	PHC1;DKFZp686A1782	4	4	4	9.3	9.3	9.3	105.55	0	32.469	160530000	7
Small subunit processome component 20 homolog	UTP20	8	8	8	4.6	4.6	4.6	318.38	0	11.555	160380000	10
Zinc transporter ZIP11	SLC39A11	1	1	1	35.4	35.4	35.4	4.8526	0	7.736	160290000	8
Spermatogenesis-defective protein 39 homolog	C14orf133;VIPAS39	5	5	5	16.2	16.2	16.2	57.005	0	16.492	160050000	8
Epithelial cell adhesion molecule	EPCAM	1	1	1	12.6	12.6	12.6	20.954	0	3.1908	160040000	6
Actin-related protein 2/3 complex subunit 3	ARPC3	4	4	4	34.1	34.1	34.1	19.061	0	10.778	159220000	24
Carbohydrate sulfotransferase 14	CHST14	5	5	5	16	16	16	42.996	0	10.386	159010000	13
Calcium-binding and coiled-coil domain-containing protein 1	CALCOCO1	3	3	3	22	22	22	25.091	0	6.302	158880000	7
Mitochondrial thiamine pyrophosphate carrier	SLC25A19;DKFZp667O16 14	2	2	2	27.1	27.1	27.1	9.4156	0	3.0588	158080000	10
Target of EGR1 protein 1	TOE1	2	2	2	15.8	15.8	15.8	25.784	0	3.4907	157770000	3
Golgi membrane protein 1	GOLPH2;GOLM1	3	3	3	9	9	9	45.333	0	4.8964	157250000	6
WD repeat and coiled-coil-containing protein C2orf44	C2orf44	4	4	4	11.4	11.4	11.4	79.135	0	5.4738	157180000	4
Kinetochore protein Nuf2	CDCA1;NUF2	3	3	3	10.8	10.8	10.8	54.329	0	3.4069	156870000	5
Histone-lysine N-methyltransferase EHMT1	EHMT1	7	7	7	10.9	10.9	10.9	141.46	0	46.913	156820000	6
Transmembrane protein 33	TMEM33;SHINC3	3	3	3	13.1	13.1	13.1	25.223	0	7.36	156660000	7
Sperm-associated antigen 7	SPAG7	3	3	3	27.3	27.3	27.3	20.083	0	8.6185	156370000	4
Protein FAM134A	FAM134A	2	2	2	26.1	26.1	26.1	21.491	0	11.727	156290000	8
Dolichyl pyrophosphate Man9GlcNAc2 alpha-1,3-glucosyltransferase	ALG6	1	1	1	3.1	3.1	3.1	29.492	0.0057069	1.7449	155850000	5
Phostensin	hCG_1821276;PPP1R18	5	5	5	18.9	18.9	18.9	67.958	0	4.9136	155570000	3
Mediator of RNA polymerase II transcription subunit 4	MED4	2	2	2	13.9	13.9	13.9	27.077	0	12.879	155450000	9
ORM1-like protein 1;ORM1-like protein 3;ORM1-like protein 2	ORMDL3;ORMDL1;ORMDL2	1	1	1	10.8	10.8	10.8	11.796	0.0069457	1.6677	155270000	3
ADP-ribosylation factor-like protein 1	ARL1	5	5	5	40.9	40.9	40.9	20.417	0	26.389	155150000	19
Uroporphyrinogen-III synthase	UROS	3	3	3	23.1	23.1	23.1	25.707	0	44.071	155010000	12
Serine/threonine-protein kinase 38-like	STK38L	4	3	3	13.4	11	11	54.002	0	10.542	154640000	15
Zinc finger protein 579	ZNF579	2	2	2	6.6	6.6	6.6	60.509	0	12.107	153920000	7
DNA-directed RNA polymerase III subunit RPC5	POLR3E	2	2	2	5.2	5.2	5.2	73.393	0	12.822	153820000	11
DNA-directed RNA polymerase;DNA-directed RNA polymerase III subunit RPC1	POLR3A	5	5	5	6.9	6.9	6.9	153.51	0	6.4637	153750000	9
Leucine-rich repeat-containing protein 41	LRRC41	4	4	3	14.4	14.4	11.9	67.458	0	127.4	153530000	18
Probable fibrosin-1	FBRS;FBS1	3	3	3	6.2	6.2	6.2	103.77	0	12.394	153140000	12
Vang-like protein 1	VANGL1	2	2	2	5.7	5.7	5.7	59.974	0	19.161	152890000	8
Chromodomain Y-like protein	CDYL	3	3	3	12.2	12.2	12.2	66.481	0	19.153	152600000	1
2-methoxy-6-polyprenyl-1,4-benzoquinol methylase, mitochondrial	COQ5	2	2	2	19.2	19.2	19.2	14.918	0	5.4745	152360000	6
UPF0688 protein C1orf174	C1orf174	2	2	2	22.2	22.2	22.2	25.977	0	24.847	152230000	8
Group XV phospholipase A2	PLA2G15	3	3	3	12.1	12.1	12.1	46.657	0	4.5387	152170000	6
ER membrane protein complex subunit 7	EMC7;C15orf24	3	3	3	33.1	33.1	33.1	26.47	0	11.999	151910000	12
		16	1	0	33.7	3.1	0	55.11	0	6.997	151760000	8
tRNA (guanine(10)-N2)-methyltransferase homolog	TRMT11	2	2	2	13.5	13.5	13.5	26.453	0.0019069	2.2354	151690000	5

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6-pyruvoyl tetrahydrobiopterin synthase	PTS	3	3	3	22.1	22.1	22.1	16.386	0	3.9498	151630000	5
Pre-mRNA-processing factor 17	CDC40	3	3	3	13.6	13.6	13.6	56.694	0	3.3985	151580000	2
Transcription factor MafF	MAFF	3	3	3	36	36	36	17.76	0	5.2071	151390000	7
Dystrobrevin beta;Dystrobrevin	DTNB	4	2	2	13.6	8.1	8.1	71.355	0	58.796	151070000	1
DNA-directed RNA polymerase I subunit RPA43	TWISTNB	3	3	3	13.3	13.3	13.3	37.432	0	10.214	150930000	9
Insulin-like growth factor-binding protein 4	IGFBP4	2	2	2	12	12	12	27.934	0	12.899	150870000	7
ER membrane protein complex subunit 8	EMC8;COX4NB	2	2	2	26	26	26	11.728	0	10.919	150840000	5
Ankyrin repeat and zinc finger domain-containing protein 1	ANKZF1	4	4	4	13.2	13.2	13.2	57.572	0	4.1574	150820000	6
TATA-binding protein-associated factor 172	BTAF1	5	5	5	5.4	5.4	5.4	206.89	0	21.137	150750000	24
WD repeat-containing protein 6	WDR6;DKFZp434F1720	2	2	2	4.1	4.1	4.1	116.17	0	7.8016	150460000	9
Trans-Golgi network integral membrane protein 2	TGOLN2	2	2	2	6.9	6.9	6.9	51.018	0	20.847	150270000	12
Nurim	NRM	2	2	2	10	10	10	17.388	0.002472	2.1972	149960000	4
Protein CIP2A	KIAA1524	6	6	6	8.2	8.2	8.2	102.28	0	8.3951	149870000	13
Tumor necrosis factor receptor superfamily member 6	TNFRSF6;FAS;CD95	2	2	2	12.8	12.8	12.8	37.702	0	5.5142	149640000	6
Ribonuclease P protein subunit p40	RPP40	2	2	2	11.6	11.6	11.6	34.676	0	37.46	149380000	10
Bone marrow stromal antigen 2	BST2	1	1	1	6.9	6.9	6.9	23.537	0	3.567	149300000	2
Polycomb group RING finger protein 3	PCGF3	1	1	1	19.4	19.4	19.4	7.1744	0	7.577	149040000	11
KH domain-containing, RNA-binding, signal transduction-associated protein 3	KHDRBS3	3	3	3	13.3	13.3	13.3	38.799	0	40.469	148910000	3
Granulins;Acrogranin;Paragranulin;Granulin-1;Granulin-2;Granulin-3;Granulin-4;Granulin-5;Granulin-6;Granulin-7	GRN	3	3	3	15.7	15.7	15.7	41.238	0	20.171	148850000	4
Ephrin-B1	EFNB1	2	2	2	9	9	9	38.006	0	17.749	148800000	9
Protein PAT1 homolog 1	PATL1	3	3	3	5.6	5.6	5.6	86.849	0	7.8464	148270000	15
	SDCBP	7	1	1	41.5	5.3	5.3	34.819	0	3.3938	147660000	9
Probable 28S rRNA (cytosine-C(5))-methyltransferase;Putative methyltransferase NSUN5C	NSUN5;NSUN5P2	2	2	2	8.8	8.8	8.8	50.394	0.0013653	2.5518	147520000	1
Coiled-coil domain-containing protein 115	CCDC115;MGC12981	3	3	3	31.4	31.4	31.4	19.056	0	8.2498	147350000	10
Glycosylated lysosomal membrane protein	GLMP	1	1	1	8.1	8.1	8.1	34.576	0	4.4554	147340000	11
Tubulin alpha-4A chain	TUBA4A	17	2	2	49.6	6.7	6.7	49.924	0	26.902	147130000	10
Transmembrane protein 179B	TMEM179B	2	2	2	12.3	12.3	12.3	23.55	0	6.6123	146850000	3
Cleavage stimulation factor subunit 2 tau variant	CSTF2T	6	2	2	20.5	11	11	64.436	0	35.198	146790000	10
Muskelin	MKLN1	5	5	5	10.7	10.7	10.7	74.466	0	4.9148	146590000	6
Vacuolar protein sorting-associated protein 52 homolog	VPS52	5	5	5	14.4	14.4	14.4	80.09	0	31.536	145980000	24
Phosphatidylinositol 3-kinase regulatory subunit beta	PIK3R2	3	3	2	8.2	8.2	6.7	81.554	0	7.1991	145660000	12
		6	1	0	21	7.6	0	57.852	0	22.904	145540000	10
Protein unc-119 homolog B	UNC119B	3	3	3	15.9	15.9	15.9	28.166	0	4.9559	145440000	5
Mediator of RNA polymerase II transcription subunit 22	MED22;SURF5	1	1	1	12.6	12.6	12.6	12.853	0	3.6632	145310000	7
E3 ubiquitin-protein ligase MIB1	MIB1	1	1	1	1.9	1.9	1.9	86.465	0	11.249	145170000	6
Rho guanine nucleotide exchange factor 40	FLJ10357;ARHGEF40	7	7	7	9.4	9.4	9.4	164.64	0	9.1022	144960000	8

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Alanine aminotransferase 2	GPT2	6	6	6	23.1	23.1	23.1	57.903	0	24.277	144770000	10
FAS-associated death domain protein	FADD	2	2	2	18.8	18.8	18.8	16.696	0	6.0946	144720000	10
X-linked retinitis pigmentosa GTPase regulator-interacting protein 1	RPGRIP1	2	2	2	2.3	2.3	2.3	108.09	0.0094643	1.4531	144200000	4
Starch-binding domain-containing protein 1	STBD1	4	4	4	16.8	16.8	16.8	39.007	0	8.3361	144110000	6
Caspase-6;Caspase-6 subunit p18;Caspase-6 subunit p11	CASP6	1	1	1	6.8	6.8	6.8	33.31	0.0094778	1.4656	144070000	2
InaD-like protein	INADL	3	3	3	3	3	3	204.7	0.0017324	2.3684	144060000	2
Oxidoreductase NAD-binding domain-containing protein 1	OXNAD1	2	2	2	9	9	9	34.725	0	5.8652	143720000	6
ADP-ribosylation factor-binding protein GGA3	GGA3	5	5	4	17.9	17.9	16.8	67.916	0	80.916	143700000	29
OTU domain-containing protein 4	OTUD4	5	5	5	7.2	7.2	7.2	124.04	0	10.023	143470000	6
Protein TMED8	TMED8	3	3	3	14.5	14.5	14.5	35.74	0	3.7437	143280000	0
Adenosine 3-phospho 5-phosphosulfate transporter 1	SLC35B2	2	2	2	5.1	5.1	5.1	45.071	0.0091529	1.4946	143180000	5
Cactin	CACTIN	2	2	2	3.4	3.4	3.4	88.701	0	4.8806	143120000	1
Probable ribosome biogenesis protein RLP24	C15orf15;RSL24D1	2	2	2	16.6	16.6	16.6	19.568	0	4.9859	143040000	5
Steroid receptor RNA activator 1	SRA1	3	3	3	24.1	24.1	24.1	25.843	0	35.266	143010000	9
Phosducin-like protein	PDCL	3	3	3	16.9	16.9	16.9	34.281	0	16.061	142950000	8
39S ribosomal protein L20, mitochondrial	MRPL20	1	1	1	7.4	7.4	7.4	17.442	0.0084868	1.5546	142550000	4
Ubiquitin conjugation factor E4 A	UBE4A	4	4	4	7.6	7.6	7.6	122.56	0	19.163	142410000	24
Glucocorticoid modulatory element-binding protein 1	GMEB1	2	2	2	7.5	7.5	7.5	61.327	0.0085083	1.5824	142340000	1
Bone morphogenetic protein 7	BMP7	1	1	1	4.4	4.4	4.4	34.17	0.0026495	2.1393	141860000	6
Ancient ubiquitous protein 1	DKFZp686P12272;AUP1	2	2	2	11.5	11.5	11.5	41.586	0	6.0653	141810000	21
Mitochondrial intermediate peptidase	MIPEP	3	3	3	5.5	5.5	5.5	80.64	0.0019179	2.3199	141640000	8
39S ribosomal protein L48, mitochondrial	MRPL48	2	2	2	20.4	20.4	20.4	12.77	0	5.2105	141380000	8
Caspase-7;Caspase-7 subunit p20;Caspase-7 subunit p11	CASP7	2	2	2	14.9	14.9	14.9	24.79	0	117.2	141210000	7
U3 small nucleolar ribonucleoprotein protein IMP3	IMP3	3	3	3	23.9	23.9	23.9	21.85	0	9.6825	141070000	9
Platelet-activating factor acetylhydrolase IB subunit beta	HEL-S-303;PAFAH1B2	4	4	4	24	24	24	25.569	0	19.54	140820000	23
RCC1 domain-containing protein 1	RCCD1	4	4	4	23.4	23.4	23.4	40.078	0	7.7128	140690000	5
Mitogen-activated protein kinase 12	MAPK12;DKFZp686M02159	4	4	4	22.1	22.1	22.1	41.94	0	13.795	140670000	16
Chromatin modification-related protein MEAF6	MEAF6	2	2	2	18.3	18.3	18.3	21.635	0	27.885	140550000	7
LETM1 domain-containing protein 1	LETMD1	3	3	3	24.3	24.3	24.3	16.263	0	5.2355	140310000	4
Probable 18S rRNA (guanine-N(7))-methyltransferase	WBSCR22	1	1	1	17.2	17.2	17.2	13.529	0	4.1955	140250000	12
Zinc finger HIT domain-containing protein 2	ZNHIT2	3	3	3	17.1	17.1	17.1	42.855	0	6.6972	140240000	8
Transcriptional repressor CTCF	CTCF	7	7	7	21.9	21.9	21.9	82.612	0	29.524	140210000	11
Retinol-binding protein 1	RBP1	2	2	2	14.7	14.7	14.7	22.31	0.0019153	2.2995	139960000	0
Zinc finger protein 768	FLJ23436;ZNF768	4	4	4	9.8	9.8	9.8	60.228	0	4.3571	139940000	5
Xyloside xylosyltransferase 1	XXYLT1	2	2	2	6.6	6.6	6.6	43.806	0	3.3096	139890000	5
Alpha-1,6-mannosyl-glycoprotein 2-beta-N-acetylglucosaminyltransferase	MGAT2	5	5	5	13.5	13.5	13.5	52.297	0	4.94	139540000	3

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Caspase activity and apoptosis inhibitor 1	CAAP1	3	3	3	15.2	15.2	15.2	38.367	0	27.083	139500000	17
MAP kinase-activated protein kinase 3;MAP kinase-activated protein kinase 2	MAPKAPK3;MAPKAPK2	4	4	4	19.6	19.6	19.6	37.389	0	10.394	139440000	13
Anosmin-1	KAL1	3	3	3	7.2	7.2	7.2	76.21	0	3.4417	139430000	3
Alpha-1,3/1,6-mannosyltransferase ALG2	ALG2	2	2	2	18.1	18.1	18.1	28.12	0	7.5126	138870000	3
Non-histone chromosomal protein HMG-17	HMGN2;HMGN3	3	3	1	43.3	43.3	28.9	9.3926	0	99.634	138740000	11
Cytochrome c oxidase assembly factor 7	COA7	1	1	1	11.7	11.7	11.7	25.709	0	30.994	138680000	2
Protein PRRC2B	PRRC2B;BAT2L	4	3	3	3.4	2.9	2.9	242.96	0	66.532	138640000	10
Cytochrome b-c1 complex subunit 8	UQCRQ	1	1	1	17.3	17.3	17.3	8.3106	0.0089815	1.5032	138550000	1
Zinc finger protein 703	ZNF703	4	4	3	10.3	10.3	8.3	58.221	0	6.427	138430000	8
BRCA2 and CDKN1A-interacting protein	BCCIP	4	4	4	26.4	26.4	26.4	35.979	0	79.053	138050000	8
Ubiquitin-like protein 7	UBL7	2	2	2	5	5	5	45.136	0.0026326	2.0232	138030000	2
Protein phosphatase 1B	PPM1B	6	5	5	24.3	21.2	21.2	41.83	0	8.6864	137960000	4
Transcription factor 20	TCF20	6	6	6	5.4	5.4	5.4	211.77	0	12.977	137320000	15
Rab proteins geranylgeranyltransferase component A 2	CHML	4	4	4	14.6	14.6	14.6	74.071	0	20.951	136990000	24
Ubiquitin-conjugating enzyme E2 Z	UBE2Z	3	3	3	17.1	17.1	17.1	32.892	0	4.8923	136910000	8
Methyltransferase-like protein 17, mitochondrial	METTL17	2	2	2	8.8	8.8	8.8	50.733	0	3.8843	136900000	13
SURP and G-patch domain-containing protein 1	SF4;SUGP1	3	3	3	11.3	11.3	11.3	49.516	0	25.617	136890000	9
DNA polymerase;DNA polymerase epsilon catalytic subunit A	POLE1;POLE	6	6	6	4.5	4.5	4.5	256.93	0	11.066	136860000	9
Occludin	OCLN	4	4	4	10.5	10.5	10.5	59.143	0	34.125	136850000	8
Complement C1r subcomponent;Complement C1r subcomponent heavy chain;Complement C1r subcomponent light chain	C1R	2	2	2	5	5	5	68.537	0.0091513	1.4938	136650000	2
Ethanolamine-phosphate cytidylyltransferase	PCYT2	2	2	2	14.5	14.5	14.5	23.221	0	18.036	135670000	6
Sorting nexin-30	SNX30	2	2	2	9.4	9.4	9.4	49.676	0	15.598	135630000	7
Amino acid transporter		5	1	1	18.6	3.6	3.6	57.39	0	12.229	135590000	21
Protein CASC3	CASC3	2	2	2	52.7	52.7	52.7	13.976	0	4.6919	135460000	7
Putative monooxygenase p33MONOX	KIAA1191	3	3	3	16.7	16.7	16.7	33.246	0	24.153	135200000	12
MORC family CW-type zinc finger protein 3	MORC3	3	3	3	6.2	6.2	6.2	99.277	0	9.7603	135190000	6
Solute carrier family 12 member 2	SLC12A2	3	3	3	5	5	5	124.59	0	9.3027	135140000	11
Phosphatidylinositol 3,4,5-trisphosphate 5-phosphatase 1	INPP5D	3	3	3	5.6	5.6	5.6	90.559	0	6.8631	135080000	10
NF-kappa-B inhibitor-interacting Ras-like protein 2	NKIRAS2	2	2	2	12	12	12	21.508	0	3.9914	135060000	6
Succinate dehydrogenase cytochrome b560 subunit, mitochondrial	SDHC	1	1	1	12.4	12.4	12.4	11.291	0.0002002	2.9802	134620000	8
Cdc42-interacting protein 4	TRIP10;STP	3	3	3	15.8	15.8	15.8	49.712	0	11.802	134620000	18
	MTCH2	7	1	1	36.3	4.6	4.6	28.549	0.0081967	1.6299	134550000	2
SAC3 domain-containing protein 1	SAC3D1	2	2	2	8.7	8.7	8.7	43.553	0	5.1753	134320000	12
Pre-mRNA-processing factor 39	PRPF39	2	2	2	3.4	3.4	3.4	78.429	0	3.6866	134290000	2
Transmembrane protein 181	TMEM181	1	1	1	3.1	3.1	3.1	59.382	0	8.1373	134160000	4
TRAF2 and NCK-interacting protein kinase	TNIK	5	3	3	6.3	4.5	4.5	154.94	0	4.2935	134130000	4
UPF0428 protein CXorf56	CXorf56;hCG_1640171	3	3	3	17.6	17.6	17.6	25.624	0	7.113	133850000	5
Proline/serine-rich coiled-coil protein 1	PSRC1	2	2	2	7.8	7.8	7.8	35.56	0	4.0855	133730000	3
Forkhead box protein J3	FOXJ3	1	1	1	15.2	15.2	15.2	14.077	0.00281	1.9456	133520000	0
HMG box transcription factor BBX	BBX	3	3	3	11.2	11.2	11.2	53.266	0	7.8454	133450000	8

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G2 and S phase-expressed protein 1	GTSE1	4	4	4	8.8	8.8	8.8	76.644	0	37.523	133360000	5
Coiled-coil domain-containing protein 94	CCDC94	3	3	3	16.1	16.1	16.1	37.085	0	14.58	133180000	8
Motile sperm domain-containing protein 2	MOSPD2	1	1	1	3.1	3.1	3.1	55.679	0	8.7956	132840000	4
Beta-2-syntrophin	SNTB2	5	5	5	11.9	11.9	11.9	57.949	0	3.8456	132450000	2
M-phase phosphoprotein 6	MPHOSPH6	2	2	2	19.1	19.1	19.1	15.489	0	21.383	132440000	9
Glomulin	GLMN	4	4	4	8.6	8.6	8.6	68.207	0	24.004	132210000	2
Centromere protein C	CENPC	2	2	2	2.5	2.5	2.5	106.83	0	5.5355	132200000	7
Oxysterol-binding protein;Oxysterol-binding protein-related protein 1	OSBPL1A	4	4	4	10.2	10.2	10.2	53.14	0	10.584	131920000	6
Unconventional myosin-Vc	MYO5C	3	3	2	2.1	2.1	1.3	202.81	0.0094711	1.4542	131740000	3
Acyl-coenzyme A thioesterase 1;Acyl-coenzyme A thioesterase 2, mitochondrial	ACOT1;ACOT2	3	3	3	10	10	10	46.277	0	5.1524	131730000	1
Integrator complex subunit 3	INTS3	4	4	4	8.2	8.2	8.2	118.07	0	22.388	131650000	12
E3 ubiquitin-protein ligase TRIM56	TRIM56	4	4	4	10.7	10.7	10.7	81.487	0	11.619	131440000	8
Tetratricopeptide repeat protein 9C	TTC9C	1	1	1	17.1	17.1	17.1	9.4195	0	3.6958	131080000	4
Disintegrin and metalloproteinase domain-containing protein 9	ADAM9	2	2	2	4.5	4.5	4.5	69.323	0	7.2418	131060000	7
CD97 antigen;CD97 antigen subunit alpha;CD97 antigen subunit beta	CD97	2	2	2	5.6	5.6	5.6	72.294	0	10.059	131050000	14
Putative ATP-dependent RNA helicase DHX57	DHX57	6	6	6	8.9	8.9	8.9	155.6	0	110.39	131020000	12
	TPM1	4	1	1	15.9	4.9	4.9	28.508	0	8.0195	130780000	6
Serum paraoxonase/arylesterase 2	PON2	2	2	2	13.5	13.5	13.5	37.98	0	12.938	130760000	6
Dual specificity protein kinase TTK	TTK	3	3	3	4.6	4.6	4.6	97.071	0	3.5404	130750000	3
Sulfide:quinone oxidoreductase, mitochondrial	hCG_2001986;SQRDL	3	3	3	12.5	12.5	12.5	44.146	0	3.2008	130360000	4
Keratinocyte-associated transmembrane protein 2	KCT2	1	1	1	7.9	7.9	7.9	19.261	0.0009808	2.6136	130280000	5
Putative methyltransferase C9orf114	C9orf114	1	1	1	15.4	15.4	15.4	10.754	0	3.9803	130100000	4
3-phosphoinositide-dependent protein kinase 1;Putative 3-phosphoinositide-dependent protein kinase 2	PDPK1;PkB-like 1;PDPK2P;PkB-like 2	6	6	5	21	21	17.6	60.328	0	7.1517	129970000	7
Tripartite motif-containing protein 65	TRIM65	2	2	2	14.8	14.8	14.8	26.995	0	6.538	129890000	10
AP-2 complex subunit sigma	AP2S1	1	1	1	9.8	9.8	9.8	11.034	0.0013608	2.4801	129700000	12
Terminal uridylyltransferase 4	ZCCHC11	3	3	3	4.3	4.3	4.3	135.98	0	50.865	129570000	3
Disco-interacting protein 2 homolog B	DIP2B	4	4	4	3.5	3.5	3.5	171.49	0	9.2118	129310000	9
Latent-transforming growth factor beta-binding protein 3	LTBP3	3	3	3	3.9	3.9	3.9	122.06	0	4.24	129200000	6
Serine/threonine-protein kinase Nek7	NEK7	2	2	2	29.3	29.3	29.3	9.1986	0	3.6237	129160000	10
Autophagy-related protein 13	ATG13	2	2	2	6.7	6.7	6.7	52.843	0	39.808	128940000	11
Protein FAM168A	FAM168A	1	1	1	11.1	11.1	11.1	26.184	0	16.299	128610000	6
39S ribosomal protein L42, mitochondrial	MRPL42	3	3	3	42.2	42.2	42.2	14.882	0	5.7548	128490000	4
PHD finger protein 14	PHF14	5	5	5	7.5	7.5	7.5	106.99	0	8.0654	128490000	4
Glycophorin-C	GYPC	1	1	1	20.3	20.3	20.3	13.81	0	5.2422	128420000	7
Sushi repeat-containing protein SRPX	HEL-S-83p;SRPX	3	3	3	8	8	8	51.147	0	8.1903	128350000	10
Band 4.1-like protein 1	EPB41L1	4	3	1	9.1	7.1	3.1	86.473	0	11.468	128270000	6
Bifunctional epoxide hydrolase 2;Cytosolic epoxide hydrolase 2;Lipid-phosphate phosphatase	EPHX2	4	4	4	18	18	18	64.73	0	11.525	128190000	11

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Transmembrane protein 106B	TMEM106B	2	2	2	26	26	26	11.652	0	5.9585	128180000	4
Kinetochore-associated protein NSL1 homolog	C1orf48;NSL1	4	4	4	16.4	16.4	16.4	32.162	0.0005934	2.7651	128180000	2
Sulfatase-modifying factor 1	SUMF1	1	1	1	6.2	6.2	6.2	25.679	0	4.4485	128120000	8
Small glutamine-rich tetratricopeptide repeat-containing protein beta	SGTB	3	3	3	27.2	27.2	27.2	21.83	0	9.0753	127580000	4
UPF0449 protein C19orf25	C19orf25	1	1	1	13.8	13.8	13.8	17.116	0	4.0923	127470000	18
WD repeat-containing protein 37	WDR37	1	1	1	7.2	7.2	7.2	22.884	0	3.4716	126930000	2
ATP-dependent RNA helicase DDX51	DDX51	3	3	3	10.5	10.5	10.5	72.485	0	23.478	126840000	20
Arginase;Arginase-2, mitochondrial	ARG2	3	3	3	15.3	15.3	15.3	38.577	0	7.6229	126740000	7
Lymphoid-specific helicase	HELLS	4	4	4	7	7	7	93.961	0.0001986	2.8339	126730000	2
Phosphatase and actin regulator 4	PHACTR4	4	4	4	9.4	9.4	9.4	78.21	0	6.4364	126660000	5
	VPS53	2	2	2	18	18	18	14.292	0	7.7248	126410000	6
Cell division cycle protein 123 homolog	CDC123	3	3	3	14.6	14.6	14.6	33.891	0	8.2836	126360000	8
Protein SDE2 homolog	SDE2	2	2	2	6.9	6.9	6.9	49.741	0.0019073	2.2379	125990000	4
Histone chaperone ASF1B	ASF1B	2	2	2	16.8	16.8	16.8	22.433	0	4.8178	125890000	11
Vascular endothelial zinc finger 1	VEZF1	1	1	1	7.6	7.6	7.6	37.32	0	82.134	125660000	8
BET1 homolog	BET1;DKFZp781C0425	2	2	2	24.6	24.6	24.6	13.289	0	14.788	125360000	15
FAST kinase domain-containing protein 5	FASTKD5	6	6	6	13.1	13.1	13.1	86.573	0	15.343	125230000	10
Forkhead box protein K2	FOXK2	4	4	4	13.9	13.9	13.9	69.061	0	41.051	124780000	11
tRNA methyltransferase 10 homolog A	HEL-S-88;TRMT10A	2	2	2	8.6	8.6	8.6	39.718	0.0001988	2.8575	124160000	4
28S ribosomal protein S25, mitochondrial	MRPS25	2	2	2	21.4	21.4	21.4	20.116	0	34.065	124040000	12
COMM domain-containing protein 10	COMMD10	3	3	3	26.1	26.1	26.1	21.529	0	6.2449	124030000	11
Syndecan;Syndecan-2	SDC2	1	1	1	10.9	10.9	10.9	14.905	0	15.85	123920000	7
		1	1	1	5.8	5.8	5.8	45.786	0.0069495	1.6726	123910000	2
Nischarin	NISCH	5	5	5	6.2	6.2	6.2	166.63	0	9.4769	123750000	12
DNA primase;DNA primase small subunit	PRIM1	3	3	3	12.6	12.6	12.6	49.9	0	6.8198	123540000	4
Peroxisomal NADH pyrophosphatase NUDT12	NUDT12	3	3	3	9.7	9.7	9.7	50.079	0.0002003	2.9862	123410000	7
Microtubule-associated proteins 1A/1B light chain 3B;Microtubule-associated proteins 1A/1B light chain 3 beta 2;Microtubule-associated proteins 1A/1B light chain 3A	MAP1LC3B;DKFZp762B153;MAP1LC3B2;MAP1LC3A	2	2	2	28	28	28	9.0115	0	4.1241	123370000	15
Transcription elongation factor, mitochondrial	TEFM	1	1	1	7.2	7.2	7.2	21.039	0.0019164	2.3124	122930000	6
Abelson tyrosine-protein kinase 2	ABL2	3	3	2	3.8	3.8	2.6	128.34	0	8.513	122870000	10
THO complex subunit 3	THOC3	1	1	1	7.4	7.4	7.4	38.771	0	3.0906	122560000	3
Tripartite motif-containing protein 47	TRIM47	2	2	2	4.4	4.4	4.4	69.531	0	3.2578	122450000	3
tRNA-dihydrouridine(20) synthase [NAD(P)+]-like	DUS2;DUS2L	3	3	3	8.5	8.5	8.5	51.388	0	8.8131	122060000	6
G-protein coupled receptor-associated sorting protein 2	GPRASP2	3	3	3	8.4	8.4	8.4	93.799	0	28.705	122050000	10
Fucose-1-phosphate guanylyltransferase	FPGT	3	3	3	15.1	15.1	15.1	35.374	0	3.751	122020000	10
	CLPTM1L	4	1	1	17.3	6.5	6.5	43.28	0	6.2319	122010000	7
Centriolar coiled-coil protein of 110 kDa	CP110;CCP110	3	3	3	8.2	8.2	8.2	111.24	0	4.3019	121970000	8
Pigment epithelium-derived factor	SERPINF1	3	3	3	12.9	12.9	12.9	46.312	0	3.7584	121920000	17
DNA-directed RNA polymerase I subunit RPA49	POLR1E	3	3	3	7.3	7.3	7.3	53.961	0.0013569	2.44	121860000	2
Sestrin-2	SESN2	2	2	2	6	6	6	54.493	0	3.7381	121850000	4
1-acyl-sn-glycerol-3-phosphate acyltransferase;1-acyl-sn-glycerol-3-phosphate acyltransferase beta	AGPAT2	2	2	2	17.6	17.6	17.6	18.693	0	5.4364	121690000	3

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Protein bicaudal D homolog 2	BICD2	5	5	5	8.7	8.7	8.7	93.532	0	11.603	121090000	14
Small kinetochore-associated protein	KNSTRN	3	3	3	20.2	20.2	20.2	26.983	0.000199	2.8797	121060000	3
Probable global transcription activator SNF2L2	SMARCA2	4	1	1	3.6	0.9	0.9	181.28	0.0073006	1.6498	120960000	2
Sedoheptulokinase	TRPV1;SHPK	2	2	2	7.9	7.9	7.9	51.504	0	3.5046	120780000	9
Lysine-specific demethylase 5C	JARID1C;KDM5C	7	7	7	7.8	7.8	7.8	162.73	0	10.58	120780000	10
Arginine/serine-rich protein PNISR	SFRS18;PNISR	1	1	1	2.4	2.4	2.4	57.036	0	3.8681	120530000	4
Tissue factor pathway inhibitor	TFPI	1	1	1	10.4	10.4	10.4	23.458	0	3.6527	120380000	8
General transcription factor IIH subunit 4	GTF2H4	2	2	2	5.8	5.8	5.8	52.114	0.0007891	2.7255	120250000	2
SH3 and PX domain-containing protein 2A	SH3PXD2A	2	2	2	3.9	3.9	3.9	106.38	0	23.831	119930000	17
Homeobox protein Hox-A5	HOXA5	1	1	1	7.8	7.8	7.8	29.326	0	13.353	119800000	8
Protein phosphatase 1 regulatory subunit 12C	PPP1R12C	6	6	6	16	16	16	80.199	0	18.876	119480000	10
Histone-lysine N-methyltransferase SETD7	SETD7	3	3	3	11.2	11.2	11.2	40.72	0	3.2173	119480000	9
Transcription elongation factor SPT4	SUPT4H1	1	1	1	21.4	21.4	21.4	4.5954	0.0081581	1.5964	119280000	6
SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily D member 3	SMARCD3	3	1	1	9.7	3	3	50.201	0	6.8127	119020000	2
	AAK1	5	4	4	20.2	15.3	15.3	54.448	0	6.5349	118920000	13
2-5-oligoadenylate synthase 3	OAS3	2	2	2	3.7	3.7	3.7	121.17	0.002636	2.045	118880000	1
Dedicator of cytokinesis protein 6	DOCK6	5	5	5	5.4	5.4	5.4	229.56	0	3.9663	118630000	10
Endoplasmic reticulum-Golgi intermediate compartment protein 3	ERGIC3	3	3	3	17.4	17.4	17.4	36.352	0	7.9559	118490000	4
Calmegin	CLGN	2	2	2	9.9	9.9	9.9	60.495	0	3.2004	118450000	5
	MAZ	2	1	1	18.2	11.7	11.7	28.62	0	5.9906	118050000	2
Protein PET100 homolog, mitochondrial	PET100	1	1	1	22.7	22.7	22.7	5.5534	0.0067741	1.6789	117740000	4
Centriolin	CEP110;CNTRL	4	4	4	2.7	2.7	2.7	268.91	0.0033513	1.8761	117680000	4
Zinc transporter 6	SLC30A6	1	1	1	11	11	11	28.781	0	19.668	117680000	8
Glucocorticoid receptor	NR3C1	4	4	4	11.3	11.3	11.3	72.131	0	102.39	117300000	8
Zinc transporter ZIP1	SLC39A1	1	1	1	5.8	5.8	5.8	21.844	0.0028127	1.9687	117270000	2
HAUS augmin-like complex subunit 7	HAUS7	2	2	2	10.6	10.6	10.6	29.457	0	27.673	117180000	10
Tyrosine-protein kinase receptor;Syndecan-4;Syndecan	SDC4-ROS1_S4;R34;SDC4-ROS1_S4;R32;SDC4	3	3	3	4.4	4.4	4.4	71.657	0	4.7528	117070000	5
Leucine-rich repeat protein SHOC-2	SHOC2	4	4	4	14.9	14.9	14.9	64.887	0	10.827	116940000	23
HEAT repeat-containing protein 5B	HEATR5B	4	4	4	3.9	3.9	3.9	224.27	0.0022835	2.2036	116250000	6
Nuclear receptor subfamily 2 group F member 6	NR2F6	1	1	1	6.4	6.4	6.4	40.42	0	5.2341	115820000	4
Homer protein homolog 1	HOMER1	3	3	3	11.9	11.9	11.9	40.246	0	6.4598	115700000	4
General transcription factor IIE subunit 1	GTF2E1	3	3	3	14.8	14.8	14.8	49.452	0	33.674	115690000	7
Transcription factor Sp3	SP3	2	2	2	12.3	12.3	12.3	39.177	0	21.894	115650000	5
N-alpha-acetyltransferase 35, NatC auxiliary subunit	NAA35	3	3	3	5.5	5.5	5.5	83.608	0	3.0442	115610000	1
Zinc finger CCHC-type and RNA-binding motif-containing protein 1	ZCRB1	3	3	3	23	23	23	24.591	0.0013635	2.5178	115530000	6
Myomegalin	PDE4DIP	3	3	3	6.2	6.2	6.2	85.353	0	4.4007	115310000	6
CDK-activating kinase assembly factor MAT1	MNAT1	2	2	2	12	12	12	31.148	0	8.4891	115290000	1
Cyclin-G-associated kinase	GAK	5	5	5	5.9	5.9	5.9	130.79	0	8.7137	115170000	7
Alpha- and gamma-adaptin-binding protein p34	AAGAB	3	3	3	21.9	21.9	21.9	34.593	0	13.19	115140000	21
Golgin subfamily A member 4	GOLGA4;CRPF46	3	3	3	2.1	2.1	2.1	246.6	0	5.816	114870000	1

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Phosphatidylinositol 3-kinase regulatory subunit alpha	PIK3R1	2	1	1	5.8	4.3	4.3	83.597	0	10.706	114860000	18
Protein FAM188A	FAM188A	4	4	4	19.6	19.6	19.6	49.724	0	15.631	114670000	6
		5	1	1	20.2	4.1	4.1	47.996	0	3.3406	114530000	5
DNA damage-binding protein 2	DDB2	3	3	3	10.3	10.3	10.3	47.863	0	27.312	114320000	3
Beta-adrenergic receptor kinase 1;Beta-adrenergic receptor kinase 2	ADRBK1;ADRBK2	4	4	4	8.9	8.9	8.9	77.437	0	17.06	113640000	14
Derlin-1	DERL1	1	1	1	9.3	9.3	9.3	17.221	0.0019142	2.2855	113630000	2
Tetratricopeptide repeat protein 7B	TTC7B	3	3	3	6.5	6.5	6.5	94.178	0	3.472	113230000	0
Methionine aminopeptidase 2	METAP2	13	1	1	51.8	5	5	52.82	0	6.6483	113050000	5
PAX-interacting protein 1	PAXIP1	3	3	3	5	5	5	121.34	0	6.5042	112930000	3
Choline transporter-like protein 1	SLC44A1	1	1	1	2.3	2.3	2.3	73.301	0	11.358	112720000	5
Protein tyrosine phosphatase type IVA 2	PTP4A2	2	2	1	13.2	13.2	7.8	19.127	0	3.5264	112500000	6
Latent-transforming growth factor beta-binding protein 1	LTBP1	3	3	3	3.5	3.5	3.5	186.79	0	30.096	112390000	9
Protein FAM160B1	FAM160B1	1	1	1	3.3	3.3	3.3	86.557	0	10.611	112290000	5
Proteasome maturation protein	POMP	3	3	3	46.8	46.8	46.8	15.789	0	10.846	112020000	10
Trimeric intracellular cation channel type B	TMEM38B	2	2	2	14.3	14.3	14.3	26.45	0	38.95	111990000	2
Tyrosine-protein phosphatase non-receptor type 12	PTPN12	1	1	1	2.3	2.3	2.3	88.105	0.0094744	1.4633	111270000	1
RNA-binding protein Raly	RALY	10	2	2	50.3	16.7	16.7	32.463	0	189.9	110560000	5
Protein odr-4 homolog	ODR4;C1orf27	3	3	3	10.6	10.6	10.6	51.103	0	6.1345	110300000	5
Centrin-3	CETN3	1	1	1	7.7	7.7	7.7	18.336	0.0001992	2.896	110240000	4
Choline dehydrogenase, mitochondrial	CHDH	4	4	4	12.5	12.5	12.5	65.358	0	8.8667	110140000	4
Phosphatidylserine synthase 2	PTDSS2	2	2	2	61.7	61.7	61.7	6.3166	0	4.3874	110100000	2
WW domain-containing adapter protein with coiled-coil	WAC	2	2	2	10.3	10.3	10.3	53.878	0	105.06	110060000	9
DNA excision repair protein ERCC-6-like	ERCC6L	3	3	3	4.1	4.1	4.1	126.98	0	11.972	109960000	6
Exostosin-2	EXT2	3	3	3	8.1	8.1	8.1	82.194	0	9.8742	109840000	4
Keratinocyte-associated protein 2	KRTCAP2	1	1	1	12.5	12.5	12.5	14.678	0	15.918	109710000	2
Pantothenate kinase 2, mitochondrial	PANK2	3	3	3	31	31	31	17.217	0	47.213	109550000	5
Sialin	SLC17A5	1	1	1	9.9	9.9	9.9	19.509	0	3.1878	109440000	6
Sperm-specific antigen 2	SSFA2	4	4	4	5.9	5.9	5.9	138.38	0	18.849	109020000	8
Sorting nexin-17	SNX17	2	2	2	8.5	8.5	8.5	43.573	0.0011712	2.5594	108860000	1
Voltage-gated potassium channel subunit beta-2	KCNAB2	2	2	2	11.3	11.3	11.3	38.766	0	22.253	108810000	17
Sec1 family domain-containing protein 2	SCFD2	6	6	6	14.2	14.2	14.2	75.126	0	5.4848	108770000	3
Netrin-1	NTN1	1	1	1	2.5	2.5	2.5	67.748	0	7.0468	108470000	6
Guanine nucleotide-binding protein G(z) subunit alpha	GNAZ	2	2	2	8.9	8.9	8.9	34.891	0.0013616	2.4905	108240000	1
RAC-beta serine/threonine-protein kinase	AKT2	5	4	4	17.5	13.1	13.1	55.768	0	14.995	107800000	6
Zinc finger protein RFP	TRIM27	2	2	2	5.8	5.8	5.8	58.489	0	6.4067	107670000	6
Protein zyg-11 homolog B	ZYG11B	3	3	3	7.2	7.2	7.2	63.512	0.0024682	2.1868	107670000	2
Regulator of G-protein signaling 10	RGS10	2	2	2	19.1	19.1	19.1	20.236	0	21.176	107190000	6
Serine/threonine-protein kinase ATR	ATR	3	3	3	1.9	1.9	1.9	301.36	0.0017311	2.3518	106550000	3
Kinesin-like protein;Kinesin-like protein KIF22	KIF22	3	3	3	7.2	7.2	7.2	66.336	0.00136	2.4637	106390000	3
Translation initiation factor IF-3, mitochondrial	MTIF3	2	2	2	14	14	14	31.691	0	6.7594	106340000	4
E3 ubiquitin-protein ligase AMFR	AMFR;hCG_1811773	2	2	2	14.9	14.9	14.9	32.768	0	20.899	106180000	7
Myotubularin-related protein 2	MTMR2	3	3	3	19.1	19.1	19.1	36.438	0	13.455	106080000	18

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L-aminoadipate-semialdehyde dehydrogenase-phosphopantetheinyl transferase	AASDHPPT	2	2	2	10.4	10.4	10.4	35.776	0	3.9423	105920000	13
Zinc finger protein 280C	ZNF280C	5	5	5	14.4	14.4	14.4	83.095	0.0001998	2.9393	105730000	7
E3 ubiquitin-protein ligase HECTD3	HECTD3	2	2	2	5.8	5.8	5.8	81.697	0	6.4749	105670000	15
tRNA (adenine(58)-N(1))-methyltransferase catalytic subunit TRMT61A	TRMT61A;C14orf172	4	4	4	36.8	36.8	36.8	20.421	0	27.554	105160000	8
Ubiquitin carboxyl-terminal hydrolase;Ubiquitin carboxyl-terminal hydrolase 36	USP36;DUB1	2	2	2	2.4	2.4	2.4	122.91	0	3.9764	105040000	6
Calmodulin-regulated spectrin-associated protein 3	CAMSAP3;hCG_2004001	3	3	3	4.2	4.2	4.2	134.75	0	6.1931	105010000	5
N-sulphoglucosamine sulphohydrolase	SGSH	2	2	2	9	9	9	34.32	0	3.7807	104990000	4
MKL/myocardin-like protein 2	MKL2	2	2	2	3.4	3.4	3.4	118.13	0	19.3	104750000	9
Uncharacterized protein C19orf52	C19orf52	2	2	2	15	15	15	29.233	0	5.9615	104240000	1
Nuclear distribution protein nudE homolog 1	NDE1	4	4	4	17	17	17	37.72	0	5.7228	104180000	3
Haloacid dehalogenase-like hydrolase domain-containing protein 2	HDHD2;HEL-S-301	3	3	3	26	26	26	22.49	0	5.848	104170000	10
Spermatogenesis-associated protein 5-like protein 1	SPATA5L1	4	4	4	11.6	11.6	11.6	80.709	0	10.091	104110000	19
Kinase D-interacting substrate of 220 kDa	KIDINS220;DKFZp686H14204	5	5	5	6.9	6.9	6.9	111.57	0	4.537	104100000	4
	EEF1D	4	1	1	47.5	20.9	20.9	15.214	0	9.6624	104090000	5
Cyclic AMP-dependent transcription factor ATF-7	ATF7	2	2	2	8.3	8.3	8.3	51.745	0	8.5676	103910000	11
Phosphorylase b kinase regulatory subunit beta	PHKB	2	2	1	3.9	3.9	2.3	124.88	0	8.443	103520000	2
Zinc finger protein 330	ZNF330	1	1	1	15.1	15.1	15.1	15.626	0	6.1738	103430000	3
Forkhead box protein O4	FOXO4	2	2	1	7.5	7.5	4	53.684	0	9.7734	103370000	10
Short-chain specific acyl-CoA dehydrogenase, mitochondrial	ACADS	2	2	2	8.5	8.5	8.5	44.327	0	8.078	103310000	8
NAD-dependent protein deacetylase sirtuin-1;SirtT1 75 kDa fragment	SIRT1	6	6	6	20	20	20	49.238	0	70.623	103270000	8
WD repeat-containing protein mio	FLJ20323;MIOS	5	5	5	8.1	8.1	8.1	98.636	0	17.113	103250000	6
RING1 and YY1-binding protein	RYBP	3	3	3	24.6	24.6	24.6	24.821	0	57.656	103130000	24
Zinc finger protein 592	ZNF592	2	2	2	5	5	5	91.981	0	6.1941	103090000	19
Fibulin-1	FBLN1	13	1	1	24.8	3.3	3.3	77.213	0.0001986	2.8353	103090000	4
Nuclear factor of activated T-cells, cytoplasmic 1	NFATC1	4	4	4	8	8	8	101.24	0	3.0752	102880000	2
Phosphatidylinositol 4-phosphate 5-kinase type-1 alpha	PIP5K1A	5	2	2	14.6	7.8	7.8	62.633	0	7.2296	102870000	7
Tissue-type plasminogen activator;Tissue-type plasminogen activator chain A;Tissue-type plasminogen activator chain B	PLAT	2	2	2	5.8	5.8	5.8	58.306	0	5.0191	102760000	1
Eukaryotic translation initiation factor 4E transporter	EIF4ENIF1	4	4	4	8.1	8.1	8.1	105.55	0	3.9686	102730000	5
Beta-synuclein	SNCB	1	1	1	13.8	13.8	13.8	9.684	0.0044362	1.7909	102670000	2
BCL2/adenovirus E1B 19 kDa protein-interacting protein 3-like	BNIP3L	1	1	1	8.3	8.3	8.3	20.13	0.0028143	1.9771	102530000	4
Methyltransferase-like protein;Methyltransferase-like protein 16	METTL16	1	1	1	6	6	6	22.136	0.0011765	2.6073	101970000	6
Zinc finger protein 668	ZNF668	2	2	2	8.6	8.6	8.6	67.932	0	13.634	101900000	17

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Ubiquitin carboxyl-terminal hydrolase 16	USP16	4	4	4	6.8	6.8	6.8	93.569	0	4.0656	101660000	6
Alpha-(1,6)-fucosyltransferase	FUT8	2	2	2	4.7	4.7	4.7	66.515	0	3.3162	101550000	5
COMM domain-containing protein 7	COMMD7	1	1	1	6.6	6.6	6.6	20.151	0.0026475	2.1318	101450000	4
Brefeldin A-inhibited guanine nucleotide-exchange protein 2	ARFGEF2	6	6	6	5.3	5.3	5.3	202.04	0	12.414	101420000	6
Arginyl-tRNA--protein transferase 1	ATE1	5	5	5	17.3	17.3	17.3	47.834	0	5.6156	101220000	5
COMM domain-containing protein 1	COMMD1;C2orf5	2	2	2	16.3	16.3	16.3	21.307	0	5.3962	101200000	5
Vacuolar protein sorting-associated protein 13A	VPS13A	6	6	6	2.8	2.8	2.8	339.18	0	5.8779	101070000	7
Proto-oncogene c-Rel	REL	2	2	2	4.8	4.8	4.8	65.158	0	3.6212	101050000	4
Leucine-rich repeat and coiled-coil domain-containing protein 1	LRRCC1	2	2	2	2.9	2.9	2.9	119.59	0.0091414	1.4888	100960000	2
Putative PIP5K1A and PSMD4-like protein	PIPSL	5	3	0	7.7	4.4	0	95.047	0	10.108	100950000	6
Rab GTPase-binding effector protein 2	RABEP2	2	2	2	7.6	7.6	7.6	40.552	0	14.087	100930000	5
TGF-beta-activated kinase 1 and MAP3K7-binding protein 3	TAB3;DKFZp313L0918	2	2	2	5.2	5.2	5.2	78.652	0	5.4593	100900000	3
Protein YIPF;Protein YIPF6	YIPF6	1	1	1	5.1	5.1	5.1	26.226	0	3.9848	100870000	6
Bifunctional lysine-specific demethylase and histidyl-hydroxylase NO66	URLC2;NO66	5	5	5	24	24	24	71.085	0	13.098	100750000	23
PHD finger protein 10	PHF10	2	2	2	13.8	13.8	13.8	42.612	0.002654	2.1656	100630000	4
tRNA-dihydrouridine(16/17) synthase [NAD(P)(+)]-like	DUS1L	2	2	2	12.8	12.8	12.8	37.379	0	4.0027	100580000	5
HAUS augmin-like complex subunit 4	HAUS4	3	3	3	9.4	9.4	9.4	42.399	0	4.641	100490000	4
Killer cell lectin-like receptor subfamily G member 2	KLRG2	2	2	2	9	9	9	42.85	0	37.408	100240000	12
Protocadherin Fat 1;Protocadherin Fat 1, nuclear form	FAT1	6	6	6	2.9	2.9	2.9	506.27	0	4.5828	100040000	4
Methylated-DNA--protein-cysteine methyltransferase	MGMT	3	3	3	17.2	17.2	17.2	25.05	0	4.6956	99960000	4
	UBAP2	3	1	1	6.4	2.6	2.6	73.081	0	17.146	99893000	8
RWD domain-containing protein 4	RWDD4	1	1	1	28	28	28	14.012	0	25.148	99730000	5
UPF0461 protein C5orf24	C5orf24	2	2	2	16.5	16.5	16.5	20.132	0	16.041	99721000	5
ATP synthase mitochondrial F1 complex assembly factor 1	ATPAF1	4	4	4	22.8	22.8	22.8	38.861	0	11.894	99666000	14
Mothers against decapentaplegic homolog;Mothers against decapentaplegic homolog 5;Mothers against decapentaplegic homolog 1	MADH5;DKFZp781O132 3;SMAD5;SMAD1	2	2	2	8	8	8	52.228	0	3.9509	99304000	2
E3 ubiquitin-protein ligase KCMF1	KCMF1	3	3	3	21	21	21	41.945	0	7.7851	99265000	14
Mitochondrial fission regulator 1	MTFR1	3	3	3	13.4	13.4	13.4	31.932	0	4.5161	99231000	3
Intraflagellar transport protein 20 homolog	IFT20	2	2	2	11.4	11.4	11.4	14.897	0	7.2625	98881000	7
Threonine synthase-like 1	THNSL1	3	3	3	5.8	5.8	5.8	83.069	0	6.0039	98827000	3
WD repeat-containing protein WRAP73	WRAP73	2	2	2	8.9	8.9	8.9	34.326	0.0081596	1.5985	98791000	3
Complex I assembly factor TIMMDC1, mitochondrial	TIMMDC1	1	1	1	8.6	8.6	8.6	19.98	0	75.221	98577000	4
Zinc finger protein 185	ZNF185	8	1	1	20.9	2.8	2.8	73.525	0	3.968	98536000	5
Rho GTPase-activating protein 5	ARHGAP5	2	2	2	2.6	2.6	2.6	171.68	0	5.7663	98511000	4
Tight junction-associated protein 1	TJAP1	3	3	3	6.4	6.4	6.4	60.72	0	4.5516	98106000	2
Protein LTV1 homolog	LTV1	3	3	3	9.5	9.5	9.5	54.854	0	3.9921	97604000	8
Probable E3 ubiquitin-protein ligase HERC4	HERC4	2	2	2	2.8	2.8	2.8	115.2	0.0029856	1.8999	97400000	3

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	EEF1A1	5	1	1	55.9	7.5	7.5	17.044	0.0069419	1.6634	97361000	3
DNA/RNA-binding protein KIN17	KIN	1	1	1	4.2	4.2	4.2	32.766	0.001173	2.5691	97310000	6
39S ribosomal protein L33, mitochondrial	MRPL33	1	1	1	21.5	21.5	21.5	7.6191	0	5.0028	97191000	2
Cilia- and flagella-associated protein 36	CFAP36	3	3	3	25.2	25.2	25.2	24.971	0	93.443	97098000	8
S1 RNA-binding domain-containing protein 1	SRBD1	4	4	4	8.4	8.4	8.4	111.77	0	24.45	96921000	8
	TSEN15	3	3	1	36.8	36.8	10.3	16.769	0	7.4401	96764000	0
Integrator complex subunit 12	INTS12	2	2	2	6.5	6.5	6.5	48.807	0	13.947	96735000	2
Ribosomal protein S6 kinase alpha-5;Ribosomal protein S6 kinase;Ribosomal protein S6 kinase alpha-4	RPS6KA5;RPS6KA4	2	2	2	8.7	8.7	8.7	24.412	0.0028048	1.924	96724000	5
CTTNBP2 N-terminal-like protein	CTTNBP2NL	4	4	4	8.9	8.9	8.9	70.157	0	10.921	96474000	5
Phosphofurin acidic cluster sorting protein 1	PACS1	2	2	2	5.4	5.4	5.4	104.9	0	14.236	96442000	6
PIN2/TERF1-interacting telomerase inhibitor 1	PINX1	3	3	3	12.2	12.2	12.2	37.034	0	5.8156	96367000	12
Integrator complex subunit 1	DKFZP586J0619;INTS1	5	5	5	4.3	4.3	4.3	265.75	0	16.916	96205000	25
Zinc finger CCCH domain-containing protein 7B	ZC3H7B	4	4	4	6.4	6.4	6.4	111.58	0	7.4708	96162000	29
Cyclin-dependent kinase 7	CDK7	2	2	2	7.9	7.9	7.9	28.502	0.0019201	2.3309	95785000	4
Glycerol-3-phosphate acyltransferase 4	AGPAT6;DKFZp586M1819	2	2	2	5.5	5.5	5.5	52.07	0	3.2271	95722000	0
Calcium-transporting ATPase;Plasma membrane calcium-transporting ATPase 3	ATP2B3	6	2	2	11.7	4.5	4.5	95.425	0.0028064	1.9301	95578000	1
Ribonuclease P protein subunit p30	RPP30	3	3	3	22	22	22	28.112	0	6.2962	95511000	9
Transcription termination factor 3, mitochondrial	MTERF3	3	3	3	9.8	9.8	9.8	47.971	0	4.4157	95488000	6
Apoptosis-stimulating of p53 protein 2	TP53BP2	3	3	3	7.3	7.3	7.3	116.05	0	22.449	95444000	1
Ubiquitin carboxyl-terminal hydrolase 22	USP22	2	2	2	4.4	4.4	4.4	59.96	0.0011767	2.6079	95365000	3
Acyl-CoA-binding domain-containing protein 6	ACBD6	1	1	1	7.5	7.5	7.5	28.129	0	7.8772	95293000	3
AT-rich interactive domain-containing protein 4B	ARID4B	1	1	1	3.5	3.5	3.5	55.308	0	3.1377	95048000	5
Bromodomain-containing protein 7	BRD7	4	4	4	9.5	9.5	9.5	74.138	0	7.7679	94889000	8
Serum response factor-binding protein 1	SRFBP1	2	2	2	6.1	6.1	6.1	48.633	0	3.1034	94623000	5
Inhibitor of nuclear factor kappa-B kinase subunit alpha	CHUK	3	3	3	6.3	6.3	6.3	82.444	0	11.237	94591000	5
Retinol dehydrogenase 13	RDH13	2	2	2	14.2	14.2	14.2	28.838	0	8.2687	94505000	5
Transmembrane protein 9	TMEM9	2	2	2	17.5	17.5	17.5	20.502	0	3.1641	94424000	2
PDZ and LIM domain protein 4	PDLIM4	3	3	3	17	17	17	35.398	0.0013574	2.4432	94159000	3
Uncharacterized protein C17orf59	C17orf59	3	3	3	13.7	13.7	13.7	37.226	0	51.493	94078000	17
Transcription initiation factor TFIID subunit 6	TAF6	4	4	4	9.4	9.4	9.4	78.948	0	16.751	93823000	18
Serine/threonine-protein kinase DCLK1	DCLK1	2	2	2	7.2	7.2	7.2	40.456	0	4.2861	93755000	2
Mediator of RNA polymerase II transcription subunit 27	CRSP8;MED27	2	2	2	14.6	14.6	14.6	28.646	0.0007874	2.6831	93573000	6
Sin3 histone deacetylase corepressor complex component SDS3	SUDS3	1	1	1	4.6	4.6	4.6	38.136	0	51.095	93283000	3
Transforming growth factor beta-1;Latency-associated peptide	TGFB1	3	3	3	10.8	10.8	10.8	44.341	0	15.253	93127000	6
Syntaxin-3	STX3;STX3A	3	3	3	21.1	21.1	21.1	23.243	0	14.324	92969000	12

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Peptide-N(4)-(N-acetyl-beta-glucosaminyl)asparagine amidase	NGLY1	4	4	4	14.8	14.8	14.8	72.011	0	23.405	92878000	2
Mannosyl-oligosaccharide 1,2-alpha-mannosidase IA	MAN1A1	1	1	1	2.5	2.5	2.5	72.968	0.0057048	1.7446	92811000	4
	HSPA8	22	1	1	66.5	1.8	1.8	55.02	0.0088066	1.5084	92785000	3
5(3)-deoxyribonucleotidase, cytosolic type	NT5C;HEL74	2	2	2	28.8	28.8	28.8	17.764	0	9.099	92742000	17
Patatin-like phospholipase domain-containing protein 2	PNPLA2;ATGL	2	2	2	8.5	8.5	8.5	55.256	0	10.395	92726000	7
Diphosphoinositol polyphosphate phosphohydrolase 1	NUDT3	3	1	1	25.6	8.1	8.1	19.471	0.0003969	2.8163	92692000	2
Bromodomain adjacent to zinc finger domain protein 1A	BAZ1A	3	3	3	3	3	3	178.57	0	10.406	92592000	5
Ras-related protein Rab-33B	RAB33B	1	1	1	5.2	5.2	5.2	25.698	0.001908	2.2412	92526000	2
[Pyruvate dehydrogenase [acetyl-transferring]]-phosphatase 1, mitochondrial	PPM2C;PDP1	2	2	2	7.1	7.1	7.1	60.796	0	27.287	92415000	7
Pre-mRNA cleavage complex 2 protein Pcf11	PCF11	1	1	1	3.6	3.6	3.6	88.985	0.0011732	2.573	92025000	4
MAP6 domain-containing protein 1;Presenilins-associated rhomboid-like protein, mitochondrial;P-beta	PARL;MAP6D1	2	2	2	9.6	9.6	9.6	45.007	0.0081685	1.6096	91758000	6
Cytoskeleton-associated protein 2-like	CKAP2L;FLJ40629	4	4	4	10.1	10.1	10.1	83.586	0	5.9254	91482000	12
DNA repair endonuclease XPF	ERCC4	2	2	2	13.1	13.1	13.1	52.842	0	20.603	91410000	23
TRPM8 channel-associated factor 1	TCAF1	5	5	5	11.1	11.1	11.1	102.12	0	4.9222	91400000	13
ATP-binding cassette sub-family B member 6, mitochondrial	ABCB6	3	3	3	12.4	12.4	12.4	48.833	0	11.542	91306000	6
Programmed cell death protein 2	PDCD2	2	2	2	9.4	9.4	9.4	33.511	0	4.2179	91138000	4
Methionine--tRNA ligase, mitochondrial	MARS2	3	3	3	9.3	9.3	9.3	66.59	0	3.8092	90964000	2
Small integral membrane protein 20	SMIM20	2	2	2	32.8	32.8	32.8	7.7019	0.002649	2.1381	90744000	2
Phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit alpha	PIK3C2A	2	2	2	2.6	2.6	2.6	148.37	0	3.5548	90727000	2
Rho guanine nucleotide exchange factor 5	DKFZp686N1969;ARHGEF5	4	4	4	5.8	5.8	5.8	163.97	0	8.9093	90694000	12
F-box/LRR-repeat protein 8	FBXL8	2	2	2	20	20	20	15.662	0.0015471	2.4143	90443000	4
Serine/threonine-protein kinase D2;Protein kinase C	PRKD2	2	2	2	3.3	3.3	3.3	96.721	0	9.5092	90416000	6
C-Maf-inducing protein	CMIP	3	3	3	8.4	8.4	8.4	86.33	0	3.724	90382000	5
		11	1	0	26.9	1.9	0	70.264	0.0007877	2.6865	90359000	4
Tripeptidyl-peptidase 1	TPP1	1	1	1	4	4	4	37.804	0.0071194	1.6529	89896000	2
DnaJ homolog subfamily C member 21	DNAJC21	3	3	3	8.1	8.1	8.1	62.027	0	3.626	89825000	4
B-cell CLL/lymphoma 7 protein family member A	BCL7A	2	2	2	16.2	16.2	16.2	22.81	0.0053466	1.7616	89813000	4
E3 SUMO-protein ligase CBX4	CBX4	3	3	3	14.1	14.1	14.1	61.367	0	4.0029	89750000	6
Mitochondrial import inner membrane translocase subunit Tim10 B	FXC1;TIMM10B	2	2	2	23.3	23.3	23.3	11.586	0.001545	2.4032	89669000	0
Influenza virus NS1A-binding protein	IVNS1ABP	3	3	3	14.2	14.2	14.2	46.735	0	28.906	89659000	4
Type II inositol 1,4,5-trisphosphate 5-phosphatase	INPP5B	1	1	1	2	2	2	85.641	0	29.992	89645000	6
Putative ATP-dependent RNA helicase DHX33	DHX33	3	3	3	6	6	6	85.209	0	13.065	89588000	8

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LMBR1 domain-containing protein 2	LMBRD2	3	3	3	10.2	10.2	10.2	69.334	0	7.1658	89422000	5
Trafficking protein particle complex subunit 1	TRAPPC1	1	1	1	11	11	11	16.857	0	7.9453	89356000	6
Mitochondrial import inner membrane translocase subunit Tim17-B	TIMM17B	3	3	3	30.2	30.2	30.2	18.273	0	5.7951	89346000	6
MAU2 chromatid cohesion factor homolog	MAU2	1	1	1	3.1	3.1	3.1	69.081	0	42.196	89205000	2
Abhydrolase domain-containing protein 16A	ABHD16A	1	1	1	41.5	41.5	41.5	7.2592	0	8.2456	89068000	5
Pre-B-cell leukemia transcription factor 1	PBX1	2	2	1	45.4	45.4	29.9	10.478	0	14	88956000	2
Transcription elongation factor A protein-like 8	TCEAL8	2	2	2	43.6	43.6	43.6	13.616	0	10.403	88950000	2
Vacuolar protein sorting-associated protein 37A	VPS37A	1	1	1	12.5	12.5	12.5	19.302	0.0094727	1.4628	88807000	1
SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily A-like protein 1	SMARCAL1	5	5	5	11.7	11.7	11.7	105.94	0	10.032	88502000	11
Eyes absent homolog;Eyes absent homolog 3	EYA3	2	2	2	9.9	9.9	9.9	28.568	0	33.691	88353000	6
	PLXNB2	3	1	1	10.5	3.8	3.8	56.276	0.0017358	2.3861	88213000	2
DNA-directed RNA polymerase;DNA-directed RNA polymerase I subunit RPA2	POLR1B	2	2	2	2.4	2.4	2.4	112.85	0.0002004	2.992	87941000	4
Peroxisomal bifunctional enzyme;Enoyl-CoA hydratase/3,2-trans-enoyl-CoA isomerase;3-hydroxyacyl-CoA dehydrogenase	EHHADH	5	5	5	11.1	11.1	11.1	79.494	0	7.3314	87927000	4
LisH domain and HEAT repeat-containing protein KIAA1468	KIAA1468	2	2	2	9.1	9.1	9.1	112.71	0	29.998	87642000	42
Peroxisomal membrane protein PEX16	PEX16	2	2	2	15	15	15	17.996	0.0042624	1.8284	87529000	2
Protein RMD5 homolog A	RMND5A	2	2	2	5.6	5.6	5.6	43.992	0	5.0305	87527000	7
Serine/Arginine-related protein 53	RSRC1	1	1	1	15.4	15.4	15.4	23.415	0	27.409	87526000	4
Polypyrimidine tract-binding protein 2	PTBP2	3	3	1	21.5	21.5	9.2	34.798	0	6.0254	87495000	20
E3 ubiquitin-protein ligase synoviolin	SYVN1;FLJ00221	2	2	2	14.8	14.8	14.8	27.75	0	12.144	87317000	5
Cytospin-B	SPECC1	2	2	2	2.7	2.7	2.7	110.29	0	13.729	87226000	13
	POLDIP3	4	1	1	30.6	9.2	9.2	24.839	0	54.012	87190000	8
2-amino-3-ketobutyrate coenzyme A ligase, mitochondrial	GCAT	4	4	4	16.2	16.2	16.2	45.285	0	7.0078	87135000	12
Neuronal calcium sensor 1	FREQ;NCS1	3	3	3	22.1	22.1	22.1	21.878	0	10.397	87063000	14
Transmembrane protein 41B	TMEM41B	1	1	1	9.7	9.7	9.7	21.72	0	4.8915	87058000	4
Rab11 family-interacting protein 5	GAF1;RAB11FIP5	2	2	2	8.4	8.4	8.4	55.945	0	7.0546	86948000	4
Uncharacterized protein C7orf26	C7orf26	1	1	1	4	4	4	50.046	0	7.4305	86913000	9
Peroxisomal trans-2-enoyl-CoA reductase	PECR	1	1	1	6.4	6.4	6.4	16.876	0.0088241	1.5276	86529000	3
Solute carrier family 22 member 18	SLC22A18	2	2	2	10.4	10.4	10.4	34.952	0	5.7706	86495000	11
Kinesin-associated protein 3	KIFAP3	3	3	3	5.7	5.7	5.7	91.204	0	6.5318	86148000	5
MORC family CW-type zinc finger protein 2	MORC2	3	3	3	4.2	4.2	4.2	117.82	0.0001994	2.9074	86024000	3
Polyribonucleotide 5-hydroxyl-kinase Clp1	CLP1	2	2	2	8	8	8	47.645	0	5.8393	85934000	3
Helicase-like transcription factor	HLTF	4	4	4	13.6	13.6	13.6	51.187	0	19.389	85603000	9
BolA-like protein 1	BOLA1	2	2	2	21.9	21.9	21.9	14.289	0	19.773	85373000	5
Enhancer of rudimentary homolog	ERH	2	2	2	30.8	30.8	30.8	12.259	0	118.42	85082000	0

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Phosphatidylinositol N-acetylglucosaminyltransferase subunit A	PIGA	2	2	2	9.7	9.7	9.7	54.126	0	9.3128	84949000	14
Uncharacterized protein C1orf122	C1orf122	1	1	1	10	10	10	11.471	0.0026316	2.0211	84812000	0
Protein lin-9 homolog	LIN9	2	2	2	5.3	5.3	5.3	55.933	0.0017314	2.3558	84670000	6
Kelch repeat and BTB domain-containing protein 11	KBTBD11	3	3	3	8.5	8.5	8.5	65.719	0	4.3527	84653000	4
	DNM2	13	1	1	30.4	1.3	1.3	67.908	0.0093107	1.4795	84449000	1
Lipoprotein lipase	LPL	1	1	1	6.8	6.8	6.8	30.972	0	26.057	84298000	3
Forkhead box protein O3	DKFZp781A0677;FOXO3	1	1	1	4.4	4.4	4.4	46.5	0	4.8389	84135000	7
Genetic suppressor element 1	GSE1	2	2	2	5	5	5	110.4	0	26.343	83966000	12
N(4)-(beta-N-acetylglucosaminyl)-L-asparaginase;Glycosylasparaginase alpha chain;Glycosylasparaginase beta chain	AGA	3	3	3	26.6	26.6	26.6	37.208	0	22.419	83935000	8
Signal-induced proliferation-associated protein 1	SIPA1	4	4	4	10.3	10.3	10.3	101.82	0	37.128	83795000	36
Bromodomain-containing protein 8	BRD8	3	3	3	5.7	5.7	5.7	135.33	0	7.9953	83708000	9
Microtubule-associated protein 9	MAP9	2	2	2	6.6	6.6	6.6	49.185	0	8.1544	83592000	11
Protein farnesyltransferase/geranylgeranyltransferase type-1 subunit alpha	FNTA	1	1	1	30	30	30	7.4994	0	22.411	83218000	28
Germinal-center associated nuclear protein	MCM3AP	4	4	4	4.7	4.7	4.7	218.4	0	14.607	83050000	12
Serine/threonine-protein kinase 10	STK10	5	4	4	7.6	6.7	6.7	112.13	0	20.785	82748000	6
Trafficking protein particle complex subunit 5	TRAPPC5	1	1	1	9.9	9.9	9.9	13.519	0	3.2923	82731000	5
UPF0669 protein C6orf120	C6orf120	1	1	1	12.9	12.9	12.9	22.595	0	15.943	82508000	2
Uncharacterized protein C9orf78	C9orf78	3	3	3	33	33	33	20.309	0	3.8959	82409000	4
Histone chaperone ASF1A	ASF1A	2	2	2	12.7	12.7	12.7	22.968	0	9.3714	82392000	3
GTPase IMAP family member 8	hIAN6;GIMAP8	2	2	2	2.9	2.9	2.9	74.889	0.0086533	1.5383	82368000	3
Lysophosphatidic acid phosphatase type 6	ACP6	1	1	1	7	7	7	17.736	0.0062374	1.6977	82363000	5
BRCA1-A complex subunit RAP80	RAP80;UIMC1	3	3	3	7.6	7.6	7.6	79.727	0.0017361	2.3865	81932000	5
HAUS augmin-like complex subunit 8	HAUS8	2	2	2	11.5	11.5	11.5	44.857	0	14.856	81708000	5
Cohesin subunit SA-1	STAG1 variant protein;STAG1;DKFZp781D1416	5	1	1	4.7	1.7	1.7	146.34	0	4.4157	81535000	8
DNA primase large subunit	PRIM2	4	4	4	13	13	13	58.833	0	3.3332	81393000	6
Myotubularin-related protein 12	MTMR12	4	4	4	9.2	9.2	9.2	86.147	0	5.8484	81328000	9
Nuclear receptor corepressor 1	DKFZp434M075;NCOR1	1	1	1	2.6	2.6	2.6	104.5	0	3.0451	81226000	7
Zinc finger protein 593	ZNF593	1	1	1	10.4	10.4	10.4	15.199	0.0083333	1.5905	80958000	3
Beta-arrestin-2	ARRB2;DKFZp686L0365	3	3	3	12.9	12.9	12.9	44.332	0	3.6978	80947000	5
Ribonuclease P protein subunit p25-like protein	RPP25L	2	2	2	32.5	32.5	32.5	17.631	0	8.4329	80572000	10
Serine/threonine-protein kinase RIO1	RIOK1	2	2	2	7.6	7.6	7.6	38.043	0	4.3557	80568000	2
Cullin-7	CUL7	4	4	4	6.1	6.1	6.1	191.16	0	9.4183	80358000	12
Protein MEMO1	MEMO1	1	1	1	4.4	4.4	4.4	33.752	0	3.9883	80267000	4
Zinc finger CCHC domain-containing protein 3	ZCCHC3	2	2	2	6.9	6.9	6.9	43.618	0	4.606	80160000	0
PAB-dependent poly(A)-specific ribonuclease subunit PAN2	PAN2	2	2	2	3.2	3.2	3.2	135.37	0	14.448	80145000	5
Uncharacterized protein C12orf29	C12orf29	2	2	2	8	8	8	37.49	0	13.774	80107000	8
B-cell lymphoma/leukemia 10	BCL10	2	2	2	21.5	21.5	21.5	26.251	0	8.272	79743000	5

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	U2SURP	17	1	1	28.6	4.1	4.1	118.25	0	29.172	79601000	44
Uncharacterized protein CXorf38	CXorf38	3	3	3	13.2	13.2	13.2	36.67	0.0007888	2.7166	79512000	5
MOB kinase activator 2	MOB2	3	3	3	26.9	26.9	26.9	26.575	0	24.547	79501000	3
Rab9 effector protein with kelch motifs	RABEPK	2	2	2	8.6	8.6	8.6	40.564	0.0042537	1.8023	79424000	2
Regulator of nonsense transcripts 2	UPF2	2	2	2	2.2	2.2	2.2	147.81	0.0028037	1.9202	79306000	3
Torsin-1B	TOR1B	2	2	2	6.5	6.5	6.5	37.978	0.0017348	2.3826	79094000	4
Centrosomal protein of 97 kDa	CEP97	2	2	2	6	6	6	90.267	0	37.819	79044000	6
Round spermatid basic protein 1	RSBN1	1	1	1	3.9	3.9	3.9	45.705	0	13.117	79007000	5
Mitogen-activated protein kinase kinase kinase kinase;Mitogen-activated protein kinase kinase kinase kinase 2	MAP4K2	3	3	3	5.2	5.2	5.2	91.555	0	7.6904	78934000	4
Mediator of RNA polymerase II transcription subunit 24	MED24	3	3	3	4.9	4.9	4.9	99.686	0	7.9629	78788000	3
Cytokine receptor-like factor 1	CRLF1	2	2	2	5.2	5.2	5.2	46.301	0.0028106	1.9457	78615000	6
AP-4 complex accessory subunit tepsin	C17orf56;ENTHD2	2	2	2	16.1	16.1	16.1	38.85	0	4.3824	78547000	19
F-box only protein 7	FBXO7;DKFZp686B08113	2	2	2	5.4	5.4	5.4	58.502	0.0062397	1.701	78425000	1
Ras-related protein Ral-B	RALB	3	2	1	25.7	19.2	9.6	18.73	0.0094812	1.4671	78318000	1
Golgin subfamily A member 7	GOLGA7	1	1	1	10.9	10.9	10.9	15.824	0	3.2277	78152000	4
Probable RNA polymerase II nuclear localization protein SLC7A6OS	SLC7A6OS	2	2	2	30.1	30.1	30.1	23.423	0	16.584	78142000	7
Calcium uptake protein 1, mitochondrial	MICU1	1	1	1	9	9	9	24.137	0	33.556	78075000	10
Serine/threonine-protein phosphatase CPPED1	CPPED1	4	4	4	22.6	22.6	22.6	35.548	0	4.4929	77989000	3
Thrombospondin type-1 domain-containing protein 4	THSD4	1	1	1	1.6	1.6	1.6	112.45	0.0013621	2.4932	77959000	2
Protein-tyrosine-phosphatase;Tyrosine-protein phosphatase non-receptor type;Tyrosine-protein phosphatase non-receptor type 2	PTPN2	2	2	2	16.6	16.6	16.6	17.644	0.0017321	2.3657	77803000	1
Lambda-crystallin homolog	CRYL1;HEL30	2	2	2	12.8	12.8	12.8	29.47	0	5.102	77735000	9
Serine/threonine-protein kinase RIO2	RIOK2	2	2	2	7.1	7.1	7.1	63.282	0	4.4382	77646000	6
Origin recognition complex subunit 2	ORC2L;ORC2	3	3	3	8.9	8.9	8.9	58.667	0	7.0712	77468000	6
tRNA 2-phosphotransferase 1	TRPT1	2	2	2	18.1	18.1	18.1	22.427	0.0026395	2.0718	77467000	0
Ankyrin-2	ANK2	2	2	1	2.1	2.1	1.4	176.11	0	3.5234	77408000	2
HMG domain-containing protein 4	HMGXB4	3	3	3	16.7	16.7	16.7	53.173	0	39.21	77355000	18
Glutathione S-transferase C-terminal domain-containing protein	GSTCD	2	2	2	10.6	10.6	10.6	38.198	0	4.8221	77269000	3
Uncharacterized protein C19orf47	C19orf47	2	2	2	8.8	8.8	8.8	44.746	0	4.1509	77117000	6
	MLLT4	7	1	1	25.8	3.9	3.9	43.212	0	4.7811	77093000	4
Protein SAAL1	SPACIA1;SAAL1	4	4	1	14.3	14.3	2.3	53.557	0	23.524	76974000	7
Gamma-secretase subunit APH-1A	APH1A	1	1	1	5.7	5.7	5.7	26.768	0	3.2864	76590000	5
Leptin receptor overlapping transcript-like 1	LEPROTL1	1	1	1	12.3	12.3	12.3	11.698	0.0005939	2.7787	76194000	5
Vacuolar protein sorting-associated protein 37C	VPS37C	2	2	2	29.7	29.7	29.7	17.143	0	7.77	75930000	11
Transmembrane protein 186	TMEM186	1	1	1	8	8	8	24.893	0	4.8503	75921000	6
General transcription factor IIH subunit 5	GTF2H5	2	2	2	36.6	36.6	36.6	8.0533	0.0094863	1.4733	75883000	1
Nuclear factor NF-kappa-B p105 subunit;Nuclear factor NF-kappa-B p50 subunit	NFKB1	3	3	3	20.2	20.2	20.2	21.87	0	10.855	75805000	5

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Nucleoporin GLE1	GLE1	2	2	2	9.9	9.9	9.9	50.391	0	11.831	75670000	7
TOM1-like protein 1	TOM1L1	2	2	2	17.8	17.8	17.8	25.253	0	6.2372	75557000	1
Uncharacterized protein C11orf96	C11orf96	1	1	1	19.7	19.7	19.7	13.773	0	13.77	75368000	10
Vacuole membrane protein 1	TMEM49;VMP1	2	2	2	11	11	11	47.554	0	16.582	75322000	16
Phosphoenolpyruvate carboxykinase, cytosolic [GTP]	PCK1	2	1	1	5	2.3	2.3	69.194	0.0007894	2.7321	75170000	3
Protein FAM45A;Protein FAM45B	FAM45A;FAM45B	1	1	1	9.2	9.2	9.2	23.307	0.0078396	1.6424	75145000	2
Epsin-2	EPN2	4	4	4	16.4	16.4	16.4	44.888	0	13.533	75078000	8
Rabenosyn-5	ZFYVE20;RBSN	5	5	5	14.7	14.7	14.7	88.917	0	33.642	74946000	7
WD repeat-containing protein 89	WDR89;C14orf150	2	2	2	15.9	15.9	15.9	24.798	0	31.154	74829000	6
Chromosome transmission fidelity protein 8 homolog isoform 2	CHTF8	2	2	2	7.1	7.1	7.1	51.391	0	39.286	74656000	7
Centromere protein U	CENPU;MLF1IP	3	3	3	13.6	13.6	13.6	47.521	0	3.1835	74471000	2
von Willebrand factor A domain-containing protein 8	VWA8	5	5	5	3.5	3.5	3.5	214.82	0	17.077	74251000	4
Acyl-CoA-binding domain-containing protein 7	ACBD7	1	1	1	15.9	15.9	15.9	9.7902	0.0013648	2.5411	74191000	2
Protein KTI12 homolog	KTI12	3	3	3	13	13	13	38.557	0	15.828	74186000	7
WD repeat-containing protein 91	WDR91	3	3	3	8.1	8.1	8.1	79.239	0	4.4913	74131000	3
Charged multivesicular body protein 7	CHMP7	2	2	2	14	14	14	38.27	0	4.8888	73612000	9
Vesicle transport protein SFT2A	SFT2D1	1	1	1	17	17	17	17.804	0	16.083	73449000	25
Ankyrin repeat domain-containing protein 13A	ANKRD13;ANKRD13A	2	2	2	4.4	4.4	4.4	67.475	0.002287	2.2269	73420000	3
Phosphoinositide phospholipase C;1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase epsilon-1	PLCE1	3	3	3	1.9	1.9	1.9	257.1	0.0088082	1.5114	73369000	1
Zinc finger protein 318	ZNF318	3	3	3	2.8	2.8	2.8	251.11	0	5.1893	73216000	4
Tryptophan--tRNA ligase, mitochondrial	WARS2	4	4	4	17.2	17.2	17.2	40.146	0	4.1564	73088000	4
RING finger protein 113A	RNF113A;SAMD13	3	3	3	15.7	15.7	15.7	38.787	0	3.2311	73059000	0
Mediator of RNA polymerase II transcription subunit 1	MED1	6	6	6	6.9	6.9	6.9	168.48	0	4.0213	72780000	4
Protein NOXP20	LOC92689;FAM114A1	1	1	1	7.1	7.1	7.1	21.968	0.0001996	2.9206	72774000	3
Myosin light chain kinase, smooth muscle;Myosin light chain kinase, smooth muscle, deglutamylated form	MYLK	3	3	3	3	3	3	210.71	0.0002001	2.9715	72754000	4
DET1- and DDB1-associated protein 1	DDA1	1	1	1	11.8	11.8	11.8	11.835	0.0098092	1.44	72698000	0
Non-homologous end-joining factor 1	NHEJ1	2	2	1	21.1	21.1	13.7	33.337	0	42.548	72404000	4
Natural cytotoxicity triggering receptor 3 ligand 1	NCR3LG1	3	3	3	7.7	7.7	7.7	50.827	0	3.9895	72141000	5
Fatty acyl-CoA reductase 1	FAR1	1	1	1	3.9	3.9	3.9	37.481	0	3.2173	72116000	1
Prostacyclin synthase	PTGIS;PGIS	1	1	1	3.4	3.4	3.4	57.131	0	3.187	71972000	2
DNA-directed RNA polymerase III subunit RPC10	POLR3K	2	2	2	37	37	37	12.336	0	3.7061	71475000	3
Beta-1,3-glucosyltransferase	B3GALTL	3	3	3	12.2	12.2	12.2	56.563	0.002471	2.1922	71403000	1
Probable E3 ubiquitin-protein ligase makorin-2	MKRN2	1	1	1	6.8	6.8	6.8	46.68	0	5.9636	71286000	5
Integrator complex subunit 8	INTS8	2	2	2	4.5	4.5	4.5	91.113	0	20.717	71106000	8
Cell division cycle protein 20 homolog	CDC20	1	1	1	4.8	4.8	4.8	52.109	0	19.558	70847000	8
Cathepsin L2	CTSL2;CTSV	3	3	3	18.3	18.3	18.3	37.329	0	11.71	70812000	2
Uncharacterized protein C1orf131	C1orf131	2	2	2	13.3	13.3	13.3	26.678	0.002647	2.1301	70801000	1

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NADH dehydrogenase [ubiquinone] complex I, assembly factor 7	NDUFAF7	1	1	1	8.3	8.3	8.3	25.414	0.0019131	2.274	70755000	0
Probable tRNA pseudouridine synthase 1	TRUB1	4	4	4	16.3	16.3	16.3	37.252	0	21.764	70447000	8
Mediator of RNA polymerase II transcription subunit 21	MED21;SURB7	1	1	1	8.8	8.8	8.8	17.278	0	4.2658	70405000	5
Exocyst complex component 6	DKFZp761I2124;EXOC6;S EC15L3	2	2	2	3.4	3.4	3.4	69.294	0.0062351	1.6919	70393000	1
Coiled-coil domain-containing protein 12	CCDC12	2	2	2	24.6	24.6	24.6	20.501	0	12.122	70245000	2
Zinc finger BED domain-containing protein 1	ZBED1;hCG_1981838	2	2	2	11.8	11.8	11.8	30.439	0	3.2368	70105000	4
Integrator complex subunit 4	INTS4	2	2	2	3	3	3	108.15	0	3.2829	69753000	5
Growth factor receptor-bound protein 10	GRB10	2	2	2	8.9	8.9	8.9	70.958	0	3.9976	69710000	20
Toll-interacting protein	TOLLIP	2	2	2	13.1	13.1	13.1	23.222	0	17.819	69697000	10
Protein LLP homolog	C12orf31;LLPH	2	2	2	10.9	10.9	10.9	15.225	0.002643	2.0949	69565000	0
Periphilin-1	PPHLN1	2	2	2	7.3	7.3	7.3	34.86	0.0001992	2.8952	69488000	2
A-kinase anchor protein 13	AKAP13	3	3	3	2.5	2.5	2.5	307.55	0	4.2409	69350000	3
Metallo-beta-lactamase domain-containing protein 2	MBLAC2	3	3	3	16.5	16.5	16.5	31.371	0	20.08	69340000	5
Platelet-derived growth factor C;Platelet-derived growth factor C, latent form;Platelet-derived growth factor C, receptor-binding form	PDGFC	2	2	2	17.4	17.4	17.4	21.677	0	20.738	69264000	2
Zinc finger homeobox protein 3	ZFHX3	4	4	4	1.8	1.8	1.8	404.41	0	20.818	69101000	10
Phosphopantothenoylcysteine decarboxylase	PPCDC	2	2	2	15.7	15.7	15.7	18.703	0	4.0123	69062000	7
	TUBB2C	12	1	1	49.3	10.1	10.1	25.875	0.0011755	2.5989	68909000	0
Zinc finger protein 608	ZNF608	4	4	4	6.7	6.7	6.7	147.6	0	3.7681	68862000	23
OTU domain-containing protein 5	OTUD5	3	3	3	10.6	10.6	10.6	48.893	0	4.9692	68762000	2
Zinc finger protein 316	ZNF316	1	1	1	2.3	2.3	2.3	108.44	0.0019128	2.2715	68555000	2
UPF0235 protein C15orf40	C15orf40	2	2	2	34.9	34.9	34.9	13.321	0	5.4356	68437000	4
39S ribosomal protein L10, mitochondrial	MRPL10	3	3	3	17.6	17.6	17.6	25.139	0	5.926	68340000	15
7-methylguanosine phosphate-specific 5-nucleotidase	NT5C3B	3	3	3	21.1	21.1	21.1	25.778	0	5.4669	68322000	3
Transcriptional coactivator YAP1	YAP1;DKFZp451O0517	2	2	2	22.9	22.9	22.9	26.527	0	20.719	68171000	3
Tumor suppressor ARF	CDKN2A	1	1	1	12.1	12.1	12.1	13.903	0	3.3847	68128000	6
Insulin receptor;Insulin receptor subunit alpha;Insulin receptor subunit beta	INSR	3	3	3	4.1	4.1	4.1	156.33	0.0005931	2.7598	68088000	4
Coiled-coil domain-containing protein 132	CCDC132	4	4	4	6.6	6.6	6.6	110.34	0	6.1531	68087000	2
Diphosphoinositol polyphosphate phosphohydrolase 3-beta;Diphosphoinositol polyphosphate phosphohydrolase 3-alpha	NUDT11;NUDT10	2	1	1	21.3	12.2	12.2	18.559	0	3.1709	68046000	2
Trinucleotide repeat-containing gene 6B protein	TNRC6B	4	4	4	5.9	5.9	5.9	162.17	0	38.187	67885000	11
	HLA-B;HLA-A	2	1	1	13	5.6	5.6	31.344	0.0067815	1.6878	67812000	1
Phospholipase ABHD3	ABHD3	1	1	1	13.1	13.1	13.1	24.436	0.0002005	3.0089	67791000	4
Integrator complex subunit 10	INTS10	2	2	2	3.1	3.1	3.1	82.235	0	3.4979	67718000	3
Plasma alpha-L-fucosidase	FUCA2	2	2	2	5.6	5.6	5.6	54.066	0	4.2785	67377000	4
Ras and Rab interactor-like protein	RINL	2	2	2	6.5	6.5	6.5	62.466	0	10.683	67196000	6
Protein OS-9	OS9	4	4	4	12.8	12.8	12.8	83.568	0	5.1647	67183000	6
Serine/threonine-protein phosphatase 2A 56 kDa regulatory subunit gamma isoform	PPP2R5C	6	3	3	20	10.5	10.5	51.563	0	3.6062	67112000	5

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Transcription termination factor 4, mitochondrial;mTERF domain-containing protein 2 processed	MTERF4	2	2	2	7.6	7.6	7.6	43.957	0	8.4479	66974000	8
	CALU	12	2	2	48.3	7	7	37.106	0.0028001	1.9053	66958000	0
Next to BRCA1 gene 1 protein	NBR1	1	1	1	9.2	9.2	9.2	23.363	0	5.0976	66956000	8
Inositol 1,4,5-trisphosphate receptor type 2	ITPR2	5	3	3	4	3.2	3.2	308.06	0	22.335	66694000	5
	DFFA	9	1	1	66.4	7.5	7.5	29.41	0	52.666	66623000	6
TNF receptor-associated factor 2	TRAF2	1	1	1	14	14	14	12.963	0	3.2504	66488000	2
Transmembrane protein 143	TMEM143	2	2	2	8.7	8.7	8.7	51.714	0	4.7422	66419000	7
Transmembrane protein 208	TMEM208	1	1	1	26.2	26.2	26.2	11.758	0	42.193	66418000	14
		1	1	1	6.1	6.1	6.1	18.279	0.0081878	1.625	66272000	2
UPF0489 protein C5orf22	FLJ11193;C5orf22	2	2	2	10	10	10	49.967	0	25.363	66234000	8
	CSNK1A1	2	2	1	14.4	14.4	8.9	27.741	0	59.066	65858000	9
Protein phosphatase Slingshot homolog 3	SSH3	1	1	1	5.9	5.9	5.9	24.628	0.0007862	2.6485	65369000	0
EF-hand domain-containing protein D1	EFHD1;FLJ13612;MST133;PP1187	4	2	2	21.3	12.6	12.6	26.955	0	3.8312	65319000	3
Lysophosphatidylcholine acyltransferase 2	LPCAT2	4	4	4	14.9	14.9	14.9	60.207	0	3.119	65029000	2
Sorting nexin-7	SNX7	2	2	1	6.5	6.5	3.6	45.302	0	3.6622	64903000	0
Probable ATP-dependent RNA helicase DHX37	DHX37	3	3	3	4.4	4.4	4.4	129.54	0	5.7527	64897000	4
39S ribosomal protein L13, mitochondrial	MRPL13	2	2	2	16.9	16.9	16.9	20.692	0	3.4196	64845000	4
Secretion-regulating guanine nucleotide exchange factor	SERGEF	2	2	2	13	13	13	31.916	0	4.6584	64828000	7
RNA-binding protein 27	POU4F3;RBM27	5	3	3	6.9	5.2	5.2	84.105	0.0011714	2.5597	64702000	3
	MYO1C	8	1	1	13.6	1.7	1.7	98.933	0	4.2776	64673000	3
N-alpha-acetyltransferase 40	NAA40;NAT11	2	2	2	12.2	12.2	12.2	27.224	0	8.8652	64454000	9
Inositol polyphosphate 1-phosphatase	INPP1	2	2	2	18.2	18.2	18.2	16.132	0	6.7608	64433000	5
Threonylcarbamoyladenosine tRNA methylthiotransferase	CDKAL1	4	4	4	11.9	11.9	11.9	65.111	0	59.639	64416000	5
AN1-type zinc finger protein 5	ZFAND5;ZA20D2	1	1	1	8.5	8.5	8.5	22.54	0	37.121	64289000	8
Tuberin	TSC2	2	2	2	2.2	2.2	2.2	200.61	0	4.2148	64288000	6
Syndecan-1	SDC1	2	2	2	11.9	11.9	11.9	32.461	0	4.3046	64186000	2
Fer-1-like protein 5	FER1L5	3	3	3	1.9	1.9	1.9	241.96	0.009984	1.4347	64158000	2
Triple functional domain protein	TRIO	4	4	4	3.2	3.2	3.2	262.68	0	5.0005	64133000	2
Cadherin-1;E-Cad/CTF1;E-Cad/CTF2;E-Cad/CTF3	CDH1	4	4	4	12.8	12.8	12.8	71.338	0	4.7099	64099000	4
Dehydrogenase/reductase SDR family member 13	DHRS13;hCG_1998851	2	2	2	10.9	10.9	10.9	40.848	0	12.566	64075000	5
		3	1	1	24.3	11.9	11.9	20.221	0	5.6349	63923000	11
Lysine-specific demethylase 2B	KDM2B	2	2	2	4.4	4.4	4.4	80.049	0.0026405	2.0752	63467000	1
Integrin alpha-5;Integrin alpha-5 heavy chain;Integrin alpha-5 light chain	ITGA5	2	2	2	5	5	5	114.48	0	4.4432	63417000	2
Microtubule-associated protein;Microtubule-associated protein 2	MAP2;4R-MAP2	2	2	2	5.7	5.7	5.7	49.568	0.0028121	1.9685	63266000	3
Nuclear receptor corepressor 2	NCOR2	2	2	2	1.3	1.3	1.3	268.04	0.0099804	1.433	63132000	2
UPF0692 protein C19orf54	C19orf54	3	3	3	20.5	20.5	20.5	37.778	0	9.7562	63060000	19
Mediator of RNA polymerase II transcription subunit 28	MED28	2	2	2	22.5	22.5	22.5	19.52	0	5.7584	62955000	3
ADP-ribosylation factor-related protein 1	ARFRP1	2	2	2	15.4	15.4	15.4	22.584	0	18.704	62670000	6
FGFR1 oncogene partner	FGFR1OP	2	2	2	12	12	12	38.099	0	15.85	62327000	4
N-acetylserotonin O-methyltransferase-like protein	ASMTL	13	1	1	30.9	2.6	2.6	68.856	0.0078424	1.6434	62311000	4
Liprin-alpha-3	PPFIA3	2	2	2	3.1	3.1	3.1	133.49	0	7.2233	62138000	8

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GRIP and coiled-coil domain-containing protein 1	GCC1	3	3	3	8.3	8.3	8.3	87.75	0	16.384	61953000	9
Choline kinase alpha	CHKA	3	3	3	18.2	18.2	18.2	52.248	0	5.0902	61886000	13
Putative ataxin-7-like protein 3B	ATXN7L3B	2	2	2	30.9	30.9	30.9	10.771	0	13.265	61863000	2
Nucleolar protein of 40 kDa	ZCCHC17	2	2	2	16.8	16.8	16.8	20.451	0.0015477	2.4173	61759000	2
Centromere protein F	CENPF	6	6	6	3.2	3.2	3.2	367.76	0	23.787	61722000	8
Pyruvate kinase	PKM2;PKM	32	2	0	60.1	5.5	0	58.061	0.008658	1.5435	61495000	3
Histone H2A type 1-A;Histone H2AX;Histone H2A type 2-B	HIST1H2AA;H2AFX;HIST2H2AB	7	2	2	40.5	22.9	22.9	14.233	0	43.743	61431000	12
Sulfotransferase;Sulfotransferase 1A4;Sulfotransferase 1A3	ST1A5;SULT1A4;SULT1A3	7	2	2	37.6	13.9	13.9	34.242	0.0007879	2.6879	61314000	1
Girdin	CCDC88A;KIAA1212	4	4	4	2.9	2.9	2.9	216.04	0	4.2942	61223000	3
Protein Spindly	SPDL1	1	1	1	2.5	2.5	2.5	70.171	0.0081937	1.6284	61156000	1
Male-specific lethal 1 homolog	MSL1	2	2	2	9.3	9.3	9.3	48.976	0	3.328	61054000	1
Apoptosis regulator Bcl-2	BCL2;bcl-2	1	1	1	15.4	15.4	15.4	21.498	0	5.7821	60845000	7
Tectonin beta-propeller repeat-containing protein 1	TECPR1	3	3	3	6.1	6.1	6.1	129.69	0.0024701	2.1885	60809000	0
Voltage-dependent calcium channel subunit alpha-2/delta-1;Voltage-dependent calcium channel subunit alpha-2-1;Voltage-dependent calcium channel subunit delta-1	CACNA2D1;WUGSC:H_DJ0560O14.1	2	2	2	2.6	2.6	2.6	125.31	0.0099733	1.4292	60750000	2
Histone deacetylase 3	HDAC3	1	1	1	3.5	3.5	3.5	48.847	0	23.34	60439000	5
Protein O-glucosyltransferase 1	POGLUT1	2	2	2	5.1	5.1	5.1	46.189	0	3.4749	60340000	4
Zinc finger protein 292	ZNF292	4	4	4	3.7	3.7	3.7	304.21	0	10.127	60004000	9
Aprataxin	APTX	1	1	1	8.1	8.1	8.1	22.763	0	3.3	59880000	2
FK506-binding protein-like	FKBPL	3	3	3	16	16	16	38.231	0	3.176	59845000	2
DNA topoisomerase;DNA topoisomerase 3-beta-1	TOP3B	4	4	4	9.4	9.4	9.4	96.707	0	13.507	59706000	4
Dual specificity mitogen-activated protein kinase kinase 4	MAP2K4	2	2	2	9.6	9.6	9.6	31.202	0.0026306	2.0119	59703000	3
Headcase protein homolog	HECA	1	1	1	2.8	2.8	2.8	58.836	0	4.0003	59680000	3
Leukocyte receptor cluster member 1	LENG1	2	2	2	6.4	6.4	6.4	30.529	0	4.083	59573000	6
GrpE protein homolog;GrpE protein homolog 2, mitochondrial	DKFZp451C205;GRPEL2	1	1	1	4.7	4.7	4.7	26.115	0.0017304	2.346	59423000	5
NFATC2-interacting protein	NFATC2IP	2	2	2	10.7	10.7	10.7	45.816	0	4.1337	59365000	2
Probable arginine--tRNA ligase, mitochondrial	RARS2;RARSL	2	2	2	5.7	5.7	5.7	65.505	0	7.8082	59264000	3
Uncharacterized protein C1orf198	C1orf198	2	2	2	6.7	6.7	6.7	36.346	0	4.4916	59194000	4
Prolyl 3-hydroxylase OGFOD1	OGFOD1	2	2	2	6.8	6.8	6.8	58.378	0	6.6338	59183000	3
Chromodomain-helicase-DNA-binding protein 3	CHD3	6	2	2	4.5	2	2	226.59	0	10.66	59086000	4
Ribonuclease T2	RNASET2	2	2	2	13.5	13.5	13.5	21.772	0	13.391	58916000	6
Quinone oxidoreductase-like protein 1	CRYZL1	2	2	2	22.1	22.1	22.1	19.944	0	9.184	58857000	8
Tonsoku-like protein	TONSL	2	2	2	2.2	2.2	2.2	150.93	0	3.0459	58632000	6
Protein RFT1 homolog	RFT1	1	1	1	2	2	2	55.835	0.0062385	1.7005	58630000	4
E3 ubiquitin-protein ligase RNF25	RNF25	2	2	2	7	7	7	51.218	0.0015468	2.4105	58416000	3
WASH complex subunit CCDC53	CCDC53	2	2	2	15.4	15.4	15.4	18.534	0.0005935	2.7689	58202000	0
mRNA-decapping enzyme 1B	DCP1B	2	2	2	9.9	9.9	9.9	67.722	0	5.8821	58116000	17
N6-adenosine-methyltransferase subunit METTL14	METTL14	2	2	2	7.9	7.9	7.9	52.15	0	8.2074	58101000	4
WW domain-containing oxidoreductase	WWOX	2	2	2	8	8	8	33.568	0	4.643	57791000	6
Serine/threonine-protein kinase 11-interacting protein	STK11IP	1	1	1	9	9	9	18.082	0	19.17	57738000	5

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Transmembrane anterior posterior transformation protein 1 homolog	FLJ90013;TAPT1	2	2	2	11	11	11	52.104	0.0015444	2.3912	57655000	2
Syntaxin-10	STX10	1	1	1	15.1	15.1	15.1	8.4503	0.0013598	2.4628	57623000	5
Codanin-1	CDAN1	1	1	1	7.5	7.5	7.5	37.928	0	5.5072	57544000	14
SUZ domain-containing protein 1	SZRD1	1	1	1	7.9	7.9	7.9	16.997	0.0035369	1.8728	57468000	2
Ral GTPase-activating protein subunit alpha-2	RALGAPA2	3	3	3	2.5	2.5	2.5	210.77	0	4.7646	57415000	6
RNA polymerase II elongation factor ELL	MEN;ELL	4	4	4	15	15	15	62.123	0	9.9698	57352000	7
Putative phospholipase B-like 2;Putative phospholipase B-like 2 32 kDa form;Putative phospholipase B-like 2 45 kDa form	PLBD2	2	2	2	4.8	4.8	4.8	65.471	0	6.8393	57331000	2
Sorting nexin-15	hCG_2044837;SNX15	4	4	4	30.7	30.7	30.7	38.291	0	8.3296	57223000	27
Protein CASC4	CASC4	2	2	2	9.7	9.7	9.7	43.331	0	3.3469	57205000	4
RNMT-activating mini protein	FAM103A1	1	1	1	11	11	11	14.381	0	4.8347	57193000	4
DNA repair protein XRCC4	XRCC4	3	3	3	11.1	11.1	11.1	38.057	0	8.6686	57023000	5
Sickle tail protein homolog	KIAA1217	1	1	1	2.9	2.9	2.9	86.73	0	4.3924	56827000	5
E3 ubiquitin-protein ligase TRIM32	TRIM32	3	3	3	6.3	6.3	6.3	71.988	0	5.4101	56702000	5
	POLR1E	2	2	2	15.6	15.6	15.6	20.998	0.0067766	1.6793	56527000	0
Biotin--protein ligase;Biotin--[methylmalonyl-CoA-carboxytransferase] ligase;Biotin--[propionyl-CoA-carboxylase [ATP-hydrolyzing]] ligase;Biotin--[methylcrotonoyl-CoA-carboxylase] ligase;Biotin--[acetyl-CoA-carboxylase] ligase	HLCS	3	3	3	13.1	13.1	13.1	80.759	0	7.2837	56301000	15
	HEL-176	12	1	1	69.1	11.2	11.2	25.035	0	5.4799	56208000	2
Ubiquitin-conjugating enzyme E2 G1;Ubiquitin-conjugating enzyme E2 G1, N-terminally processed	UBE2G1	1	1	1	51	51	51	5.5393	0	5.5688	56156000	1
Kinetochore-associated protein 1	KNTC1	3	3	3	1.7	1.7	1.7	250.75	0.0002005	3.0105	56134000	6
Tetratricopeptide repeat protein 19, mitochondrial	TTC19	3	3	3	5.8	5.8	5.8	42.456	0.0013571	2.441	56077000	1
Adenylyl cyclase-associated protein;Adenylyl cyclase-associated protein 2	DKFZp686D0714;CAP2	3	2	2	6.3	4.3	4.3	43.539	0.0091463	1.4919	55994000	2
52 kDa repressor of the inhibitor of the protein kinase	PRKRIR	3	3	3	5	5	5	87.716	0	4.8194	55788000	2
CSC1-like protein 2	TMEM63B	1	1	1	1.6	1.6	1.6	86.69	0.0024705	2.1914	55774000	2
Membrane-associated phosphatidylinositol transfer protein 1	PITPNM1	1	1	1	1.7	1.7	1.7	134.85	0	12.742	55639000	13
Histone-lysine N-methyltransferase 2B	KMT2B	2	2	2	1.1	1.1	1.1	293.51	0	3.5707	55560000	11
COX assembly mitochondrial protein homolog	CMC1	2	2	2	25.5	25.5	25.5	12.49	0.0009812	2.616	55428000	0
	IKBKG	4	1	1	41	20.5	20.5	22.252	0	10.921	55425000	3
Nuclear respiratory factor 1	NRF1	2	2	2	4	4	4	53.54	0.0026455	2.1176	55294000	4
Cytochrome c oxidase subunit 2	COX2;COII;cox2	4	1	1	18.9	7	7	25.579	0	3.451	55257000	3
		1	1	1	2.1	2.1	2.1	37.134	0.0081774	1.6135	55217000	2
Transforming acidic coiled-coil-containing protein 2	TACC2	2	2	2	1.3	1.3	1.3	296.74	0.0007863	2.6497	54782000	4
U3 small nucleolar ribonucleoprotein protein IMP4	IMP4	2	2	2	15.4	15.4	15.4	31.835	0	8.8946	54319000	11
Putative heat shock protein HSP 90-beta 2	HSP90AB2P	9	1	1	19.9	3.9	3.9	44.348	0.0028022	1.9124	54304000	20
Scavenger receptor class B member 1	SCARB1	1	1	1	2.5	2.5	2.5	53.847	0.0007871	2.6818	54299000	3
Contactin-1	CNTN1	4	4	4	7.1	7.1	7.1	113.32	0	4.4398	54286000	2

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Disintegrin and metalloproteinase domain-containing protein 15	ADAM15	2	2	2	3.8	3.8	3.8	87.308	0	18.899	54260000	5
Protein disulfide-isomerase TMX3	TMX3	2	2	2	11.7	11.7	11.7	51.871	0.0013627	2.501	54119000	1
Solute carrier family 2, facilitated glucose transporter member 3;Solute carrier family 2, facilitated glucose transporter member 14	SLC2A3;SLC2A14	1	1	1	6.9	6.9	6.9	31.874	0	3.4215	53984000	1
Ribonucleoprotein PTB-binding 2	RAVER2	1	1	1	10	10	10	24.666	0	3.4614	53980000	4
TraB domain-containing protein	TRABD	1	1	1	4.1	4.1	4.1	33.181	0.0037189	1.8593	53944000	2
Uncharacterized protein C9orf40	C9orf40	1	1	1	13.9	13.9	13.9	21.063	0	22.7	53908000	22
Spastin	SPAST	2	2	2	21.9	21.9	21.9	19.682	0	22.923	53884000	4
Pre-B-cell leukemia transcription factor-interacting protein 1	PBXIP1	3	3	3	9	9	9	62.667	0	3.7518	53871000	3
Guanine nucleotide-binding protein subunit alpha-11;Guanine nucleotide-binding protein subunit alpha-14	GNA11;GNA14	3	2	2	12.3	9.2	9.2	41.891	0	4.9018	53777000	11
Pre-mRNA-splicing factor SLU7	SLU7	2	2	2	3.9	3.9	3.9	68.356	0	4.1123	53747000	0
Phosphatidylserine synthase 1	PTDSS1	1	1	1	3.6	3.6	3.6	38.657	0.0002002	2.9814	53736000	0
Regulatory factor X-associated protein	RFXAP	2	2	2	10.7	10.7	10.7	28.232	0	18.042	53671000	4
RING finger and SPRY domain-containing protein 1	RSPRY1	1	1	1	2.3	2.3	2.3	64.18	0.0086518	1.5334	53632000	2
Protein-methionine sulfoxide oxidase MICAL3	MICAL3	1	1	1	3.2	3.2	3.2	55.331	0.0027996	1.9031	53604000	1
Transcription termination factor 2	TTF2	2	2	2	2.9	2.9	2.9	129.59	0	8.0278	53540000	5
Heat shock 70 kDa protein 12A	HSPA12A	3	3	3	6.4	6.4	6.4	66.415	0	3.0353	53454000	0
RNA-binding protein 6	RBM6	2	2	2	5	5	5	69.151	0.0017341	2.3772	53439000	1
MHC class II regulatory factor RFX1	RFX1	1	1	1	1.3	1.3	1.3	104.76	0.0060662	1.7272	53397000	4
NF-kappa-B inhibitor epsilon	NFKBIE	2	2	2	9.7	9.7	9.7	38.519	0	6.9099	53333000	7
Interferon-stimulated 20 kDa exonuclease-like 2	ISG20L2	1	1	1	3.7	3.7	3.7	39.153	0	3.1234	53137000	5
Paired amphipathic helix protein Sin3b	SIN3B	2	2	1	2.6	2.6	1.5	133.06	0	5.6076	53062000	6
4-aminobutyrate aminotransferase, mitochondrial	ABAT	2	2	2	9.2	9.2	9.2	40.171	0.0013576	2.4517	52983000	3
Formin-binding protein 1	FNBP1	3	3	3	8.5	8.5	8.5	64.071	0	7.8508	52660000	2
Zinc finger CCCH domain-containing protein 7A	ZC3H7A	3	3	3	5	5	5	83.647	0.0011744	2.5865	52605000	3
Semaphorin-3C	SEMA3C	1	1	1	2.6	2.6	2.6	87.168	0	3.4527	52604000	2
GPN-loop GTPase 2	GPN2	1	1	1	12.2	12.2	12.2	14.991	0	7.6421	52449000	8
Elongator complex protein 4	ELP4	2	2	2	9.6	9.6	9.6	42.555	0.0005942	2.791	52431000	24
Coiled-coil domain-containing protein 85C	CCDC85C	2	2	2	53.2	53.2	53.2	5.4331	0	3.0896	52048000	0
CDK5 regulatory subunit-associated protein 1	CDK5RAP1	2	2	2	10.5	10.5	10.5	28.454	0.0022844	2.2184	52015000	5
	CAST	21	1	1	47.2	2.7	2.7	86.613	0.0028074	1.9342	52008000	0
Alpha-catulin	CTNNAL1	3	3	3	5.7	5.7	5.7	81.896	0	5.009	51988000	0
DNA-binding protein inhibitor ID-4	ID4	1	1	1	9.9	9.9	9.9	16.622	0	8.5048	51917000	3
Target of Myb protein 1	TOM1	5	5	5	27.5	27.5	27.5	54.831	0	21.491	51881000	6
Zinc transporter 5	SLC30A5	2	2	1	4.2	4.2	1	84.046	0	14.59	51836000	5
A disintegrin and metalloproteinase with thrombospondin motifs 15	ADAMTS15	5	4	4	7.1	5.6	5.6	103.29	0	5.2089	51815000	7
Lipase;Lysosomal acid lipase/cholesteryl ester hydrolase	LIPA	1	1	1	5.4	5.4	5.4	23.553	0.003352	1.8762	51770000	4

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Tubulin--tyrosine ligase	TTL	2	2	2	6.9	6.9	6.9	43.212	0	3.2971	51698000	3
Protein arginine N-methyltransferase 7	PRMT7	2	2	2	13	13	13	24.763	0	3.5675	51523000	1
Protein strawberry notch homolog 1	SBNO1	3	3	3	4.5	4.5	4.5	154.31	0	5.9694	51495000	6
tRNA (adenine(58)-N(1))-methyltransferase, mitochondrial	TRMT61B	2	2	2	8.8	8.8	8.8	52.965	0	8.686	51485000	3
Striatin-3	STRN3	9	1	1	18.6	3.6	3.6	87.208	0	3.956	51422000	5
Zinc finger and BTB domain-containing protein 40	ZBTB40	2	2	2	2.5	2.5	2.5	125.49	0.0084899	1.5587	51233000	1
Zinc finger protein 451	ZNF451	2	2	2	3.1	3.1	3.1	119.33	0.0081625	1.6003	51049000	0
CUE domain-containing protein 2	CUEDC2	2	2	2	19.2	19.2	19.2	32.009	0.0029851	1.8981	51040000	6
DNA polymerase epsilon subunit 4	POLE4	2	2	2	26.5	26.5	26.5	12.209	0	12.029	50751000	7
Aryl hydrocarbon receptor nuclear translocator	ARNT	1	1	1	26	26	26	5.4322	0	4.1793	50740000	4
Paralemmin-3	PALM3	3	3	3	7.7	7.7	7.7	71.695	0	15.818	50684000	7
Ras-related protein Rab-6A	RAB6A	5	1	1	30.8	10.6	10.6	23.593	0	3.8487	50494000	12
AT-rich interactive domain-containing protein 1B	ARID1B	3	2	2	3.4	2.1	2.1	161.54	0.0058845	1.7307	50303000	1
Importin-13	IPO13	2	2	2	2.4	2.4	2.4	108.18	0	4.6906	50292000	4
Phospholipid-transporting ATPase;Probable phospholipid-transporting ATPase IIA;Probable phospholipid-transporting ATPase IIB	ATP9A;hMMR1;ATP9B	2	2	2	2.5	2.5	2.5	100.27	0.002284	2.2119	49928000	5
Inhibitor of nuclear factor kappa-B kinase subunit beta	IKBKB	3	3	3	19.2	19.2	19.2	42.728	0	10.553	49877000	21
Coiled-coil and C2 domain-containing protein 1B	CC2D1B	3	3	3	13.9	13.9	13.9	69.548	0	26.072	49820000	6
TAF6-like RNA polymerase II p300/CBP-associated factor-associated factor 65 kDa subunit 6L	TAF6L	3	3	3	9.6	9.6	9.6	67.741	0.0013595	2.4624	49786000	1
Hyccin	FAM126A	2	2	2	9.4	9.4	9.4	45.457	0	5.4995	49742000	6
Activating signal cointegrator 1	TRIP4	2	2	2	8.6	8.6	8.6	66.145	0	5.3374	49660000	3
Talin-2	TLN2	7	2	2	9.1	5.1	5.1	154.73	0	15.878	49599000	17
Chitobiosyldiphosphodolichol beta-mannosyltransferase;Putative glycosyltransferase ALG1-like	ALG1;ALG1L	2	2	2	7.1	7.1	7.1	52.518	0	5.0258	49492000	14
Sterol O-acyltransferase 1;O-acyltransferase	SOAT1	2	2	2	13.5	13.5	13.5	29.892	0	4.1341	49372000	5
WASH complex subunit 7	KIAA1033	3	3	3	4.5	4.5	4.5	136.51	0	9.6305	49321000	7
Actin-related protein 2/3 complex subunit 5;Actin-related protein 2/3 complex subunit 5-like protein	ARPC5L	4	4	3	41.8	41.8	36.6	16.941	0	10.832	49319000	3
		2	2	2	3.8	3.8	3.8	78.445	0.0026341	2.0327	49293000	2
Cyclin-dependent kinase inhibitor 1B	p27 kip1;CDKN1B	1	1	1	12.2	12.2	12.2	16.274	0	3.0592	49115000	2
Alpha-crystallin B chain	CRYAB;HEL-S-101	1	1	1	24.5	24.5	24.5	11.735	0	5.6593	48848000	6
Arf-GAP with coiled-coil, ANK repeat and PH domain-containing protein 2	ACAP2	1	1	1	5.7	5.7	5.7	25.607	0	4.6412	48839000	4
MOB kinase activator 3A	MOB3A	1	1	1	11.5	11.5	11.5	25.464	0	10.718	48747000	7
Protocadherin-10	PCDH10	1	1	1	1.7	1.7	1.7	106.56	0	7.4854	48738000	4
Ubiquitin carboxyl-terminal hydrolase 33;Ubiquitinyl hydrolase 1	USP33	2	2	2	5.3	5.3	5.3	106.73	0	4.5457	48686000	3
Bromodomain-containing protein 9	BRD9	1	1	1	4.5	4.5	4.5	66.999	0	6.8987	48633000	3
Nucleolar pre-ribosomal-associated protein 1	URB1	4	4	4	3	3	3	254.39	0	3.3937	48349000	4
Rab GTPase-activating protein 1-like	RABGAP1L;TBC1D18	1	1	1	9	9	9	27.091	0	5.0151	48241000	6
	CLASP1	16	1	1	17.9	1.5	1.5	162.76	0	4.0946	48237000	15

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NKG2D ligand 2;Retinoic acid early transcript 1L protein;Retinoic acid early transcript 1G protein	RAET1L;RAET1G;RAET1H;ULBP2	1	1	1	12.6	12.6	12.6	9.9203	0.0017308	2.3475	48212000	4
WD repeat-containing protein 41	WDR41	2	2	2	8.3	8.3	8.3	51.727	0	12.105	48149000	6
Major centromere autoantigen B	CENPB	2	2	2	4	4	4	65.171	0.0026445	2.11	47976000	0
	KRT1	8	1	0	15.5	1.9	0	66.065	0	3.3726	47898000	4
Leucine-rich repeat-containing protein 16A	LRRC16A	2	2	2	1.4	1.4	1.4	147.09	0.0062443	1.7055	47846000	2
Protein EFR3 homolog B	EFR3B	1	1	1	2	2	2	92.486	0.0062408	1.703	47685000	0
Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit beta isoform	PIK3CB	1	1	1	1.4	1.4	1.4	122.76	0	16.435	47650000	6
Cell cycle checkpoint protein RAD1	hCG_37731;RAD1	1	1	1	3.2	3.2	3.2	31.827	0.0081759	1.6131	47598000	4
Synaptosomal-associated protein 47	SNAP47	1	1	1	6.2	6.2	6.2	47.298	0	8	47457000	2
ZW10 interactor	ZWINT	2	2	2	29.9	29.9	29.9	18.224	0	20.674	47324000	4
PHD and RING finger domain-containing protein 1	PHRF1;KIAA1542	4	4	4	3.3	3.3	3.3	178.22	0	5.4296	47302000	1
Histone acetyltransferase p300	EP300	4	2	2	4	2.9	2.9	264.16	0	4.6421	47200000	11
15 kDa selenoprotein	15-Sep	1	1	1	18.2	18.2	18.2	10.186	0.0083288	1.585	47180000	0
Protein KHNYN	KIAA0323;KHNYN	3	3	3	6.5	6.5	6.5	74.373	0	7.7339	46622000	14
INO80 complex subunit B	INO80B;INO80B-WBP1	2	2	2	7.8	7.8	7.8	40.126	0.0084976	1.5706	46596000	1
E3 ubiquitin-protein ligase RNF13	RNF13	1	1	1	14.7	14.7	14.7	17.929	0.002637	2.0537	46490000	4
Protein FAM134C	FAM134C	1	1	1	8.4	8.4	8.4	40.779	0	3.9191	46096000	11
Mismatch repair endonuclease PMS2	PMS2	2	2	2	4.5	4.5	4.5	81.331	0.0078453	1.646	45965000	4
DNA polymerase subunit gamma-2, mitochondrial	POLG2	2	2	2	5.6	5.6	5.6	54.94	0.0089799	1.5005	45889000	1
Endoplasmic reticulum aminopeptidase 2	ERAP2	1	1	1	4	4	4	79.731	0	8.7852	45320000	2
Protein FAM122B	SPACIA2;FAM122B	1	1	1	6.6	6.6	6.6	27.209	0	5.0076	45317000	4
Cyclin-C	CCNC	1	1	1	14.9	14.9	14.9	13.311	0	4.611	45313000	5
Uncharacterized protein C11orf84	C11orf84	1	1	1	5.2	5.2	5.2	41.036	0.0085022	1.5718	45261000	1
Bone morphogenetic protein 2	BMP2	1	1	1	11.4	11.4	11.4	12.905	0.0094575	1.4482	45207000	0
		5	1	1	47.3	5.9	5.9	19.405	0.0001999	2.9414	45188000	10
Neuropilin-1	NRP1;DKFZp781F1414	1	1	1	3.1	3.1	3.1	81.989	0	3.8097	45122000	2
E3 ubiquitin-protein ligase TRIM11	TRIM11	2	2	2	8.5	8.5	8.5	38.71	0.0019088	2.2454	44901000	1
Uncharacterized protein C17orf62	C17orf62	1	1	1	50.8	50.8	50.8	6.6844	0	4.8303	44788000	21
Syntaxin-2	STX2	1	1	1	4.9	4.9	4.9	33.341	0	4.819	44781000	6
Centrosomal protein of 135 kDa	CEP135	3	3	3	5.3	5.3	5.3	133.49	0.0088145	1.5213	44758000	3
Cx9C motif-containing protein 4	CMC4	1	1	1	16.2	16.2	16.2	7.7469	0	4.3396	44494000	6
FERM, RhoGEF and pleckstrin domain-containing protein 2	FARP2	3	3	3	6	6	6	119.89	0	9.0772	44328000	3
Metalloproteinase inhibitor 2	TIMP2	1	1	1	8.4	8.4	8.4	20.195	0	6.5485	43997000	2
Diphthamide biosynthesis protein 2	DPH2	2	2	2	41	41	41	10.705	0	5.5161	43978000	16
Transcriptional adapter 3	TADA3L;TADA3	3	3	3	14.6	14.6	14.6	41.392	0	4.1987	43966000	4
Transmembrane protein 245	TMEM245	2	2	2	24.1	24.1	24.1	28.096	0.0013582	2.4543	43947000	7
Cytochrome P450 2S1	CYP2S1	3	3	3	6.9	6.9	6.9	55.816	0.0001985	2.8283	43916000	5
Ankyrin repeat domain-containing protein 40	ANKRD40	2	2	2	9.2	9.2	9.2	41.088	0	4.2398	43866000	2
Inactive serine/threonine-protein kinase VRK3	VRK3	2	2	2	7.7	7.7	7.7	40.524	0	4.3675	43859000	4
UPF0693 protein C10orf32	C10orf32-ASMT;C10orf32	1	1	1	12.3	12.3	12.3	11.695	0.0002	2.969	43684000	2
Anoctamin;Anoctamin-6	ANO6	1	1	1	6.2	6.2	6.2	41.97	0	5.297	43402000	3
Cyclin-dependent kinase 6	CDK6	4	3	3	16.9	14.4	14.4	36.938	0	6.1073	43382000	3
Acyl-coenzyme A thioesterase 8	ACOT8;PTE1	1	1	1	7.7	7.7	7.7	23.333	0	5.0372	43302000	2

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Tetratricopeptide repeat protein 39A	TTC39A	2	2	2	6	6	6	63.18	0.0024668	2.1863	43242000	2
Protein arginine N-methyltransferase 6	PRMT6	2	2	2	5.9	5.9	5.9	41.937	0	59.877	42958000	11
Citrate lyase subunit beta-like protein, mitochondrial	CLYBL	2	2	2	9.7	9.7	9.7	37.345	0	4.749	42913000	3
G2/mitotic-specific cyclin-B2	CCNB2V;CCNB2	1	1	1	3.5	3.5	3.5	42.651	0	3.8438	42913000	2
Zinc finger protein 219	ZNF219	1	1	1	4.2	4.2	4.2	76.849	0	5.9979	42795000	22
Bifunctional lysine-specific demethylase and histidyl-hydroxylase MINA	MINA	3	3	3	11.8	11.8	11.8	52.8	0	5.7688	42658000	5
	QARS	23	1	1	38.2	1.4	1.4	83.782	0.0067778	1.6795	42647000	5
Transmembrane protein 194A	TMEM194A	2	2	2	4.5	4.5	4.5	50.639	0.004797	1.7759	42451000	2
Protein misato homolog 1	MSTO1	1	1	1	3.9	3.9	3.9	34.329	0.0026346	2.036	42385000	2
Activating molecule in BECN1-regulated autophagy protein 1	AMBRA1	1	1	1	8.6	8.6	8.6	26.758	0	12.971	42370000	4
Actin-binding LIM protein 1	ABLIM1	2	2	2	7.2	7.2	7.2	46.07	0	5.3393	42295000	2
Glucoside xylosyltransferase 1	GXYLT1	2	2	2	6.4	6.4	6.4	50.566	0.0022866	2.2246	42278000	3
Myotubularin-related protein 6	MTMR6	1	1	1	1.9	1.9	1.9	71.967	0.0042585	1.8151	42058000	6
Neuromodulin	GAP43	2	2	2	18.9	18.9	18.9	24.802	0	5.483	42008000	15
		6	1	1	60.1	12.9	12.9	43.648	0.0024673	2.1863	41941000	2
N-alpha-acetyltransferase 16, NatA auxiliary subunit	NAA16;NARG1L	4	2	2	5.2	2.9	2.9	101.46	0	5.5362	41911000	2
Vacuolar protein sorting-associated protein 33A	VPS33A	3	3	3	9.2	9.2	9.2	67.629	0	8.8532	41822000	6
Homeobox protein Hox-D11	HOXD11	1	1	1	13.2	13.2	13.2	17.925	0	126.7	41746000	6
MAX gene-associated protein	MGA	4	4	4	2.3	2.3	2.3	315.13	0	16.322	41525000	8
Endothelin-converting enzyme 1	ECE1	1	1	1	2.4	2.4	2.4	83.573	0	7.4346	41499000	4
Calcium signal-modulating cyclophilin ligand	CAMLG	1	1	1	7.4	7.4	7.4	32.952	0	15.265	41442000	3
Hippocalcin-like protein 1	HPCAL1	3	3	1	18.1	18.1	7.8	22.313	0.0019146	2.2929	41394000	3
Putative coiled-coil domain-containing protein 144C;Coiled-coil domain-containing protein 144A	CCDC144A;CCDC144CP	3	3	3	3	3	3	165.12	0.0099822	1.4345	41383000	1
Guanine nucleotide-binding protein subunit gamma;Guanine nucleotide-binding protein G(I)/G(S)/G(O) subunit gamma-10	hCG_1992840;hCG_1994888;GNG10	1	1	1	26.5	26.5	26.5	7.1622	0	14.419	41338000	5
PDZ and LIM domain protein 7	PDLIM7	3	3	3	13.3	13.3	13.3	49.844	0	15.178	41177000	2
Cytoplasmic dynein 2 light intermediate chain 1	DYNC2LI1	1	1	1	20.8	20.8	20.8	7.9389	0.0015465	2.4085	40983000	1
Uncharacterized protein C6orf47	C6orf47	1	1	1	7.1	7.1	7.1	31.71	0.0015447	2.4009	40871000	1
Single-stranded DNA-binding protein 2;Single-stranded DNA-binding protein 4;Single-stranded DNA-binding protein 3	SSBP4;SSBP2;SSBP3	2	2	2	11.4	11.4	11.4	39.572	0	8.1515	40780000	4
Ubiquitin-protein ligase E3A	UBE3A	1	1	1	7.6	7.6	7.6	26.499	0	17.053	40708000	6
PAS domain-containing serine/threonine-protein kinase	PASK	2	2	2	2.3	2.3	2.3	139.46	0	3.4328	40553000	2
Dynamin-1	DNM1	10	4	3	15.8	9.6	8.3	94.016	0	47.026	40528000	5
General transcription factor IIH subunit 2-like protein;General transcription factor IIH subunit 2	GTF2H2C;GTF2H2	1	1	1	17.6	17.6	17.6	6.196	0.0029845	1.8952	40448000	6
Beta-1-syntrophin	SNTB1	2	2	2	7.4	7.4	7.4	58.06	0	5.1755	40404000	3
SH3 and PX domain-containing protein 2B	SH3PXD2B	2	2	2	4.8	4.8	4.8	101.58	0	13.999	40154000	2
Mitochondria-eating protein	SPATA18	2	2	2	6.4	6.4	6.4	58.706	0.0096325	1.4441	40143000	3

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Leucine-rich repeat-containing protein 20	LRRC20	2	2	2	29.9	29.9	29.9	19.533	0	5.5922	40115000	25
DNA replication factor Cdt1	CDT1	1	1	1	6.1	6.1	6.1	45.568	0	15.326	40007000	4
Tumor necrosis factor receptor type 1-associated DEATH domain protein	TRADD	3	3	3	19.6	19.6	19.6	34.247	0	4.1456	39712000	3
Intraflagellar transport protein 56	TTC26	2	2	2	7.8	7.8	7.8	48.788	0.0003966	2.8074	39695000	2
Zinc finger protein 48	ZNF48;ZNF553	2	2	2	13.5	13.5	13.5	53.987	0	5.6307	39665000	14
Calcium/calmodulin-dependent protein kinase type 1D	CAMK1D	4	1	1	21	8.9	8.9	32.472	0	4.7607	39508000	0
Transcription factor GATA-6	GATA6	2	2	2	9.1	9.1	9.1	60.032	0.0028132	1.9714	39272000	3
KDEL motif-containing protein 1	KDELC1	2	2	2	6.2	6.2	6.2	58.042	0.0011742	2.5844	39247000	6
PHD finger protein 21A	PHF21A	2	2	2	9.1	9.1	9.1	74.853	0.0060673	1.7274	39220000	1
Sentrin-specific protease 8	SENP8	2	2	2	17.9	17.9	17.9	24.107	0	16.302	38967000	3
Lysine-specific demethylase 6A	KDM6A;UTX;DKFZp451J023	6	6	6	7.5	7.5	7.5	157.48	0	16.011	38929000	10
	CAST	20	1	1	55.3	4.5	4.5	72.798	0	6.2908	38897000	5
Coiled-coil domain-containing protein 50	CCDC50	2	2	2	9.8	9.8	9.8	35.822	0	17.585	38783000	4
Cyclin-T2	CCNT2	1	1	1	6.9	6.9	6.9	19.836	0.0013605	2.4788	38719000	2
AT-rich interactive domain-containing protein 3B	ARID3B	2	2	2	6.8	6.8	6.8	48.415	0	4.64	38654000	3
Histone-lysine N-methyltransferase 2A;MLL cleavage product N320;MLL cleavage product C180	KMT2A	5	4	4	2.5	2.2	2.2	431.76	0	11.803	38407000	9
Centrosomal protein of 131 kDa	CEP131;AZI1	1	1	1	7.8	7.8	7.8	23.959	0.0057059	1.7448	38351000	0
Trophoblast glycoprotein	TPBG	1	1	1	2.4	2.4	2.4	46.031	0.0081714	1.6102	38340000	4
Transcription elongation factor A protein-like 3;Transcription elongation factor A protein-like 6;Transcription elongation factor A protein-like 5	TCEAL6;TCEAL3;TCEAL5	1	1	1	8.7	8.7	8.7	20.345	0	8.7177	38310000	6
Signal transducer and activator of transcription 2;Signal transducer and activator of transcription	STAT2	2	2	2	4.5	4.5	4.5	97.915	0.0084991	1.5707	38306000	0
Baculoviral IAP repeat-containing protein 5	BIRC5	1	1	1	14.2	14.2	14.2	13.757	0.002638	2.0656	38257000	1
Mediator of RNA polymerase II transcription subunit 12	TNRC11;MED12	3	3	3	2.2	2.2	2.2	222.43	0	4.0432	38238000	0
Serine/threonine-protein kinase ULK3	ULK3;hCG_40815	1	1	1	26.8	26.8	26.8	4.4731	0.0026321	2.0216	38136000	2
OTU domain-containing protein 7B	OTUD7B	3	3	3	8.4	8.4	8.4	92.525	0	4.496	38098000	7
Non-canonical poly(A) RNA polymerase PAPD5	PAPD5	1	1	1	5.9	5.9	5.9	29.654	0.005708	1.7454	38016000	2
Meteorin-like protein	METRNL	2	2	2	9.3	9.3	9.3	34.398	0.0022848	2.2216	37947000	3
G-protein coupled receptor family C group 5 member C	GPRC5C	2	2	2	6.8	6.8	6.8	49.388	0.0047997	1.7779	37941000	3
Iron-sulfur protein NUBPL	NUBPL	2	2	2	16.1	16.1	16.1	24.415	0	57.873	37836000	4
Integral membrane protein 2B;BRI2, membrane form;BRI2 intracellular domain;BRI2C, soluble form;Bri23 peptide	ITM2B	1	1	1	10.9	10.9	10.9	30.312	0.0001994	2.9072	37739000	1
Matrix metalloproteinase-15	MMP15	2	2	2	6.4	6.4	6.4	64.463	0.0060639	1.7164	37711000	5
Protein LAP2	ERBB2IP;HEL-S-78	3	3	3	3.8	3.8	3.8	158.3	0.0084838	1.5525	37704000	2
Receptor protein-tyrosine kinase;Ephrin type-B receptor 2	EPHB2;EPHB2 variant protein	2	2	2	3.6	3.6	3.6	103.51	0.0001989	2.8685	37694000	0
Prolyl 3-hydroxylase 3	LEPREL2	1	1	1	2.2	2.2	2.2	66.738	0.0067728	1.6777	37620000	1
Breast cancer metastasis-suppressor 1-like protein	BRMS1L	2	2	2	14.9	14.9	14.9	24.974	0	8.0625	37550000	5
Coiled-coil-helix-coiled-coil-helix domain-containing protein 10, mitochondrial	CHCHD10	1	1	1	15.4	15.4	15.4	14.932	0.0013603	2.4639	37424000	4

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Cytosolic Fe-S cluster assembly factor NARFL	NARFL	1	1	1	8.8	8.8	8.8	41.951	0	20.61	37413000	2
General transcription factor IIH subunit 1	GTF2H1	3	3	3	39.8	39.8	39.8	20.404	0	56.482	37294000	7
TGF-beta-activated kinase 1 and MAP3K7-binding protein 2	TAB2	1	1	1	6.6	6.6	6.6	45.531	0	3.1346	37026000	2
Mitogen-activated protein kinase kinase kinase kinase;Mitogen-activated protein kinase kinase kinase kinase 5	MAP4K5	1	1	1	2.5	2.5	2.5	58.444	0.0002006	3.0205	37021000	4
LIM and calponin homology domains-containing protein 1	LIMCH1	3	3	3	6.1	6.1	6.1	85.421	0	5.1101	36993000	2
Paraneoplastic antigen Ma2	PNMA2	2	2	2	9.9	9.9	9.9	41.44	0	5.6299	36667000	9
Lysosomal acid phosphatase	ACP2	2	2	2	6.9	6.9	6.9	40.99	0.0019109	2.264	36665000	3
MLN64 N-terminal domain homolog	STARD3NL	1	1	1	5.3	5.3	5.3	23.505	0.0033526	1.8762	36637000	2
PDZ domain-containing protein GIPC3	GIPC3	2	2	2	3.1	3.1	3.1	143.19	0	5.363	36469000	2
Oxysterol-binding protein-related protein 6	OSBPL6	3	3	3	4.5	4.5	4.5	106.3	0.0082012	1.6347	36462000	2
Protein lin-37 homolog	LIN37	2	2	2	17.1	17.1	17.1	28.383	0	7.1895	36455000	5
Receptor-binding cancer antigen expressed on SiSo cells	EBAG9;RCAS1	1	1	1	24.4	24.4	24.4	8.7359	0	33.858	36453000	6
Tetratricopeptide repeat protein 33	TTC33	2	2	2	17.9	17.9	17.9	29.411	0	10.814	36083000	4
NEDD8-conjugating enzyme UBE2F	UBE2F;UBE2F-SCLY	2	2	2	15.8	15.8	15.8	19.251	0.002639	2.0688	35951000	0
Tyrosine-protein kinase;Tyrosine-protein kinase Fer;Non-specific protein-tyrosine kinase	Pe1Fe3;FER;Pe1Fe6	4	2	2	6.9	4	4	94.637	0.0053456	1.7613	35887000	4
Zinc finger protein 148	ZNF148	3	3	3	8.8	8.8	8.8	88.987	0	17.103	35785000	12
3-5 exoribonuclease 1	ERI1;THEX1	1	1	1	15.2	15.2	15.2	10.993	0	3.5565	35780000	0
Alpha-aminoadipic semialdehyde synthase, mitochondrial;Lysine ketoglutarate reductase;Saccharopine dehydrogenase	AASS	1	1	1	4.6	4.6	4.6	45.2	0.002652	2.1598	35674000	1
Cyclin-D1-binding protein 1	CCNDBP1	1	1	1	21	21	21	7.0831	0	8.1516	35673000	4
Protein ITFG3	ITFG3	1	1	1	6.8	6.8	6.8	20.934	0.0044354	1.7906	35663000	2
FUN14 domain-containing protein 1	FUNDC1	2	2	2	18.7	18.7	18.7	17.177	0	3.9033	35396000	11
Integrin beta;Integrin beta-5	ITGB5	2	2	2	10.5	10.5	10.5	35.445	0	9.3118	35380000	2
TBC1 domain family member 22A	TBC1D22A	1	1	1	12.2	12.2	12.2	25.766	0	3.2881	35352000	4
	PUM1	6	1	1	7.7	1.4	1.4	126.76	0	3.104	35271000	4
Protein kinase C zeta type	PRKCZ	2	2	2	8.9	8.9	8.9	47.487	0	4.7292	35221000	16
Zinc finger protein 362	ZNF362	2	1	1	8.1	5.7	5.7	45.814	0.008805	1.5084	35216000	5
Centrosomal protein of 170 kDa protein B	CEP170B	3	2	2	3.1	2.5	2.5	171.76	0	4.7286	35156000	2
Solute carrier family 12 member 9	SLC12A9;FLJ00059;FLJ00009;FLJ00100;FLJ00010	1	1	1	4.3	4.3	4.3	47.454	0.0031687	1.8884	35141000	4
Transmembrane protein 177	MGC10993;TMEM177	2	2	2	6.4	6.4	6.4	33.732	0.0019077	2.2406	35129000	3
Vesicle transport through interaction with t-SNAREs homolog 1B	VTI1B	1	1	1	19.4	19.4	19.4	11.641	0	12.813	34940000	2
CDKN2AIP N-terminal-like protein	CDKN2AIPNL	1	1	1	16.4	16.4	16.4	13.196	0	4.7972	34818000	9
Uncharacterized protein C2orf47, mitochondrial	FLJ22555;C2orf47	1	1	1	4.8	4.8	4.8	32.544	0.0069394	1.6554	34801000	0
GDNF family receptor alpha-1	GFRA1	1	1	1	5.2	5.2	5.2	37.713	0.0028027	1.9152	34666000	1
Paraplegin	SPG7	2	2	2	6.9	6.9	6.9	88.234	0	8.7208	34611000	3
Homeobox protein Hox-A10	HOXA10	1	1	1	3.2	3.2	3.2	42.414	0.0009821	2.6416	34480000	4
Tight junction protein ZO-1	DKFZp686M05161;TJP1;DKFZp686A1195	2	2	2	2.4	2.4	2.4	142.57	0.002635	2.0367	34444000	0
Thymosin beta-15B;Thymosin beta-15A	TMSB15B;TMSB15A	1	1	1	28.9	28.9	28.9	5.2288	0	28.074	34367000	1

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Ras-related protein R-Ras	RRAS	2	1	1	12.8	5.5	5.5	23.48	0.0005922	2.7411	34324000	4
Histone-lysine N-methyltransferase 2D	KMT2D	3	3	3	1	1	1	593.38	0	3.4239	34260000	2
Multiple PDZ domain protein	MPDZ	2	2	2	8.5	8.5	8.5	63.814	0.0028069	1.9323	34122000	4
Methyltransferase-like protein 13	feat;METTL13	2	2	2	11.3	11.3	11.3	39.145	0	5.3178	34067000	4
Ubiquitin-associated domain-containing protein 2	PHGDHL1;UBAC2	1	1	1	16.4	16.4	16.4	12.698	0	3.0281	34051000	2
Protein UXT	UXT	2	2	2	15.3	15.3	15.3	18.246	0	7.6435	34036000	4
Lysosomal amino acid transporter 1 homolog	PQLC2	1	1	1	5.8	5.8	5.8	24.848	0.0037175	1.858	33954000	2
Smith-Magenis syndrome chromosomal region candidate gene 8 protein	SMCR8	2	2	2	5	5	5	75.31	0.0086596	1.5483	33930000	0
Hepatoma-derived growth factor-related protein 3	HDGFRP3	1	1	1	11.3	11.3	11.3	15.508	0.0020972	2.2335	33778000	2
ADP-ribosylation factor-like protein 6	ARL6	2	2	2	17.2	17.2	17.2	21.097	0	27.485	33504000	6
STAGA complex 65 subunit gamma	SUPT7L	1	1	1	9.4	9.4	9.4	46.192	0	5.2657	33410000	14
Coiled-coil domain-containing protein 28A	CCDC28A	2	2	2	21	21	21	17.92	0.0017354	2.3844	33259000	3
Homeobox protein Hox-D13	HOXD13	3	3	3	15.5	15.5	15.5	36.101	0	8.797	33097000	5
Trafficking protein particle complex subunit 10	TRAPPC10	1	1	1	1.2	1.2	1.2	142.19	0	4.4579	33070000	0
	TSC22D3	3	2	2	24.6	19.6	19.6	19.697	0	4.4638	33003000	1
Carboxyl-terminal PDZ ligand of neuronal nitric oxide synthase protein	NOS1AP	2	2	2	8.6	8.6	8.6	38.838	0	18.844	32887000	5
NF-X1-type zinc finger protein NFXL1	URCC5;NFXL1	2	2	2	6.6	6.6	6.6	101.31	0	7.6092	32757000	26
Major facilitator superfamily domain-containing protein 10	MFSD10	1	1	1	3.7	3.7	3.7	38.247	0	4.0822	32528000	6
Sulfurtransferase		6	1	1	26.8	4.5	4.5	34.751	0.0088114	1.5163	32411000	0
Kelch-like protein 26	KLHL26	2	2	2	5.2	5.2	5.2	68.139	0	8.0722	32356000	3
BRCA1-associated ATM activator 1	BRAT1	4	4	3	11.8	11.8	8.3	88.118	0	18.398	32355000	13
Transforming growth factor-beta receptor-associated protein 1	TGFBRAP1	2	2	2	3.1	3.1	3.1	97.157	0.001919	2.3279	32306000	2
C-X-C motif chemokine 16	CXCL16	1	1	1	5.5	5.5	5.5	27.578	0.0003968	2.8109	32252000	2
Lon protease homolog 2, peroxisomal	LONP2	2	2	2	7.1	7.1	7.1	68.054	0	6.7035	32190000	6
Condensin-2 complex subunit G2	NCAPG2	3	3	3	6.7	6.7	6.7	67.77	0	4.8006	32053000	5
Ran-binding protein 3	RANBP3	8	1	1	30.3	5.8	5.8	60.209	0	107.65	31872000	2
cAMP-dependent protein kinase catalytic subunit beta	PRKACB	5	1	1	15.4	4.8	4.8	40.622	0.0031693	1.891	31854000	0
Hermansky-Pudlak syndrome 6 protein	HPS6	2	2	2	6.1	6.1	6.1	82.974	0	3.9066	31769000	3
RNA-binding protein 47	FLJ20273;RBM47	3	3	3	14.5	14.5	14.5	56.887	0	30.869	31709000	10
Max-like protein X	MLX	2	2	2	10.5	10.5	10.5	27.977	0	3.7754	31702000	4
Checkpoint protein HUS1	HUS1	2	2	2	12.9	12.9	12.9	31.691	0	3.8935	31616000	1
CDK2-associated and cullin domain-containing protein 1	CACUL1	1	1	1	5.1	5.1	5.1	41.063	0	3.6551	31534000	4
HAUS augmin-like complex subunit 3	HAUS3	2	2	2	3.2	3.2	3.2	69.65	0.0083364	1.5935	31450000	2
Zinc finger and SCAN domain-containing protein 18	ZSCAN18;ZNF447	2	2	2	5.3	5.3	5.3	54.803	0	3.8257	31419000	2
Pogo transposable element with KRAB domain	POGK	2	2	2	3.7	3.7	3.7	55.732	0.0011728	2.5669	31344000	0
Protein salvador homolog 1	SAV1	1	1	1	6.6	6.6	6.6	40.85	0.0002004	3.0064	31225000	2
D-2-hydroxyglutarate dehydrogenase, mitochondrial	D2HGDH	2	2	2	10.3	10.3	10.3	34.474	0	3.7546	31159000	6
Acetyl-coenzyme A synthetase;Acetyl-coenzyme A synthetase, cytoplasmic	ACSS2;DKFZp762G026	1	1	1	4.4	4.4	4.4	45.545	0	7.7504	31023000	0

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Kinetochore protein NDC80 homolog	NDC80;KNTC2	2	2	2	5.7	5.7	5.7	60.307	0	6.3794	31009000	14
Dipeptidyl peptidase 9	DPP9	2	2	2	4.2	4.2	4.2	59.069	0	3.3524	30861000	2
Probable ATP-dependent RNA helicase DDX59	DDX59	1	1	1	8.8	8.8	8.8	17.605	0.0024696	2.1881	30696000	0
Ankyrin repeat and BTB/POZ domain-containing protein BTBD11	BTBD11	2	2	2	5.2	5.2	5.2	120.88	0	22.995	30600000	11
E3 ubiquitin-protein ligase NEDD4-like	NEDD4L	3	3	3	12.8	12.8	12.8	74.193	0	17.202	30418000	6
Serine/threonine-protein kinase B-raf	BRAF	5	1	1	11.3	5.9	5.9	84.578	0	15.025	30409000	19
		9	1	1	26	6.3	6.3	52.981	0	9.7232	30229000	2
F-BAR domain only protein 2	FCHO2	2	2	2	8.6	8.6	8.6	88.923	0	9.776	30123000	16
Ena/VASP-like protein	EVL	1	1	1	9	9	9	22.056	0.0017294	2.3405	30087000	2
Receptor-type tyrosine-protein phosphatase;Receptor-type tyrosine-protein phosphatase alpha	PTPRA	1	1	1	4	4	4	74.556	0.0013592	2.4602	30086000	2
		9	1	1	36.7	3.5	3.5	47.838	0	4.8338	30058000	3
Claudin;Claudin-12	CLDN12	1	1	1	6.1	6.1	6.1	27.094	0	3.1137	29957000	2
Transmembrane protein 68	TMEM68	1	1	1	23.1	23.1	23.1	10.664	0.0026311	2.0119	29908000	4
	SH3BP1	9	1	0	20.7	2.1	0	73.599	0.0037209	1.866	29884000	0
Kinesin-like protein;Kinesin-like protein KIF17	KIF17	1	1	1	3.2	3.2	3.2	104.02	0.0069508	1.6755	29851000	5
B-cell CLL/lymphoma 9 protein	BCL9	2	2	2	2.6	2.6	2.6	149.3	0.0031699	1.893	29756000	4
Multidrug resistance-associated protein 1	DKFZp781G125;ABCC1; MRP	2	2	2	4.5	4.5	4.5	134.93	0.0011739	2.5825	29641000	3
Kinase suppressor of Ras 1	KSR1	1	1	1	2.3	2.3	2.3	103.09	0	44.532	29613000	5
Calmodulin-regulated spectrin-associated protein 1	CAMSAP1	4	4	4	7.5	7.5	7.5	163.26	0	24.497	29395000	13
Filamin-interacting protein FAM101B	FAM101B	1	1	1	6.1	6.1	6.1	22.882	0.0072993	1.6492	29390000	0
Spindle assembly abnormal protein 6 homolog	SASS6	2	2	2	6.3	6.3	6.3	55.25	0	4.4474	29358000	0
Sorting nexin-8	SNX8	2	2	2	7.3	7.3	7.3	52.597	0	3.2936	29114000	1
Pumilio domain-containing protein KIAA0020	KIAA0020	1	1	1	2.8	2.8	2.8	57.432	0.0001994	2.9042	29093000	1
Ribonuclease P protein subunit p14	RPP14	1	1	1	16.1	16.1	16.1	13.693	0	4.4456	29078000	16
Steroid hormone receptor ERR1	ESRRA	2	2	2	10.6	10.6	10.6	45.509	0	3.066	28666000	7
Calpain-7	CAPN7	1	1	1	2.1	2.1	2.1	92.623	0	4.9306	28559000	4
Histone-lysine N-methyltransferase SETDB1	SETDB1	2	2	2	2.5	2.5	2.5	139.39	0	3.5451	28345000	2
Serine/arginine-rich splicing factor 4	SRSF4;SFRS4	5	2	2	14	6.6	6.6	43.647	0	4.6154	28323000	2
Unhealthy ribosome biogenesis protein 2 homolog	URB2	2	2	2	3.8	3.8	3.8	107.32	0.009466	1.4533	28193000	1
Myb-related protein B	MYBL2	3	3	3	9.6	9.6	9.6	78.763	0	4.3931	28125000	2
Homeobox protein PKNOX1	PKNOX1	1	1	1	7.8	7.8	7.8	34.519	0	10.676	28074000	2
Dachshund homolog 1	DACH1	1	1	1	2.8	2.8	2.8	51.891	0.0057101	1.7485	27831000	0
RalBP1-associated Eps domain-containing protein 2	REPS2;REPS1	2	1	1	4.2	2.7	2.7	71.533	0	7.4305	27803000	4
	SF1	1	1	1	15.3	15.3	15.3	11.695	0	6.9806	27750000	2
MKL/myocardin-like protein 1	MKL1;mkl1	2	2	2	7.5	7.5	7.5	85.075	0	6.8814	27626000	19
E3 ubiquitin-protein ligase Itchy homolog	ITCH	4	4	3	5.6	5.6	4	102.8	0	5.8565	27417000	1
Mucosa-associated lymphoid tissue lymphoma translocation protein 1	MALT1	1	1	1	2.2	2.2	2.2	92.243	0	7.4267	27413000	3
E3 ubiquitin-protein ligase RNF123	hCG_20123;RNF123	3	3	3	4.5	4.5	4.5	148.46	0.0024687	2.1873	27357000	2
Probable ATP-dependent RNA helicase DHX34	DHX34	2	2	2	3.9	3.9	3.9	128.12	0	3.8402	27247000	10
Stimulator of interferon genes protein	TMEM173	2	2	2	11.6	11.6	11.6	42.211	0.0002002	2.9785	27175000	1

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EGF-containing fibulin-like extracellular matrix protein 1	EFEMP1	2	2	2	15.4	15.4	15.4	31.646	0	23.839	27047000	3
GMP reductase 1	GMPR	2	2	2	12.5	12.5	12.5	37.418	0	16.821	26987000	5
Cellular tumor antigen p53	TP53	6	1	1	30.8	7.4	7.4	43.754	0.00426	1.8203	26954000	1
	ACTG1	10	1	1	74.4	7.5	7.5	14.522	0.0024691	2.1875	26942000	0
Activating signal cointegrator 1 complex subunit 1	ASCC1	1	1	1	11.5	11.5	11.5	16.487	0	13.121	26789000	2
Proline-rich protein 11	PRR11	1	1	1	10.1	10.1	10.1	22.389	0	3.6878	26757000	7
Putative RNA polymerase II subunit B1 CTD phosphatase RPAP2	RPAP2	1	1	1	3.8	3.8	3.8	69.508	0.0069483	1.6705	26699000	0
COMM domain-containing protein 4	COMMD4	2	2	2	22.6	22.6	22.6	19.382	0	7.4429	26680000	3
Zinc finger protein 800	ZNF800	2	2	2	6.3	6.3	6.3	75.235	0.0042593	1.82	26668000	0
F-box/LRR-repeat protein 12	FBXL12	1	1	1	5.5	5.5	5.5	37.026	0.0088129	1.5186	26501000	2
Overexpressed in colon carcinoma 1 protein	C12orf75;OCC1	1	1	1	24.7	24.7	24.7	9.3362	0	3.1086	26395000	1
Leptin receptor gene-related protein	LEPROT	1	1	1	9.3	9.3	9.3	15.428	0	3.4831	26307000	4
Dynein light chain 1, axonemal	DNAL1	3	3	3	24.2	24.2	24.2	21.533	0	3.0507	26262000	1
LIM domain-containing protein 1	LIMD1	1	1	1	3.9	3.9	3.9	65.534	0	3.1977	26193000	4
Cingulin	CGN	2	2	2	2.2	2.2	2.2	137.1	0.0007873	2.6819	26164000	3
Zinc finger protein 746	ZNF746	3	3	3	14.1	14.1	14.1	69.135	0	9.5098	25895000	8
Beta-galactosidase;Beta-galactosidase-1-like protein 2	LOC89944;GLB1L2	2	2	2	13.4	13.4	13.4	34.587	0	32.491	25680000	17
TIMELESS-interacting protein	TIPIN	1	1	1	5.5	5.5	5.5	23.298	0.0013645	2.5246	25578000	2
Phosphatidate cytidylyltransferase;Phosphatidate cytidylyltransferase 1	CDS1	2	2	2	11.3	11.3	11.3	53.303	0	12.123	25520000	11
Costars family protein ABRACL	ABRACL	2	2	2	45.7	45.7	45.7	9.0564	0	3.8682	25498000	10
Kinesin-like protein KIF20B;Kinesin-like protein	KIF20B;MPHOSPH1	3	3	3	2.1	2.1	2.1	210.63	0.0042648	1.8314	25456000	0
Protein KRBA1	KRBA1;KIAA1862	1	1	1	25.2	25.2	25.2	10.729	0	5.7447	25333000	9
F-box/LRR-repeat protein 3	FBXL3	2	2	2	12.4	12.4	12.4	26.78	0	8.6903	25298000	2
PDZ domain-containing protein 8	PDZD8	3	3	3	5.9	5.9	5.9	128.56	0	6.9261	25276000	13
Lysine-specific demethylase 2A	KDM2A	1	1	1	3.3	3.3	3.3	47.049	0	4.3259	25264000	4
Peregrin	BRPF1	1	1	1	0.8	0.8	0.8	137.5	0.0081818	1.6184	25200000	3
Septin-10	SEPT10;DKFZp547B243	3	2	2	9.3	5.1	5.1	52.145	0	13.388	25184000	4
Cystathionine gamma-lyase	CTH	1	1	1	4.2	4.2	4.2	44.508	0	7.5982	25126000	4
tRNA-dihydrouridine(47) synthase [NAD(P)(+)];tRNA-dihydrouridine(47) synthase [NAD(P)(+)]-like	DUS3L	1	1	1	8.3	8.3	8.3	23.011	0	29.678	24951000	4
UPF0547 protein C16orf87	C16orf87	1	1	1	9.1	9.1	9.1	17.799	0	4.3642	24821000	3
Pituitary homeobox 1	PITX1	1	1	1	17.5	17.5	17.5	12.445	0	34.17	24778000	8
DnaJ homolog subfamily C member 1	DNAJC1	1	1	1	13	13	13	25.058	0	14.937	24666000	2
Lysine-specific histone demethylase 1B	KDM1B	2	2	2	4.9	4.9	4.9	92.097	0	3.2579	24573000	2
Fucose mutarotase	FUOM	1	1	1	22	22	22	12.1	0.0005945	2.802	24552000	3
CDK5 regulatory subunit-associated protein 2	CDK5RAP2;DKFZp686E2242;DKFZp686D1070	2	2	2	4.4	4.4	4.4	102.32	0	3.4162	24446000	2
Pikachurin	EGFLAM	1	1	1	0.8	0.8	0.8	111.27	0.0094846	1.4731	24421000	1
	LSM14B	6	1	0	48	14.9	0	26.715	0.0011737	2.5788	24361000	2
Sulfite oxidase, mitochondrial	SUOX	2	2	2	10.7	10.7	10.7	53.884	0	4.9328	24325000	17
Forkhead box protein O1	FOXO1	1	1	1	4.9	4.9	4.9	44.177	0	3.2291	24175000	2
Mitochondrial calcium uniporter regulator 1	MCUR1	2	2	2	15.3	15.3	15.3	14.512	0.0084884	1.5572	24135000	1
NTF2-related export protein 1	NXT1	1	1	1	14.3	14.3	14.3	15.847	0	4.8455	23971000	1
PAXIP1-associated glutamate-rich protein 1	PAGR1	2	2	2	22.8	22.8	22.8	27.716	0	52.145	23912000	1

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Required for meiotic nuclear division protein 1 homolog	RMND1	1	1	1	11	11	11	14.356	0.0081893	1.6251	23692000	0
TSC22 domain family protein 4	TSC22D4	2	1	1	5.8	3.5	3.5	41.026	0	5.4715	23692000	0
Serine/threonine-protein kinase VRK2	VRK2	2	2	2	5.6	5.6	5.6	45.019	0.0005929	2.759	23651000	4
Short coiled-coil protein	SCOC	1	1	1	31.7	31.7	31.7	9.3544	0	11.23	23641000	12
Pro-cathepsin H;Cathepsin H mini chain;Cathepsin H;Cathepsin H heavy chain;Cathepsin H light chain	CTSH	1	1	1	9.7	9.7	9.7	14.735	0.0031681	1.8843	23628000	0
Cell cycle checkpoint control protein RAD9A	RAD9A	2	2	2	10	10	10	42.547	0	5.7949	23564000	9
Pleckstrin homology-like domain family B member 1	PHLDB1;KIAA0638	1	1	1	3.9	3.9	3.9	77.896	0	11.951	23401000	2
Cullin-9	CUL9	2	2	2	2.5	2.5	2.5	278.13	0	3.9249	23195000	4
Ectodysplasin-A receptor-associated adapter protein	EDARADD	2	2	2	10.4	10.4	10.4	22.383	0.0019205	2.3309	23171000	2
E3 ubiquitin-protein ligase RNF170	RNF170	1	1	1	12.2	12.2	12.2	12.976	0	11.243	23153000	4
Thyroid adenoma-associated protein	GITA/3p fusion;GITA/7p fusion;THADA	1	1	1	2.7	2.7	2.7	58.983	0.0088256	1.5291	23014000	2
Heterogeneous nuclear ribonucleoprotein C-like 4;Heterogeneous nuclear ribonucleoprotein C-like 1;Heterogeneous nuclear ribonucleoprotein C-like 3	HNRNPCL4;HNRNPCL1;HNRNPCL3;HNRPCL1	9	1	1	21.5	5.5	5.5	32.057	0.0009819	2.6369	22966000	3
Protein phosphatase 1 regulatory subunit 11	PPP1R11	1	1	1	11.9	11.9	11.9	13.952	0.0069406	1.6623	22930000	0
	PCBP2	8	1	0	45.5	9.3	0	33.8	0	5.8443	22878000	6
E3 ubiquitin-protein ligase XIAP	XIAP	1	1	1	2.8	2.8	2.8	56.684	0	11.092	22664000	4
RNA polymerase I-specific transcription initiation factor RRN3	RRN3	1	1	1	5.4	5.4	5.4	57.307	0.0005943	2.799	22655000	5
Integrator complex subunit 6	INTS6	2	2	2	20.1	20.1	20.1	31.983	0	3.5345	22602000	6
Nucleolysin TIA-1 isoform p40	TIA1	7	3	3	40.4	20.7	20.7	31.624	0	42.713	22567000	3
Mediator of RNA polymerase II transcription subunit 31	MED31	1	1	1	29.8	29.8	29.8	6.9859	0	20.581	22473000	7
Serine/threonine-protein phosphatase 2A 55 kDa regulatory subunit B delta isoform;Serine/threonine-protein phosphatase 2A 55 kDa regulatory subunit B	PPP2R2D	5	1	1	15.7	2.4	2.4	52.042	0.0028079	1.936	22376000	2
Suppressor of fused homolog	SUFU	2	2	2	6.2	6.2	6.2	53.946	0	3.4957	22348000	4
	IMMT	21	1	0	45.8	3.6	0	73.253	0	5.572	22295000	2
Little elongation complex subunit 1	ICE1	2	2	2	1.7	1.7	1.7	247.89	0	4.6215	22287000	15
Nucleus accumbens-associated protein 1	BTBD14B;NACC1	2	2	2	5.1	5.1	5.1	57.258	0.0028006	1.9054	22262000	2
Melatonin-related receptor	GPR50	1	1	1	2.4	2.4	2.4	67.368	0.0062362	1.6962	22122000	1
5-phosphohydroxy-L-lysine phospho-lyase	PHYKPL	1	1	1	7.1	7.1	7.1	19.481	0.0028011	1.9056	21877000	0
RNA-binding protein 3	RBM3	2	2	2	28	28	28	17.17	0	9.5918	21865000	5
Nuclear receptor-binding factor 2	NRBF2	1	1	1	9.8	9.8	9.8	32.377	0	6.1994	21819000	12
Breakpoint cluster region protein	BCR	1	1	1	3.2	3.2	3.2	96.137	0	5.9261	21758000	4
Uncharacterized protein KIAA0930	KIAA0930;C22orf9	1	1	1	8.3	8.3	8.3	32.451	0	4.5995	21747000	1
Ski oncogene	SKI	1	1	1	23.9	23.9	23.9	19.383	0.0001993	2.8969	21740000	6
CREB-regulated transcription coactivator 2	CRTC2	2	2	2	21.3	21.3	21.3	24.633	0.0005948	2.8034	21669000	5
G patch domain-containing protein 1	GPATCH1	1	1	1	2.5	2.5	2.5	103.33	0	3.3454	21609000	8

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MIP18 family protein FAM96A	FAM96A	1	1	1	6.9	6.9	6.9	18.355	0.0081848	1.6223	21601000	2
Outer dense fiber protein 2	ODF2	2	2	2	4.6	4.6	4.6	62.761	0	5.3153	21556000	3
EH domain-binding protein 1	EHBP1	5	5	5	7.6	7.6	7.6	132.29	0	15.051	21203000	2
Sphingosine-1-phosphate phosphatase 1	SGPP1	3	3	3	10.9	10.9	10.9	49.107	0	3.8222	21076000	4
TELO2-interacting protein 2	TTI2	1	1	1	3.6	3.6	3.6	53.305	0	12.708	21056000	4
Collagen alpha-1(VI) chain	COL6A1	1	1	1	4.5	4.5	4.5	43.606	0	3.809	21006000	10
Laminin subunit beta-2	LAMB2	2	2	2	2.5	2.5	2.5	195.98	0	3.1879	20976000	0
Protein Shroom2	SHROOM2;DKFZp781J074	2	2	2	1.4	1.4	1.4	176.41	0.0081655	1.6007	20946000	0
MOB-like protein phocein	PREI3;MOB4	6	1	1	44.9	13.3	13.3	26.032	0	6.3498	20943000	23
Non-specific protein-tyrosine kinase;Tyrosine-protein kinase ABL1	ABL1;BCR/ABL fusion	3	2	2	5.1	3.6	3.6	102.59	0.0013558	2.4327	20883000	2
Gamma-tubulin complex component 5	TUBGCP5	2	2	2	2.8	2.8	2.8	118.35	0	10.119	20862000	3
		14	1	1	30.2	1.4	1.4	81.41	0.0091365	1.4836	20822000	2
Interleukin-1 receptor-associated kinase 1	IRAK1	2	2	2	8.2	8.2	8.2	42.111	0.0003967	2.808	20719000	0
6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 2;6-phosphofructo-2-kinase;Fructose-2,6-bisphosphatase	DKFZp781D2217;PFKFB2	1	1	1	6.8	6.8	6.8	27.142	0.0019194	2.3285	20648000	0
TBC1 domain family member 10A	TBC1D10A	1	1	1	4.7	4.7	4.7	26.86	0	3.4573	20580000	3
Small integral membrane protein 1	SMIM1	1	1	1	43.2	43.2	43.2	4.1915	0.0007859	2.645	20426000	0
Condensin-2 complex subunit H2	NCAPH2	1	1	1	8.9	8.9	8.9	32.164	0	4.0275	20406000	12
Multivesicular body subunit 12B	MVB12B;C9orf28	1	1	1	11.2	11.2	11.2	22.582	0	3.5351	20325000	4
Ribosome-releasing factor 2, mitochondrial	GFM2	1	1	1	29.7	29.7	29.7	7.2089	0	10.758	20234000	4
Basic immunoglobulin-like variable motif-containing protein;DNA repair protein complementing XP-G cells	BIVM-ERCC5;ERCC5-201;BIVM;ERCC5	2	2	2	2.8	2.8	2.8	181.45	0	5.3401	20199000	2
C-Jun-amino-terminal kinase-interacting protein 4	SPAG9	20	1	1	27.2	1.3	1.3	146.2	0.0011716	2.5601	20195000	1
Disintegrin and metalloproteinase domain-containing protein 10	ADAM10	1	1	1	1.9	1.9	1.9	84.141	0.0019117	2.2665	20159000	0
Catechol O-methyltransferase domain-containing protein 1	COMTD1	1	1	1	9.1	9.1	9.1	30.847	0	3.0366	20146000	4
F-BAR and double SH3 domains protein 1	FCHSD1	1	1	1	6.3	6.3	6.3	28.714	0.0040816	1.8389	20056000	4
Nucleolar protein 8	NOL8;DKFZp686P12242	2	2	2	3.7	3.7	3.7	123.79	0	3.3244	19852000	3
	SNX7	2	1	1	9.3	6.6	6.6	45.03	0	3.0685	19766000	10
Ras-related protein Rab-13	hCG_1996054;hCG_24991;RAB13	2	1	1	12.7	6	6	18.869	0.006947	1.6695	19706000	0
Serine/threonine-protein kinase 33	STK33	1	1	1	4.3	4.3	4.3	37.084	0	6.6494	19651000	2
MAP kinase-activating death domain protein	MADD	3	3	3	3.2	3.2	3.2	183.3	0.0026435	2.0991	19589000	1
Spindle and centriole-associated protein 1	SPICE1	4	4	4	8.2	8.2	8.2	96.263	0	10.402	19552000	2
tRNA pseudouridine synthase;tRNA pseudouridine synthase-like 1	PUSL1	1	1	1	14.4	14.4	14.4	13.666	0.0011758	2.5992	19427000	2
Coiled-coil domain-containing protein R3HCC1L	C10orf28;R3HCC1L	1	1	1	2.1	2.1	2.1	86.268	0	26.776	19340000	3
Mitogen-activated protein kinase kinase kinase kinase;Mitogen-activated protein kinase kinase kinase kinase 3	MAP4K3	1	1	1	2.7	2.7	2.7	91.92	0	6.7034	19094000	2
Protein NRDE2 homolog	NRDE2;C14orf102	1	1	1	12.3	12.3	12.3	23.615	0.0002001	2.974	18900000	2

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cAMP-responsive element modulator	CREM;CREB1	2	1	1	40	32.6	32.6	10.918	0	6.0939	18892000	7
Zinc finger ZZ-type and EF-hand domain-containing protein 1	ZZEF1	1	1	1	0.4	0.4	0.4	331.07	0	3.0377	18775000	2
Retinoic acid receptor RXR-beta	RXRB	1	1	1	12	12	12	27.93	0	5.1347	18743000	1
SLAIN motif-containing protein 1	SLAIN1	2	2	2	15.1	15.1	15.1	33.498	0	8.7923	18717000	2
Synaptotagmin-like protein 4	SYTL4	1	1	1	1.9	1.9	1.9	76.019	0.0028032	1.9173	18671000	1
Pleckstrin homology domain-containing family A member 1	PLEKHA1	2	2	2	5.9	5.9	5.9	45.551	0.0053446	1.7608	18617000	0
Cyclin-dependent kinase 8	CDK8	1	1	1	21.6	21.6	21.6	17.093	0.0005927	2.7498	18614000	6
Dual specificity protein kinase CLK1;Dual specificity protein kinase CLK4	CLK1;CLK4	2	2	2	4.2	4.2	4.2	61.713	0.0019175	2.3176	18580000	2
Selenocysteine lyase	SCLY	2	2	2	15.8	15.8	15.8	26.198	0.0091447	1.4918	18546000	0
Uncharacterized protein C18orf25	C18orf25	1	1	1	13.7	13.7	13.7	15.512	0.0019172	2.3171	18428000	9
Protein tweety homolog;Protein tweety homolog 3	TTYH3	1	1	1	8.1	8.1	8.1	20.475	0.0044321	1.7853	18355000	2
HAUS augmin-like complex subunit 2	CEP27;HAUS2	2	2	2	19.1	19.1	19.1	16.533	0.0084914	1.5605	18299000	2
Protein HEXIM2	HEXIM2	3	3	3	15	15	15	32.418	0	6.2018	18200000	3
Phytanoyl-CoA dioxygenase domain-containing protein 1	PHYHD1	1	1	1	4.1	4.1	4.1	32.41	0.0026515	2.1596	18040000	2
Phosphoribosyltransferase domain-containing protein 1	PRTFDC1	1	1	1	13.8	13.8	13.8	18.408	0.0083379	1.594	17940000	2
Adenylyl cyclase-associated protein		16	1	0	53.1	5.1	0	47.12	0.0085037	1.5722	17897000	15
Stromelysin-2	MMP10	2	2	2	4.6	4.6	4.6	54.151	0.001912	2.2665	17759000	1
Uncharacterized protein KIAA1522	KIAA1522	2	2	2	5.7	5.7	5.7	107.09	0	4.239	17653000	3
DCC-interacting protein 13-beta	APPL2	3	3	3	9.3	9.3	9.3	74.465	0.0026485	2.1375	17579000	4
Protein cordon-bleu	COBL	3	3	3	6.2	6.2	6.2	135.62	0	3.0541	17559000	8
Probable threonine--tRNA ligase 2, cytoplasmic	TARSL2	1	1	1	2.9	2.9	2.9	88.743	0	5.5833	17499000	6
Homeobox protein SIX4	SIX4	2	2	2	5.6	5.6	5.6	82.932	0	3.8999	17478000	4
Peroxisomal biogenesis factor 3	PEX3	1	1	1	4.8	4.8	4.8	42.139	0.0024659	2.1793	17407000	5
Sideroflexin-2	SFXN2	1	1	1	3.7	3.7	3.7	36.231	0	3.8592	17404000	4
TFIIH basal transcription factor complex helicase XPB subunit	ERCC3	2	2	2	4.6	4.6	4.6	89.148	0	4.1912	17398000	3
Hamartin	TSC1	1	1	1	3	3	3	81.539	0	3.697	17312000	4
Protein Niban	C1orf24;FAM129A	1	1	1	1.4	1.4	1.4	103.13	0.0017301	2.3455	17294000	3
Zinc finger protein 609	ZNF609	1	1	1	1.3	1.3	1.3	151.19	0.0026425	2.0928	17166000	4
GDP-D-glucose phosphorylase 1	hCG_1991723;GDPGP1	3	3	1	15.6	15.6	5.7	42.362	0	4.733	17127000	7
Palmitoyltransferase;Palmitoyltransferase ZDHHC5	ZDHHC5	2	2	2	5	5	5	77.544	0.0024715	2.196	17126000	1
Lysosomal thioesterase PPT2	hCG_1999928;PPT2	1	1	1	4	4	4	34.225	0.0039012	1.8518	16997000	0
Di-N-acetylchitobiase	CTBS	2	2	2	7.3	7.3	7.3	43.433	0	3.8585	16989000	0
S-phase kinase-associated protein 2	SKP2	2	2	2	10.2	10.2	10.2	28.645	0.0091349	1.4819	16979000	0
Rho GTPase-activating protein 19	ARHGAP19	2	2	2	6.7	6.7	6.7	55.756	0.0038976	1.8426	16957000	1
Guanine nucleotide-binding protein subunit beta-4	GNB4	4	2	2	25.3	12.4	12.4	37.581	0.0028016	1.9077	16925000	2
Arf-GAP with GTPase, ANK repeat and PH domain-containing protein 1	CENTG2;AGAP1	2	1	1	12.9	7.5	7.5	32.354	0	5.3353	16919000	4
	VNN2	1	1	1	11.8	11.8	11.8	11.498	0.008496	1.5669	16831000	1
DNA-directed RNA polymerase subunit;DNA-directed RNA polymerase I subunit RPA12	ZNRD1	1	1	1	12.7	12.7	12.7	13.913	0	10.589	16798000	0

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	FLJ00045;FLJ10035;ATG1										
Autophagy-related protein 16-1	6L1	1	1	1	7	7	7	31.524	0	7.5941	16750000	4
Protein FAM89A	FAM89A	1	1	1	10.3	10.3	10.3	19.569	0	12.57	16738000	12
Cytochrome P450 4X1	CYP4X1	1	1	1	2.6	2.6	2.6	58.875	0.0026301	2.0109	16722000	0
Protein FAM221A	FAM221A	1	1	1	11.2	11.2	11.2	26.341	0	5.8279	16571000	10
Cytoplasmic tRNA 2-thiolation protein 2	CTU2	1	1	1	17.6	17.6	17.6	11.985	0.0001985	2.8321	16492000	12
Proline-serine-threonine phosphatase-interacting protein 2	PSTPIP2	1	1	1	6.2	6.2	6.2	35.873	0	3.1968	16426000	4
	TMEM256-PLSCR3;hCG_1987383;PL										
Phospholipid scramblase 3	SCR3	1	1	1	11.8	11.8	11.8	18.276	0	4.5638	16328000	8
Inactive ubiquitin thioesterase FAM105A	FAM105A	1	1	1	4.5	4.5	4.5	42.195	0.0005936	2.7711	16321000	5
Bis(5-adenosyl)-triphosphatase	FHIT	1	1	1	6.8	6.8	6.8	16.858	0.0091431	1.4912	16305000	2
Serine-protein kinase ATM	ATM	2	2	2	0.9	0.9	0.9	350.68	0.0001996	2.9234	16298000	0
Transmembrane 7 superfamily member 3	TM7SF3	1	1	1	18.6	18.6	18.6	9.9048	0.0037216	1.8669	16189000	3
Forkhead box protein P4	FOXP4	2	2	2	9.7	9.7	9.7	72.286	0	5.1823	16184000	1
	hCG_2043597	2	2	2	44.3	44.3	44.3	8.6748	0	82.107	16112000	2
Protein FAM208A	FAM208A;C3orf63	2	2	2	6.1	6.1	6.1	117.31	0	5.4059	16043000	14
	MLL/CALM fusion	5	1	0	19.9	2.3	0	63.389	0	4.7467	15922000	2
E3 ubiquitin-protein ligase RNF169	RNF169	1	1	1	3.4	3.4	3.4	77.193	0	6.6572	15817000	2
WD repeat-containing protein 62	WDR62;DKFZp434J046	2	2	2	2.9	2.9	2.9	165.95	0	4.2508	15792000	2
ATR-interacting protein	TREX1;ATRIP	2	2	2	9.8	9.8	9.8	83.003	0.0001998	2.9352	15750000	4
Transcription factor HES-1	HES1	1	1	1	5.8	5.8	5.8	29.271	0.0047953	1.7714	15745000	0
Glutamate-rich protein 1	ERICH1	1	1	1	13.7	13.7	13.7	13.513	0	4.7949	15723000	7
Collagen alpha-6(IV) chain	COL4A6	1	1	1	12.2	12.2	12.2	25.477	0.0047962	1.7731	15612000	1
BAG family molecular chaperone regulator 4	BAG4	3	3	3	12.9	12.9	12.9	49.593	0	6.0117	15607000	5
NCK-interacting protein with SH3 domain	NCKIPSD	2	2	2	7.2	7.2	7.2	78.959	0	9.4326	15504000	2
SET domain-containing protein 5	SETD5;DKFZp686A20205	1	1	1	2.9	2.9	2.9	99.71	0	11.016	15445000	5
RNA pseudouridylate synthase domain-containing protein 2	RPUSD2	2	2	2	11.8	11.8	11.8	59.218	0	4.3477	15441000	3
	COX1;coxI;COI;CO1;MT-										
Cytochrome c oxidase subunit 1	CO1	1	1	1	31.6	31.6	31.6	11.434	0.0015462	2.4084	15398000	5
Serine/threonine-protein kinase greatwall	MASTL	2	1	1	2.7	1.8	1.8	97.318	0.0024649	2.1686	15356000	3
RNA-binding protein 7	RBM7	2	1	1	20.5	14.1	14.1	24.188	0	3.8011	15354000	0
Protein phosphatase 1E	PPM1E	1	1	1	2	2	2	83.951	0.0026525	2.1613	15326000	0
Transcription initiation factor TFIID subunit 4	TAF4	2	2	2	3.7	3.7	3.7	110.11	0.0058856	1.7352	15302000	4
Golgi reassembly-stacking protein 1	GORASP1	1	1	1	30.4	30.4	30.4	7.6387	0.0081744	1.6114	15301000	2
RAB6A-GEF complex partner protein 2	RGP1	2	2	2	13.6	13.6	13.6	42.427	0.0031705	1.8932	15230000	10
Pannexin;Pannexin-1	PANX1	1	1	1	6.1	6.1	6.1	47.936	0	3.1066	15112000	2
RING finger and CHY zinc finger domain-containing protein 1	RCHY1	1	1	1	11.1	11.1	11.1	13.354	0	6.713	15082000	4
Probable lysosomal cobalamin transporter	LMBRD1	1	1	1	2.8	2.8	2.8	61.388	0.0022861	2.2245	15060000	2
E3 ISG15--protein ligase HERC5	HERC5	2	2	2	3.5	3.5	3.5	116.85	0.0015453	2.4056	15048000	0
Gap junction protein;Intraflagellar transport protein 140 homolog	IFT140	2	2	2	4.5	4.5	4.5	66.933	0.0042569	1.8131	15047000	1
Coiled-coil and C2 domain-containing protein 1A	CC2D1A	1	1	1	9.8	9.8	9.8	43.003	0	5.5464	15008000	9
Actin-related protein 5	ACTR5	1	1	1	5.1	5.1	5.1	68.297	0.0028148	1.9866	14910000	2
ETS-related transcription factor Elf-2	ELF2	1	1	1	3.8	3.8	3.8	42.537	0	4.889	14866000	2
Thymosin beta-10	TMSB10	1	1	1	8.3	8.3	8.3	17.941	0.002809	1.941	14744000	1
NEDD4-binding protein 2	N4BP2	1	1	1	1.1	1.1	1.1	158.05	0	5.1235	14678000	2
TATA element modulatory factor	TMF1	2	2	2	6.2	6.2	6.2	58.381	0	5.8811	14481000	3

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DDB1- and CUL4-associated factor 11	DCAF11	1	1	1	60	60	60	2.9471	0	16.708	14324000	6
Pyridoxal-dependent decarboxylase domain-containing protein 1	PDXDC1	10	1	1	20.2	3	3	88.761	0.0094829	1.4726	14052000	8
60S ribosome subunit biogenesis protein NIP7 homolog	NIP7	1	1	1	15.6	15.6	15.6	20.462	0	5.658	13972000	2
Tyrosine-protein kinase Fyn;Non-specific protein-tyrosine kinase	FYN	3	2	2	11.4	9.3	9.3	60.761	0.0005923	2.7422	13902000	2
Protein TANC1	TANC1	2	2	2	1.9	1.9	1.9	202.22	0.0005924	2.7427	13864000	0
IQ motif and SEC7 domain-containing protein 1	IQSEC1	2	2	2	4.2	4.2	4.2	91.997	0	3.8244	13817000	13
Coiled-coil domain-containing protein 8	CCDC8	2	2	2	7.7	7.7	7.7	57.266	0	6.941	13804000	3
Caspase-8;Caspase-8 subunit p18;Caspase-8 subunit p10	CASP8;hCG_16983	1	1	1	16.7	16.7	16.7	13.011	0	3.7871	13788000	1
Monoacylglycerol lipase ABHD6	ABHD6	2	2	2	11	11	11	38.33	0	5.1054	13772000	2
Nuclear factor related to kappa-B-binding protein	NFRKB	1	1	1	1.3	1.3	1.3	147.38	0.007841	1.6425	13672000	2
CKLF-like MARVEL transmembrane domain-containing protein 7	CMTM7;DKFZp434I2129	1	1	1	21.9	21.9	21.9	16.172	0	7.8542	13652000	1
Armadillo repeat-containing protein 10	ARMC10	1	1	1	8.8	8.8	8.8	20.87	0	4.1469	13563000	0
Phosphorylase b kinase regulatory subunit alpha, skeletal muscle isoform	PHKA1	2	2	2	4.2	4.2	4.2	137.31	0	3.3186	13496000	1
Large neutral amino acids transporter small subunit 4	SLC43A2	1	1	1	6.4	6.4	6.4	36.953	0	8.5537	13484000	4
Rab-3A-interacting protein	RAB3IP	1	1	1	16.2	16.2	16.2	19.408	0	5.9123	13429000	14
Dual specificity protein phosphatase;Dual specificity protein phosphatase 9	DUSP9	1	1	1	6.5	6.5	6.5	41.809	0.0084822	1.5513	13332000	2
	CLASP2	20	1	1	20.3	0.8	0.8	165.63	0.0081997	1.6345	13278000	0
Epithelial splicing regulatory protein 2	ESRP2	2	1	1	6.7	5.8	5.8	69.448	0.0094558	1.4474	13253000	12
Integrin-alpha FG-GAP repeat-containing protein 2	ITFG2	1	1	1	5.9	5.9	5.9	29.817	0	3.6884	13227000	3
Zinc transporter ZIP10	SLC39A10	1	1	1	1.7	1.7	1.7	94.131	0.0088225	1.527	13204000	1
Guanine nucleotide-binding protein G(o) subunit alpha	GNAO1	4	1	1	13.3	4.2	4.2	40.238	0.0047988	1.7775	13092000	0
RB1-inducible coiled-coil protein 1	RB1CC1	1	1	1	2	2	2	100.07	0	8.4348	12863000	2
Lysine-specific demethylase 4A	KDM4A	1	1	1	15.3	15.3	15.3	25.288	0	7.2037	12853000	20
	PCBP2	6	1	1	38.4	6.1	6.1	32.035	0	19.395	12472000	2
Zinc finger CCCH-type with G patch domain-containing protein	ZGPAT	1	1	1	4.8	4.8	4.8	30.278	0.0099857	1.4359	12468000	0
Histone-lysine N-methyltransferase EHMT2	EHMT2	2	2	2	4.5	4.5	4.5	99.541	0	12.269	12448000	4
Amyloid-like protein 2	APLP2	3	3	3	6.1	6.1	6.1	81.979	0	3.664	12403000	3
Bifunctional arginine demethylase and lysyl-hydroxylase JMJD6	JMJD6	2	2	2	8.1	8.1	8.1	39.241	0.0019198	2.3291	12313000	2
Ankyrin repeat domain-containing protein SOWAHC	SOWAHC	2	2	2	8	8	8	55.671	0.0078439	1.6443	12223000	3
Fanconi anemia group A protein	FANCA	1	1	1	47.6	47.6	47.6	6.4064	0.0015438	2.3879	12083000	13
Rab proteins geranylgeranyltransferase component A 1	CHM	1	1	1	4.6	4.6	4.6	57.264	0	8.5199	11952000	4
Cep170-like protein	CEP170;CEP170P1	8	1	0	50.2	8.9	0	32.716	0	3.2285	11826000	2
Teneurin-3	TENM3	1	1	1	1	1	1	300.95	0	5.4093	11771000	1
Zinc finger CCHC domain-containing protein 10	ZCCHC10	1	1	1	7.5	7.5	7.5	20.308	0.0013566	2.4391	11695000	0
Membrane-associated guanylate kinase, WW and PDZ domain-containing protein 1	MAGI1	1	1	1	1.9	1.9	1.9	106.9	0	3.2858	11606000	2

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Junction-mediating and - regulatory protein	JMY	1	1	1	1.6	1.6	1.6	111.44	0.0028085	1.936	11578000	1
E3 ubiquitin-protein ligase TRAF7	TRAF7	1	1	1	16.3	16.3	16.3	15.87	0.0086502	1.5323	11439000	2
Synaptojanin-1	SYNJ1	2	2	2	2.1	2.1	2.1	139.91	0.0024663	2.1837	11306000	1
BTB/POZ domain-containing protein KCTD15	KCTD15	1	1	1	31.1	31.1	31.1	6.3381	0	18.461	11270000	2
Lysophospholipase-like protein 1	LYPLAL1	1	1	1	11.8	11.8	11.8	26.316	0	5.599	11253000	16
Nuclear factor 1;Nuclear factor 1 C-type	NFIC	1	1	1	6.4	6.4	6.4	54.653	0.000593	2.7596	11238000	2
Cell division cycle-associated protein 2	CDCA2	1	1	1	3.6	3.6	3.6	69.795	0	3.1471	11197000	4
Late secretory pathway protein AVL9 homolog	AVL9;KIAA0241	1	1	1	11.1	11.1	11.1	45.023	0	3.0848	11151000	17
Tumor necrosis factor receptor superfamily member 16	NGFR	2	2	2	6.8	6.8	6.8	45.183	0.008975	1.4968	11015000	1
Testis-specific Y-encoded-like protein 1	TSPYL1	1	1	1	4.6	4.6	4.6	49.192	0.0069381	1.6546	10857000	5
Insulinoma-associated protein 1	INSM1	1	1	1	9.8	9.8	9.8	52.923	0	3.9024	10842000	12
Katanin p60 ATPase-containing subunit A-like 1	KATNAL1	2	2	2	10.4	10.4	10.4	55.42	0	3.5684	10735000	5
Induced myeloid leukemia cell differentiation protein Mcl-1	MCL1	1	1	1	10.7	10.7	10.7	21.26	0	3.8759	10696000	3
Transcriptional activator GLI3;Transcriptional repressor GLI3R	GLI3	1	1	1	11.1	11.1	11.1	20.141	0	3.9517	10675000	2
Thioredoxin domain-containing protein 16	TXNDC16	1	1	1	2	2	2	93.039	0.0067716	1.6777	10666000	0
SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily E member 1-related	HMG20B	1	1	1	11.2	11.2	11.2	24.42	0.0007883	2.6958	10604000	4
Sodium-coupled neutral amino acid transporter 2	SLC38A2	1	1	1	3.2	3.2	3.2	56.025	0.001364	2.5201	10497000	1
GRB2-associated-binding protein 1	GAB1	1	1	1	2	2	2	64.473	0.0069533	1.6764	10259000	0
DBH-like monooxygenase protein 1	MOXD1	2	2	2	6.5	6.5	6.5	69.652	0.0028116	1.9612	10229000	3
Fos-related antigen 2	FOSL2	1	1	1	8.9	8.9	8.9	22.254	0	5.0128	10127000	2
Zinc finger protein with KRAB and SCAN domains 1	ZKSCAN1	1	1	1	5.7	5.7	5.7	33.582	0.0026415	2.0778	10040000	2
E3 SUMO-protein ligase NSE2	NSMCE2;C8orf36	1	1	1	54.5	54.5	54.5	4.4048	0	6.8053	9941800	3
APC membrane recruitment protein 1	AMER1	1	1	1	1.7	1.7	1.7	124.03	0	33.606	9889900	2
Krueppel-like factor 4	KLF4	1	1	1	3.9	3.9	3.9	54.67	0	3.169	9829200	2
Regulator of G-protein signaling 19	RGS19	1	1	1	13.8	13.8	13.8	22.236	0	7.9926	9781500	2
Myotubularin-related protein 3	MTMR3	2	2	2	5.6	5.6	5.6	117.57	0	4.0702	9768400	0
Pleckstrin homology domain-containing family G member 1	PLEKHG1	1	1	1	9.1	9.1	9.1	22.905	0.006234	1.6904	9760300	2
Sorting nexin-24	SNX24	1	1	1	8.4	8.4	8.4	23.728	0	4.3043	9591000	1
Glycosyltransferase 8 domain-containing protein 1	GLT8D1	1	1	1	35.5	35.5	35.5	6.848	0.0094677	1.4536	9524700	1
N-chimaerin	CHN1	1	1	1	5.1	5.1	5.1	31.342	0.008164	1.6005	9467900	0
Ragulator complex protein LAMTOR4;Ragulator complex protein LAMTOR4, N-terminally processed	LAMTOR4	1	1	1	52.4	52.4	52.4	8.8779	0	8.1625	9455800	2
Transport and Golgi organization protein 6 homolog	TANGO6	2	2	2	3	3	3	103.22	0.0001999	2.9527	9419400	3
Protein-lysine 6-oxidase	LOX	1	1	1	16.7	16.7	16.7	13.547	0.0081803	1.618	9397300	0
Calcineurin-binding protein cabin-1	DKFZp762G2015;CABIN1	1	1	1	3.6	3.6	3.6	63.46	0	3.3157	9284700	1

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Asparagine synthetase domain-containing protein 1	ASNSD1	1	1	1	4.9	4.9	4.9	69.262	0.0024677	2.1867	9260100	10
PR domain zinc finger protein 2	PRDM2	1	1	1	1.2	1.2	1.2	133.37	0.0017351	2.383	9256600	2
Paired mesoderm homeobox protein 2B	PHOX2B	1	1	1	3.2	3.2	3.2	31.621	0.0067753	1.6792	9222800	0
U6 snRNA-associated Sm-like protein LSm5	LSM5	2	2	2	61.5	61.5	61.5	9.9374	0	24.675	9143100	7
BMP-2-inducible protein kinase	BMP2K	1	1	1	9.3	9.3	9.3	39.158	0	32.925	9139200	2
Neurobeachin	NBEA;DKFZp686I03263	4	1	1	2	0.7	0.7	327.55	0.0081699	1.6097	9101200	4
BET1-like protein	BET1L	1	1	1	23.9	23.9	23.9	9.7631	0	7.796	9079500	3
DNA-directed RNA polymerase II subunit RPB11-b2;DNA-directed RNA polymerase II subunit RPB11-b1;DNA-directed RNA polymerase II subunit RPB11-a	POLR2J3;POLR2J1;POLR2J;POLR2J2	1	1	1	26.1	26.1	26.1	13.074	0	35.504	9047000	6
Coiled-coil domain-containing protein 14	CCDC14	1	1	1	15.4	15.4	15.4	12.554	0.0037202	1.8603	8790300	0
Protein SGT1	HSGT1;ECD	1	1	1	4.8	4.8	4.8	72.709	0.0011746	2.5892	8650400	16
Beta-mannosidase	MANBA	1	1	1	3.7	3.7	3.7	52.94	0.000789	2.7211	8618800	2
Kelch domain-containing protein 3	KLHDC3	1	1	1	6.9	6.9	6.9	28.062	0.0022831	2.202	8513000	0
Bardet-Biedl syndrome 1 protein	BBS1;DKFZp313N0733	1	1	1	24.2	24.2	24.2	7.6818	0.0011762	2.6056	8506600	0
	HNRNPDL	1	1	1	29.8	29.8	29.8	6.7215	0	6.856	8404500	0
Shugoshin-like 2	SGOL2	2	2	2	2.7	2.7	2.7	143.97	0.0001993	2.8977	8357100	2
SH3KBP1-binding protein 1	SHKBP1	1	1	1	6.9	6.9	6.9	29.542	0	3.1282	8329000	2
WD repeat-containing protein 81	WDR81	1	1	1	1.4	1.4	1.4	211.57	0.0026465	2.1284	8286600	9
Nucleolar protein 4-like;Nucleolar protein 4	NOL4;NOL4L	1	1	1	3.1	3.1	3.1	45.825	0.0019113	2.2661	8112500	2
Sarcosine dehydrogenase, mitochondrial	SARDH	1	1	1	2.8	2.8	2.8	67.216	0.002642	2.0887	8060700	1
Cytochrome c oxidase assembly factor 5	COA5	1	1	1	24.7	24.7	24.7	8.0572	0	8.9288	8055700	3
Mitogen-activated protein kinase kinase kinase 6	MAP3K6	1	1	1	8.6	8.6	8.6	48.409	0.0081863	1.6231	8011600	9
GEM-interacting protein	GMIP	1	1	1	1.9	1.9	1.9	103.7	0	4.6099	7870100	6
Myotubularin-related protein 14	MTMR14	1	1	1	46.5	46.5	46.5	7.2578	0	4.5842	7861800	2
WD repeat-containing protein 76	WDR76	2	2	2	8.6	8.6	8.6	69.768	0	4.2002	7838600	3
PHD finger protein 1	PHF1	2	2	2	22.8	22.8	22.8	15.906	0.0038983	1.8446	7755900	2
AMME syndrome candidate gene 1 protein	AMMECR1	1	1	1	9.5	9.5	9.5	31.255	0	8.6223	7683900	4
WASH complex subunit FAM21A	FAM21A	13	1	1	20	1.9	1.9	136.86	0.0002003	2.989	7670000	7
1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase beta-1;Phosphoinositide phospholipase C	PLCB1	2	2	2	2.5	2.5	2.5	138.57	0	4.3206	7652800	10
Pleckstrin homology domain-containing family M member 2	PLEKHM2	1	1	1	1.9	1.9	1.9	108.6	0.0002006	3.0186	7556300	2
SEC14 domain and spectrin repeat-containing protein 1	SESTD1	1	1	1	12.6	12.6	12.6	26.592	0.0011751	2.594	7476500	2
ATP synthase protein 8;Protein FAM65A	FAM65A	1	1	1	15	15	15	15.284	0	4.2234	7464100	6
PNMA-like protein 1	PNMAL1	1	1	1	5.2	5.2	5.2	48.16	0	4.634	7421100	2
Ankyrin repeat and BTB/POZ domain-containing protein 2	ABTB2	1	1	1	2.2	2.2	2.2	113.65	0.009148	1.4919	7390100	2
Ubiquitin thioesterase OTU1	YOD1	1	1	1	9.2	9.2	9.2	38.322	0.0005941	2.782	7225600	5
P2X purinoceptor;P2X purinoceptor 4	P2RX4	2	2	2	12.5	12.5	12.5	32.138	0	4.8443	6927500	2
Multiple epidermal growth factor-like domains protein 8	MEGF8	1	1	1	0.5	0.5	0.5	303.1	0.0081908	1.626	6850800	2

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EH domain-containing protein 3	EHD3	3	2	2	13.1	11	11	60.886	0.0094592	1.4482	6829400	5
SAFB-like transcription modulator	SLTM	2	2	2	3.7	3.7	3.7	92.426	0	7.1421	6784500	3
Receptor expression-enhancing protein;Receptor expression-enhancing protein 6	REEP6	1	1	1	8.6	8.6	8.6	16.844	0	3.1882	6782900	5
TIR domain-containing adapter molecule 1	TICAM1	1	1	1	6	6	6	58.274	0	4.6462	6757500	12
Homologous-pairing protein 2 homolog	PSMC3IP	1	1	1	10.4	10.4	10.4	18.042	0.0002	2.9663	6718800	1
CTD small phosphatase-like protein 2	CTDSPL2	3	3	3	7.5	7.5	7.5	52.998	0	3.3384	6673000	3
Putative ribosome-binding factor A, mitochondrial	RBFA	1	1	1	42.1	42.1	42.1	6.6466	0	3.5219	6653400	2
Integrin alpha-6;Integrin alpha-6 heavy chain;Integrin alpha-6 light chain;Processed integrin alpha-6	ITGA6	1	1	1	1.2	1.2	1.2	126.6	0	6.4717	6652600	2
CBP80/20-dependent translation initiation factor	KIAA0427;CTIF	1	1	1	3	3	3	67.586	0.0013555	2.4275	6650600	9
Ran-binding protein 6	RANBP6	1	1	1	2.9	2.9	2.9	78.556	0.0015489	2.4211	6647300	1
UPF0469 protein KIAA0907	KIAA0907	2	2	2	11.7	11.7	11.7	64.845	0.0013661	2.5538	6610300	2
KAT8 regulatory NSL complex subunit 2	KANSL2	1	1	1	7.3	7.3	7.3	22.86	0.0085006	1.571	6566700	1
RANBP2-like and GRIP domain-containing protein 5/6	HEL161;RGPD5	12	2	1	8.7	2	0.8	198.92	0	6.4365	6566200	1
High mobility group protein 20A	HMG20A	1	1	1	25.4	25.4	25.4	13.46	0	4.1145	6556400	8
NAD-dependent protein deacetylase sirtuin-2	SIRT2;SIR2	2	2	2	64.1	64.1	64.1	4.5792	0.0020968	2.2288	6505300	2
Centrosomal protein of 78 kDa	CEP78	1	1	1	4.9	4.9	4.9	74.926	0.0015486	2.4211	6467900	3
NKG2D ligand 3	ULBP3	2	2	2	8.6	8.6	8.6	27.949	0.0019091	2.2455	6414900	1
tRNA-splicing endonuclease subunit Sen15	C1orf19;TSEN15	3	1	1	33.3	9.4	9.4	18.641	0.0081729	1.6103	6297300	2
Protein Shroom1	SHROOM1	1	1	1	4.1	4.1	4.1	83.238	0.0019102	2.254	6281800	21
Tetratricopeptide repeat protein 28	TTC28	1	1	1	1.5	1.5	1.5	256.86	0	5.1686	6234400	8
Nuclear factor 1;Nuclear factor 1 A-type	NFIA	1	1	1	7.1	7.1	7.1	51.451	0.001176	2.6009	6166200	2
Protein CLN8	CLN8	1	1	1	6.3	6.3	6.3	32.787	0.0013619	2.491	6129200	1
Probable cation-transporting ATPase 13A2	ATP13A2	2	2	2	5.5	5.5	5.5	91.123	0	8.1081	5965600	9
DNA-directed RNA polymerase III subunit RPC9	RCP9;CRCP	1	1	1	10.1	10.1	10.1	16.871	0.0017291	2.337	5910000	0
Putative lipoyltransferase 2, mitochondrial	LIPT2	1	1	1	45.2	45.2	45.2	7.4372	0.002651	2.1583	5870200	1
Mitotic checkpoint serine/threonine-protein kinase BUB1 beta	BUB1B	1	1	1	1	1	1	119.54	0.0007866	2.6777	5869200	4
N-acetyltransferase ESCO1	ESCO1	1	1	1	2.4	2.4	2.4	94.982	0.0044338	1.7867	5815200	2
Cyclin-L2	CCNL2	1	1	1	8.7	8.7	8.7	26.169	0	4.1698	5740300	0
Epithelial discoidin domain-containing receptor 1	DDR1	1	1	1	2.6	2.6	2.6	42.017	0.0088288	1.5305	5672500	0
WW domain-binding protein 4	WBP4	1	1	1	7.2	7.2	7.2	42.534	0	7.9268	5640800	2
G kinase-anchoring protein 1	GKAP1	1	1	1	5.7	5.7	5.7	42.078	0.0011723	2.5636	5637400	1
ADP-ribosylation factor-like protein 13B	ARL13B	1	1	1	4.2	4.2	4.2	48.615	0.0057111	1.7512	5635200	2
Integrin alpha-2	ITGA2	1	1	1	2.7	2.7	2.7	88.561	0	5.9703	5606300	2
		4	3	2	8.5	7.5	6.4	93.977	0.0099751	1.4309	5458100	1
Tripartite motif-containing protein 2	TRIM2	1	1	1	3.2	3.2	3.2	58.454	0.006242	1.7036	5382300	1
SOSS complex subunit B1	OBFC2B;NABP2	2	2	2	24.2	24.2	24.2	22.338	0	6.361	5369500	2
Maspardin	SPG21	1	1	1	13	13	13	17.258	0.0086564	1.5394	5356900	1
Calcium/calmodulin-dependent protein kinase kinase 2	CAMKK2	1	1	1	8.2	8.2	8.2	38.616	0.0007886	2.7122	5264500	0
DNA (cytosine-5)-methyltransferase 3B	DNMT3B	1	1	1	3.1	3.1	3.1	55.374	0	3.6647	5245600	1

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	RASAL2	1	1	1	4.9	4.9	4.9	41.743	0	4.2397	5147700	2
Protein-tyrosine sulfotransferase 1	TPST1	1	1	1	5.2	5.2	5.2	39.553	0.0026331	2.0278	5124200	8
Uncharacterized protein C19orf57	C19orf57	1	1	1	6.2	6.2	6.2	26.501	0	4.775	4968500	2
RWD domain-containing protein 1	RWDD1	1	1	1	10.7	10.7	10.7	27.939	0.0094626	1.4513	4809000	0
Transmembrane protein 175	TMEM175	1	1	1	18.1	18.1	18.1	7.9079	0.0013579	2.4529	4770700	0
Dysbindin domain-containing protein 1	DBNDD1;MGC3101	2	2	2	38.6	38.6	38.6	17.041	0.0062431	1.7042	4555400	0
Protein capicua homolog	CIC;CIC/DUX4 fusion	2	1	1	2.4	1.4	1.4	179.41	0.0022857	2.2243	4341900	2
	PHKB	2	1	1	7.2	3.5	3.5	54.927	0.0091398	1.4842	4334200	0
LysM and putative peptidoglycan-binding domain-containing protein 3	LYSMD3	1	1	1	4.6	4.6	4.6	34.537	0.008493	1.5606	4281900	0
Probable methyltransferase-like protein 15	METTL15	2	2	2	7.1	7.1	7.1	46.121	0	3.5503	4206200	1
Zinc finger transcription factor Trps1	TRPS1	1	1	1	7	7	7	30.469	0	33.817	4125100	2
Serine/threonine-protein phosphatase 6 regulatory ankyrin repeat subunit C	ANKRD52	1	1	1	2	2	2	115.09	0	5.3032	4077000	1
Ataxin-1	ATXN1	1	1	1	4.3	4.3	4.3	86.922	0.0005937	2.7722	3960300	1
C2 calcium-dependent domain-containing protein 4C	C2CD4C	1	1	1	2.6	2.6	2.6	44.576	0.0019157	2.3047	3716200	15
Carboxylic ester hydrolase;Carboxylesterase 3	CES3	1	1	1	6.7	6.7	6.7	61.966	0.0081922	1.6268	3674300	3
Solute carrier family 25 member 40	SLC25A40	1	1	1	5	5	5	38.124	0.0019095	2.2465	3501000	0
NEDD4-binding protein 1	N4BP1	1	1	1	4.5	4.5	4.5	40.399	0.002641	2.0772	3451900	2
Anion exchange protein;Electroneutral sodium bicarbonate exchanger 1;Sodium-driven chloride bicarbonate exchanger;Sodium bicarbonate cotransporter 3	SLC4A7;SLC4A10;SLC4A8	1	1	1	1.6	1.6	1.6	89.843	0.0026336	2.0289	3405400	0
Meteorin	METRN	1	1	1	17.6	17.6	17.6	19.689	0.0089783	1.4999	3301200	4
Calcium/calmodulin-dependent protein kinase type II subunit beta	CAMK2B	5	1	1	15.1	4.7	4.7	57.848	0.0086549	1.539	3286800	1
Protein-methionine sulfoxide oxidase MICAL1	MICAL1	1	1	1	10.7	10.7	10.7	26.811	0.0047979	1.7759	3111200	0
Transmembrane protein 101	TMEM101	1	1	1	9.5	9.5	9.5	21.958	0.0028137	1.9751	2779800	5
Ankyrin repeat domain-containing protein 54	ANKRD54	1	1	1	23.4	23.4	23.4	12.704	0.0002	2.9651	2736200	6
Zinc finger and BTB domain-containing protein 14	ZBTB14	1	1	1	7.3	7.3	7.3	50.926	0	4.5307	2656500	3
Pre-B-cell leukemia transcription factor 2	hCG_2039588;PBX2	2	1	1	11.2	6.9	6.9	37.643	0	3.6866	2495500	10
Vezatin	VEZT	1	1	1	3	3	3	82.277	0.0011721	2.5632	2387200	2
Adenylosuccinate synthetase isozyme 1	ADSSL1	2	1	1	11.1	8.3	8.3	28.078	0.0015459	2.4081	2158100	0
RNA polymerase-associated protein LEO1	LEO1	2	2	2	6.8	6.8	6.8	72.783	0.00264	2.074	2136600	3
Ubiquitin carboxyl-terminal hydrolase 31	USP31	2	2	2	3.1	3.1	3.1	146.65	0	3.7243	1960900	2
Regulator of nonsense transcripts 3A	UPF3A	1	1	1	23.8	23.8	23.8	11.429	0.006779	1.6824	1957000	2
Hippocalcin-like protein 4	HPCAL4	1	1	1	17.6	17.6	17.6	13.854	0.001915	2.2956	1883800	0
	ATXN3	5	1	1	24.3	8.6	8.6	42.403	0.0013587	2.4562	1526500	2
Autophagy-related protein 9A	ATG9A	1	1	1	7.1	7.1	7.1	26.865	0	3.0384	1467900	2
Centromere protein T	CENPT	1	1	1	14	14	14	12.576	0.0057122	1.7513	1288000	0
Nucleolar MIF4G domain-containing protein 1	NOM1	2	2	2	5.8	5.8	5.8	96.256	0	3.2519	1250100	2
E1A-binding protein p400	EP400	2	2	2	0.7	0.7	0.7	343.48	0.002646	2.1263	1198900	0
cGMP-dependent protein kinase 1	PRKG1	2	2	2	10.7	10.7	10.7	51.897	0.009309	1.4794	1026900	2
Casein kinase I isoform alpha	CSNK1A1;HEL-S-77p	2	1	1	15.5	9.9	9.9	26.702	0.001359	2.4579	999690	0
Dynactin subunit 5	DCTN5	3	3	3	35.7	35.7	35.7	20.126	0	8.363	932690	4

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DnaJ homolog subfamily C member 12	DNAJC12;JDP1	1	1	1	47.4	47.4	47.4	6.5522	0.0081952	1.6289	712000	3
Mediator of RNA polymerase II transcription subunit 13	THRAP1;MED13	1	1	1	0.7	0.7	0.7	239.29	0.0094609	1.4491	0	0
Histone H2A;Histone H2A type 1-C;Histone H2A type 3;Histone H2A type 1-B/E	HIST1H2AC;HIST1H2AB;HIST3H2A	7	1	1	40.8	8.5	8.5	14.105	0	19.405	0	0
Ras-related protein Rab-4B	RAB4B	1	1	1	6.8	6.8	6.8	21.21	0.0026535	2.1655	0	1
Coiled-coil domain-containing protein 68	CCDC68	2	2	2	5.1	5.1	5.1	38.869	0.0028153	1.9929	0	0
THUMP domain-containing protein 3	THUMPD3	1	1	1	3	3	3	57.002	0.0039019	1.8523	0	2
THO complex subunit 7 homolog	NIF3L1BP1;THOC7	1	1	1	11.8	11.8	11.8	17.856	0	5.3758	0	2
Ras-related protein Rab-11A	RAB11A	5	1	1	32.4	13.4	13.4	24.393	0	20.186	0	0
ELM2 and SANT domain-containing protein 1	ELMSAN1;C14orf43	1	1	1	2.7	2.7	2.7	48.714	0.0042616	1.8273	0	2
Gamma-interferon-inducible lysosomal thiol reductase	IFI30	1	1	1	11.3	11.3	11.3	25.673	0.0037195	1.8598	0	0
High affinity copper uptake protein 1	SLC31A1	1	1	1	14.2	14.2	14.2	14.689	0.0037168	1.8548	0	0
Small ubiquitin-related modifier;Small ubiquitin-related modifier 2;Small ubiquitin-related modifier 4	SUMO2;SUMO4	2	1	1	27.4	14.7	14.7	10.871	0	10.375	0	0
Fanconi anemia-associated protein of 100 kDa	C17orf70;FAAP100	1	1	1	2.8	2.8	2.8	56.649	0.0005944	2.7994	0	1
Microsomal glutathione S-transferase 3	MGST3	1	1	1	17.1	17.1	17.1	14.379	0	12.79	0	0
	HNRPA1;HNRNPA1	17	1	1	69.1	14.1	14.1	34.196	0	96.059	0	0
SRC kinase signaling inhibitor 1	SRCIN1	1	1	1	3	3	3	98.388	0	5.8146	0	2
RNA exonuclease 1 homolog	REXO1	1	1	1	17.2	17.2	17.2	7.1934	0.0062466	1.7145	0	1
B-cell CLL/lymphoma 9-like protein	BCL9L	1	1	1	27.3	27.3	27.3	9.1762	0	4.572	0	0
Hydroxypyruvate isomerase;Putative hydroxypyruvate isomerase	HYI	1	1	1	12.4	12.4	12.4	17.588	0	12.779	0	0
Transforming growth factor-beta-induced protein ig-h3	TGFBI	1	1	1	3.6	3.6	3.6	39.793	0.0019084	2.2429	0	0
Dystonin	DST	2	2	2	2.3	2.3	2.3	190.35	0	5.628	0	3
		1	1	1	39.7	39.7	39.7	7.0249	0	8.5976	0	0
ATP-dependent RNA helicase DDX19B	DDX19B;hCG_1998531	14	1	1	35.2	6	6	50.644	0	10.958	0	0
		1	1	1	6.1	6.1	6.1	20.824	0.008161	1.5985	0	0
Thioredoxin reductase 3	TXNRD3	1	1	1	8.5	8.5	8.5	46.692	0	8.4333	0	0
Presenilin;Presenilin-2;Presenilin-2 NTF subunit;Presenilin-2 CTF subunit	PSEN2	2	1	1	7.8	5.3	5.3	40.251	0	3.41	0	0
Methylenetetrahydrofolate reductase	MTHFR	1	1	1	13.4	13.4	13.4	9.166	0.0044346	1.7896	0	2
	HLA-A	3	1	1	22.7	9.4	9.4	21.128	0.002645	2.1162	0	0
		1	1	1	9.8	9.8	9.8	30.959	0.0058867	1.7368	0	0
Uncharacterized protein C15orf41	C15orf41	1	1	1	22.8	22.8	22.8	11.343	0.000199	2.8814	0	0
Protein AAR2 homolog	AAR2	2	2	2	9	9	9	45.034	0	3.5605	0	3
Protein kinase C and casein kinase substrate in neurons protein 1	PACSIN1	1	1	1	5.2	5.2	5.2	34.981	0	4.7622	0	2
Engulfment and cell motility protein 1	ELMO1	2	2	2	3.4	3.4	3.4	83.829	0.0089831	1.5051	0	1
Alpha-1,3-mannosyl-glycoprotein 4-beta-N-acetylglucosaminyltransferase-like protein MGAT4D	MGAT4D	1	1	1	7.2	7.2	7.2	20.041	0.0099768	1.4309	0	0
Protein cornichon homolog 4	CNIH4	1	1	1	14.6	14.6	14.6	15.771	0	7.8246	0	0

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Translocating chain-associated membrane protein;Translocating chain-associated membrane protein 1	TRAM1	1	1	1	6.9	6.9	6.9	33.435	0	20.197	0	0
Digestive organ expansion factor homolog	DIEXF	1	1	1	4.8	4.8	4.8	31.895	0.0019209	2.3318	0	2
Transcription factor RelB	RELB	1	1	1	3	3	3	61.776	0	3.2237	0	1
Limb region 1 protein homolog	LMBR1	1	1	1	20.6	20.6	20.6	7.5514	0.0015441	2.3886	0	2
39S ribosomal protein L52, mitochondrial	MRPL52	1	1	1	30	30	30	11.681	0	51.987	0	0
Lysophospholipid acyltransferase 2	MBOAT2	2	2	2	11.4	11.4	11.4	49.654	0	7.045	0	0
Transmembrane protein FAM155A	FAM155A	2	2	2	7.2	7.2	7.2	51.492	0	4.5089	0	0
Ras-related protein Rab-7L1	RAB7L1;RAB29	2	1	1	13.8	8.4	8.4	23.155	0.002648	2.1327	0	0
Ribosomal RNA processing protein 36 homolog	RRP36	2	2	2	10.4	10.4	10.4	29.887	0	3.4486	0	3
Homeobox protein Hox-A11	HOXA11	1	1	1	11	11	11	31.008	0	6.906	0	0
E3 ubiquitin-protein ligase RNF14	RNF14	1	1	1	4.7	4.7	4.7	31.395	0.000786	2.645	0	1
2-aminoethanethiol dioxygenase	ADO	2	2	2	11.5	11.5	11.5	29.854	0.0019099	2.2504	0	2
Solute carrier family 35 member F1	SLC35F1	1	1	1	16.4	16.4	16.4	23.549	0	20.922	0	0
Ceramide synthase 1	CERS1;LASS1	1	1	1	6.5	6.5	6.5	24.684	0.0067803	1.6855	0	1
Poly(rC)-binding protein 3	PCBP3	7	1	0	43.9	4	0	32.165	0.0024729	2.1989	0	2
Nuclear receptor coactivator 2	NCOA2	1	1	1	5.6	5.6	5.6	60.13	0.0013643	2.521	0	0
Translin-associated factor X-interacting protein 1	TSNAXIP1	1	1	1	4.9	4.9	4.9	40.631	0.0026296	2.008	0	0
		6	1	1	54.8	22.3	22.3	21.042	0	8.8862	0	0
		14	1	1	46.3	11	11	39.895	0.0026385	2.0661	0	0
Ras-related protein Rab-1A	RAB1A	5	1	1	41	9.8	9.8	18.99	0	70.817	0	0
	NPSR1	1	1	1	5.5	5.5	5.5	35.551	0.0080204	1.639	0	0
Prothymosin alpha;Prothymosin alpha, N-terminally processed;Thymosin alpha-1	PTMA;PTMAP7	1	1	1	13.7	13.7	13.7	8.1611	0.0024654	2.1713	0	0
	DMKN	1	1	1	38.4	38.4	38.4	10.326	0.000199	2.877	0	0
Tubulin alpha-8 chain	TUBA8;DKFZp686L04275	12	1	1	34	5.1	5.1	51.984	0.003899	1.8488	0	0
Neurogenic locus notch homolog protein 2;Notch 2 extracellular truncation;Notch 2 intracellular domain	NOTCH2	1	1	1	2.8	2.8	2.8	92.574	0.0001992	2.8944	0	1
Claudin	CLDN5	1	1	1	3.6	3.6	3.6	31.626	0.0085068	1.5799	0	0
DNA topoisomerase 2	TOP2B	22	1	1	23.7	2.2	2.2	130.48	0	7.105	0	0
	EPB41L2	26	1	0	44	1.3	0	104.36	0	5.6107	0	0
Myb/SANT-like DNA-binding domain-containing protein 4	MSANTD4	1	1	1	28.2	28.2	28.2	8.3256	0.0015456	2.4076	0	0
	PLEC	10	1	1	21.1	2.4	2.4	80.779	0.0040809	1.8388	0	0
BCL2/adenovirus E1B 19 kDa protein-interacting protein 2	BNIP2	1	1	1	3.9	3.9	3.9	48.844	0.0013651	2.5479	0	0
	IST1	8	1	0	57.4	13.8	0	31.185	0	15.055	0	0
Glycerophosphodiester phosphodiesterase domain-containing protein 1	GDPD1	1	1	1	14.6	14.6	14.6	14.54	0.0001995	2.9181	0	1
	HNRNPM	10	1	1	33.9	3.7	3.7	39.933	0.005709	1.746	0	0
Histone deacetylase complex subunit SAP30	SAP30	1	1	1	26.8	26.8	26.8	23.306	0	3.1042	0	0
Tropomyosin alpha-4 chain	HEL-S-108;TPM4	10	1	1	45.2	8.1	8.1	28.521	0	34.321	0	0
Histone H3.1	HIST1H3A	5	1	1	43.4	23.5	23.5	15.404	0	46.181	0	0
Lactoylglutathione lyase	GLO1	10	2	2	60.9	15.2	15.2	20.777	0	47.999	0	0
Heat shock protein HSP 90-alpha A2	HSP90AA2P	8	1	1	26.8	3.8	3.8	39.364	0	3.4721	0	0
Sarcolemmal membrane-associated protein	SLMAP	2	2	2	4.6	4.6	4.6	95.197	0.0057038	1.7437	0	1

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High mobility group nucleosome-binding domain-containing protein 3	HMGN3	3	1	1	40.4	27.3	27.3	10.666	0	95.077	0	0
	HSP90Bf	2	1	1	4.4	2.5	2.5	41.46	0	5.3415	0	0
Olfactomedin-like protein 2A	OLFML2A	1	1	1	5.3	5.3	5.3	34.716	0.0084945	1.5615	0	2
	PDE4DIP	1	1	1	13.6	13.6	13.6	7.0252	0.0028058	1.9282	0	0
Signal peptide, CUB and EGF-like domain-containing protein 1	SCUBE1	1	1	1	2.9	2.9	2.9	66.999	0.0011753	2.5988	0	1
Butyrophilin subfamily 2 member A1	BTN2A1	2	2	2	8.2	8.2	8.2	59.632	0	4.3783	0	1
Cell adhesion molecule 4	CADM4	1	1	1	4.6	4.6	4.6	42.785	0	3.9476	0	1
Splicing regulatory glutamine/lysine-rich protein 1	SREK1	3	1	1	11.6	4.3	4.3	59.38	0	27.313	0	0
Vesicle transport through interaction with t-SNAREs homolog 1A	VTI1A	1	1	1	6.9	6.9	6.9	25.217	0	12.34	0	2
Mastermind-like protein 3	MAML3	2	2	2	3.9	3.9	3.9	122.29	0.0017344	2.38	0	0
Uncharacterized protein C20orf24	C20orf24	1	1	1	11.7	11.7	11.7	15.487	0.0013624	2.5001	0	0
Eukaryotic translation initiation factor 3 subunit F	IFP38	2	1	1	6.6	3.2	3.2	37.892	0.0013656	2.5527	0	0
		1	1	1	36.5	36.5	36.5	8.2789	0	5.0275	0	0
CUB domain-containing protein 1	CDCP1	1	1	1	2.8	2.8	2.8	92.931	0.0007882	2.6924	0	0
Ribosome production factor 1	RPF1	1	1	1	8.3	8.3	8.3	40.11	0	4.5139	0	0
Kinesin-like protein KIF15	KIF15	1	1	1	1.3	1.3	1.3	160.16	0.0005938	2.7732	0	2
Uncharacterized protein C14orf119	C14orf119	1	1	1	8.6	8.6	8.6	16.009	0.0007865	2.6665	0	1
Tumor necrosis factor receptor superfamily member 10D	TNFRSF10D	2	2	2	10.6	10.6	10.6	41.823	0	6.7012	0	1
Protocadherin alpha-10	PCDHA10	1	1	1	3.4	3.4	3.4	102.87	0.0042545	1.8039	0	0