

| Category | Term | Count | Count i | P-value | Gene | Title |
|----------|--|-------|---------|---------|-------|--|
| GO | heart development | 16 | 114 | 7E-05 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | heart development | 16 | 114 | 7E-05 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | heart development | 16 | 114 | 7E-05 | 2736 | GLI family zinc finger 2 |
| GO | heart development | 16 | 114 | 7E-05 | 4763 | neurofibromin 1 |
| GO | heart development | 16 | 114 | 7E-05 | 5021 | oxytocin receptor |
| GO | heart development | 16 | 114 | 7E-05 | 5125 | proprotein convertase subtilisin/kexin type 5 |
| GO | heart development | 16 | 114 | 7E-05 | 55803 | ArfGAP with dual PH domains 2 |
| GO | heart development | 16 | 114 | 7E-05 | 5795 | protein tyrosine phosphatase, receptor type, J |
| GO | heart development | 16 | 114 | 7E-05 | 6299 | sal-like 1 (Drosophila) |
| GO | heart development | 16 | 114 | 7E-05 | 6474 | short stature homeobox 2 |
| GO | heart development | 16 | 114 | 7E-05 | 6659 | SRY (sex determining region Y)-box 4 |
| GO | heart development | 16 | 114 | 7E-05 | 6662 | SRY (sex determining region Y)-box 9 |
| GO | heart development | 16 | 114 | 7E-05 | 6899 | T-box 1 |
| GO | heart development | 16 | 114 | 7E-05 | 7046 | transforming growth factor, beta receptor 1 |
| GO | heart development | 16 | 114 | 7E-05 | 7137 | troponin I type 3 (cardiac) |
| GO | heart development | 16 | 114 | 7E-05 | 7490 | Wilms tumor 1 |
| GO | maternal process involved in parturition | 3 | 3 | 1E-04 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | maternal process involved in parturition | 3 | 3 | 1E-04 | 5021 | oxytocin receptor |
| GO | maternal process involved in parturition | 3 | 3 | 1E-04 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10000 | v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 1E+08 | forkhead box O6 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10051 | structural maintenance of chromosomes 4 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10056 | phenylalanyl-tRNA synthetase, beta subunit |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10097 | ARP2 actin-related protein 2 homolog (yeast) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10189 | THO complex 4 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10202 | dehydrogenase/reductase (SDR family) member 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10254 | signal transducing adaptor molecule (SH3 domain and ITAM motif) 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10293 | TRAF interacting protein |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10391 | coronin, actin binding protein, 2B |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10395 | deleted in liver cancer 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10465 | peptidylprolyl isomerase H (cyclophilin H) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10539 | glutaredoxin 3 |

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|----|-----------|-----|------|-------|---|
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10612 tripartite motif-containing 3 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10656 KH domain containing, RNA binding, signal transduction associated 3 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10777 cyclic AMP-regulated phosphoprotein, 21 kD |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10785 WD repeat domain 4 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 10808 heat shock 105kDa/110kDa protein 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 11169 WD repeat and HMG-box DNA binding protein 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 11259 filamin A interacting protein 1-like |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 113130 cell division cycle associated 5 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 114088 tripartite motif-containing 9 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 114757 cytoglobin |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 116362 retinol binding protein 7, cellular |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 118788 phosphoinositide-3-kinase adaptor protein 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 121268 Ras homolog enriched in brain like 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 122786 FERM domain containing 6 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 124540 musashi homolog 2 (Drosophila) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 128853 dual specificity phosphatase 15 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 132158 glycerate kinase |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 132625 zinc finger protein 42 homolog (mouse) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 132671 spermatogenesis associated 18 homolog (rat) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 132851 spermatogenesis associated 4 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 135114 histidine triad nucleotide binding protein 3 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 1379 complement component (3b/4b) receptor 1-like |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 1496 catenin (cadherin-associated protein), alpha 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 150684 copper metabolism (Murr1) domain containing 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 1543 cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 158 adenylosuccinate lyase |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 166336 prickle homolog 2 (Drosophila) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 1716 deoxyguanosine kinase |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 1730 diaphanous homolog 2 (Drosophila) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 1781 dynein, cytoplasmic 1, intermediate chain 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 1788 DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 1983 eukaryotic translation initiation factor 5 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 1984 eukaryotic translation initiation factor 5A |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 201299 RAD52 motif 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 2027 enolase 3 (beta, muscle) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 203 adenylylate kinase 1 |

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|----|-----------|-----|------|-------|---|
| GO | cytoplasm | 247 | 4355 | 2E-04 | 2037 erythrocyte membrane protein band 4.1-like 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 2139 eyes absent homolog 2 (Drosophila) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 2171 fatty acid binding protein 5 (psoriasis-associated) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 2172 fatty acid binding protein 6, ileal |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 219736 storkhead box 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 220 aldehyde dehydrogenase 1 family, member A3 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 220042 chromosome 11 open reading frame 82 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 220134 spindle and kinetochore associated complex subunit 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 221357 glutathione S-transferase alpha 5 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 2273 four and a half LIM domains 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 2281 FK506 binding protein 1B, 12.6 kDa |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 23057 nicotinamide nucleotide adenyltransferase 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 23136 erythrocyte membrane protein band 4.1-like 3 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 23138 Nedd4 binding protein 3 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 23157 septin 6 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 23171 glycerol-3-phosphate dehydrogenase 1-like |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 23189 KN motif and ankyrin repeat domains 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 2321 fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 2533 FYN binding protein (FYB-120/130) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 254528 chromosome 16 open reading frame 73 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 25758 chromosome 11 open reading frame 41 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 25780 RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 25827 F-box and leucine-rich repeat protein 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 25884 chordin-like 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 25953 paroxysmal nonkinesigenic dyskinesia |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 26019 UPF2 regulator of nonsense transcripts homolog (yeast) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 26059 ELKS/RAB6-interacting/CAST family member 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 26127 FGFR1 oncogene partner 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 2618 phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 26207 phosphatidylinositol transfer protein, cytoplasmic 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 26230 T-cell lymphoma invasion and metastasis 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 2628 glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 26499 pleckstrin 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 26586 cytoskeleton associated protein 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 26999 cytoplasmic FMR1 interacting protein 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 27065 DNA segment on chromosome 4 (unique) 234 expressed sequence |

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|----|-----------|-----|------|-------|--|
| GO | cytoplasm | 247 | 4355 | 2E-04 | 27241 Bardet-Biedl syndrome 9 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 27289 Rho family GTPase 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 2736 GLI family zinc finger 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 283455 kinase suppressor of ras 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 287 ankyrin 2, neuronal |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 28984 chromosome 13 open reading frame 15 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 29767 tropomodulin 2 (neuronal) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 29842 transcription factor CP2-like 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 29995 LIM and cysteine-rich domains 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 30011 SH3-domain kinase binding protein 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 3028 hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 309 annexin A6 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 3157 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 3248 hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 3276 protein arginine methyltransferase 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 332 baculoviral IAP repeat-containing 5 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 3336 heat shock 10kDa protein 1 (chaperonin 10) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 348 apolipoprotein E |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 3557 interleukin 1 receptor antagonist |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 3763 potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 3800 kinesin family member 5C |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 3836 karyopherin alpha 1 (importin alpha 5) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 3838 karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 389421 lin-28 homolog B (C. elegans) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 3936 lymphocyte cytosolic protein 1 (L-plastin) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 400954 echinoderm microtubule associated protein like 6 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 409 arrestin, beta 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 4287 ataxin 3 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 4291 myeloid leukemia factor 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 4763 neurofibromin 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 50940 phosphodiesterase 11A |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 5110 protein-L-isoaspartate (D-aspartate) O-methyltransferase |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 51177 pleckstrin homology domain containing, family O member 1 |

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|----|-----------|-----|------|-------|-------|---|
| GO | cytoplasm | 247 | 4355 | 2E-04 | 51191 | hect domain and RLD 5 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 51339 | dapper, antagonist of beta-catenin, homolog 1 (<i>Xenopus laevis</i>) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 51499 | TP53 regulated inhibitor of apoptosis 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 5216 | profilin 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 528 | ATPase, H ⁺ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 5303 | protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 5341 | pleckstrin |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 5420 | podocalyxin-like |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 54332 | ganglioside-induced differentiation-associated protein 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 54756 | interleukin 17 receptor D |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 54839 | leucine rich repeat containing 49 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 54843 | synaptotagmin-like 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 55012 | protein phosphatase 2 (formerly 2A), regulatory subunit B'', gamma |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 55135 | WD repeat containing, antisense to TP53 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 55165 | centrosomal protein 55kDa |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 55207 | ADP-ribosylation factor-like 8B |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 55283 | mucolipin 3 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 55323 | La ribonucleoprotein domain family, member 6 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 55521 | tripartite motif-containing 36 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 5569 | protein kinase (cAMP-dependent, catalytic) inhibitor alpha |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 55752 | septin 11 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 55803 | ArfGAP with dual PH domains 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 55854 | zinc finger CCCH-type containing 15 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 5588 | protein kinase C, theta |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 55916 | nuclear transport factor 2-like export factor 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 56062 | kelch-like 4 (<i>Drosophila</i>) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 5702 | proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 5744 | parathyroid hormone-like hormone |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 57560 | intraflagellar transport 80 homolog (<i>Chlamydomonas</i>) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 57599 | WD repeat domain 48 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 57650 | KIAA1524 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 57817 | hepcidin antimicrobial peptide |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 581 | BCL2-associated X protein |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 586 | branched chain aminotransferase 1, cytosolic |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 59 | actin, alpha 2, smooth muscle, aorta |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 5924 | Ras protein-specific guanine nucleotide-releasing factor 2 |

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|----|-----------|-----|------|-------|--------|--|
| GO | cytoplasm | 247 | 4355 | 2E-04 | 5947 | retinol binding protein 1, cellular |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 597 | BCL2-related protein A1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6133 | ribosomal protein L9 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6204 | ribosomal protein S10 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6241 | ribonucleotide reductase M2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6299 | sal-like 1 (Drosophila) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 64151 | non-SMC condensin I complex, subunit G |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6442 | sarcoglycan, alpha (50kDa dystrophin-associated glycoprotein) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6444 | sarcoglycan, delta (35kDa dystrophin-associated glycoprotein) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 65009 | NDRG family member 4 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 65055 | receptor accessory protein 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6525 | smoothelin |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6659 | SRY (sex determining region Y)-box 4 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 667 | dystonin |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6672 | SP100 nuclear antigen |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6683 | spastin |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6711 | spectrin, beta, non-erythrocytic 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 672 | breast cancer 1, early onset |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6741 | Sjogren syndrome antigen B (autoantigen La) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 6820 | sulfotransferase family, cytosolic, 2B, member 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 70 | actin, alpha, cardiac muscle 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7078 | TIMP metalloproteinase inhibitor 3 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7113 | transmembrane protease, serine 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7137 | troponin I type 3 (cardiac) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7168 | tropomyosin 1 (alpha) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7171 | tropomyosin 4 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7341 | SMT3 suppressor of mif two 3 homolog 1 (S. cerevisiae) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7347 | ubiquitin carboxyl-terminal esterase L3 (ubiquitin thiolesterase) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7353 | ubiquitin fusion degradation 1 like (yeast) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7389 | uroporphyrinogen decarboxylase |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7456 | WAS/WASL interacting protein family, member 1 |

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|----|-----------|-----|------|-------|---|
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7490 Wilms tumor 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 767 carbonic anhydrase VIII |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7711 zinc finger protein 155 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 7840 Alstrom syndrome 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 79187 fibronectin type III and SPRY domain containing 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 79646 pantothenate kinase 3 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 79682 MLF1 interacting protein |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 79805 vasohibin 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 79833 gem (nuclear organelle) associated protein 6 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 79929 MAP6 domain containing 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 80712 ESX homeobox 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 81606 limb bud and heart development homolog (mouse) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 81706 protein phosphatase 1, regulatory (inhibitor) subunit 14C |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 81786 tripartite motif-containing 7 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 8193 D4, zinc and double PHD fingers family 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 83871 RAB34, member RAS oncogene family |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 8409 ubiquitously-expressed transcript |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 84206 mex-3 homolog B (C. elegans) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 84296 GINS complex subunit 4 (Sld5 homolog) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 84365 MKI67 (FHA domain) interacting nucleolar phosphoprotein |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 84518 cornifelin |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 84552 par-6 partitioning defective 6 homolog gamma (C. elegans) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 8458 transcription termination factor, RNA polymerase II |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 84665 myopalladin |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 84668 family with sequence similarity 126, member A |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 84959 ubiquitin associated and SH3 domain containing, B |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 8520 histone acetyltransferase 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 8533 COP9 constitutive photomorphogenic homolog subunit 3 (Arabidopsis) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 8536 calcium/calmodulin-dependent protein kinase I |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 8563 THO complex 5 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 8626 tumor protein p63 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 8835 suppressor of cytokine signaling 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 8872 cell division cycle 123 homolog (S. cerevisiae) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 890 cyclin A2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 898 cyclin E1 |

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|----|---------------|-----|------|-------|--|
| GO | cytoplasm | 247 | 4355 | 2E-04 | 8997 kalirin, RhoGEF kinase |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 9053 microtubule-associated protein 7 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 91624 nexilin (F actin binding protein) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 91801 alkB, alkylation repair homolog 8 (E. coli) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 92312 mex-3 homolog A (C. elegans) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 9260 PDZ and LIM domain 7 (enigma) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 92675 D-tyrosyl-tRNA deacylase 1 homolog (S. cerevisiae) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 93323 HAUS augmin-like complex, subunit 8 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 93474 zinc finger protein 670 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 9419 cysteine-rich PDZ-binding protein |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 9455 homer homolog 2 (Drosophila) |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 9568 gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 9805 secernin 1 |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 9833 maternal embryonic leucine zipper kinase |
| GO | cytoplasm | 247 | 4355 | 2E-04 | 9882 TBC1 domain family, member 4 |
| GO | actin binding | 27 | 278 | 2E-04 | 10096 ARP3 actin-related protein 3 homolog (yeast) |
| GO | actin binding | 27 | 278 | 2E-04 | 10097 ARP2 actin-related protein 2 homolog (yeast) |
| GO | actin binding | 27 | 278 | 2E-04 | 10391 coronin, actin binding protein, 2B |
| GO | actin binding | 27 | 278 | 2E-04 | 10788 IQ motif containing GTPase activating protein 2 |
| GO | actin binding | 27 | 278 | 2E-04 | 1264 calponin 1, basic, smooth muscle |
| GO | actin binding | 27 | 278 | 2E-04 | 1730 diaphanous homolog 2 (Drosophila) |
| GO | actin binding | 27 | 278 | 2E-04 | 2037 erythrocyte membrane protein band 4.1-like 2 |
| GO | actin binding | 27 | 278 | 2E-04 | 23136 erythrocyte membrane protein band 4.1-like 3 |
| GO | actin binding | 27 | 278 | 2E-04 | 29767 tropomodulin 2 (neuronal) |
| GO | actin binding | 27 | 278 | 2E-04 | 3778 potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | actin binding | 27 | 278 | 2E-04 | 3936 lymphocyte cytosolic protein 1 (L-plastin) |
| GO | actin binding | 27 | 278 | 2E-04 | 4430 myosin IB |
| GO | actin binding | 27 | 278 | 2E-04 | 4651 myosin X |
| GO | actin binding | 27 | 278 | 2E-04 | 5216 profilin 1 |
| GO | actin binding | 27 | 278 | 2E-04 | 54822 transient receptor potential cation channel, subfamily M, member 7 |
| GO | actin binding | 27 | 278 | 2E-04 | 56062 kelch-like 4 (Drosophila) |
| GO | actin binding | 27 | 278 | 2E-04 | 6525 smoothelin |
| GO | actin binding | 27 | 278 | 2E-04 | 667 dystonin |
| GO | actin binding | 27 | 278 | 2E-04 | 6711 spectrin, beta, non-erythrocytic 1 |
| GO | actin binding | 27 | 278 | 2E-04 | 7137 troponin I type 3 (cardiac) |
| GO | actin binding | 27 | 278 | 2E-04 | 7168 tropomyosin 1 (alpha) |

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|----|--|----|-----|-------|--|
| GO | actin binding | 27 | 278 | 2E-04 | 7171 tropomyosin 4 |
| GO | actin binding | 27 | 278 | 2E-04 | 7456 WAS/WASL interacting protein family, member 1 |
| GO | actin binding | 27 | 278 | 2E-04 | 81624 diaphanous homolog 3 (Drosophila) |
| GO | actin binding | 27 | 278 | 2E-04 | 84665 myopalladin |
| GO | actin binding | 27 | 278 | 2E-04 | 9455 homer homolog 2 (Drosophila) |
| GO | actin binding | 27 | 278 | 2E-04 | 9535 glia maturation factor, gamma |
| GO | collagen | 6 | 22 | 4E-04 | 1282 collagen, type IV, alpha 1 |
| GO | collagen | 6 | 22 | 4E-04 | 1284 collagen, type IV, alpha 2 |
| GO | collagen | 6 | 22 | 4E-04 | 1288 collagen, type IV, alpha 6 |
| GO | collagen | 6 | 22 | 4E-04 | 1289 collagen, type V, alpha 1 |
| GO | collagen | 6 | 22 | 4E-04 | 1290 collagen, type V, alpha 2 |
| GO | collagen | 6 | 22 | 4E-04 | 1301 collagen, type XI, alpha 1 |
| GO | synapse assembly | 7 | 33 | 7E-04 | 1000 cadherin 2, type 1, N-cadherin (neuronal) |
| GO | synapse assembly | 7 | 33 | 7E-04 | 23705 cell adhesion molecule 1 |
| GO | synapse assembly | 7 | 33 | 7E-04 | 4897 neuronal cell adhesion molecule |
| GO | synapse assembly | 7 | 33 | 7E-04 | 56126 protocadherin beta 10 |
| GO | synapse assembly | 7 | 33 | 7E-04 | 56133 protocadherin beta 2 |
| GO | synapse assembly | 7 | 33 | 7E-04 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | synapse assembly | 7 | 33 | 7E-04 | 92737 delta/notch-like EGF repeat containing |
| GO | positive regulation of Wnt receptor sign | 4 | 10 | 8E-04 | 5494 protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A |
| GO | positive regulation of Wnt receptor sign | 4 | 10 | 8E-04 | 6299 sal-like 1 (Drosophila) |
| GO | positive regulation of Wnt receptor sign | 4 | 10 | 8E-04 | 6659 SRY (sex determining region Y)-box 4 |
| GO | positive regulation of Wnt receptor sign | 4 | 10 | 8E-04 | 9839 zinc finger E-box binding homeobox 2 |
| GO | thrombin receptor activity | 3 | 5 | 9E-04 | 2149 coagulation factor II (thrombin) receptor |
| GO | thrombin receptor activity | 3 | 5 | 9E-04 | 2150 coagulation factor II (thrombin) receptor-like 1 |
| GO | thrombin receptor activity | 3 | 5 | 9E-04 | 2151 coagulation factor II (thrombin) receptor-like 2 |
| GO | negative regulation of chondrocyte diffe | 3 | 5 | 9E-04 | 2736 GLI family zinc finger 2 |
| GO | negative regulation of chondrocyte diffe | 3 | 5 | 9E-04 | 5744 parathyroid hormone-like hormone |
| GO | negative regulation of chondrocyte diffe | 3 | 5 | 9E-04 | 6662 SRY (sex determining region Y)-box 9 |
| GO | negative regulation of DNA recombinati | 3 | 5 | 9E-04 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | negative regulation of DNA recombinati | 3 | 5 | 9E-04 | 56852 RAD18 homolog (S. cerevisiae) |
| GO | negative regulation of DNA recombinati | 3 | 5 | 9E-04 | 641 Bloom syndrome, RecQ helicase-like |
| GO | collagen fibril organization | 6 | 26 | 0.001 | 1289 collagen, type V, alpha 1 |
| GO | collagen fibril organization | 6 | 26 | 0.001 | 1290 collagen, type V, alpha 2 |
| GO | collagen fibril organization | 6 | 26 | 0.001 | 1301 collagen, type XI, alpha 1 |
| GO | collagen fibril organization | 6 | 26 | 0.001 | 4060 lumican |

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|----|------------------------------|----|-----|-------|--------|--|
| GO | collagen fibril organization | 6 | 26 | 0.001 | 4763 | neurofibromin 1 |
| GO | collagen fibril organization | 6 | 26 | 0.001 | 7046 | transforming growth factor, beta receptor 1 |
| GO | nucleoplasm | 36 | 455 | 0.001 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | nucleoplasm | 36 | 455 | 0.001 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | nucleoplasm | 36 | 455 | 0.001 | 10785 | WD repeat domain 4 |
| GO | nucleoplasm | 36 | 455 | 0.001 | 11169 | WD repeat and HMG-box DNA binding protein 1 |
| GO | nucleoplasm | 36 | 455 | 0.001 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | nucleoplasm | 36 | 455 | 0.001 | 135295 | splicing factor, arginine/serine-rich 13B |
| GO | nucleoplasm | 36 | 455 | 0.001 | 1643 | damage-specific DNA binding protein 2, 48kDa |
| GO | nucleoplasm | 36 | 455 | 0.001 | 1763 | DNA replication helicase 2 homolog (yeast) |
| GO | nucleoplasm | 36 | 455 | 0.001 | 23594 | origin recognition complex, subunit 6 like (yeast) |
| GO | nucleoplasm | 36 | 455 | 0.001 | 25885 | polymerase (RNA) I polypeptide A, 194kDa |
| GO | nucleoplasm | 36 | 455 | 0.001 | 27330 | ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | nucleoplasm | 36 | 455 | 0.001 | 2965 | general transcription factor IIH, polypeptide 1, 62kDa |
| GO | nucleoplasm | 36 | 455 | 0.001 | 3836 | karyopherin alpha 1 (importin alpha 5) |
| GO | nucleoplasm | 36 | 455 | 0.001 | 3838 | karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | nucleoplasm | 36 | 455 | 0.001 | 4171 | minichromosome maintenance complex component 2 |
| GO | nucleoplasm | 36 | 455 | 0.001 | 4287 | ataxin 3 |
| GO | nucleoplasm | 36 | 455 | 0.001 | 4928 | nucleoporin 98kDa |
| GO | nucleoplasm | 36 | 455 | 0.001 | 4968 | 8-oxoguanine DNA glycosylase |
| GO | nucleoplasm | 36 | 455 | 0.001 | 5000 | origin recognition complex, subunit 4-like (yeast) |
| GO | nucleoplasm | 36 | 455 | 0.001 | 5245 | prohibitin |
| GO | nucleoplasm | 36 | 455 | 0.001 | 5440 | polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |
| GO | nucleoplasm | 36 | 455 | 0.001 | 55215 | Fanconi anemia, complementation group I |
| GO | nucleoplasm | 36 | 455 | 0.001 | 5558 | primase, DNA, polypeptide 2 (58kDa) |
| GO | nucleoplasm | 36 | 455 | 0.001 | 55759 | WD repeat domain 12 |
| GO | nucleoplasm | 36 | 455 | 0.001 | 56339 | methyltransferase like 3 |
| GO | nucleoplasm | 36 | 455 | 0.001 | 64782 | apoptosis enhancing nuclease |
| GO | nucleoplasm | 36 | 455 | 0.001 | 6637 | small nuclear ribonucleoprotein polypeptide G |
| GO | nucleoplasm | 36 | 455 | 0.001 | 672 | breast cancer 1, early onset |
| GO | nucleoplasm | 36 | 455 | 0.001 | 7324 | ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | nucleoplasm | 36 | 455 | 0.001 | 7490 | Wilms tumor 1 |
| GO | nucleoplasm | 36 | 455 | 0.001 | 79075 | defective in sister chromatid cohesion 1 homolog (S. cerevisiae) |
| GO | nucleoplasm | 36 | 455 | 0.001 | 79833 | gem (nuclear organelle) associated protein 6 |
| GO | nucleoplasm | 36 | 455 | 0.001 | 84172 | polymerase (RNA) I polypeptide B, 128kDa |
| GO | nucleoplasm | 36 | 455 | 0.001 | 84365 | MKI67 (FHA domain) interacting nucleolar phosphoprotein |

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|----|--|----|-----|-------|--------|--|
| GO | nucleoplasm | 36 | 455 | 0.001 | 890 | cyclin A2 |
| GO | nucleoplasm | 36 | 455 | 0.001 | 898 | cyclin E1 |
| GO | actomyosin structure organization | 3 | 6 | 0.002 | 1264 | calponin 1, basic, smooth muscle |
| GO | actomyosin structure organization | 3 | 6 | 0.002 | 54822 | transient receptor potential cation channel, subfamily M, member 7 |
| GO | actomyosin structure organization | 3 | 6 | 0.002 | 70 | actin, alpha, cardiac muscle 1 |
| GO | collagen type IV | 3 | 6 | 0.002 | 1282 | collagen, type IV, alpha 1 |
| GO | collagen type IV | 3 | 6 | 0.002 | 1284 | collagen, type IV, alpha 2 |
| GO | collagen type IV | 3 | 6 | 0.002 | 1288 | collagen, type IV, alpha 6 |
| GO | negative regulation of protein import in | 2 | 2 | 0.002 | 11142 | protein kinase (cAMP-dependent, catalytic) inhibitor gamma |
| GO | negative regulation of protein import in | 2 | 2 | 0.002 | 5569 | protein kinase (cAMP-dependent, catalytic) inhibitor alpha |
| GO | regulation of acetylcholine secretion | 2 | 2 | 0.002 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | regulation of acetylcholine secretion | 2 | 2 | 0.002 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | DNA replication, removal of RNA primer | 2 | 2 | 0.002 | 1763 | DNA replication helicase 2 homolog (yeast) |
| GO | DNA replication, removal of RNA primer | 2 | 2 | 0.002 | 2237 | flap structure-specific endonuclease 1 |
| GO | negative regulation of mitotic recombina | 2 | 2 | 0.002 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | negative regulation of mitotic recombina | 2 | 2 | 0.002 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | CCR2 chemokine receptor binding | 2 | 2 | 0.002 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | CCR2 chemokine receptor binding | 2 | 2 | 0.002 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | ectoderm and mesoderm interaction | 2 | 2 | 0.002 | 6591 | snail homolog 2 (Drosophila) |
| GO | ectoderm and mesoderm interaction | 2 | 2 | 0.002 | 8626 | tumor protein p63 |
| GO | regulation of smooth muscle contractio | 4 | 13 | 0.002 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | regulation of smooth muscle contractio | 4 | 13 | 0.002 | 1264 | calponin 1, basic, smooth muscle |
| GO | regulation of smooth muscle contractio | 4 | 13 | 0.002 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular f |
| GO | regulation of smooth muscle contractio | 4 | 13 | 0.002 | 7137 | troponin I type 3 (cardiac) |
| GO | DNA recombination | 8 | 52 | 0.003 | 201299 | RAD52 motif 1 |
| GO | DNA recombination | 8 | 52 | 0.003 | 29893 | PSMC3 interacting protein |
| GO | DNA recombination | 8 | 52 | 0.003 | 3149 | high-mobility group box 3 |
| GO | DNA recombination | 8 | 52 | 0.003 | 3516 | recombination signal binding protein for immunoglobulin kappa J region |
| GO | DNA recombination | 8 | 52 | 0.003 | 5889 | RAD51 homolog C (S. cerevisiae) |
| GO | DNA recombination | 8 | 52 | 0.003 | 5965 | RecQ protein-like (DNA helicase Q1-like) |
| GO | DNA recombination | 8 | 52 | 0.003 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | DNA recombination | 8 | 52 | 0.003 | 79677 | structural maintenance of chromosomes 6 |
| GO | proximal/distal pattern formation | 5 | 22 | 0.003 | 1746 | distal-less homeobox 2 |
| GO | proximal/distal pattern formation | 5 | 22 | 0.003 | 2736 | GLI family zinc finger 2 |
| GO | proximal/distal pattern formation | 5 | 22 | 0.003 | 3236 | homeobox D10 |
| GO | proximal/distal pattern formation | 5 | 22 | 0.003 | 3237 | homeobox D11 |

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|----|---|----|-----|-------|--------|---|
| GO | proximal/distal pattern formation | 5 | 22 | 0.003 | 8626 | tumor protein p63 |
| GO | positive regulation of filopodium assem | 3 | 7 | 0.003 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | positive regulation of filopodium assem | 3 | 7 | 0.003 | 5588 | protein kinase C, theta |
| GO | positive regulation of filopodium assem | 3 | 7 | 0.003 | 7046 | transforming growth factor, beta receptor 1 |
| GO | positive regulation of Notch signaling pæ | 3 | 7 | 0.003 | 182 | jagged 1 (Alagille syndrome) |
| GO | positive regulation of Notch signaling pæ | 3 | 7 | 0.003 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | positive regulation of Notch signaling pæ | 3 | 7 | 0.003 | 8626 | tumor protein p63 |
| GO | DNA replication | 15 | 146 | 0.003 | 2237 | flap structure-specific endonuclease 1 |
| GO | DNA replication | 15 | 146 | 0.003 | 23594 | origin recognition complex, subunit 6 like (yeast) |
| GO | DNA replication | 15 | 146 | 0.003 | 4171 | minichromosome maintenance complex component 2 |
| GO | DNA replication | 15 | 146 | 0.003 | 4928 | nucleoporin 98kDa |
| GO | DNA replication | 15 | 146 | 0.003 | 5000 | origin recognition complex, subunit 4-like (yeast) |
| GO | DNA replication | 15 | 146 | 0.003 | 5245 | prohibitin |
| GO | DNA replication | 15 | 146 | 0.003 | 5469 | mediator complex subunit 1 |
| GO | DNA replication | 15 | 146 | 0.003 | 5558 | primase, DNA, polypeptide 2 (58kDa) |
| GO | DNA replication | 15 | 146 | 0.003 | 5965 | RecQ protein-like (DNA helicase Q1-like) |
| GO | DNA replication | 15 | 146 | 0.003 | 6241 | ribonucleotide reductase M2 |
| GO | DNA replication | 15 | 146 | 0.003 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | DNA replication | 15 | 146 | 0.003 | 64785 | GINS complex subunit 3 (Psf3 homolog) |
| GO | DNA replication | 15 | 146 | 0.003 | 7298 | thymidylate synthetase |
| GO | DNA replication | 15 | 146 | 0.003 | 79075 | defective in sister chromatid cohesion 1 homolog (S. cerevisiae) |
| GO | DNA replication | 15 | 146 | 0.003 | 84296 | GINS complex subunit 4 (Sld5 homolog) |
| GO | damaged DNA binding | 7 | 44 | 0.004 | 157570 | establishment of cohesion 1 homolog 2 (S. cerevisiae) |
| GO | damaged DNA binding | 7 | 44 | 0.004 | 1643 | damage-specific DNA binding protein 2, 48kDa |
| GO | damaged DNA binding | 7 | 44 | 0.004 | 2237 | flap structure-specific endonuclease 1 |
| GO | damaged DNA binding | 7 | 44 | 0.004 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | damaged DNA binding | 7 | 44 | 0.004 | 4968 | 8-oxoguanine DNA glycosylase |
| GO | damaged DNA binding | 7 | 44 | 0.004 | 56852 | RAD18 homolog (S. cerevisiae) |
| GO | damaged DNA binding | 7 | 44 | 0.004 | 8626 | tumor protein p63 |
| GO | cell projection | 11 | 94 | 0.004 | 10097 | ARP2 actin-related protein 2 homolog (yeast) |
| GO | cell projection | 11 | 94 | 0.004 | 26499 | pleckstrin 2 |
| GO | cell projection | 11 | 94 | 0.004 | 3751 | potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | cell projection | 11 | 94 | 0.004 | 51062 | atlastin GTPase 1 |
| GO | cell projection | 11 | 94 | 0.004 | 55752 | septin 11 |
| GO | cell projection | 11 | 94 | 0.004 | 57560 | intraflagellar transport 80 homolog (Chlamydomonas) |
| GO | cell projection | 11 | 94 | 0.004 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |

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|----|------------------|----|-----|-------|--|
| GO | cell projection | 11 | 94 | 0.004 | 84168 anthrax toxin receptor 1 |
| GO | cell projection | 11 | 94 | 0.004 | 8777 multiple PDZ domain protein |
| GO | cell projection | 11 | 94 | 0.004 | 9419 cysteine-rich PDZ-binding protein |
| GO | cell projection | 11 | 94 | 0.004 | 9497 solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | response to drug | 20 | 225 | 0.004 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | response to drug | 20 | 225 | 0.004 | 10512 sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | response to drug | 20 | 225 | 0.004 | 1136 cholinergic receptor, nicotinic, alpha 3 |
| GO | response to drug | 20 | 225 | 0.004 | 1503 CTP synthase |
| GO | response to drug | 20 | 225 | 0.004 | 1543 cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | response to drug | 20 | 225 | 0.004 | 2027 enolase 3 (beta, muscle) |
| GO | response to drug | 20 | 225 | 0.004 | 220 aldehyde dehydrogenase 1 family, member A3 |
| GO | response to drug | 20 | 225 | 0.004 | 2878 glutathione peroxidase 3 (plasma) |
| GO | response to drug | 20 | 225 | 0.004 | 3157 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) |
| GO | response to drug | 20 | 225 | 0.004 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | response to drug | 20 | 225 | 0.004 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | response to drug | 20 | 225 | 0.004 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | response to drug | 20 | 225 | 0.004 | 5021 oxytocin receptor |
| GO | response to drug | 20 | 225 | 0.004 | 5228 placental growth factor |
| GO | response to drug | 20 | 225 | 0.004 | 590 butyrylcholinesterase |
| GO | response to drug | 20 | 225 | 0.004 | 6347 chemokine (C-C motif) ligand 2 |
| GO | response to drug | 20 | 225 | 0.004 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | response to drug | 20 | 225 | 0.004 | 70 actin, alpha, cardiac muscle 1 |
| GO | response to drug | 20 | 225 | 0.004 | 898 cyclin E1 |
| GO | response to drug | 20 | 225 | 0.004 | 9420 cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | cell junction | 30 | 387 | 0.004 | 10052 gap junction protein, gamma 1, 45kDa |
| GO | cell junction | 30 | 387 | 0.004 | 11149 blood vessel epicardial substance |
| GO | cell junction | 30 | 387 | 0.004 | 1136 cholinergic receptor, nicotinic, alpha 3 |
| GO | cell junction | 30 | 387 | 0.004 | 1138 cholinergic receptor, nicotinic, alpha 5 |
| GO | cell junction | 30 | 387 | 0.004 | 126374 Wilms tumor 1 interacting protein |
| GO | cell junction | 30 | 387 | 0.004 | 127534 gap junction protein, beta 4, 30.3kDa |
| GO | cell junction | 30 | 387 | 0.004 | 1496 catenin (cadherin-associated protein), alpha 2 |
| GO | cell junction | 30 | 387 | 0.004 | 1830 desmoglein 3 (pemphigus vulgaris antigen) |
| GO | cell junction | 30 | 387 | 0.004 | 200959 gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | cell junction | 30 | 387 | 0.004 | 23562 claudin 14 |
| GO | cell junction | 30 | 387 | 0.004 | 2558 gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | cell junction | 30 | 387 | 0.004 | 26059 ELKS/RAB6-interacting/CAST family member 2 |

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|----|--------------------|----|-----|-------|--------|---|
| GO | cell junction | 30 | 387 | 0.004 | 26999 | cytoplasmic FMR1 interacting protein 2 |
| GO | cell junction | 30 | 387 | 0.004 | 27445 | piccolo (presynaptic cytomatrix protein) |
| GO | cell junction | 30 | 387 | 0.004 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | cell junction | 30 | 387 | 0.004 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | cell junction | 30 | 387 | 0.004 | 30011 | SH3-domain kinase binding protein 1 |
| GO | cell junction | 30 | 387 | 0.004 | 3936 | lymphocyte cytosolic protein 1 (L-plastin) |
| GO | cell junction | 30 | 387 | 0.004 | 4867 | nephronophthisis 1 (juvenile) |
| GO | cell junction | 30 | 387 | 0.004 | 55752 | septin 11 |
| GO | cell junction | 30 | 387 | 0.004 | 5795 | protein tyrosine phosphatase, receptor type, J |
| GO | cell junction | 30 | 387 | 0.004 | 84552 | par-6 partitioning defective 6 homolog gamma (C. elegans) |
| GO | cell junction | 30 | 387 | 0.004 | 8777 | multiple PDZ domain protein |
| GO | cell junction | 30 | 387 | 0.004 | 9076 | claudin 1 |
| GO | cell junction | 30 | 387 | 0.004 | 91624 | nexilin (F actin binding protein) |
| GO | cell junction | 30 | 387 | 0.004 | 9260 | PDZ and LIM domain 7 (enigma) |
| GO | cell junction | 30 | 387 | 0.004 | 9419 | cysteine-rich PDZ-binding protein |
| GO | cell junction | 30 | 387 | 0.004 | 9455 | homer homolog 2 (Drosophila) |
| GO | cell junction | 30 | 387 | 0.004 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | cell junction | 30 | 387 | 0.004 | 9635 | chloride channel accessory 2 |
| GO | DNA repair | 17 | 182 | 0.005 | 157570 | establishment of cohesion 1 homolog 2 (S. cerevisiae) |
| GO | DNA repair | 17 | 182 | 0.005 | 1643 | damage-specific DNA binding protein 2, 48kDa |
| GO | DNA repair | 17 | 182 | 0.005 | 201299 | RAD52 motif 1 |
| GO | DNA repair | 17 | 182 | 0.005 | 2139 | eyes absent homolog 2 (Drosophila) |
| GO | DNA repair | 17 | 182 | 0.005 | 2237 | flap structure-specific endonuclease 1 |
| GO | DNA repair | 17 | 182 | 0.005 | 29128 | ubiquitin-like with PHD and ring finger domains 1 |
| GO | DNA repair | 17 | 182 | 0.005 | 2965 | general transcription factor IIH, polypeptide 1, 62kDa |
| GO | DNA repair | 17 | 182 | 0.005 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | DNA repair | 17 | 182 | 0.005 | 55215 | Fanconi anemia, complementation group I |
| GO | DNA repair | 17 | 182 | 0.005 | 56852 | RAD18 homolog (S. cerevisiae) |
| GO | DNA repair | 17 | 182 | 0.005 | 5889 | RAD51 homolog C (S. cerevisiae) |
| GO | DNA repair | 17 | 182 | 0.005 | 5965 | RecQ protein-like (DNA helicase Q1-like) |
| GO | DNA repair | 17 | 182 | 0.005 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | DNA repair | 17 | 182 | 0.005 | 7298 | thymidylate synthetase |
| GO | DNA repair | 17 | 182 | 0.005 | 7341 | SMT3 suppressor of mif two 3 homolog 1 (S. cerevisiae) |
| GO | DNA repair | 17 | 182 | 0.005 | 79677 | structural maintenance of chromosomes 6 |
| GO | DNA repair | 17 | 182 | 0.005 | 91442 | chromosome 19 open reading frame 40 |
| GO | organ regeneration | 6 | 35 | 0.005 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |

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|----|--------------------------|----|-----|-------|---|
| GO | organ regeneration | 6 | 35 | 0.005 | 558 AXL receptor tyrosine kinase |
| GO | organ regeneration | 6 | 35 | 0.005 | 6347 chemokine (C-C motif) ligand 2 |
| GO | organ regeneration | 6 | 35 | 0.005 | 7046 transforming growth factor, beta receptor 1 |
| GO | organ regeneration | 6 | 35 | 0.005 | 890 cyclin A2 |
| GO | organ regeneration | 6 | 35 | 0.005 | 898 cyclin E1 |
| GO | fat cell differentiation | 5 | 25 | 0.005 | 27241 Bardet-Biedl syndrome 9 |
| GO | fat cell differentiation | 5 | 25 | 0.005 | 3589 interleukin 11 |
| GO | fat cell differentiation | 5 | 25 | 0.005 | 5469 mediator complex subunit 1 |
| GO | fat cell differentiation | 5 | 25 | 0.005 | 64318 nucleolar complex associated 3 homolog (<i>S. cerevisiae</i>) |
| GO | fat cell differentiation | 5 | 25 | 0.005 | 81029 wingless-type MMTV integration site family, member 5B |
| GO | muscle contraction | 11 | 97 | 0.005 | 10052 gap junction protein, gamma 1, 45kDa |
| GO | muscle contraction | 11 | 97 | 0.005 | 2281 FK506 binding protein 1B, 12.6 kDa |
| GO | muscle contraction | 11 | 97 | 0.005 | 4637 myosin, light chain 6, alkali, smooth muscle and non-muscle |
| GO | muscle contraction | 11 | 97 | 0.005 | 5021 oxytocin receptor |
| GO | muscle contraction | 11 | 97 | 0.005 | 59 actin, alpha 2, smooth muscle, aorta |
| GO | muscle contraction | 11 | 97 | 0.005 | 6442 sarcoglycan, alpha (50kDa dystrophin-associated glycoprotein) |
| GO | muscle contraction | 11 | 97 | 0.005 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | muscle contraction | 11 | 97 | 0.005 | 70 actin, alpha, cardiac muscle 1 |
| GO | muscle contraction | 11 | 97 | 0.005 | 7168 tropomyosin 1 (alpha) |
| GO | muscle contraction | 11 | 97 | 0.005 | 7171 tropomyosin 4 |
| GO | muscle contraction | 11 | 97 | 0.005 | 9172 myomesin (M-protein) 2, 165kDa |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 10293 TRAF interacting protein |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 10395 deleted in liver cancer 1 |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 1984 eukaryotic translation initiation factor 5A |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 348 apolipoprotein E |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 355 Fas (TNF receptor superfamily, member 6) |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 3624 inhibin, beta A |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 581 BCL2-associated X protein |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 64393 zinc finger, matrin type 3 |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 666 BCL2-related ovarian killer |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 7046 transforming growth factor, beta receptor 1 |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 7490 Wilms tumor 1 |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 8193 D4, zinc and double PHD fingers family 1 |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 8626 tumor protein p63 |
| GO | induction of apoptosis | 16 | 170 | 0.006 | 9262 serine/threonine kinase 17b |

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|----|--|----|-----|-------|-------|---|
| GO | induction of apoptosis | 16 | 170 | 0.006 | 94241 | tumor protein p53 inducible nuclear protein 1 |
| GO | collagen type V | 2 | 3 | 0.006 | 1289 | collagen, type V, alpha 1 |
| GO | collagen type V | 2 | 3 | 0.006 | 1290 | collagen, type V, alpha 2 |
| GO | branching morphogenesis of a nerve | 2 | 3 | 0.006 | 1746 | distal-less homeobox 2 |
| GO | branching morphogenesis of a nerve | 2 | 3 | 0.006 | 2045 | EPH receptor A7 |
| GO | 5'-flap endonuclease activity | 2 | 3 | 0.006 | 1763 | DNA replication helicase 2 homolog (yeast) |
| GO | 5'-flap endonuclease activity | 2 | 3 | 0.006 | 2237 | flap structure-specific endonuclease 1 |
| GO | positive regulation of myeloid cell differ | 2 | 3 | 0.006 | 182 | jagged 1 (Alagille syndrome) |
| GO | positive regulation of myeloid cell differ | 2 | 3 | 0.006 | 3952 | leptin |
| GO | positive regulation of muscle cell differe | 2 | 3 | 0.006 | 1984 | eukaryotic translation initiation factor 5A |
| GO | positive regulation of muscle cell differe | 2 | 3 | 0.006 | 8536 | calcium/calmodulin-dependent protein kinase I |
| GO | guanyl-nucleotide exchange factor com | 2 | 3 | 0.006 | 25780 | RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | guanyl-nucleotide exchange factor com | 2 | 3 | 0.006 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | prostatic bud formation | 2 | 3 | 0.006 | 2736 | GLI family zinc finger 2 |
| GO | prostatic bud formation | 2 | 3 | 0.006 | 8626 | tumor protein p63 |
| GO | very-low-density lipoprotein particle cle | 2 | 3 | 0.006 | 341 | apolipoprotein C-I |
| GO | very-low-density lipoprotein particle cle | 2 | 3 | 0.006 | 348 | apolipoprotein E |
| GO | negative regulation of cell adhesion me | 2 | 3 | 0.006 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | negative regulation of cell adhesion me | 2 | 3 | 0.006 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | regulation of cyclin-dependent protein I | 6 | 37 | 0.007 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | regulation of cyclin-dependent protein I | 6 | 37 | 0.007 | 1164 | CDC28 protein kinase regulatory subunit 2 |
| GO | regulation of cyclin-dependent protein I | 6 | 37 | 0.007 | 28984 | chromosome 13 open reading frame 15 |
| GO | regulation of cyclin-dependent protein I | 6 | 37 | 0.007 | 2965 | general transcription factor IIH, polypeptide 1, 62kDa |
| GO | regulation of cyclin-dependent protein I | 6 | 37 | 0.007 | 51191 | hect domain and RLD 5 |
| GO | regulation of cyclin-dependent protein I | 6 | 37 | 0.007 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | mitochondrial large ribosomal subunit | 4 | 17 | 0.007 | 11222 | mitochondrial ribosomal protein L3 |
| GO | mitochondrial large ribosomal subunit | 4 | 17 | 0.007 | 28998 | mitochondrial ribosomal protein L13 |
| GO | mitochondrial large ribosomal subunit | 4 | 17 | 0.007 | 65003 | mitochondrial ribosomal protein L11 |
| GO | mitochondrial large ribosomal subunit | 4 | 17 | 0.007 | 65008 | mitochondrial ribosomal protein L1 |
| GO | Notch binding | 3 | 9 | 0.007 | 10683 | delta-like 3 (Drosophila) |
| GO | Notch binding | 3 | 9 | 0.007 | 182 | jagged 1 (Alagille syndrome) |
| GO | Notch binding | 3 | 9 | 0.007 | 92737 | delta/notch-like EGF repeat containing |
| GO | auditory receptor cell differentiation | 3 | 9 | 0.007 | 182 | jagged 1 (Alagille syndrome) |
| GO | auditory receptor cell differentiation | 3 | 9 | 0.007 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | auditory receptor cell differentiation | 3 | 9 | 0.007 | 55283 | mucolipin 3 |
| GO | female pregnancy | 8 | 61 | 0.007 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |

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|----|--|---|----|-------|--------|--|
| GO | female pregnancy | 8 | 61 | 0.007 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | female pregnancy | 8 | 61 | 0.007 | 29842 | transcription factor CP2-like 1 |
| GO | female pregnancy | 8 | 61 | 0.007 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | female pregnancy | 8 | 61 | 0.007 | 5021 | oxytocin receptor |
| GO | female pregnancy | 8 | 61 | 0.007 | 5228 | placental growth factor |
| GO | female pregnancy | 8 | 61 | 0.007 | 5744 | parathyroid hormone-like hormone |
| GO | female pregnancy | 8 | 61 | 0.007 | 6019 | relaxin 2 |
| GO | DNA-dependent ATPase activity | 5 | 27 | 0.007 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | DNA-dependent ATPase activity | 5 | 27 | 0.007 | 2965 | general transcription factor IIH, polypeptide 1, 62kDa |
| GO | DNA-dependent ATPase activity | 5 | 27 | 0.007 | 50485 | SWI/SNF related, matrix associated, actin dependent regulator of chromati |
| GO | DNA-dependent ATPase activity | 5 | 27 | 0.007 | 5889 | RAD51 homolog C (<i>S. cerevisiae</i>) |
| GO | DNA-dependent ATPase activity | 5 | 27 | 0.007 | 8458 | transcription termination factor, RNA polymerase II |
| GO | sarcomere | 5 | 27 | 0.007 | 70 | actin, alpha, cardiac muscle 1 |
| GO | sarcomere | 5 | 27 | 0.007 | 7137 | troponin I type 3 (cardiac) |
| GO | sarcomere | 5 | 27 | 0.007 | 7168 | tropomyosin 1 (alpha) |
| GO | sarcomere | 5 | 27 | 0.007 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | sarcomere | 5 | 27 | 0.007 | 84665 | myopalladin |
| GO | polypeptide N-acetylgalactosaminyltran | 4 | 18 | 0.008 | 11226 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | polypeptide N-acetylgalactosaminyltran | 4 | 18 | 0.008 | 11227 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | polypeptide N-acetylgalactosaminyltran | 4 | 18 | 0.008 | 114805 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | polypeptide N-acetylgalactosaminyltran | 4 | 18 | 0.008 | 79623 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | pituitary gland development | 4 | 18 | 0.008 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | pituitary gland development | 4 | 18 | 0.008 | 2736 | GLI family zinc finger 2 |
| GO | pituitary gland development | 4 | 18 | 0.008 | 6299 | sal-like 1 (<i>Drosophila</i>) |
| GO | pituitary gland development | 4 | 18 | 0.008 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | actin filament | 5 | 28 | 0.009 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | actin filament | 5 | 28 | 0.009 | 10395 | deleted in liver cancer 1 |
| GO | actin filament | 5 | 28 | 0.009 | 3936 | lymphocyte cytosolic protein 1 (L-plastin) |
| GO | actin filament | 5 | 28 | 0.009 | 70 | actin, alpha, cardiac muscle 1 |
| GO | actin filament | 5 | 28 | 0.009 | 7456 | WAS/WASL interacting protein family, member 1 |
| GO | CTP biosynthetic process | 3 | 10 | 0.009 | 1503 | CTP synthase |
| GO | CTP biosynthetic process | 3 | 10 | 0.009 | 29922 | non-metastatic cells 7, protein expressed in (nucleoside-diphosphate kinas |
| GO | CTP biosynthetic process | 3 | 10 | 0.009 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | embryonic digestive tract development | 3 | 10 | 0.009 | 2736 | GLI family zinc finger 2 |
| GO | embryonic digestive tract development | 3 | 10 | 0.009 | 5125 | proprotein convertase subtilisin/kexin type 5 |
| GO | embryonic digestive tract development | 3 | 10 | 0.009 | 6299 | sal-like 1 (<i>Drosophila</i>) |

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|----|--|----|-----|-------|--------|---|
| GO | negative regulation of blood coagulation | 3 | 10 | 0.009 | 348 | apolipoprotein E |
| GO | negative regulation of blood coagulation | 3 | 10 | 0.009 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | negative regulation of blood coagulation | 3 | 10 | 0.009 | 5624 | protein C (inactivator of coagulation factors Va and VIIIa) |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 10097 | ARP2 actin-related protein 2 homolog (yeast) |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 10391 | coronin, actin binding protein, 2B |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 10788 | IQ motif containing GTPase activating protein 2 |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 5216 | profilin 1 |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 59 | actin, alpha 2, smooth muscle, aorta |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 6525 | smoothelin |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 7168 | tropomyosin 1 (alpha) |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 7456 | WAS/WASL interacting protein family, member 1 |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 8997 | kalirin, RhoGEF kinase |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 9260 | PDZ and LIM domain 7 (enigma) |
| GO | actin cytoskeleton | 13 | 134 | 0.01 | 9262 | serine/threonine kinase 17b |
| GO | mRNA export from nucleus | 5 | 29 | 0.01 | 10189 | THO complex 4 |
| GO | mRNA export from nucleus | 5 | 29 | 0.01 | 10212 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 39 |
| GO | mRNA export from nucleus | 5 | 29 | 0.01 | 1984 | eukaryotic translation initiation factor 5A |
| GO | mRNA export from nucleus | 5 | 29 | 0.01 | 26019 | UPF2 regulator of nonsense transcripts homolog (yeast) |
| GO | mRNA export from nucleus | 5 | 29 | 0.01 | 8563 | THO complex 5 |
| GO | chromosome | 13 | 135 | 0.01 | 10051 | structural maintenance of chromosomes 4 |
| GO | chromosome | 13 | 135 | 0.01 | 3149 | high-mobility group box 3 |
| GO | chromosome | 13 | 135 | 0.01 | 387103 | centromere protein W |
| GO | chromosome | 13 | 135 | 0.01 | 55215 | Fanconi anemia, complementation group I |
| GO | chromosome | 13 | 135 | 0.01 | 55506 | H2A histone family, member Y2 |
| GO | chromosome | 13 | 135 | 0.01 | 6672 | SP100 nuclear antigen |
| GO | chromosome | 13 | 135 | 0.01 | 79172 | centromere protein O |
| GO | chromosome | 13 | 135 | 0.01 | 79677 | structural maintenance of chromosomes 6 |
| GO | chromosome | 13 | 135 | 0.01 | 79682 | MLF1 interacting protein |
| GO | chromosome | 13 | 135 | 0.01 | 8091 | high mobility group AT-hook 2 |
| GO | chromosome | 13 | 135 | 0.01 | 8348 | histone cluster 1, H2bo |
| GO | chromosome | 13 | 135 | 0.01 | 8349 | histone cluster 2, H2be |
| GO | chromosome | 13 | 135 | 0.01 | 8970 | histone cluster 1, H2bj |
| GO | methyltransferase activity | 11 | 106 | 0.01 | 131965 | methyltransferase like 6 |
| GO | methyltransferase activity | 11 | 106 | 0.01 | 149281 | methyltransferase like 11B |

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|----|--|----|-----|-------|--------|--|
| GO | methyltransferase activity | 11 | 106 | 0.01 | 1787 | tRNA aspartic acid methyltransferase 1 |
| GO | methyltransferase activity | 11 | 106 | 0.01 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | methyltransferase activity | 11 | 106 | 0.01 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | methyltransferase activity | 11 | 106 | 0.01 | 3276 | protein arginine methyltransferase 1 |
| GO | methyltransferase activity | 11 | 106 | 0.01 | 345630 | fibrillarin-like 1 |
| GO | methyltransferase activity | 11 | 106 | 0.01 | 5110 | protein-L-isoaspartate (D-aspartate) O-methyltransferase |
| GO | methyltransferase activity | 11 | 106 | 0.01 | 56339 | methyltransferase like 3 |
| GO | methyltransferase activity | 11 | 106 | 0.01 | 7298 | thymidylate synthetase |
| GO | methyltransferase activity | 11 | 106 | 0.01 | 91801 | alkB, alkylation repair homolog 8 (E. coli) |
| GO | heterophilic cell-cell adhesion | 4 | 19 | 0.01 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | heterophilic cell-cell adhesion | 4 | 19 | 0.01 | 1002 | cadherin 4, type 1, R-cadherin (retinal) |
| GO | heterophilic cell-cell adhesion | 4 | 19 | 0.01 | 23705 | cell adhesion molecule 1 |
| GO | heterophilic cell-cell adhesion | 4 | 19 | 0.01 | 347902 | adhesion molecule with Ig-like domain 2 |
| GO | collagen catabolic process | 4 | 19 | 0.01 | 4312 | matrix metalloproteinase 1 (interstitial collagenase) |
| GO | collagen catabolic process | 4 | 19 | 0.01 | 4318 | matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) |
| GO | collagen catabolic process | 4 | 19 | 0.01 | 4319 | matrix metalloproteinase 10 (stromelysin 2) |
| GO | collagen catabolic process | 4 | 19 | 0.01 | 5184 | peptidase D |
| GO | basolateral plasma membrane | 11 | 107 | 0.011 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | basolateral plasma membrane | 11 | 107 | 0.011 | 23705 | cell adhesion molecule 1 |
| GO | basolateral plasma membrane | 11 | 107 | 0.011 | 287 | ankyrin 2, neuronal |
| GO | basolateral plasma membrane | 11 | 107 | 0.011 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |
| GO | basolateral plasma membrane | 11 | 107 | 0.011 | 5031 | pyrimidinergic receptor P2Y, G-protein coupled, 6 |
| GO | basolateral plasma membrane | 11 | 107 | 0.011 | 6580 | solute carrier family 22 (organic cation transporter), member 1 |
| GO | basolateral plasma membrane | 11 | 107 | 0.011 | 7010 | TEK tyrosine kinase, endothelial |
| GO | basolateral plasma membrane | 11 | 107 | 0.011 | 7046 | transforming growth factor, beta receptor 1 |
| GO | basolateral plasma membrane | 11 | 107 | 0.011 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | basolateral plasma membrane | 11 | 107 | 0.011 | 9053 | microtubule-associated protein 7 |
| GO | basolateral plasma membrane | 11 | 107 | 0.011 | 9497 | solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | eye morphogenesis | 2 | 4 | 0.012 | 1289 | collagen, type V, alpha 1 |
| GO | eye morphogenesis | 2 | 4 | 0.012 | 1290 | collagen, type V, alpha 2 |
| GO | apicolateral plasma membrane | 2 | 4 | 0.012 | 166336 | prickle homolog 2 (Drosophila) |
| GO | apicolateral plasma membrane | 2 | 4 | 0.012 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | DNA (cytosine-5-)-methyltransferase activity | 2 | 4 | 0.012 | 1787 | tRNA aspartic acid methyltransferase 1 |
| GO | DNA (cytosine-5-)-methyltransferase activity | 2 | 4 | 0.012 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | lipoygenase pathway | 2 | 4 | 0.012 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | lipoygenase pathway | 2 | 4 | 0.012 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |

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|----|--|---|----|-------|--------|---|
| GO | DNA-directed RNA polymerase I comple | 2 | 4 | 0.012 | 25885 | polymerase (RNA) I polypeptide A, 194kDa |
| GO | DNA-directed RNA polymerase I comple | 2 | 4 | 0.012 | 84172 | polymerase (RNA) I polypeptide B, 128kDa |
| GO | chylomicron remnant clearance | 2 | 4 | 0.012 | 341 | apolipoprotein C-I |
| GO | chylomicron remnant clearance | 2 | 4 | 0.012 | 348 | apolipoprotein E |
| GO | regulation of axon extension | 2 | 4 | 0.012 | 348 | apolipoprotein E |
| GO | regulation of axon extension | 2 | 4 | 0.012 | 4897 | neuronal cell adhesion molecule |
| GO | saliva secretion | 2 | 4 | 0.012 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | saliva secretion | 2 | 4 | 0.012 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | regulation of DNA recombination | 2 | 4 | 0.012 | 3836 | karyopherin alpha 1 (importin alpha 5) |
| GO | regulation of DNA recombination | 2 | 4 | 0.012 | 3838 | karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | response to methylmercury | 2 | 4 | 0.012 | 411 | arylsulfatase B |
| GO | response to methylmercury | 2 | 4 | 0.012 | 898 | cyclin E1 |
| GO | guanine/thymine mispair binding | 2 | 4 | 0.012 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | guanine/thymine mispair binding | 2 | 4 | 0.012 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | regulation of G2/M transition of mitotic | 2 | 4 | 0.012 | 5569 | protein kinase (cAMP-dependent, catalytic) inhibitor alpha |
| GO | regulation of G2/M transition of mitotic | 2 | 4 | 0.012 | 5588 | protein kinase C, theta |
| GO | ATP-dependent 3'-5' DNA helicase activi | 2 | 4 | 0.012 | 5965 | RecQ protein-like (DNA helicase Q1-like) |
| GO | ATP-dependent 3'-5' DNA helicase activi | 2 | 4 | 0.012 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | DNA strand annealing activity | 2 | 4 | 0.012 | 5965 | RecQ protein-like (DNA helicase Q1-like) |
| GO | DNA strand annealing activity | 2 | 4 | 0.012 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | muscle thin filament tropomyosin | 2 | 4 | 0.012 | 7168 | tropomyosin 1 (alpha) |
| GO | muscle thin filament tropomyosin | 2 | 4 | 0.012 | 7171 | tropomyosin 4 |
| GO | gamma-aminobutyric acid signaling patl | 4 | 20 | 0.012 | 200959 | gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | gamma-aminobutyric acid signaling patl | 4 | 20 | 0.012 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | gamma-aminobutyric acid signaling patl | 4 | 20 | 0.012 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | gamma-aminobutyric acid signaling patl | 4 | 20 | 0.012 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | tissue regeneration | 4 | 20 | 0.012 | 2628 | glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | tissue regeneration | 4 | 20 | 0.012 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | tissue regeneration | 4 | 20 | 0.012 | 5588 | protein kinase C, theta |
| GO | tissue regeneration | 4 | 20 | 0.012 | 7078 | TIMP metallopeptidase inhibitor 3 |
| GO | transforming growth factor beta recepti | 3 | 11 | 0.012 | 4052 | latent transforming growth factor beta binding protein 1 |
| GO | transforming growth factor beta recepti | 3 | 11 | 0.012 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | transforming growth factor beta recepti | 3 | 11 | 0.012 | 7046 | transforming growth factor, beta receptor 1 |
| GO | negative regulation of DNA binding | 3 | 11 | 0.012 | 58499 | zinc finger protein 462 |
| GO | negative regulation of DNA binding | 3 | 11 | 0.012 | 6672 | SP100 nuclear antigen |
| GO | negative regulation of DNA binding | 3 | 11 | 0.012 | 7341 | SMT3 suppressor of mif two 3 homolog 1 (S. cerevisiae) |

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|----|--|-----|------|-------|---|
| GO | positive regulation of endothelial cell pr | 5 | 31 | 0.013 | 5228 placental growth factor |
| GO | positive regulation of endothelial cell pr | 5 | 31 | 0.013 | 6347 chemokine (C-C motif) ligand 2 |
| GO | positive regulation of endothelial cell pr | 5 | 31 | 0.013 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | positive regulation of endothelial cell pr | 5 | 31 | 0.013 | 7857 secretogranin II (chromogranin C) |
| GO | positive regulation of endothelial cell pr | 5 | 31 | 0.013 | 79805 vasohibin 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 1000 cadherin 2, type 1, N-cadherin (neuronal) |
| GO | protein binding | 321 | 6249 | 0.014 | 10000 v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) |
| GO | protein binding | 321 | 6249 | 0.014 | 10051 structural maintenance of chromosomes 4 |
| GO | protein binding | 321 | 6249 | 0.014 | 10052 gap junction protein, gamma 1, 45kDa |
| GO | protein binding | 321 | 6249 | 0.014 | 10055 SUMO1 activating enzyme subunit 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 10096 ARP3 actin-related protein 3 homolog (yeast) |
| GO | protein binding | 321 | 6249 | 0.014 | 10097 ARP2 actin-related protein 2 homolog (yeast) |
| GO | protein binding | 321 | 6249 | 0.014 | 10189 THO complex 4 |
| GO | protein binding | 321 | 6249 | 0.014 | 10190 thioredoxin domain containing 9 |
| GO | protein binding | 321 | 6249 | 0.014 | 10199 M-phase phosphoprotein 10 (U3 small nucleolar ribonucleoprotein) |
| GO | protein binding | 321 | 6249 | 0.014 | 10212 DEAD (Asp-Glu-Ala-Asp) box polypeptide 39 |
| GO | protein binding | 321 | 6249 | 0.014 | 10213 proteasome (prosome, macropain) 26S subunit, non-ATPase, 14 |
| GO | protein binding | 321 | 6249 | 0.014 | 10254 signal transducing adaptor molecule (SH3 domain and ITAM motif) 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | protein binding | 321 | 6249 | 0.014 | 10293 TRAF interacting protein |
| GO | protein binding | 321 | 6249 | 0.014 | 10395 deleted in liver cancer 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 1045 caudal type homeobox 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 10465 peptidylprolyl isomerase H (cyclophilin H) |
| GO | protein binding | 321 | 6249 | 0.014 | 10474 transcriptional adaptor 3 |
| GO | protein binding | 321 | 6249 | 0.014 | 10492 synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | protein binding | 321 | 6249 | 0.014 | 10528 NOP56 ribonucleoprotein homolog (yeast) |
| GO | protein binding | 321 | 6249 | 0.014 | 10539 glutaredoxin 3 |
| GO | protein binding | 321 | 6249 | 0.014 | 10612 tripartite motif-containing 3 |
| GO | protein binding | 321 | 6249 | 0.014 | 10656 KH domain containing, RNA binding, signal transduction associated 3 |
| GO | protein binding | 321 | 6249 | 0.014 | 10672 guanine nucleotide binding protein (G protein), alpha 13 |
| GO | protein binding | 321 | 6249 | 0.014 | 10683 delta-like 3 (Drosophila) |
| GO | protein binding | 321 | 6249 | 0.014 | 10785 WD repeat domain 4 |
| GO | protein binding | 321 | 6249 | 0.014 | 10788 IQ motif containing GTPase activating protein 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 10799 ribonuclease P/MRP 40kDa subunit |
| GO | protein binding | 321 | 6249 | 0.014 | 10890 RAB10, member RAS oncogene family |
| GO | protein binding | 321 | 6249 | 0.014 | 11142 protein kinase (cAMP-dependent, catalytic) inhibitor gamma |

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|----|-----------------|-----|------|-------|--------|---|
| GO | protein binding | 321 | 6249 | 0.014 | 11154 | adaptor-related protein complex 4, sigma 1 subunit |
| GO | protein binding | 321 | 6249 | 0.014 | 1121 | choroideremia (Rab escort protein 1) |
| GO | protein binding | 321 | 6249 | 0.014 | 1123 | chimerin (chimaerin) 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 114088 | tripartite motif-containing 9 |
| GO | protein binding | 321 | 6249 | 0.014 | 114804 | ring finger protein 157 |
| GO | protein binding | 321 | 6249 | 0.014 | 115290 | F-box protein 17 |
| GO | protein binding | 321 | 6249 | 0.014 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | protein binding | 321 | 6249 | 0.014 | 118788 | phosphoinositide-3-kinase adaptor protein 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 118924 | chromosome 10 open reading frame 4 |
| GO | protein binding | 321 | 6249 | 0.014 | 12 | serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), me |
| GO | protein binding | 321 | 6249 | 0.014 | 121268 | Ras homolog enriched in brain like 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 1282 | collagen, type IV, alpha 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 1284 | collagen, type IV, alpha 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 1288 | collagen, type IV, alpha 6 |
| GO | protein binding | 321 | 6249 | 0.014 | 128853 | dual specificity phosphatase 15 |
| GO | protein binding | 321 | 6249 | 0.014 | 1289 | collagen, type V, alpha 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 132158 | glycerate kinase |
| GO | protein binding | 321 | 6249 | 0.014 | 140739 | ubiquitin-conjugating enzyme E2F (putative) |
| GO | protein binding | 321 | 6249 | 0.014 | 146760 | reticulon 4 receptor-like 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 1503 | CTP synthase |
| GO | protein binding | 321 | 6249 | 0.014 | 150684 | copper metabolism (Murr1) domain containing 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 151188 | ADP-ribosylation-like factor 6 interacting protein 6 |
| GO | protein binding | 321 | 6249 | 0.014 | 157773 | chromosome 8 open reading frame 48 |
| GO | protein binding | 321 | 6249 | 0.014 | 1643 | damage-specific DNA binding protein 2, 48kDa |
| GO | protein binding | 321 | 6249 | 0.014 | 1687 | deafness, autosomal dominant 5 |
| GO | protein binding | 321 | 6249 | 0.014 | 170082 | transcription elongation factor A (SII) N-terminal and central domain contai |
| GO | protein binding | 321 | 6249 | 0.014 | 1746 | distal-less homeobox 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 1775 | deoxyribonuclease I-like 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 1781 | dynein, cytoplasmic 1, intermediate chain 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | protein binding | 321 | 6249 | 0.014 | 182 | jagged 1 (Alagille syndrome) |
| GO | protein binding | 321 | 6249 | 0.014 | 1984 | eukaryotic translation initiation factor 5A |
| GO | protein binding | 321 | 6249 | 0.014 | 203 | adenylate kinase 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 2037 | erythrocyte membrane protein band 4.1-like 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 2045 | EPH receptor A7 |

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|----|-----------------|-----|------|-------|--|
| GO | protein binding | 321 | 6249 | 0.014 | 2139 eyes absent homolog 2 (Drosophila) |
| GO | protein binding | 321 | 6249 | 0.014 | 2149 coagulation factor II (thrombin) receptor |
| GO | protein binding | 321 | 6249 | 0.014 | 2151 coagulation factor II (thrombin) receptor-like 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 2171 fatty acid binding protein 5 (psoriasis-associated) |
| GO | protein binding | 321 | 6249 | 0.014 | 220134 spindle and kinetochore associated complex subunit 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 221687 ring finger protein 182 |
| GO | protein binding | 321 | 6249 | 0.014 | 2232 ferredoxin reductase |
| GO | protein binding | 321 | 6249 | 0.014 | 2237 flap structure-specific endonuclease 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 2242 feline sarcoma oncogene |
| GO | protein binding | 321 | 6249 | 0.014 | 2264 fibroblast growth factor receptor 4 |
| GO | protein binding | 321 | 6249 | 0.014 | 2273 four and a half LIM domains 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 2281 FK506 binding protein 1B, 12.6 kDa |
| GO | protein binding | 321 | 6249 | 0.014 | 22891 zinc finger protein 365 |
| GO | protein binding | 321 | 6249 | 0.014 | 2305 forkhead box M1 |
| GO | protein binding | 321 | 6249 | 0.014 | 23136 erythrocyte membrane protein band 4.1-like 3 |
| GO | protein binding | 321 | 6249 | 0.014 | 23157 septin 6 |
| GO | protein binding | 321 | 6249 | 0.014 | 23194 F-box and leucine-rich repeat protein 7 |
| GO | protein binding | 321 | 6249 | 0.014 | 23305 acyl-CoA synthetase long-chain family member 6 |
| GO | protein binding | 321 | 6249 | 0.014 | 23594 origin recognition complex, subunit 6 like (yeast) |
| GO | protein binding | 321 | 6249 | 0.014 | 23658 LSM5 homolog, U6 small nuclear RNA associated (<i>S. cerevisiae</i>) |
| GO | protein binding | 321 | 6249 | 0.014 | 241 arachidonate 5-lipoxygenase-activating protein |
| GO | protein binding | 321 | 6249 | 0.014 | 2533 FYN binding protein (FYB-120/130) |
| GO | protein binding | 321 | 6249 | 0.014 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | protein binding | 321 | 6249 | 0.014 | 25780 RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | protein binding | 321 | 6249 | 0.014 | 25827 F-box and leucine-rich repeat protein 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 25885 polymerase (RNA) I polypeptide A, 194kDa |
| GO | protein binding | 321 | 6249 | 0.014 | 26019 UPF2 regulator of nonsense transcripts homolog (yeast) |
| GO | protein binding | 321 | 6249 | 0.014 | 26059 ELKS/RAB6-interacting/CAST family member 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 2618 phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | protein binding | 321 | 6249 | 0.014 | 26207 phosphatidylinositol transfer protein, cytoplasmic 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 26230 T-cell lymphoma invasion and metastasis 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 26275 3-hydroxyisobutyryl-Coenzyme A hydrolase |
| GO | protein binding | 321 | 6249 | 0.014 | 2628 glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | protein binding | 321 | 6249 | 0.014 | 26519 translocase of inner mitochondrial membrane 10 homolog (yeast) |
| GO | protein binding | 321 | 6249 | 0.014 | 26521 translocase of inner mitochondrial membrane 8 homolog B (yeast) |
| GO | protein binding | 321 | 6249 | 0.014 | 26577 procollagen C-endopeptidase enhancer 2 |

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|----|-----------------|-----|------|-------|--------|---|
| GO | protein binding | 321 | 6249 | 0.014 | 26999 | cytoplasmic FMR1 interacting protein 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 27258 | LSM3 homolog, U6 small nuclear RNA associated (<i>S. cerevisiae</i>) |
| GO | protein binding | 321 | 6249 | 0.014 | 27289 | Rho family GTPase 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 2736 | GLI family zinc finger 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 27429 | HtrA serine peptidase 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 287 | ankyrin 2, neuronal |
| GO | protein binding | 321 | 6249 | 0.014 | 28984 | chromosome 13 open reading frame 15 |
| GO | protein binding | 321 | 6249 | 0.014 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | protein binding | 321 | 6249 | 0.014 | 29128 | ubiquitin-like with PHD and ring finger domains 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 2965 | general transcription factor IIH, polypeptide 1, 62kDa |
| GO | protein binding | 321 | 6249 | 0.014 | 29887 | sorting nexin 10 |
| GO | protein binding | 321 | 6249 | 0.014 | 29995 | LIM and cysteine-rich domains 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 30011 | SH3-domain kinase binding protein 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | protein binding | 321 | 6249 | 0.014 | 309 | annexin A6 |
| GO | protein binding | 321 | 6249 | 0.014 | 3183 | heterogeneous nuclear ribonucleoprotein C (C1/C2) |
| GO | protein binding | 321 | 6249 | 0.014 | 3224 | homeobox C8 |
| GO | protein binding | 321 | 6249 | 0.014 | 3236 | homeobox D10 |
| GO | protein binding | 321 | 6249 | 0.014 | 3276 | protein arginine methyltransferase 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 332 | baculoviral IAP repeat-containing 5 |
| GO | protein binding | 321 | 6249 | 0.014 | 3336 | heat shock 10kDa protein 1 (chaperonin 10) |
| GO | protein binding | 321 | 6249 | 0.014 | 344805 | transmembrane protease, serine 7 |
| GO | protein binding | 321 | 6249 | 0.014 | 347902 | adhesion molecule with Ig-like domain 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 348 | apolipoprotein E |
| GO | protein binding | 321 | 6249 | 0.014 | 3516 | recombination signal binding protein for immunoglobulin kappa J region |
| GO | protein binding | 321 | 6249 | 0.014 | 353091 | retinoic acid early transcript 1G |
| GO | protein binding | 321 | 6249 | 0.014 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | protein binding | 321 | 6249 | 0.014 | 3557 | interleukin 1 receptor antagonist |
| GO | protein binding | 321 | 6249 | 0.014 | 3624 | inhibin, beta A |
| GO | protein binding | 321 | 6249 | 0.014 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | protein binding | 321 | 6249 | 0.014 | 3751 | potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 3754 | potassium voltage-gated channel, subfamily F, member 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 3763 | potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | protein binding | 321 | 6249 | 0.014 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | protein binding | 321 | 6249 | 0.014 | 3800 | kinesin family member 5C |
| GO | protein binding | 321 | 6249 | 0.014 | 3836 | karyopherin alpha 1 (importin alpha 5) |

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|----|-----------------|-----|------|-------|---|
| GO | protein binding | 321 | 6249 | 0.014 | 3838 karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | protein binding | 321 | 6249 | 0.014 | 3883 keratin 33A |
| GO | protein binding | 321 | 6249 | 0.014 | 3887 keratin 81 |
| GO | protein binding | 321 | 6249 | 0.014 | 389421 lin-28 homolog B (C. elegans) |
| GO | protein binding | 321 | 6249 | 0.014 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | protein binding | 321 | 6249 | 0.014 | 3936 lymphocyte cytosolic protein 1 (L-plastin) |
| GO | protein binding | 321 | 6249 | 0.014 | 3952 leptin |
| GO | protein binding | 321 | 6249 | 0.014 | 3975 LIM homeobox 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 401265 kelch-like 31 (Drosophila) |
| GO | protein binding | 321 | 6249 | 0.014 | 406 aryl hydrocarbon receptor nuclear translocator-like |
| GO | protein binding | 321 | 6249 | 0.014 | 409 arrestin, beta 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 4158 melanocortin 2 receptor (adrenocorticotrophic hormone) |
| GO | protein binding | 321 | 6249 | 0.014 | 4171 minichromosome maintenance complex component 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 4287 ataxin 3 |
| GO | protein binding | 321 | 6249 | 0.014 | 4291 myeloid leukemia factor 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 4292 mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | protein binding | 321 | 6249 | 0.014 | 4318 matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) |
| GO | protein binding | 321 | 6249 | 0.014 | 4430 myosin IB |
| GO | protein binding | 321 | 6249 | 0.014 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | protein binding | 321 | 6249 | 0.014 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | protein binding | 321 | 6249 | 0.014 | 4763 neurofibromin 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | protein binding | 321 | 6249 | 0.014 | 4867 nephronophthisis 1 (juvenile) |
| GO | protein binding | 321 | 6249 | 0.014 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | protein binding | 321 | 6249 | 0.014 | 4928 nucleoporin 98kDa |
| GO | protein binding | 321 | 6249 | 0.014 | 4968 8-oxoguanine DNA glycosylase |
| GO | protein binding | 321 | 6249 | 0.014 | 5000 origin recognition complex, subunit 4-like (yeast) |
| GO | protein binding | 321 | 6249 | 0.014 | 5021 oxytocin receptor |
| GO | protein binding | 321 | 6249 | 0.014 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1) |
| GO | protein binding | 321 | 6249 | 0.014 | 5081 paired box 7 |
| GO | protein binding | 321 | 6249 | 0.014 | 51003 mediator complex subunit 31 |
| GO | protein binding | 321 | 6249 | 0.014 | 5101 protocadherin 9 |
| GO | protein binding | 321 | 6249 | 0.014 | 51062 atlastin GTPase 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 5110 protein-L-isoaspartate (D-aspartate) O-methyltransferase |
| GO | protein binding | 321 | 6249 | 0.014 | 51136 ring finger protein, transmembrane 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 51382 ATPase, H ⁺ transporting, lysosomal 34kDa, V1 subunit D |

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|----|-----------------|-----|------|-------|--|
| GO | protein binding | 321 | 6249 | 0.014 | 5140 phosphodiesterase 3B, cGMP-inhibited |
| GO | protein binding | 321 | 6249 | 0.014 | 51499 TP53 regulated inhibitor of apoptosis 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 5245 prohibitin |
| GO | protein binding | 321 | 6249 | 0.014 | 5264 phytanoyl-CoA 2-hydroxylase |
| GO | protein binding | 321 | 6249 | 0.014 | 528 ATPase, H ⁺ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | protein binding | 321 | 6249 | 0.014 | 5341 pleckstrin |
| GO | protein binding | 321 | 6249 | 0.014 | 53981 cleavage and polyadenylation specific factor 2, 100kDa |
| GO | protein binding | 321 | 6249 | 0.014 | 5420 podocalyxin-like |
| GO | protein binding | 321 | 6249 | 0.014 | 5469 mediator complex subunit 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 54726 OTU domain containing 4 |
| GO | protein binding | 321 | 6249 | 0.014 | 54839 leucine rich repeat containing 49 |
| GO | protein binding | 321 | 6249 | 0.014 | 54843 synaptotagmin-like 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 54849 differentially expressed in FDCP 8 homolog (mouse) |
| GO | protein binding | 321 | 6249 | 0.014 | 5494 protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A |
| GO | protein binding | 321 | 6249 | 0.014 | 54951 COMM domain containing 8 |
| GO | protein binding | 321 | 6249 | 0.014 | 54984 PIN2-interacting protein 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 55012 protein phosphatase 2 (formerly 2A), regulatory subunit B'', gamma |
| GO | protein binding | 321 | 6249 | 0.014 | 55135 WD repeat containing, antisense to TP53 |
| GO | protein binding | 321 | 6249 | 0.014 | 55215 Fanconi anemia, complementation group I |
| GO | protein binding | 321 | 6249 | 0.014 | 55521 tripartite motif-containing 36 |
| GO | protein binding | 321 | 6249 | 0.014 | 55577 N-acetylglucosamine kinase |
| GO | protein binding | 321 | 6249 | 0.014 | 55752 septin 11 |
| GO | protein binding | 321 | 6249 | 0.014 | 55759 WD repeat domain 12 |
| GO | protein binding | 321 | 6249 | 0.014 | 558 AXL receptor tyrosine kinase |
| GO | protein binding | 321 | 6249 | 0.014 | 55803 ArfGAP with dual PH domains 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 5588 protein kinase C, theta |
| GO | protein binding | 321 | 6249 | 0.014 | 55916 nuclear transport factor 2-like export factor 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 56062 kelch-like 4 (Drosophila) |
| GO | protein binding | 321 | 6249 | 0.014 | 5624 protein C (inactivator of coagulation factors Va and VIIIa) |
| GO | protein binding | 321 | 6249 | 0.014 | 56241 sushi domain containing 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 56655 polymerase (DNA-directed), epsilon 4 (p12 subunit) |
| GO | protein binding | 321 | 6249 | 0.014 | 56852 RAD18 homolog (<i>S. cerevisiae</i>) |
| GO | protein binding | 321 | 6249 | 0.014 | 5702 proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | protein binding | 321 | 6249 | 0.014 | 57099 apoptosis, caspase activation inhibitor |
| GO | protein binding | 321 | 6249 | 0.014 | 57144 p21 protein (Cdc42/Rac)-activated kinase 7 |
| GO | protein binding | 321 | 6249 | 0.014 | 5717 proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 |

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|----|-----------------|-----|------|-------|-------|---|
| GO | protein binding | 321 | 6249 | 0.014 | 57333 | reticulocalbin 3, EF-hand calcium binding domain |
| GO | protein binding | 321 | 6249 | 0.014 | 57484 | ring finger protein 150 |
| GO | protein binding | 321 | 6249 | 0.014 | 5754 | PTK7 protein tyrosine kinase 7 |
| GO | protein binding | 321 | 6249 | 0.014 | 57599 | WD repeat domain 48 |
| GO | protein binding | 321 | 6249 | 0.014 | 57650 | KIAA1524 |
| GO | protein binding | 321 | 6249 | 0.014 | 5795 | protein tyrosine phosphatase, receptor type, J |
| GO | protein binding | 321 | 6249 | 0.014 | 581 | BCL2-associated X protein |
| GO | protein binding | 321 | 6249 | 0.014 | 59 | actin, alpha 2, smooth muscle, aorta |
| GO | protein binding | 321 | 6249 | 0.014 | 5924 | Ras protein-specific guanine nucleotide-releasing factor 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 5965 | RecQ protein-like (DNA helicase Q1-like) |
| GO | protein binding | 321 | 6249 | 0.014 | 597 | BCL2-related protein A1 |
| GO | protein binding | 321 | 6249 | 0.014 | 6000 | regulator of G-protein signaling 7 |
| GO | protein binding | 321 | 6249 | 0.014 | 6120 | ribulose-5-phosphate-3-epimerase |
| GO | protein binding | 321 | 6249 | 0.014 | 6154 | ribosomal protein L26 |
| GO | protein binding | 321 | 6249 | 0.014 | 6204 | ribosomal protein S10 |
| GO | protein binding | 321 | 6249 | 0.014 | 6241 | ribonucleotide reductase M2 |
| GO | protein binding | 321 | 6249 | 0.014 | 6242 | rhotekin |
| GO | protein binding | 321 | 6249 | 0.014 | 6251 | Ras suppressor protein 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 6299 | sal-like 1 (Drosophila) |
| GO | protein binding | 321 | 6249 | 0.014 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | protein binding | 321 | 6249 | 0.014 | 64151 | non-SMC condensin I complex, subunit G |
| GO | protein binding | 321 | 6249 | 0.014 | 6442 | sarcoglycan, alpha (50kDa dystrophin-associated glycoprotein) |
| GO | protein binding | 321 | 6249 | 0.014 | 6444 | sarcoglycan, delta (35kDa dystrophin-associated glycoprotein) |
| GO | protein binding | 321 | 6249 | 0.014 | 65062 | amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 4 |
| GO | protein binding | 321 | 6249 | 0.014 | 6580 | solute carrier family 22 (organic cation transporter), member 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 6586 | slit homolog 3 (Drosophila) |
| GO | protein binding | 321 | 6249 | 0.014 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | protein binding | 321 | 6249 | 0.014 | 6615 | snail homolog 1 (Drosophila) |
| GO | protein binding | 321 | 6249 | 0.014 | 6637 | small nuclear ribonucleoprotein polypeptide G |
| GO | protein binding | 321 | 6249 | 0.014 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 6659 | SRY (sex determining region Y)-box 4 |
| GO | protein binding | 321 | 6249 | 0.014 | 6662 | SRY (sex determining region Y)-box 9 |
| GO | protein binding | 321 | 6249 | 0.014 | 667 | dystonin |
| GO | protein binding | 321 | 6249 | 0.014 | 6672 | SP100 nuclear antigen |
| GO | protein binding | 321 | 6249 | 0.014 | 6683 | spastin |

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|----|-----------------|-----|------|-------|--|
| GO | protein binding | 321 | 6249 | 0.014 | 6711 spectrin, beta, non-erythrocytic 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 672 breast cancer 1, early onset |
| GO | protein binding | 321 | 6249 | 0.014 | 6741 Sjogren syndrome antigen B (autoantigen La) |
| GO | protein binding | 321 | 6249 | 0.014 | 6820 sulfotransferase family, cytosolic, 2B, member 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 70 actin, alpha, cardiac muscle 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 7010 TEK tyrosine kinase, endothelial |
| GO | protein binding | 321 | 6249 | 0.014 | 7021 transcription factor AP-2 beta (activating enhancer binding protein 2 beta) |
| GO | protein binding | 321 | 6249 | 0.014 | 7046 transforming growth factor, beta receptor 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 7058 thrombospondin 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 7078 TIMP metalloproteinase inhibitor 3 |
| GO | protein binding | 321 | 6249 | 0.014 | 7137 troponin I type 3 (cardiac) |
| GO | protein binding | 321 | 6249 | 0.014 | 7220 transient receptor potential cation channel, subfamily C, member 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 7324 ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | protein binding | 321 | 6249 | 0.014 | 7341 SMT3 suppressor of mif two 3 homolog 1 (<i>S. cerevisiae</i>) |
| GO | protein binding | 321 | 6249 | 0.014 | 7347 ubiquitin carboxyl-terminal esterase L3 (ubiquitin thiolesterase) |
| GO | protein binding | 321 | 6249 | 0.014 | 7353 ubiquitin fusion degradation 1 like (yeast) |
| GO | protein binding | 321 | 6249 | 0.014 | 7456 WAS/WASL interacting protein family, member 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 7490 Wilms tumor 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 767 carbonic anhydrase VIII |
| GO | protein binding | 321 | 6249 | 0.014 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | protein binding | 321 | 6249 | 0.014 | 7857 secretogranin II (chromogranin C) |
| GO | protein binding | 321 | 6249 | 0.014 | 79075 defective in sister chromatid cohesion 1 homolog (<i>S. cerevisiae</i>) |
| GO | protein binding | 321 | 6249 | 0.014 | 79172 centromere protein O |
| GO | protein binding | 321 | 6249 | 0.014 | 79682 MLF1 interacting protein |
| GO | protein binding | 321 | 6249 | 0.014 | 79780 coiled-coil domain containing 82 |
| GO | protein binding | 321 | 6249 | 0.014 | 79833 gem (nuclear organelle) associated protein 6 |
| GO | protein binding | 321 | 6249 | 0.014 | 80304 chromosome 2 open reading frame 44 |
| GO | protein binding | 321 | 6249 | 0.014 | 80342 TRAF3 interacting protein 3 |
| GO | protein binding | 321 | 6249 | 0.014 | 8091 high mobility group AT-hook 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 81706 protein phosphatase 1, regulatory (inhibitor) subunit 14C |
| GO | protein binding | 321 | 6249 | 0.014 | 81786 tripartite motif-containing 7 |
| GO | protein binding | 321 | 6249 | 0.014 | 8193 D4, zinc and double PHD fingers family 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 8349 histone cluster 2, H2be |
| GO | protein binding | 321 | 6249 | 0.014 | 8409 ubiquitously-expressed transcript |
| GO | protein binding | 321 | 6249 | 0.014 | 84125 leucine-rich repeats and IQ motif containing 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 84168 anthrax toxin receptor 1 |

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|----|-----------------|-----|------|-------|--|
| GO | protein binding | 321 | 6249 | 0.014 | 84172 polymerase (RNA) I polypeptide B, 128kDa |
| GO | protein binding | 321 | 6249 | 0.014 | 84189 SLIT and NTRK-like family, member 6 |
| GO | protein binding | 321 | 6249 | 0.014 | 84206 mex-3 homolog B (C. elegans) |
| GO | protein binding | 321 | 6249 | 0.014 | 84230 leucine rich repeat containing 8 family, member C |
| GO | protein binding | 321 | 6249 | 0.014 | 84296 GINS complex subunit 4 (Sld5 homolog) |
| GO | protein binding | 321 | 6249 | 0.014 | 84365 MKI67 (FHA domain) interacting nucleolar phosphoprotein |
| GO | protein binding | 321 | 6249 | 0.014 | 84541 kelch repeat and BTB (POZ) domain containing 8 |
| GO | protein binding | 321 | 6249 | 0.014 | 84552 par-6 partitioning defective 6 homolog gamma (C. elegans) |
| GO | protein binding | 321 | 6249 | 0.014 | 8458 transcription termination factor, RNA polymerase II |
| GO | protein binding | 321 | 6249 | 0.014 | 8482 semaphorin 7A, GPI membrane anchor (John Milton Hagen blood group) |
| GO | protein binding | 321 | 6249 | 0.014 | 84878 zinc finger and BTB domain containing 45 |
| GO | protein binding | 321 | 6249 | 0.014 | 8520 histone acetyltransferase 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 8533 COP9 constitutive photomorphogenic homolog subunit 3 (Arabidopsis) |
| GO | protein binding | 321 | 6249 | 0.014 | 8563 THO complex 5 |
| GO | protein binding | 321 | 6249 | 0.014 | 8604 solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | protein binding | 321 | 6249 | 0.014 | 8626 tumor protein p63 |
| GO | protein binding | 321 | 6249 | 0.014 | 8777 multiple PDZ domain protein |
| GO | protein binding | 321 | 6249 | 0.014 | 8788 delta-like 1 homolog (Drosophila) |
| GO | protein binding | 321 | 6249 | 0.014 | 8835 suppressor of cytokine signaling 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 890 cyclin A2 |
| GO | protein binding | 321 | 6249 | 0.014 | 8905 adaptor-related protein complex 1, sigma 2 subunit |
| GO | protein binding | 321 | 6249 | 0.014 | 8970 histone cluster 1, H2bj |
| GO | protein binding | 321 | 6249 | 0.014 | 898 cyclin E1 |
| GO | protein binding | 321 | 6249 | 0.014 | 8997 kalirin, RhoGEF kinase |
| GO | protein binding | 321 | 6249 | 0.014 | 91442 chromosome 19 open reading frame 40 |
| GO | protein binding | 321 | 6249 | 0.014 | 91801 alkB, alkylation repair homolog 8 (E. coli) |
| GO | protein binding | 321 | 6249 | 0.014 | 92312 mex-3 homolog A (C. elegans) |
| GO | protein binding | 321 | 6249 | 0.014 | 9260 PDZ and LIM domain 7 (enigma) |
| GO | protein binding | 321 | 6249 | 0.014 | 9262 serine/threonine kinase 17b |
| GO | protein binding | 321 | 6249 | 0.014 | 92737 delta/notch-like EGF repeat containing |
| GO | protein binding | 321 | 6249 | 0.014 | 93649 myocardin |
| GO | protein binding | 321 | 6249 | 0.014 | 9455 homer homolog 2 (Drosophila) |
| GO | protein binding | 321 | 6249 | 0.014 | 9497 solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | protein binding | 321 | 6249 | 0.014 | 9568 gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | protein binding | 321 | 6249 | 0.014 | 9688 nucleoporin 93kDa |
| GO | protein binding | 321 | 6249 | 0.014 | 9732 dedicator of cytokinesis 4 |

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|----|-----------------------------------|-----|------|-------|--------|---|
| GO | protein binding | 321 | 6249 | 0.014 | 9744 | ArfGAP with coiled-coil, ankyrin repeat and PH domains 1 |
| GO | protein binding | 321 | 6249 | 0.014 | 9833 | maternal embryonic leucine zipper kinase |
| GO | cell cycle | 32 | 458 | 0.014 | 10051 | structural maintenance of chromosomes 4 |
| GO | cell cycle | 32 | 458 | 0.014 | 113130 | cell division cycle associated 5 |
| GO | cell cycle | 32 | 458 | 0.014 | 1164 | CDC28 protein kinase regulatory subunit 2 |
| GO | cell cycle | 32 | 458 | 0.014 | 157570 | establishment of cohesion 1 homolog 2 (<i>S. cerevisiae</i>) |
| GO | cell cycle | 32 | 458 | 0.014 | 1841 | deoxythymidylate kinase (thymidylate kinase) |
| GO | cell cycle | 32 | 458 | 0.014 | 220042 | chromosome 11 open reading frame 82 |
| GO | cell cycle | 32 | 458 | 0.014 | 220134 | spindle and kinetochore associated complex subunit 1 |
| GO | cell cycle | 32 | 458 | 0.014 | 2305 | forkhead box M1 |
| GO | cell cycle | 32 | 458 | 0.014 | 23157 | septin 6 |
| GO | cell cycle | 32 | 458 | 0.014 | 26586 | cytoskeleton associated protein 2 |
| GO | cell cycle | 32 | 458 | 0.014 | 28984 | chromosome 13 open reading frame 15 |
| GO | cell cycle | 32 | 458 | 0.014 | 29128 | ubiquitin-like with PHD and ring finger domains 1 |
| GO | cell cycle | 32 | 458 | 0.014 | 332 | baculoviral IAP repeat-containing 5 |
| GO | cell cycle | 32 | 458 | 0.014 | 4171 | minichromosome maintenance complex component 2 |
| GO | cell cycle | 32 | 458 | 0.014 | 4291 | myeloid leukemia factor 1 |
| GO | cell cycle | 32 | 458 | 0.014 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (<i>E. coli</i>) |
| GO | cell cycle | 32 | 458 | 0.014 | 55165 | centrosomal protein 55kDa |
| GO | cell cycle | 32 | 458 | 0.014 | 55207 | ADP-ribosylation factor-like 8B |
| GO | cell cycle | 32 | 458 | 0.014 | 55215 | Fanconi anemia, complementation group I |
| GO | cell cycle | 32 | 458 | 0.014 | 55752 | septin 11 |
| GO | cell cycle | 32 | 458 | 0.014 | 64151 | non-SMC condensin I complex, subunit G |
| GO | cell cycle | 32 | 458 | 0.014 | 6683 | spastin |
| GO | cell cycle | 32 | 458 | 0.014 | 672 | breast cancer 1, early onset |
| GO | cell cycle | 32 | 458 | 0.014 | 7029 | transcription factor Dp-2 (E2F dimerization partner 2) |
| GO | cell cycle | 32 | 458 | 0.014 | 79075 | defective in sister chromatid cohesion 1 homolog (<i>S. cerevisiae</i>) |
| GO | cell cycle | 32 | 458 | 0.014 | 79187 | fibronectin type III and SPRY domain containing 1 |
| GO | cell cycle | 32 | 458 | 0.014 | 8091 | high mobility group AT-hook 2 |
| GO | cell cycle | 32 | 458 | 0.014 | 84552 | par-6 partitioning defective 6 homolog gamma (<i>C. elegans</i>) |
| GO | cell cycle | 32 | 458 | 0.014 | 8872 | cell division cycle 123 homolog (<i>S. cerevisiae</i>) |
| GO | cell cycle | 32 | 458 | 0.014 | 890 | cyclin A2 |
| GO | cell cycle | 32 | 458 | 0.014 | 898 | cyclin E1 |
| GO | cell cycle | 32 | 458 | 0.014 | 93323 | HAUS augmin-like complex, subunit 8 |
| GO | protein kinase inhibitor activity | 4 | 21 | 0.015 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | protein kinase inhibitor activity | 4 | 21 | 0.015 | 11142 | protein kinase (cAMP-dependent, catalytic) inhibitor gamma |

| | | | | | | |
|----|---|----|-----|-------|--------|--|
| GO | protein kinase inhibitor activity | 4 | 21 | 0.015 | 5569 | protein kinase (cAMP-dependent, catalytic) inhibitor alpha |
| GO | protein kinase inhibitor activity | 4 | 21 | 0.015 | 9535 | glia maturation factor, gamma |
| GO | mitotic chromosome condensation | 3 | 12 | 0.016 | 10051 | structural maintenance of chromosomes 4 |
| GO | mitotic chromosome condensation | 3 | 12 | 0.016 | 113130 | cell division cycle associated 5 |
| GO | mitotic chromosome condensation | 3 | 12 | 0.016 | 64151 | non-SMC condensin I complex, subunit G |
| GO | blastocyst development | 3 | 12 | 0.016 | 1045 | caudal type homeobox 2 |
| GO | blastocyst development | 3 | 12 | 0.016 | 5702 | proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | blastocyst development | 3 | 12 | 0.016 | 7046 | transforming growth factor, beta receptor 1 |
| GO | NLS-bearing substrate import into nucle | 3 | 12 | 0.016 | 2533 | FYN binding protein (FYB-120/130) |
| GO | NLS-bearing substrate import into nucle | 3 | 12 | 0.016 | 3836 | karyopherin alpha 1 (importin alpha 5) |
| GO | NLS-bearing substrate import into nucle | 3 | 12 | 0.016 | 3838 | karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | rRNA transcription | 3 | 12 | 0.016 | 25885 | polymerase (RNA) I polypeptide A, 194kDa |
| GO | rRNA transcription | 3 | 12 | 0.016 | 84172 | polymerase (RNA) I polypeptide B, 128kDa |
| GO | rRNA transcription | 3 | 12 | 0.016 | 84365 | MKI67 (FHA domain) interacting nucleolar phosphoprotein |
| GO | adrenal gland development | 3 | 12 | 0.016 | 4763 | neurofibromin 1 |
| GO | adrenal gland development | 3 | 12 | 0.016 | 6299 | sal-like 1 (Drosophila) |
| GO | adrenal gland development | 3 | 12 | 0.016 | 7490 | Wilms tumor 1 |
| GO | dendrite | 12 | 128 | 0.016 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | dendrite | 12 | 128 | 0.016 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | dendrite | 12 | 128 | 0.016 | 1984 | eukaryotic translation initiation factor 5A |
| GO | dendrite | 12 | 128 | 0.016 | 2045 | EPH receptor A7 |
| GO | dendrite | 12 | 128 | 0.016 | 23705 | cell adhesion molecule 1 |
| GO | dendrite | 12 | 128 | 0.016 | 348 | apolipoprotein E |
| GO | dendrite | 12 | 128 | 0.016 | 3763 | potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | dendrite | 12 | 128 | 0.016 | 4763 | neurofibromin 1 |
| GO | dendrite | 12 | 128 | 0.016 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | dendrite | 12 | 128 | 0.016 | 8626 | tumor protein p63 |
| GO | dendrite | 12 | 128 | 0.016 | 8777 | multiple PDZ domain protein |
| GO | dendrite | 12 | 128 | 0.016 | 92737 | delta/notch-like EGF repeat containing |
| GO | isomerase activity | 10 | 99 | 0.017 | 10465 | peptidylprolyl isomerase H (cyclophilin H) |
| GO | isomerase activity | 10 | 99 | 0.017 | 150962 | pseudouridylate synthase 10 |
| GO | isomerase activity | 10 | 99 | 0.017 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | isomerase activity | 10 | 99 | 0.017 | 22934 | ribose 5-phosphate isomerase A |
| GO | isomerase activity | 10 | 99 | 0.017 | 283209 | phosphoglucomutase 2-like 1 |
| GO | isomerase activity | 10 | 99 | 0.017 | 29940 | dermatan sulfate epimerase |
| GO | isomerase activity | 10 | 99 | 0.017 | 51645 | peptidylprolyl isomerase (cyclophilin)-like 1 |

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|----|--|----|-----|-------|--------|---|
| GO | isomerase activity | 10 | 99 | 0.017 | 5303 | protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | isomerase activity | 10 | 99 | 0.017 | 6120 | ribulose-5-phosphate-3-epimerase |
| GO | isomerase activity | 10 | 99 | 0.017 | 669 | 2,3-bisphosphoglycerate mutase |
| GO | actin cytoskeleton organization | 11 | 114 | 0.017 | 10391 | coronin, actin binding protein, 2B |
| GO | actin cytoskeleton organization | 11 | 114 | 0.017 | 10395 | deleted in liver cancer 1 |
| GO | actin cytoskeleton organization | 11 | 114 | 0.017 | 1730 | diaphanous homolog 2 (Drosophila) |
| GO | actin cytoskeleton organization | 11 | 114 | 0.017 | 26499 | pleckstrin 2 |
| GO | actin cytoskeleton organization | 11 | 114 | 0.017 | 4763 | neurofibromin 1 |
| GO | actin cytoskeleton organization | 11 | 114 | 0.017 | 4867 | nephronophthisis 1 (juvenile) |
| GO | actin cytoskeleton organization | 11 | 114 | 0.017 | 4893 | neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | actin cytoskeleton organization | 11 | 114 | 0.017 | 5216 | profilin 1 |
| GO | actin cytoskeleton organization | 11 | 114 | 0.017 | 7456 | WAS/WASL interacting protein family, member 1 |
| GO | actin cytoskeleton organization | 11 | 114 | 0.017 | 81624 | diaphanous homolog 3 (Drosophila) |
| GO | actin cytoskeleton organization | 11 | 114 | 0.017 | 9260 | PDZ and LIM domain 7 (enigma) |
| GO | positive regulation of neuron differentia | 4 | 22 | 0.017 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | positive regulation of neuron differentia | 4 | 22 | 0.017 | 2736 | GLI family zinc finger 2 |
| GO | positive regulation of neuron differentia | 4 | 22 | 0.017 | 4897 | neuronal cell adhesion molecule |
| GO | positive regulation of neuron differentia | 4 | 22 | 0.017 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | condensin complex | 2 | 5 | 0.02 | 10051 | structural maintenance of chromosomes 4 |
| GO | condensin complex | 2 | 5 | 0.02 | 64151 | non-SMC condensin I complex, subunit G |
| GO | hemidesmosome | 2 | 5 | 0.02 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | hemidesmosome | 2 | 5 | 0.02 | 667 | dystonin |
| GO | cAMP-dependent protein kinase inhibiti | 2 | 5 | 0.02 | 11142 | protein kinase (cAMP-dependent, catalytic) inhibitor gamma |
| GO | cAMP-dependent protein kinase inhibiti | 2 | 5 | 0.02 | 5569 | protein kinase (cAMP-dependent, catalytic) inhibitor alpha |
| GO | negative regulation of oligodendrocyte | 2 | 5 | 0.02 | 1746 | distal-less homeobox 2 |
| GO | negative regulation of oligodendrocyte | 2 | 5 | 0.02 | 4763 | neurofibromin 1 |
| GO | positive regulation of triglyceride biosyr | 2 | 5 | 0.02 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | positive regulation of triglyceride biosyr | 2 | 5 | 0.02 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | nuclear origin of replication recognition | 2 | 5 | 0.02 | 23594 | origin recognition complex, subunit 6 like (yeast) |
| GO | nuclear origin of replication recognition | 2 | 5 | 0.02 | 4171 | minichromosome maintenance complex component 2 |
| GO | activated T cell proliferation | 2 | 5 | 0.02 | 23705 | cell adhesion molecule 1 |
| GO | activated T cell proliferation | 2 | 5 | 0.02 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | spinal cord association neuron different | 2 | 5 | 0.02 | 266727 | MAM domain containing glycosylphosphatidylinositol anchor 1 |
| GO | spinal cord association neuron different | 2 | 5 | 0.02 | 5081 | paired box 7 |
| GO | profilin binding | 2 | 5 | 0.02 | 27445 | piccolo (presynaptic cytomatrix protein) |
| GO | profilin binding | 2 | 5 | 0.02 | 7456 | WAS/WASL interacting protein family, member 1 |

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|----|--|----|-----|-------|-------|---|
| GO | phosphatidylcholine-sterol O-acyltransf | 2 | 5 | 0.02 | 341 | apolipoprotein C-I |
| GO | phosphatidylcholine-sterol O-acyltransf | 2 | 5 | 0.02 | 348 | apolipoprotein E |
| GO | lysosomal transport | 2 | 5 | 0.02 | 411 | arylsulfatase B |
| GO | lysosomal transport | 2 | 5 | 0.02 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | positive regulation of penile erection | 2 | 5 | 0.02 | 5021 | oxytocin receptor |
| GO | positive regulation of penile erection | 2 | 5 | 0.02 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |
| GO | pattern recognition receptor activity | 2 | 5 | 0.02 | 81035 | collectin sub-family member 12 |
| GO | pattern recognition receptor activity | 2 | 5 | 0.02 | 8685 | macrophage receptor with collagenous structure |
| GO | regulation of cell proliferation | 8 | 73 | 0.02 | 182 | jagged 1 (Alagille syndrome) |
| GO | regulation of cell proliferation | 8 | 73 | 0.02 | 2305 | forkhead box M1 |
| GO | regulation of cell proliferation | 8 | 73 | 0.02 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | regulation of cell proliferation | 8 | 73 | 0.02 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | regulation of cell proliferation | 8 | 73 | 0.02 | 6662 | SRY (sex determining region Y)-box 9 |
| GO | regulation of cell proliferation | 8 | 73 | 0.02 | 672 | breast cancer 1, early onset |
| GO | regulation of cell proliferation | 8 | 73 | 0.02 | 7010 | TEK tyrosine kinase, endothelial |
| GO | regulation of cell proliferation | 8 | 73 | 0.02 | 83879 | cell division cycle associated 7 |
| GO | cortical actin cytoskeleton organization | 3 | 13 | 0.02 | 2037 | erythrocyte membrane protein band 4.1-like 2 |
| GO | cortical actin cytoskeleton organization | 3 | 13 | 0.02 | 23136 | erythrocyte membrane protein band 4.1-like 3 |
| GO | cortical actin cytoskeleton organization | 3 | 13 | 0.02 | 5341 | pleckstrin |
| GO | positive regulation of smooth muscle cc | 3 | 13 | 0.02 | 2149 | coagulation factor II (thrombin) receptor |
| GO | positive regulation of smooth muscle cc | 3 | 13 | 0.02 | 60675 | prokineticin 2 |
| GO | positive regulation of smooth muscle cc | 3 | 13 | 0.02 | 93649 | myocardin |
| GO | negative regulation of Wnt receptor sigi | 3 | 13 | 0.02 | 6422 | secreted frizzled-related protein 1 |
| GO | negative regulation of Wnt receptor sigi | 3 | 13 | 0.02 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | negative regulation of Wnt receptor sigi | 3 | 13 | 0.02 | 81029 | wingless-type MMTV integration site family, member 5B |
| GO | embryonic skeletal system developmen | 4 | 23 | 0.02 | 1746 | distal-less homeobox 2 |
| GO | embryonic skeletal system developmen | 4 | 23 | 0.02 | 5081 | paired box 7 |
| GO | embryonic skeletal system developmen | 4 | 23 | 0.02 | 5125 | proprotein convertase subtilisin/kexin type 5 |
| GO | embryonic skeletal system developmen | 4 | 23 | 0.02 | 8788 | delta-like 1 homolog (Drosophila) |
| GO | growth factor binding | 4 | 23 | 0.02 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular r |
| GO | growth factor binding | 4 | 23 | 0.02 | 4052 | latent transforming growth factor beta binding protein 1 |
| GO | growth factor binding | 4 | 23 | 0.02 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | growth factor binding | 4 | 23 | 0.02 | 7046 | transforming growth factor, beta receptor 1 |
| GO | structural molecule activity | 16 | 196 | 0.021 | 11149 | blood vessel epicardial substance |
| GO | structural molecule activity | 16 | 196 | 0.021 | 182 | jagged 1 (Alagille syndrome) |
| GO | structural molecule activity | 16 | 196 | 0.021 | 2037 | erythrocyte membrane protein band 4.1-like 2 |

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|----|------------------------------|----|-----|-------|--------|--|
| GO | structural molecule activity | 16 | 196 | 0.021 | 23136 | erythrocyte membrane protein band 4.1-like 3 |
| GO | structural molecule activity | 16 | 196 | 0.021 | 23562 | claudin 14 |
| GO | structural molecule activity | 16 | 196 | 0.021 | 347733 | tubulin, beta 2B |
| GO | structural molecule activity | 16 | 196 | 0.021 | 3883 | keratin 33A |
| GO | structural molecule activity | 16 | 196 | 0.021 | 3887 | keratin 81 |
| GO | structural molecule activity | 16 | 196 | 0.021 | 4867 | nephronophthisis 1 (juvenile) |
| GO | structural molecule activity | 16 | 196 | 0.021 | 57642 | collagen, type XX, alpha 1 |
| GO | structural molecule activity | 16 | 196 | 0.021 | 7058 | thrombospondin 2 |
| GO | structural molecule activity | 16 | 196 | 0.021 | 7348 | uroplakin 1B |
| GO | structural molecule activity | 16 | 196 | 0.021 | 7846 | tubulin, alpha 1a |
| GO | structural molecule activity | 16 | 196 | 0.021 | 79861 | tubulin, alpha-like 3 |
| GO | structural molecule activity | 16 | 196 | 0.021 | 9053 | microtubule-associated protein 7 |
| GO | structural molecule activity | 16 | 196 | 0.021 | 9076 | claudin 1 |
| GO | RNA binding | 37 | 562 | 0.021 | 10056 | phenylalanyl-tRNA synthetase, beta subunit |
| GO | RNA binding | 37 | 562 | 0.021 | 10189 | THO complex 4 |
| GO | RNA binding | 37 | 562 | 0.021 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | RNA binding | 37 | 562 | 0.021 | 10528 | NOP56 ribonucleoprotein homolog (yeast) |
| GO | RNA binding | 37 | 562 | 0.021 | 11022 | tudor and KH domain containing |
| GO | RNA binding | 37 | 562 | 0.021 | 11056 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 52 |
| GO | RNA binding | 37 | 562 | 0.021 | 11222 | mitochondrial ribosomal protein L3 |
| GO | RNA binding | 37 | 562 | 0.021 | 132430 | poly(A) binding protein, cytoplasmic 4-like |
| GO | RNA binding | 37 | 562 | 0.021 | 135295 | splicing factor, arginine/serine-rich 13B |
| GO | RNA binding | 37 | 562 | 0.021 | 1787 | tRNA aspartic acid methyltransferase 1 |
| GO | RNA binding | 37 | 562 | 0.021 | 1984 | eukaryotic translation initiation factor 5A |
| GO | RNA binding | 37 | 562 | 0.021 | 201299 | RAD52 motif 1 |
| GO | RNA binding | 37 | 562 | 0.021 | 23658 | LSM5 homolog, U6 small nuclear RNA associated (<i>S. cerevisiae</i>) |
| GO | RNA binding | 37 | 562 | 0.021 | 26019 | UPF2 regulator of nonsense transcripts homolog (yeast) |
| GO | RNA binding | 37 | 562 | 0.021 | 27258 | LSM3 homolog, U6 small nuclear RNA associated (<i>S. cerevisiae</i>) |
| GO | RNA binding | 37 | 562 | 0.021 | 3183 | heterogeneous nuclear ribonucleoprotein C (C1/C2) |
| GO | RNA binding | 37 | 562 | 0.021 | 345630 | fibrillarin-like 1 |
| GO | RNA binding | 37 | 562 | 0.021 | 389421 | lin-28 homolog B (<i>C. elegans</i>) |
| GO | RNA binding | 37 | 562 | 0.021 | 53981 | cleavage and polyadenylation specific factor 2, 100kDa |
| GO | RNA binding | 37 | 562 | 0.021 | 55135 | WD repeat containing, antisense to TP53 |
| GO | RNA binding | 37 | 562 | 0.021 | 55323 | La ribonucleoprotein domain family, member 6 |
| GO | RNA binding | 37 | 562 | 0.021 | 56339 | methyltransferase like 3 |
| GO | RNA binding | 37 | 562 | 0.021 | 56902 | partner of NOB1 homolog (<i>S. cerevisiae</i>) |

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|----|---|----|-----|-------|--------|---|
| GO | RNA binding | 37 | 562 | 0.021 | 58155 | polypyrimidine tract binding protein 2 |
| GO | RNA binding | 37 | 562 | 0.021 | 6133 | ribosomal protein L9 |
| GO | RNA binding | 37 | 562 | 0.021 | 6154 | ribosomal protein L26 |
| GO | RNA binding | 37 | 562 | 0.021 | 64393 | zinc finger, matrin type 3 |
| GO | RNA binding | 37 | 562 | 0.021 | 65008 | mitochondrial ribosomal protein L1 |
| GO | RNA binding | 37 | 562 | 0.021 | 6637 | small nuclear ribonucleoprotein polypeptide G |
| GO | RNA binding | 37 | 562 | 0.021 | 672 | breast cancer 1, early onset |
| GO | RNA binding | 37 | 562 | 0.021 | 7490 | Wilms tumor 1 |
| GO | RNA binding | 37 | 562 | 0.021 | 81892 | chromosome 14 open reading frame 156 |
| GO | RNA binding | 37 | 562 | 0.021 | 84206 | mex-3 homolog B (C. elegans) |
| GO | RNA binding | 37 | 562 | 0.021 | 84365 | MKI67 (FHA domain) interacting nucleolar phosphoprotein |
| GO | RNA binding | 37 | 562 | 0.021 | 8563 | THO complex 5 |
| GO | RNA binding | 37 | 562 | 0.021 | 91801 | alkB, alkylation repair homolog 8 (E. coli) |
| GO | RNA binding | 37 | 562 | 0.021 | 92312 | mex-3 homolog A (C. elegans) |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 10189 | THO complex 4 |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 131450 | CD200 receptor 1 |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 23157 | septin 6 |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 3694 | integrin, beta 6 |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 3836 | karyopherin alpha 1 (importin alpha 5) |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 3838 | karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 4312 | matrix metalloproteinase 1 (interstitial collagenase) |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 4928 | nucleoporin 98kDa |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 5702 | proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 57599 | WD repeat domain 48 |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 6672 | SP100 nuclear antigen |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 7037 | transferrin receptor (p90, CD71) |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 79682 | MLF1 interacting protein |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 8777 | multiple PDZ domain protein |
| GO | interspecies interaction between organi | 21 | 280 | 0.021 | 9076 | claudin 1 |
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 1136 | cholinergic receptor, nicotinic, alpha 3 |

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|----|--|----|-----|-------|--------|--|
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 200959 | gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 2045 | EPH receptor A7 |
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 2149 | coagulation factor II (thrombin) receptor |
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha 1 |
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 8777 | multiple PDZ domain protein |
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 9419 | cysteine-rich PDZ-binding protein |
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 9455 | homer homolog 2 (Drosophila) |
| GO | postsynaptic membrane | 13 | 149 | 0.022 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | transmembrane receptor protein tyrosin | 5 | 35 | 0.022 | 2045 | EPH receptor A7 |
| GO | transmembrane receptor protein tyrosin | 5 | 35 | 0.022 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | transmembrane receptor protein tyrosin | 5 | 35 | 0.022 | 558 | AXL receptor tyrosine kinase |
| GO | transmembrane receptor protein tyrosin | 5 | 35 | 0.022 | 5754 | PTK7 protein tyrosine kinase 7 |
| GO | transmembrane receptor protein tyrosin | 5 | 35 | 0.022 | 7010 | TEK tyrosine kinase, endothelial |
| GO | kidney development | 7 | 61 | 0.022 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | kidney development | 7 | 61 | 0.022 | 2736 | GLI family zinc finger 2 |
| GO | kidney development | 7 | 61 | 0.022 | 3975 | LIM homeobox 1 |
| GO | kidney development | 7 | 61 | 0.022 | 5125 | proprotein convertase subtilisin/kexin type 5 |
| GO | kidney development | 7 | 61 | 0.022 | 6299 | sal-like 1 (Drosophila) |
| GO | kidney development | 7 | 61 | 0.022 | 7046 | transforming growth factor, beta receptor 1 |
| GO | kidney development | 7 | 61 | 0.022 | 7490 | Wilms tumor 1 |
| GO | homophilic cell adhesion | 12 | 135 | 0.023 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | homophilic cell adhesion | 12 | 135 | 0.023 | 1002 | cadherin 4, type 1, R-cadherin (retinal) |
| GO | homophilic cell adhesion | 12 | 135 | 0.023 | 1008 | cadherin 10, type 2 (T2-cadherin) |
| GO | homophilic cell adhesion | 12 | 135 | 0.023 | 120114 | FAT tumor suppressor homolog 3 (Drosophila) |
| GO | homophilic cell adhesion | 12 | 135 | 0.023 | 1830 | desmoglein 3 (pemphigus vulgaris antigen) |
| GO | homophilic cell adhesion | 12 | 135 | 0.023 | 23705 | cell adhesion molecule 1 |
| GO | homophilic cell adhesion | 12 | 135 | 0.023 | 347902 | adhesion molecule with Ig-like domain 2 |
| GO | homophilic cell adhesion | 12 | 135 | 0.023 | 5101 | protocadherin 9 |
| GO | homophilic cell adhesion | 12 | 135 | 0.023 | 56104 | protocadherin gamma subfamily B, 1 |
| GO | homophilic cell adhesion | 12 | 135 | 0.023 | 56126 | protocadherin beta 10 |
| GO | homophilic cell adhesion | 12 | 135 | 0.023 | 56133 | protocadherin beta 2 |
| GO | homophilic cell adhesion | 12 | 135 | 0.023 | 57575 | protocadherin 10 |

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|----|--|----|-----|-------|--------|--|
| GO | G-protein-coupled receptor binding | 4 | 24 | 0.023 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | G-protein-coupled receptor binding | 4 | 24 | 0.023 | 409 | arrestin, beta 2 |
| GO | G-protein-coupled receptor binding | 4 | 24 | 0.023 | 60675 | prokineticin 2 |
| GO | G-protein-coupled receptor binding | 4 | 24 | 0.023 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | single-stranded RNA binding | 3 | 14 | 0.025 | 10656 | KH domain containing, RNA binding, signal transduction associated 3 |
| GO | single-stranded RNA binding | 3 | 14 | 0.025 | 124540 | musashi homolog 2 (Drosophila) |
| GO | single-stranded RNA binding | 3 | 14 | 0.025 | 1746 | distal-less homeobox 2 |
| GO | response to X-ray | 3 | 14 | 0.025 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | response to X-ray | 3 | 14 | 0.025 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | response to X-ray | 3 | 14 | 0.025 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | tubulin binding | 3 | 14 | 0.025 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | tubulin binding | 3 | 14 | 0.025 | 332 | baculoviral IAP repeat-containing 5 |
| GO | tubulin binding | 3 | 14 | 0.025 | 672 | breast cancer 1, early onset |
| GO | artery morphogenesis | 3 | 14 | 0.025 | 348 | apolipoprotein E |
| GO | artery morphogenesis | 3 | 14 | 0.025 | 4763 | neurofibromin 1 |
| GO | artery morphogenesis | 3 | 14 | 0.025 | 7046 | transforming growth factor, beta receptor 1 |
| GO | anatomical structure formation involve | 3 | 14 | 0.025 | 3975 | LIM homeobox 1 |
| GO | anatomical structure formation involve | 3 | 14 | 0.025 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | anatomical structure formation involve | 3 | 14 | 0.025 | 8626 | tumor protein p63 |
| GO | identical protein binding | 24 | 338 | 0.026 | 113130 | cell division cycle associated 5 |
| GO | identical protein binding | 24 | 338 | 0.026 | 150684 | copper metabolism (Murr1) domain containing 1 |
| GO | identical protein binding | 24 | 338 | 0.026 | 23562 | claudin 14 |
| GO | identical protein binding | 24 | 338 | 0.026 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | identical protein binding | 24 | 338 | 0.026 | 26019 | UPF2 regulator of nonsense transcripts homolog (yeast) |
| GO | identical protein binding | 24 | 338 | 0.026 | 26061 | 2-hydroxyacyl-CoA lyase 1 |
| GO | identical protein binding | 24 | 338 | 0.026 | 283518 | potassium channel regulator |
| GO | identical protein binding | 24 | 338 | 0.026 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | identical protein binding | 24 | 338 | 0.026 | 3183 | heterogeneous nuclear ribonucleoprotein C (C1/C2) |
| GO | identical protein binding | 24 | 338 | 0.026 | 332 | baculoviral IAP repeat-containing 5 |
| GO | identical protein binding | 24 | 338 | 0.026 | 348 | apolipoprotein E |
| GO | identical protein binding | 24 | 338 | 0.026 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | identical protein binding | 24 | 338 | 0.026 | 3624 | inhibin, beta A |
| GO | identical protein binding | 24 | 338 | 0.026 | 3936 | lymphocyte cytosolic protein 1 (L-plastin) |
| GO | identical protein binding | 24 | 338 | 0.026 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | identical protein binding | 24 | 338 | 0.026 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | identical protein binding | 24 | 338 | 0.026 | 51062 | atlastin GTPase 1 |

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|----|--|----|-----|-------|-------|--|
| GO | identical protein binding | 24 | 338 | 0.026 | 5110 | protein-L-isoaspartate (D-aspartate) O-methyltransferase |
| GO | identical protein binding | 24 | 338 | 0.026 | 581 | BCL2-associated X protein |
| GO | identical protein binding | 24 | 338 | 0.026 | 586 | branched chain aminotransferase 1, cytosolic |
| GO | identical protein binding | 24 | 338 | 0.026 | 6672 | SP100 nuclear antigen |
| GO | identical protein binding | 24 | 338 | 0.026 | 672 | breast cancer 1, early onset |
| GO | identical protein binding | 24 | 338 | 0.026 | 8626 | tumor protein p63 |
| GO | identical protein binding | 24 | 338 | 0.026 | 9076 | claudin 1 |
| GO | stress fiber | 4 | 25 | 0.027 | 10395 | deleted in liver cancer 1 |
| GO | stress fiber | 4 | 25 | 0.027 | 55752 | septin 11 |
| GO | stress fiber | 4 | 25 | 0.027 | 7168 | tropomyosin 1 (alpha) |
| GO | stress fiber | 4 | 25 | 0.027 | 9260 | PDZ and LIM domain 7 (enigma) |
| GO | osteoblast differentiation | 4 | 25 | 0.027 | 10457 | glycoprotein (transmembrane) nmb |
| GO | osteoblast differentiation | 4 | 25 | 0.027 | 2736 | GLI family zinc finger 2 |
| GO | osteoblast differentiation | 4 | 25 | 0.027 | 4763 | neurofibromin 1 |
| GO | osteoblast differentiation | 4 | 25 | 0.027 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | heterotrimeric G-protein complex | 4 | 25 | 0.027 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | heterotrimeric G-protein complex | 4 | 25 | 0.027 | 2786 | guanine nucleotide binding protein (G protein), gamma 4 |
| GO | heterotrimeric G-protein complex | 4 | 25 | 0.027 | 54331 | guanine nucleotide binding protein (G protein), gamma 2 |
| GO | heterotrimeric G-protein complex | 4 | 25 | 0.027 | 6000 | regulator of G-protein signaling 7 |
| GO | response to DNA damage stimulus | 8 | 78 | 0.028 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | response to DNA damage stimulus | 8 | 78 | 0.028 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | response to DNA damage stimulus | 8 | 78 | 0.028 | 27244 | sestrin 1 |
| GO | response to DNA damage stimulus | 8 | 78 | 0.028 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | response to DNA damage stimulus | 8 | 78 | 0.028 | 64393 | zinc finger, matrin type 3 |
| GO | response to DNA damage stimulus | 8 | 78 | 0.028 | 64782 | apoptosis enhancing nuclease |
| GO | response to DNA damage stimulus | 8 | 78 | 0.028 | 672 | breast cancer 1, early onset |
| GO | response to DNA damage stimulus | 8 | 78 | 0.028 | 91801 | alkB, alkylation repair homolog 8 (E. coli) |
| GO | intronless viral mRNA export from host | 2 | 6 | 0.029 | 10189 | THO complex 4 |
| GO | intronless viral mRNA export from host | 2 | 6 | 0.029 | 8563 | THO complex 5 |
| GO | transcription export complex | 2 | 6 | 0.029 | 10189 | THO complex 4 |
| GO | transcription export complex | 2 | 6 | 0.029 | 8563 | THO complex 5 |
| GO | behavioral response to nicotine | 2 | 6 | 0.029 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | behavioral response to nicotine | 2 | 6 | 0.029 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | thyroid hormone generation | 2 | 6 | 0.029 | 1733 | deiodinase, iodothyronine, type I |
| GO | thyroid hormone generation | 2 | 6 | 0.029 | 5469 | mediator complex subunit 1 |
| GO | forebrain neuron differentiation | 2 | 6 | 0.029 | 1746 | distal-less homeobox 2 |

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|----|--|----|-----|-------|---|
| GO | forebrain neuron differentiation | 2 | 6 | 0.029 | 6657 SRY (sex determining region Y)-box 2 |
| GO | deoxyribonuclease activity | 2 | 6 | 0.029 | 1775 deoxyribonuclease I-like 2 |
| GO | deoxyribonuclease activity | 2 | 6 | 0.029 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | regulation of blood coagulation | 2 | 6 | 0.029 | 2149 coagulation factor II (thrombin) receptor |
| GO | regulation of blood coagulation | 2 | 6 | 0.029 | 2150 coagulation factor II (thrombin) receptor-like 1 |
| GO | mitochondrial intermembrane space pr | 2 | 6 | 0.029 | 26519 translocase of inner mitochondrial membrane 10 homolog (yeast) |
| GO | mitochondrial intermembrane space pr | 2 | 6 | 0.029 | 26521 translocase of inner mitochondrial membrane 8 homolog B (yeast) |
| GO | protein import into mitochondrial inner | 2 | 6 | 0.029 | 26519 translocase of inner mitochondrial membrane 10 homolog (yeast) |
| GO | protein import into mitochondrial inner | 2 | 6 | 0.029 | 26521 translocase of inner mitochondrial membrane 8 homolog B (yeast) |
| GO | response to dietary excess | 2 | 6 | 0.029 | 348 apolipoprotein E |
| GO | response to dietary excess | 2 | 6 | 0.029 | 3952 leptin |
| GO | cerebellar Purkinje cell differentiation | 2 | 6 | 0.029 | 3975 LIM homeobox 1 |
| GO | cerebellar Purkinje cell differentiation | 2 | 6 | 0.029 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | DNA replication origin binding | 2 | 6 | 0.029 | 4171 minichromosome maintenance complex component 2 |
| GO | DNA replication origin binding | 2 | 6 | 0.029 | 5000 origin recognition complex, subunit 4-like (yeast) |
| GO | somatic hypermutation of immunoglob | 2 | 6 | 0.029 | 4292 mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | somatic hypermutation of immunoglob | 2 | 6 | 0.029 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | response to folic acid | 2 | 6 | 0.029 | 590 butyrylcholinesterase |
| GO | response to folic acid | 2 | 6 | 0.029 | 7078 TIMP metalloproteinase inhibitor 3 |
| GO | sarcoglycan complex | 2 | 6 | 0.029 | 6442 sarcoglycan, alpha (50kDa dystrophin-associated glycoprotein) |
| GO | sarcoglycan complex | 2 | 6 | 0.029 | 6444 sarcoglycan, delta (35kDa dystrophin-associated glycoprotein) |
| GO | parathyroid gland development | 2 | 6 | 0.029 | 6899 T-box 1 |
| GO | parathyroid gland development | 2 | 6 | 0.029 | 7046 transforming growth factor, beta receptor 1 |
| GO | heart contraction | 2 | 6 | 0.029 | 70 actin, alpha, cardiac muscle 1 |
| GO | heart contraction | 2 | 6 | 0.029 | 7137 troponin I type 3 (cardiac) |
| GO | cell cycle arrest | 10 | 108 | 0.029 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | cell cycle arrest | 10 | 108 | 0.029 | 220042 chromosome 11 open reading frame 82 |
| GO | cell cycle arrest | 10 | 108 | 0.029 | 27244 sestrin 1 |
| GO | cell cycle arrest | 10 | 108 | 0.029 | 3624 inhibin, beta A |
| GO | cell cycle arrest | 10 | 108 | 0.029 | 4291 myeloid leukemia factor 1 |
| GO | cell cycle arrest | 10 | 108 | 0.029 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | cell cycle arrest | 10 | 108 | 0.029 | 6657 SRY (sex determining region Y)-box 2 |
| GO | cell cycle arrest | 10 | 108 | 0.029 | 667 dystonin |
| GO | cell cycle arrest | 10 | 108 | 0.029 | 8872 cell division cycle 123 homolog (S. cerevisiae) |
| GO | cell cycle arrest | 10 | 108 | 0.029 | 94241 tumor protein p53 inducible nuclear protein 1 |
| GO | induction of apoptosis by intracellular si | 3 | 15 | 0.03 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |

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|----|--|----|-----|-------|--|
| GO | induction of apoptosis by intracellular si | 3 | 15 | 0.03 | 27429 HtrA serine peptidase 2 |
| GO | induction of apoptosis by intracellular si | 3 | 15 | 0.03 | 581 BCL2-associated X protein |
| GO | digestive tract development | 3 | 15 | 0.03 | 1543 cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | digestive tract development | 3 | 15 | 0.03 | 5021 oxytocin receptor |
| GO | digestive tract development | 3 | 15 | 0.03 | 7046 transforming growth factor, beta receptor 1 |
| GO | N-acetylglucosamine metabolic process | 3 | 15 | 0.03 | 2135 exostoses (multiple)-like 2 |
| GO | N-acetylglucosamine metabolic process | 3 | 15 | 0.03 | 55577 N-acetylglucosamine kinase |
| GO | N-acetylglucosamine metabolic process | 3 | 15 | 0.03 | 9215 like-glycosyltransferase |
| GO | forebrain development | 6 | 51 | 0.03 | 10395 deleted in liver cancer 1 |
| GO | forebrain development | 6 | 51 | 0.03 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | forebrain development | 6 | 51 | 0.03 | 27429 HtrA serine peptidase 2 |
| GO | forebrain development | 6 | 51 | 0.03 | 5015 orthodenticle homeobox 2 |
| GO | forebrain development | 6 | 51 | 0.03 | 5101 protocadherin 9 |
| GO | forebrain development | 6 | 51 | 0.03 | 6657 SRY (sex determining region Y)-box 2 |
| GO | nucleotide-excision repair | 4 | 26 | 0.031 | 1161 excision repair cross-complementing rodent repair deficiency, complement |
| GO | nucleotide-excision repair | 4 | 26 | 0.031 | 1643 damage-specific DNA binding protein 2, 48kDa |
| GO | nucleotide-excision repair | 4 | 26 | 0.031 | 4287 ataxin 3 |
| GO | nucleotide-excision repair | 4 | 26 | 0.031 | 4968 8-oxoguanine DNA glycosylase |
| GO | triglyceride metabolic process | 4 | 26 | 0.031 | 23305 acyl-CoA synthetase long-chain family member 6 |
| GO | triglyceride metabolic process | 4 | 26 | 0.031 | 341 apolipoprotein C-I |
| GO | triglyceride metabolic process | 4 | 26 | 0.031 | 348 apolipoprotein E |
| GO | triglyceride metabolic process | 4 | 26 | 0.031 | 7840 Alstrom syndrome 1 |
| GO | branching involved in ureteric bud morph | 4 | 26 | 0.031 | 3237 homeobox D11 |
| GO | branching involved in ureteric bud morph | 4 | 26 | 0.031 | 5228 placental growth factor |
| GO | branching involved in ureteric bud morph | 4 | 26 | 0.031 | 6299 sal-like 1 (Drosophila) |
| GO | branching involved in ureteric bud morph | 4 | 26 | 0.031 | 7490 Wilms tumor 1 |
| GO | skeletal system development | 11 | 125 | 0.031 | 10683 delta-like 3 (Drosophila) |
| GO | skeletal system development | 11 | 125 | 0.031 | 1290 collagen, type V, alpha 2 |
| GO | skeletal system development | 11 | 125 | 0.031 | 2736 GLI family zinc finger 2 |
| GO | skeletal system development | 11 | 125 | 0.031 | 3236 homeobox D10 |
| GO | skeletal system development | 11 | 125 | 0.031 | 3237 homeobox D11 |
| GO | skeletal system development | 11 | 125 | 0.031 | 4318 matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV c |
| GO | skeletal system development | 11 | 125 | 0.031 | 5744 parathyroid hormone-like hormone |
| GO | skeletal system development | 11 | 125 | 0.031 | 6474 short stature homeobox 2 |
| GO | skeletal system development | 11 | 125 | 0.031 | 7046 transforming growth factor, beta receptor 1 |
| GO | skeletal system development | 11 | 125 | 0.031 | 7353 ubiquitin fusion degradation 1 like (yeast) |

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|----|-----------------------------|----|-----|-------|--------|---|
| GO | skeletal system development | 11 | 125 | 0.031 | 8626 | tumor protein p63 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 122786 | FERM domain containing 6 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 1264 | calponin 1, basic, smooth muscle |
| GO | cytoskeleton | 40 | 635 | 0.032 | 2037 | erythrocyte membrane protein band 4.1-like 2 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 220134 | spindle and kinetochore associated complex subunit 1 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 23136 | erythrocyte membrane protein band 4.1-like 3 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 23157 | septin 6 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 26059 | ELKS/RAB6-interacting/CAST family member 2 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 26499 | pleckstrin 2 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 27241 | Bardet-Biedl syndrome 9 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 27289 | Rho family GTPase 1 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 27445 | piccolo (presynaptic cytomatrix protein) |
| GO | cytoskeleton | 40 | 635 | 0.032 | 287 | ankyrin 2, neuronal |
| GO | cytoskeleton | 40 | 635 | 0.032 | 28984 | chromosome 13 open reading frame 15 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 29767 | tropomodulin 2 (neuronal) |
| GO | cytoskeleton | 40 | 635 | 0.032 | 30011 | SH3-domain kinase binding protein 1 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 332 | baculoviral IAP repeat-containing 5 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 3936 | lymphocyte cytosolic protein 1 (L-plastin) |
| GO | cytoskeleton | 40 | 635 | 0.032 | 4651 | myosin X |
| GO | cytoskeleton | 40 | 635 | 0.032 | 5303 | protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | cytoskeleton | 40 | 635 | 0.032 | 54839 | leucine rich repeat containing 49 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 55165 | centrosomal protein 55kDa |
| GO | cytoskeleton | 40 | 635 | 0.032 | 55207 | ADP-ribosylation factor-like 8B |
| GO | cytoskeleton | 40 | 635 | 0.032 | 55521 | tripartite motif-containing 36 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 55531 | ELMO/CED-12 domain containing 1 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 55752 | septin 11 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 56062 | kelch-like 4 (Drosophila) |
| GO | cytoskeleton | 40 | 635 | 0.032 | 57560 | intraflagellar transport 80 homolog (Chlamydomonas) |
| GO | cytoskeleton | 40 | 635 | 0.032 | 6442 | sarcoglycan, alpha (50kDa dystrophin-associated glycoprotein) |
| GO | cytoskeleton | 40 | 635 | 0.032 | 6444 | sarcoglycan, delta (35kDa dystrophin-associated glycoprotein) |
| GO | cytoskeleton | 40 | 635 | 0.032 | 6525 | smoothelin |
| GO | cytoskeleton | 40 | 635 | 0.032 | 667 | dystonin |
| GO | cytoskeleton | 40 | 635 | 0.032 | 70 | actin, alpha, cardiac muscle 1 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 7168 | tropomyosin 1 (alpha) |
| GO | cytoskeleton | 40 | 635 | 0.032 | 7171 | tropomyosin 4 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 7840 | Alstrom syndrome 1 |

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|----|---|----|-----|-------|--------|---|
| GO | cytoskeleton | 40 | 635 | 0.032 | 79187 | fibronectin type III and SPRY domain containing 1 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 79929 | MAP6 domain containing 1 |
| GO | cytoskeleton | 40 | 635 | 0.032 | 8409 | ubiquitously-expressed transcript |
| GO | cytoskeleton | 40 | 635 | 0.032 | 91624 | nexilin (F actin binding protein) |
| GO | cytoskeleton | 40 | 635 | 0.032 | 93323 | HAUS augmin-like complex, subunit 8 |
| GO | ureteric bud development | 5 | 39 | 0.033 | 3975 | LIM homeobox 1 |
| GO | ureteric bud development | 5 | 39 | 0.033 | 6299 | sal-like 1 (Drosophila) |
| GO | ureteric bud development | 5 | 39 | 0.033 | 6422 | secreted frizzled-related protein 1 |
| GO | ureteric bud development | 5 | 39 | 0.033 | 7490 | Wilms tumor 1 |
| GO | ureteric bud development | 5 | 39 | 0.033 | 9244 | cytokine receptor-like factor 1 |
| GO | adherens junction | 4 | 27 | 0.035 | 126374 | Wilms tumor 1 interacting protein |
| GO | adherens junction | 4 | 27 | 0.035 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | adherens junction | 4 | 27 | 0.035 | 27289 | Rho family GTPase 1 |
| GO | adherens junction | 4 | 27 | 0.035 | 4867 | nephronophthisis 1 (juvenile) |
| GO | response to wounding | 6 | 53 | 0.035 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | response to wounding | 6 | 53 | 0.035 | 2149 | coagulation factor II (thrombin) receptor |
| GO | response to wounding | 6 | 53 | 0.035 | 2151 | coagulation factor II (thrombin) receptor-like 2 |
| GO | response to wounding | 6 | 53 | 0.035 | 26127 | FGFR1 oncogene partner 2 |
| GO | response to wounding | 6 | 53 | 0.035 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | response to wounding | 6 | 53 | 0.035 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | lateral plasma membrane | 3 | 16 | 0.036 | 11149 | blood vessel epicardial substance |
| GO | lateral plasma membrane | 3 | 16 | 0.036 | 166336 | prickle homolog 2 (Drosophila) |
| GO | lateral plasma membrane | 3 | 16 | 0.036 | 9076 | claudin 1 |
| GO | negative regulation of endothelial cell p | 3 | 16 | 0.036 | 348 | apolipoprotein E |
| GO | negative regulation of endothelial cell p | 3 | 16 | 0.036 | 4763 | neurofibromin 1 |
| GO | negative regulation of endothelial cell p | 3 | 16 | 0.036 | 7857 | secretogranin II (chromogranin C) |
| GO | mismatch repair | 3 | 16 | 0.036 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | mismatch repair | 3 | 16 | 0.036 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | mismatch repair | 3 | 16 | 0.036 | 5378 | PMS1 postmeiotic segregation increased 1 (S. cerevisiae) |
| GO | neuron fate commitment | 3 | 16 | 0.036 | 5081 | paired box 7 |
| GO | neuron fate commitment | 3 | 16 | 0.036 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | neuron fate commitment | 3 | 16 | 0.036 | 7046 | transforming growth factor, beta receptor 1 |
| GO | blood vessel development | 5 | 40 | 0.037 | 1045 | caudal type homeobox 2 |
| GO | blood vessel development | 5 | 40 | 0.037 | 1121 | choroideremia (Rab escort protein 1) |
| GO | blood vessel development | 5 | 40 | 0.037 | 1289 | collagen, type V, alpha 1 |
| GO | blood vessel development | 5 | 40 | 0.037 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |

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|----|--------------------------|----|-----|-------|--------|---|
| GO | blood vessel development | 5 | 40 | 0.037 | 80712 | ESX homeobox 1 |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 332 | baculoviral IAP repeat-containing 5 |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 347902 | adhesion molecule with Ig-like domain 2 |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 348 | apolipoprotein E |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 5081 | paired box 7 |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 51499 | TP53 regulated inhibitor of apoptosis 1 |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 57099 | apoptosis, caspase activation inhibitor |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 57144 | p21 protein (Cdc42/Rac)-activated kinase 7 |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 597 | BCL2-related protein A1 |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 60675 | prokineticin 2 |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 6422 | secreted frizzled-related protein 1 |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 8626 | tumor protein p63 |
| GO | anti-apoptosis | 14 | 178 | 0.038 | 8835 | suppressor of cytokine signaling 2 |
| GO | cell division | 18 | 246 | 0.039 | 10051 | structural maintenance of chromosomes 4 |
| GO | cell division | 18 | 246 | 0.039 | 113130 | cell division cycle associated 5 |
| GO | cell division | 18 | 246 | 0.039 | 1164 | CDC28 protein kinase regulatory subunit 2 |
| GO | cell division | 18 | 246 | 0.039 | 220134 | spindle and kinetochore associated complex subunit 1 |
| GO | cell division | 18 | 246 | 0.039 | 332 | baculoviral IAP repeat-containing 5 |
| GO | cell division | 18 | 246 | 0.039 | 55165 | centrosomal protein 55kDa |
| GO | cell division | 18 | 246 | 0.039 | 55207 | ADP-ribosylation factor-like 8B |
| GO | cell division | 18 | 246 | 0.039 | 55752 | septin 11 |
| GO | cell division | 18 | 246 | 0.039 | 64151 | non-SMC condensin I complex, subunit G |
| GO | cell division | 18 | 246 | 0.039 | 6683 | spastin |
| GO | cell division | 18 | 246 | 0.039 | 79172 | centromere protein O |
| GO | cell division | 18 | 246 | 0.039 | 79187 | fibronectin type III and SPRY domain containing 1 |
| GO | cell division | 18 | 246 | 0.039 | 8091 | high mobility group AT-hook 2 |
| GO | cell division | 18 | 246 | 0.039 | 84552 | par-6 partitioning defective 6 homolog gamma (C. elegans) |
| GO | cell division | 18 | 246 | 0.039 | 8872 | cell division cycle 123 homolog (S. cerevisiae) |
| GO | cell division | 18 | 246 | 0.039 | 890 | cyclin A2 |
| GO | cell division | 18 | 246 | 0.039 | 898 | cyclin E1 |
| GO | cell division | 18 | 246 | 0.039 | 93323 | HAUS augmin-like complex, subunit 8 |
| GO | aging | 8 | 83 | 0.039 | 1984 | eukaryotic translation initiation factor 5A |
| GO | aging | 8 | 83 | 0.039 | 2027 | enolase 3 (beta, muscle) |
| GO | aging | 8 | 83 | 0.039 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |

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|----|--|---|----|-------|--|
| GO | aging | 8 | 83 | 0.039 | 5588 protein kinase C, theta |
| GO | aging | 8 | 83 | 0.039 | 7037 transferrin receptor (p90, CD71) |
| GO | aging | 8 | 83 | 0.039 | 7046 transforming growth factor, beta receptor 1 |
| GO | aging | 8 | 83 | 0.039 | 7078 TIMP metalloproteinase inhibitor 3 |
| GO | aging | 8 | 83 | 0.039 | 8835 suppressor of cytokine signaling 2 |
| GO | Arp2/3 protein complex | 2 | 7 | 0.039 | 10096 ARP3 actin-related protein 3 homolog (yeast) |
| GO | Arp2/3 protein complex | 2 | 7 | 0.039 | 10097 ARP2 actin-related protein 2 homolog (yeast) |
| GO | small nucleolar ribonucleoprotein comp | 2 | 7 | 0.039 | 10199 M-phase phosphoprotein 10 (U3 small nucleolar ribonucleoprotein) |
| GO | small nucleolar ribonucleoprotein comp | 2 | 7 | 0.039 | 10528 NOP56 ribonucleoprotein homolog (yeast) |
| GO | DNA damage response, signal transduct | 2 | 7 | 0.039 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | DNA damage response, signal transduct | 2 | 7 | 0.039 | 51499 TP53 regulated inhibitor of apoptosis 1 |
| GO | regulation of transcription from RNA po | 2 | 7 | 0.039 | 10622 polymerase (RNA) III (DNA directed) polypeptide G (32kD) |
| GO | regulation of transcription from RNA po | 2 | 7 | 0.039 | 672 breast cancer 1, early onset |
| GO | tRNA modification | 2 | 7 | 0.039 | 10785 WD repeat domain 4 |
| GO | tRNA modification | 2 | 7 | 0.039 | 6741 Sjogren syndrome antigen B (autoantigen La) |
| GO | detection of mechanical stimulus involv | 2 | 7 | 0.039 | 1301 collagen, type XI, alpha 1 |
| GO | detection of mechanical stimulus involv | 2 | 7 | 0.039 | 6657 SRY (sex determining region Y)-box 2 |
| GO | suckling behavior | 2 | 7 | 0.039 | 130507 ubiquitin protein ligase E3 component n-recognin 3 (putative) |
| GO | suckling behavior | 2 | 7 | 0.039 | 5021 oxytocin receptor |
| GO | positive regulation of blood coagulation | 2 | 7 | 0.039 | 2149 coagulation factor II (thrombin) receptor |
| GO | positive regulation of blood coagulation | 2 | 7 | 0.039 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | protein heterotetramerization | 2 | 7 | 0.039 | 23590 prenyl (decaprenyl) diphosphate synthase, subunit 1 |
| GO | protein heterotetramerization | 2 | 7 | 0.039 | 6241 ribonucleotide reductase M2 |
| GO | branched chain family amino acid catab | 2 | 7 | 0.039 | 26275 3-hydroxyisobutyryl-Coenzyme A hydrolase |
| GO | branched chain family amino acid catab | 2 | 7 | 0.039 | 586 branched chain aminotransferase 1, cytosolic |
| GO | receptor clustering | 2 | 7 | 0.039 | 2898 glutamate receptor, ionotropic, kainate 2 |
| GO | receptor clustering | 2 | 7 | 0.039 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | negative regulation of fatty acid biosynt | 2 | 7 | 0.039 | 341 apolipoprotein C-I |
| GO | negative regulation of fatty acid biosynt | 2 | 7 | 0.039 | 672 breast cancer 1, early onset |
| GO | positive regulation of cholesterol esterif | 2 | 7 | 0.039 | 341 apolipoprotein C-I |
| GO | positive regulation of cholesterol esterif | 2 | 7 | 0.039 | 348 apolipoprotein E |
| GO | response to reactive oxygen species | 2 | 7 | 0.039 | 348 apolipoprotein E |
| GO | response to reactive oxygen species | 2 | 7 | 0.039 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | negative regulation of smooth muscle c | 2 | 7 | 0.039 | 3516 recombination signal binding protein for immunoglobulin kappa J region |
| GO | negative regulation of smooth muscle c | 2 | 7 | 0.039 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | G2 phase of mitotic cell cycle | 2 | 7 | 0.039 | 3838 karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |

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|----|---|----|-----|-------|---|
| GO | G2 phase of mitotic cell cycle | 2 | 7 | 0.039 | 641 Bloom syndrome, RecQ helicase-like |
| GO | postreplication repair | 2 | 7 | 0.039 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | postreplication repair | 2 | 7 | 0.039 | 672 breast cancer 1, early onset |
| GO | spinal cord development | 2 | 7 | 0.039 | 4763 neurofibromin 1 |
| GO | spinal cord development | 2 | 7 | 0.039 | 6586 slit homolog 3 (Drosophila) |
| GO | sympathetic nervous system developme | 2 | 7 | 0.039 | 4763 neurofibromin 1 |
| GO | sympathetic nervous system developme | 2 | 7 | 0.039 | 8626 tumor protein p63 |
| GO | 3',5'-cyclic-GMP phosphodiesterase acti | 2 | 7 | 0.039 | 50940 phosphodiesterase 11A |
| GO | 3',5'-cyclic-GMP phosphodiesterase acti | 2 | 7 | 0.039 | 5145 phosphodiesterase 6A, cGMP-specific, rod, alpha |
| GO | cAMP catabolic process | 2 | 7 | 0.039 | 50940 phosphodiesterase 11A |
| GO | cAMP catabolic process | 2 | 7 | 0.039 | 5140 phosphodiesterase 3B, cGMP-inhibited |
| GO | signal peptide processing | 2 | 7 | 0.039 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | signal peptide processing | 2 | 7 | 0.039 | 90701 SEC11 homolog C (S. cerevisiae) |
| GO | transcription | 7 | 69 | 0.041 | 10622 polymerase (RNA) III (DNA directed) polypeptide G (32kD) |
| GO | transcription | 7 | 69 | 0.041 | 170082 transcription elongation factor A (SII) N-terminal and central domain contai |
| GO | transcription | 7 | 69 | 0.041 | 25885 polymerase (RNA) I polypeptide A, 194kDa |
| GO | transcription | 7 | 69 | 0.041 | 4291 myeloid leukemia factor 1 |
| GO | transcription | 7 | 69 | 0.041 | 5440 polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |
| GO | transcription | 7 | 69 | 0.041 | 5558 primase, DNA, polypeptide 2 (58kDa) |
| GO | transcription | 7 | 69 | 0.041 | 84172 polymerase (RNA) I polypeptide B, 128kDa |
| GO | extracellular matrix structural constitue | 7 | 69 | 0.041 | 1282 collagen, type IV, alpha 1 |
| GO | extracellular matrix structural constitue | 7 | 69 | 0.041 | 1284 collagen, type IV, alpha 2 |
| GO | extracellular matrix structural constitue | 7 | 69 | 0.041 | 1288 collagen, type IV, alpha 6 |
| GO | extracellular matrix structural constitue | 7 | 69 | 0.041 | 1289 collagen, type V, alpha 1 |
| GO | extracellular matrix structural constitue | 7 | 69 | 0.041 | 1290 collagen, type V, alpha 2 |
| GO | extracellular matrix structural constitue | 7 | 69 | 0.041 | 1301 collagen, type XI, alpha 1 |
| GO | extracellular matrix structural constitue | 7 | 69 | 0.041 | 4060 lumican |
| GO | fatty acid binding | 3 | 17 | 0.042 | 2171 fatty acid binding protein 5 (psoriasis-associated) |
| GO | fatty acid binding | 3 | 17 | 0.042 | 2172 fatty acid binding protein 6, ileal |
| GO | fatty acid binding | 3 | 17 | 0.042 | 341 apolipoprotein C-I |
| GO | cardiac muscle contraction | 3 | 17 | 0.042 | 70 actin, alpha, cardiac muscle 1 |
| GO | cardiac muscle contraction | 3 | 17 | 0.042 | 7137 troponin I type 3 (cardiac) |
| GO | cardiac muscle contraction | 3 | 17 | 0.042 | 7168 tropomyosin 1 (alpha) |
| GO | lipid binding | 10 | 116 | 0.044 | 116362 retinol binding protein 7, cellular |
| GO | lipid binding | 10 | 116 | 0.044 | 1622 diazepam binding inhibitor (GABA receptor modulator, acyl-Coenzyme A bi |
| GO | lipid binding | 10 | 116 | 0.044 | 2171 fatty acid binding protein 5 (psoriasis-associated) |

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|----|---------------------------------------|----|-----|-------|---|
| GO | lipid binding | 10 | 116 | 0.044 | 2172 fatty acid binding protein 6, ileal |
| GO | lipid binding | 10 | 116 | 0.044 | 26207 phosphatidylinositol transfer protein, cytoplasmic 1 |
| GO | lipid binding | 10 | 116 | 0.044 | 348 apolipoprotein E |
| GO | lipid binding | 10 | 116 | 0.044 | 516 ATP synthase, H ⁺ transporting, mitochondrial F0 complex, subunit C1 (subu |
| GO | lipid binding | 10 | 116 | 0.044 | 5360 phospholipid transfer protein |
| GO | lipid binding | 10 | 116 | 0.044 | 581 BCL2-associated X protein |
| GO | lipid binding | 10 | 116 | 0.044 | 5947 retinol binding protein 1, cellular |
| GO | G1/S transition of mitotic cell cycle | 5 | 42 | 0.044 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | G1/S transition of mitotic cell cycle | 5 | 42 | 0.044 | 113130 cell division cycle associated 5 |
| GO | G1/S transition of mitotic cell cycle | 5 | 42 | 0.044 | 3624 inhibin, beta A |
| GO | G1/S transition of mitotic cell cycle | 5 | 42 | 0.044 | 586 branched chain aminotransferase 1, cytosolic |
| GO | G1/S transition of mitotic cell cycle | 5 | 42 | 0.044 | 898 cyclin E1 |
| GO | chromosome segregation | 5 | 42 | 0.044 | 220134 spindle and kinetochore associated complex subunit 1 |
| GO | chromosome segregation | 5 | 42 | 0.044 | 332 baculoviral IAP repeat-containing 5 |
| GO | chromosome segregation | 5 | 42 | 0.044 | 55207 ADP-ribosylation factor-like 8B |
| GO | chromosome segregation | 5 | 42 | 0.044 | 672 breast cancer 1, early onset |
| GO | chromosome segregation | 5 | 42 | 0.044 | 79172 centromere protein O |
| GO | RNA splicing | 18 | 251 | 0.045 | 10189 THO complex 4 |
| GO | RNA splicing | 18 | 251 | 0.045 | 10199 M-phase phosphoprotein 10 (U3 small nucleolar ribonucleoprotein) |
| GO | RNA splicing | 18 | 251 | 0.045 | 10212 DEAD (Asp-Glu-Ala-Asp) box polypeptide 39 |
| GO | RNA splicing | 18 | 251 | 0.045 | 10465 peptidylprolyl isomerase H (cyclophilin H) |
| GO | RNA splicing | 18 | 251 | 0.045 | 10492 synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | RNA splicing | 18 | 251 | 0.045 | 135295 splicing factor, arginine/serine-rich 13B |
| GO | RNA splicing | 18 | 251 | 0.045 | 23658 LSM5 homolog, U6 small nuclear RNA associated (<i>S. cerevisiae</i>) |
| GO | RNA splicing | 18 | 251 | 0.045 | 27258 LSM3 homolog, U6 small nuclear RNA associated (<i>S. cerevisiae</i>) |
| GO | RNA splicing | 18 | 251 | 0.045 | 3183 heterogeneous nuclear ribonucleoprotein C (C1/C2) |
| GO | RNA splicing | 18 | 251 | 0.045 | 51645 peptidylprolyl isomerase (cyclophilin)-like 1 |
| GO | RNA splicing | 18 | 251 | 0.045 | 53981 cleavage and polyadenylation specific factor 2, 100kDa |
| GO | RNA splicing | 18 | 251 | 0.045 | 5440 polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |
| GO | RNA splicing | 18 | 251 | 0.045 | 58155 polypyrimidine tract binding protein 2 |
| GO | RNA splicing | 18 | 251 | 0.045 | 6637 small nuclear ribonucleoprotein polypeptide G |
| GO | RNA splicing | 18 | 251 | 0.045 | 7490 Wilms tumor 1 |
| GO | RNA splicing | 18 | 251 | 0.045 | 79833 gem (nuclear organelle) associated protein 6 |
| GO | RNA splicing | 18 | 251 | 0.045 | 8458 transcription termination factor, RNA polymerase II |
| GO | RNA splicing | 18 | 251 | 0.045 | 8563 THO complex 5 |
| GO | cell adhesion | 33 | 522 | 0.046 | 1000 cadherin 2, type 1, N-cadherin (neuronal) |

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|----|--|----|-----|-------|--------|---|
| GO | cell adhesion | 33 | 522 | 0.046 | 1002 | cadherin 4, type 1, R-cadherin (retinal) |
| GO | cell adhesion | 33 | 522 | 0.046 | 10457 | glycoprotein (transmembrane) nmb |
| GO | cell adhesion | 33 | 522 | 0.046 | 11149 | blood vessel epicardial substance |
| GO | cell adhesion | 33 | 522 | 0.046 | 120114 | FAT tumor suppressor homolog 3 (Drosophila) |
| GO | cell adhesion | 33 | 522 | 0.046 | 1288 | collagen, type IV, alpha 6 |
| GO | cell adhesion | 33 | 522 | 0.046 | 1289 | collagen, type V, alpha 1 |
| GO | cell adhesion | 33 | 522 | 0.046 | 1301 | collagen, type XI, alpha 1 |
| GO | cell adhesion | 33 | 522 | 0.046 | 145864 | hyaluronan and proteoglycan link protein 3 |
| GO | cell adhesion | 33 | 522 | 0.046 | 1830 | desmoglein 3 (pemphigus vulgaris antigen) |
| GO | cell adhesion | 33 | 522 | 0.046 | 22801 | integrin, alpha 11 |
| GO | cell adhesion | 33 | 522 | 0.046 | 23705 | cell adhesion molecule 1 |
| GO | cell adhesion | 33 | 522 | 0.046 | 23768 | fibronectin leucine rich transmembrane protein 2 |
| GO | cell adhesion | 33 | 522 | 0.046 | 26032 | sushi domain containing 5 |
| GO | cell adhesion | 33 | 522 | 0.046 | 285761 | discoidin, CUB and LCCL domain containing 1 |
| GO | cell adhesion | 33 | 522 | 0.046 | 347902 | adhesion molecule with Ig-like domain 2 |
| GO | cell adhesion | 33 | 522 | 0.046 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | cell adhesion | 33 | 522 | 0.046 | 3694 | integrin, beta 6 |
| GO | cell adhesion | 33 | 522 | 0.046 | 3918 | laminin, gamma 2 |
| GO | cell adhesion | 33 | 522 | 0.046 | 5101 | protocadherin 9 |
| GO | cell adhesion | 33 | 522 | 0.046 | 56104 | protocadherin gamma subfamily B, 1 |
| GO | cell adhesion | 33 | 522 | 0.046 | 56126 | protocadherin beta 10 |
| GO | cell adhesion | 33 | 522 | 0.046 | 56133 | protocadherin beta 2 |
| GO | cell adhesion | 33 | 522 | 0.046 | 5754 | PTK7 protein tyrosine kinase 7 |
| GO | cell adhesion | 33 | 522 | 0.046 | 57575 | protocadherin 10 |
| GO | cell adhesion | 33 | 522 | 0.046 | 57642 | collagen, type XX, alpha 1 |
| GO | cell adhesion | 33 | 522 | 0.046 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | cell adhesion | 33 | 522 | 0.046 | 667 | dystonin |
| GO | cell adhesion | 33 | 522 | 0.046 | 6695 | sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1 |
| GO | cell adhesion | 33 | 522 | 0.046 | 7058 | thrombospondin 2 |
| GO | cell adhesion | 33 | 522 | 0.046 | 9076 | claudin 1 |
| GO | cell adhesion | 33 | 522 | 0.046 | 953 | ectonucleoside triphosphate diphosphohydrolase 1 |
| GO | cell adhesion | 33 | 522 | 0.046 | 9635 | chloride channel accessory 2 |
| GO | regulation of myelination | 1 | 1 | 0.046 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | regulation of myosin II filament assembl | 1 | 1 | 0.046 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | D5 dopamine receptor binding | 1 | 1 | 0.046 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | positive regulation of locomotion | 1 | 1 | 0.046 | 11149 | blood vessel epicardial substance |

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|----|---|---|---|-------|--------|--|
| GO | D-ribose catabolic process | 1 | 1 | 0.046 | 11164 | nudix (nucleoside diphosphate linked moiety X)-type motif 5 |
| GO | ribonucleoside diphosphate catabolic pi | 1 | 1 | 0.046 | 11164 | nudix (nucleoside diphosphate linked moiety X)-type motif 5 |
| GO | meiosis I | 1 | 1 | 0.046 | 1164 | CDC28 protein kinase regulatory subunit 2 |
| GO | stem cell development | 1 | 1 | 0.046 | 124540 | musashi homolog 2 (Drosophila) |
| GO | integrin biosynthetic process | 1 | 1 | 0.046 | 1289 | collagen, type V, alpha 1 |
| GO | glycerate kinase activity | 1 | 1 | 0.046 | 132158 | glycerate kinase |
| GO | nuclear mRNA 5'-splice site recognition | 1 | 1 | 0.046 | 135295 | splicing factor, arginine/serine-rich 13B |
| GO | coumarin metabolic process | 1 | 1 | 0.046 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | dibenzo-p-dioxin catabolic process | 1 | 1 | 0.046 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | flavonoid 3'-monooxygenase activity | 1 | 1 | 0.046 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | flavonoid metabolic process | 1 | 1 | 0.046 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | insecticide metabolic process | 1 | 1 | 0.046 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | oxidoreductase activity, acting on diphe | 1 | 1 | 0.046 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | response to herbicide | 1 | 1 | 0.046 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | response to iron(III) ion | 1 | 1 | 0.046 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | (S)-2-(5-amino-1-(5-phospho-D-ribosyl)i | 1 | 1 | 0.046 | 158 | adenylosuccinate lyase |
| GO | N6-(1,2-dicarboxyethyl)AMP AMP-lyase | 1 | 1 | 0.046 | 158 | adenylosuccinate lyase |
| GO | deoxyguanosine kinase activity | 1 | 1 | 0.046 | 1716 | deoxyguanosine kinase |
| GO | dGTP metabolic process | 1 | 1 | 0.046 | 1716 | deoxyguanosine kinase |
| GO | guanosine metabolic process | 1 | 1 | 0.046 | 1716 | deoxyguanosine kinase |
| GO | site-specific endodeoxyribonuclease act | 1 | 1 | 0.046 | 1763 | DNA replication helicase 2 homolog (yeast) |
| GO | euchromatin | 1 | 1 | 0.046 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | dTDP biosynthetic process | 1 | 1 | 0.046 | 1841 | deoxythymidylate kinase (thymidylate kinase) |
| GO | nucleoside phosphate kinase activity | 1 | 1 | 0.046 | 1841 | deoxythymidylate kinase (thymidylate kinase) |
| GO | thymidylate kinase activity | 1 | 1 | 0.046 | 1841 | deoxythymidylate kinase (thymidylate kinase) |
| GO | alpha-1,4-N-acetylgalactosaminyltransf | 1 | 1 | 0.046 | 2135 | exostoses (multiple)-like 2 |
| GO | mesodermal cell fate specification | 1 | 1 | 0.046 | 2139 | eyes absent homolog 2 (Drosophila) |
| GO | nucleus accumbens development | 1 | 1 | 0.046 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | optic cup morphogenesis involved in ca | 1 | 1 | 0.046 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | ferredoxin-NADP+ reductase activity | 1 | 1 | 0.046 | 2232 | ferredoxin reductase |
| GO | double-stranded DNA specific exodeoxy | 1 | 1 | 0.046 | 2237 | flap structure-specific endonuclease 1 |
| GO | regulation of calcium ion transport via s | 1 | 1 | 0.046 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | ribose-5-phosphate isomerase activity | 1 | 1 | 0.046 | 22934 | ribose 5-phosphate isomerase A |
| GO | regulation of cell cycle arrest | 1 | 1 | 0.046 | 2305 | forkhead box M1 |
| GO | phosphoribosylamine-glycine ligase acti | 1 | 1 | 0.046 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | phosphoribosylformylglycinamide cyc | 1 | 1 | 0.046 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |

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|----|---|---|---|-------|--------|--|
| GO | phosphoribosylglycinamide formyltrans | 1 | 1 | 0.046 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | 3-hydroxyisobutyryl-CoA hydrolase acti | 1 | 1 | 0.046 | 26275 | 3-hydroxyisobutyryl-Coenzyme A hydrolase |
| GO | glycine amidinotransferase activity | 1 | 1 | 0.046 | 2628 | glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | glycine decarboxylation via glycine cleav | 1 | 1 | 0.046 | 2653 | glycine cleavage system protein H (aminomethyl carrier) |
| GO | cochlea morphogenesis | 1 | 1 | 0.046 | 2736 | GLI family zinc finger 2 |
| GO | floor plate formation | 1 | 1 | 0.046 | 2736 | GLI family zinc finger 2 |
| GO | ventral spinal cord development | 1 | 1 | 0.046 | 2736 | GLI family zinc finger 2 |
| GO | glucose-1,6-bisphosphate synthase acti | 1 | 1 | 0.046 | 283209 | phosphoglucomutase 2-like 1 |
| GO | intramolecular transferase activity, pho | 1 | 1 | 0.046 | 283209 | phosphoglucomutase 2-like 1 |
| GO | induction of programmed cell death in r | 1 | 1 | 0.046 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | chondroitin-glucuronate 5-epimerase ac | 1 | 1 | 0.046 | 29940 | dermatan sulfate epimerase |
| GO | positive regulation of calcineurin-NFAT : | 1 | 1 | 0.046 | 29995 | LIM and cysteine-rich domains 1 |
| GO | regulation of cardiac muscle hypertroph | 1 | 1 | 0.046 | 29995 | LIM and cysteine-rich domains 1 |
| GO | 3-hydroxy-2-methylbutyryl-CoA dehydr | 1 | 1 | 0.046 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | 7-alpha-hydroxysteroid dehydrogenase | 1 | 1 | 0.046 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | acetoacetyl-CoA reductase activity | 1 | 1 | 0.046 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | interphase microtubule organizing cent | 1 | 1 | 0.046 | 332 | baculoviral IAP repeat-containing 5 |
| GO | spindle checkpoint | 1 | 1 | 0.046 | 332 | baculoviral IAP repeat-containing 5 |
| GO | negative regulation of phosphatidylchol | 1 | 1 | 0.046 | 341 | apolipoprotein C-I |
| GO | plasma lipoprotein particle remodeling | 1 | 1 | 0.046 | 341 | apolipoprotein C-I |
| GO | regulation of lipid transport | 1 | 1 | 0.046 | 341 | apolipoprotein C-I |
| GO | maintenance of location in cell | 1 | 1 | 0.046 | 348 | apolipoprotein E |
| GO | metal chelating activity | 1 | 1 | 0.046 | 348 | apolipoprotein E |
| GO | positive regulation of low-density lipopr | 1 | 1 | 0.046 | 348 | apolipoprotein E |
| GO | recombinase activity | 1 | 1 | 0.046 | 3516 | recombination signal binding protein for immunoglobulin kappa J region |
| GO | interleukin-11 receptor binding | 1 | 1 | 0.046 | 3589 | interleukin 11 |
| GO | activin A complex | 1 | 1 | 0.046 | 3624 | inhibin, beta A |
| GO | cellular potassium ion homeostasis | 1 | 1 | 0.046 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | eye blink reflex | 1 | 1 | 0.046 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | large conductance calcium-activated po | 1 | 1 | 0.046 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | micturition | 1 | 1 | 0.046 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | negative regulation of cell volume | 1 | 1 | 0.046 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | regulation of aldosterone metabolic pro | 1 | 1 | 0.046 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | response to carbon monoxide | 1 | 1 | 0.046 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | CD8 receptor binding | 1 | 1 | 0.046 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | regulation of lymphocyte activation | 1 | 1 | 0.046 | 3932 | lymphocyte-specific protein tyrosine kinase |

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|----|--|---|---|-------|--|
| GO | regulation of intracellular protein transp | 1 | 1 | 0.046 | 3936 lymphocyte cytosolic protein 1 (L-plastin) |
| GO | negative regulation of metabolic proces | 1 | 1 | 0.046 | 3952 leptin |
| GO | fibrillar collagen | 1 | 1 | 0.046 | 4060 lumican |
| GO | negative regulation of natural killer cell | 1 | 1 | 0.046 | 409 arrestin, beta 2 |
| GO | adrenocorticotropin receptor activity | 1 | 1 | 0.046 | 4158 melanocortin 2 receptor (adrenocorticotropic hormone) |
| GO | male meiosis chromosome segregation | 1 | 1 | 0.046 | 4292 mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | meiotic metaphase I plate congression | 1 | 1 | 0.046 | 4292 mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | nuclear-transcribed mRNA poly(A) tail sl | 1 | 1 | 0.046 | 4292 mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | resolution of meiotic recombination inte | 1 | 1 | 0.046 | 4292 mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | spindle midzone assembly involved in m | 1 | 1 | 0.046 | 4292 mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | development during symbiotic interacti | 1 | 1 | 0.046 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | negative regulation of sodium ion transp | 1 | 1 | 0.046 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | negative regulation of transcription fror | 1 | 1 | 0.046 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | positive regulation of nucleocytoplasmic | 1 | 1 | 0.046 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | sodium channel inhibitor activity | 1 | 1 | 0.046 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | transmission of virus | 1 | 1 | 0.046 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | forebrain astrocyte development | 1 | 1 | 0.046 | 4763 neurofibromin 1 |
| GO | negative regulation of transcription fact | 1 | 1 | 0.046 | 4763 neurofibromin 1 |
| GO | regulation of glial cell differentiation | 1 | 1 | 0.046 | 4763 neurofibromin 1 |
| GO | negative regulation of myeloid leukocyt | 1 | 1 | 0.046 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | nucleoside diphosphate phosphorylatio | 1 | 1 | 0.046 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | oxidized purine base lesion DNA N-glycc | 1 | 1 | 0.046 | 4968 8-oxoguanine DNA glycosylase |
| GO | oxytocin receptor activity | 1 | 1 | 0.046 | 5021 oxytocin receptor |
| GO | negative regulation of vascular wound h | 1 | 1 | 0.046 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | negative regulation of wound healing | 1 | 1 | 0.046 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | positive regulation of leukotriene produ | 1 | 1 | 0.046 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | satellite cell commitment | 1 | 1 | 0.046 | 5081 paired box 7 |
| GO | cyclic-nucleotide phosphodiesterase act | 1 | 1 | 0.046 | 50940 phosphodiesterase 11A |
| GO | renin secretion into blood stream | 1 | 1 | 0.046 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | negative regulation of cAMP-mediated s | 1 | 1 | 0.046 | 5140 phosphodiesterase 3B, cGMP-inhibited |
| GO | phytanoyl-CoA dioxygenase activity | 1 | 1 | 0.046 | 5264 phytanoyl-CoA 2-hydroxylase |
| GO | bent DNA binding | 1 | 1 | 0.046 | 5303 protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | preribosome | 1 | 1 | 0.046 | 5303 protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | inhibition of phospholipase C activity in | 1 | 1 | 0.046 | 5341 pleckstrin |
| GO | negative regulation of inositol phosphat | 1 | 1 | 0.046 | 5341 pleckstrin |
| GO | positive regulation of inositol-polyphosp | 1 | 1 | 0.046 | 5341 pleckstrin |

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|----|---|---|---|-------|--|
| GO | protein secretion by platelet | 1 | 1 | 0.046 | 5341 pleckstrin |
| GO | regulation of cell diameter | 1 | 1 | 0.046 | 5341 pleckstrin |
| GO | epithelial tube formation | 1 | 1 | 0.046 | 5420 podocalyxin-like |
| GO | positive regulation of cell-cell adhesion | 1 | 1 | 0.046 | 5420 podocalyxin-like |
| GO | regulation of microvillus assembly | 1 | 1 | 0.046 | 5420 podocalyxin-like |
| GO | positive regulation of mammary gland e | 1 | 1 | 0.046 | 5469 mediator complex subunit 1 |
| GO | positive regulation of mucus secretion | 1 | 1 | 0.046 | 54843 synaptotagmin-like 2 |
| GO | regulation of telomerase activity | 1 | 1 | 0.046 | 54984 PIN2-interacting protein 1 |
| GO | N-acetylglucosamine kinase activity | 1 | 1 | 0.046 | 55577 N-acetylglucosamine kinase |
| GO | N-acetylmannosamine metabolic proces | 1 | 1 | 0.046 | 55577 N-acetylglucosamine kinase |
| GO | negative regulation of activation-induce | 1 | 1 | 0.046 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | regulation of cytokine secretion | 1 | 1 | 0.046 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | induction of retinal programmed cell de | 1 | 1 | 0.046 | 581 BCL2-associated X protein |
| GO | mitochondrial permeability transition p | 1 | 1 | 0.046 | 581 BCL2-associated X protein |
| GO | release of matrix enzymes from mitoch | 1 | 1 | 0.046 | 581 BCL2-associated X protein |
| GO | ethanolamine-phosphate cytidylyltransf | 1 | 1 | 0.046 | 5833 phosphate cytidylyltransferase 2, ethanolamine |
| GO | smooth muscle contractile fiber | 1 | 1 | 0.046 | 59 actin, alpha 2, smooth muscle, aorta |
| GO | vascular smooth muscle contraction | 1 | 1 | 0.046 | 59 actin, alpha 2, smooth muscle, aorta |
| GO | cocaine metabolic process | 1 | 1 | 0.046 | 590 butyrylcholinesterase |
| GO | deoxynucleotide transmembrane transp | 1 | 1 | 0.046 | 60386 solute carrier family 25 (mitochondrial thiamine pyrophosphate carrier), m |
| GO | deoxynucleotide transport | 1 | 1 | 0.046 | 60386 solute carrier family 25 (mitochondrial thiamine pyrophosphate carrier), m |
| GO | ribulose-phosphate 3-epimerase activity | 1 | 1 | 0.046 | 6120 ribulose-5-phosphate-3-epimerase |
| GO | inductive cell-cell signaling | 1 | 1 | 0.046 | 6299 sal-like 1 (Drosophila) |
| GO | kidney epithelium development | 1 | 1 | 0.046 | 6299 sal-like 1 (Drosophila) |
| GO | olfactory bulb mitral cell layer developn | 1 | 1 | 0.046 | 6299 sal-like 1 (Drosophila) |
| GO | ureteric bud invasion | 1 | 1 | 0.046 | 6299 sal-like 1 (Drosophila) |
| GO | chemokine-mediated signaling pathway | 1 | 1 | 0.046 | 6347 chemokine (C-C motif) ligand 2 |
| GO | D-ribose metabolic process | 1 | 1 | 0.046 | 64080 ribokinase |
| GO | ribokinase activity | 1 | 1 | 0.046 | 64080 ribokinase |
| GO | negative regulation of cell division | 1 | 1 | 0.046 | 641 Bloom syndrome, RecQ helicase-like |
| GO | Wnt receptor signaling pathway, planar | 1 | 1 | 0.046 | 6422 secreted frizzled-related protein 1 |
| GO | negative regulation of systemic arterial | 1 | 1 | 0.046 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | regulation of lung blood pressure | 1 | 1 | 0.046 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | detection of mechanical stimulus involv | 1 | 1 | 0.046 | 6657 SRY (sex determining region Y)-box 2 |
| GO | diencephalon morphogenesis | 1 | 1 | 0.046 | 6657 SRY (sex determining region Y)-box 2 |
| GO | glial cell fate commitment | 1 | 1 | 0.046 | 6657 SRY (sex determining region Y)-box 2 |

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|----|---|---|---|-------|--|
| GO | pigment biosynthetic process | 1 | 1 | 0.046 | 6657 SRY (sex determining region Y)-box 2 |
| GO | endochondral bone morphogenesis | 1 | 1 | 0.046 | 6662 SRY (sex determining region Y)-box 9 |
| GO | epithelial cell proliferation involved in p | 1 | 1 | 0.046 | 6662 SRY (sex determining region Y)-box 9 |
| GO | male germ-line sex determination | 1 | 1 | 0.046 | 6662 SRY (sex determining region Y)-box 9 |
| GO | microtubule plus end | 1 | 1 | 0.046 | 667 dystonin |
| GO | interferon-gamma-mediated signaling p | 1 | 1 | 0.046 | 6672 SP100 nuclear antigen |
| GO | response to type I interferon | 1 | 1 | 0.046 | 6672 SP100 nuclear antigen |
| GO | type I interferon-mediated signaling pat | 1 | 1 | 0.046 | 6672 SP100 nuclear antigen |
| GO | negative regulation of centriole replicat | 1 | 1 | 0.046 | 672 breast cancer 1, early onset |
| GO | histone mRNA metabolic process | 1 | 1 | 0.046 | 6741 Sjogren syndrome antigen B (autoantigen La) |
| GO | actomyosin, actin part | 1 | 1 | 0.046 | 70 actin, alpha, cardiac muscle 1 |
| GO | plasma membrane part | 1 | 1 | 0.046 | 7046 transforming growth factor, beta receptor 1 |
| GO | regulation of systemic arterial blood pre | 1 | 1 | 0.046 | 7137 troponin I type 3 (cardiac) |
| GO | positive regulation of heart rate by epin | 1 | 1 | 0.046 | 7168 tropomyosin 1 (alpha) |
| GO | deoxyribonucleoside monophosphate b | 1 | 1 | 0.046 | 7298 thymidylate synthetase |
| GO | dTMP biosynthetic process | 1 | 1 | 0.046 | 7298 thymidylate synthetase |
| GO | dUMP metabolic process | 1 | 1 | 0.046 | 7298 thymidylate synthetase |
| GO | thymidylate synthase activity | 1 | 1 | 0.046 | 7298 thymidylate synthetase |
| GO | uroporphyrinogen decarboxylase activit | 1 | 1 | 0.046 | 7389 uroporphyrinogen decarboxylase |
| GO | uroporphyrinogen III metabolic process | 1 | 1 | 0.046 | 7389 uroporphyrinogen decarboxylase |
| GO | cerebellar molecular layer development | 1 | 1 | 0.046 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | cerebellum maturation | 1 | 1 | 0.046 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | negative regulation of hormone biosynt | 1 | 1 | 0.046 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | rhythmic synaptic transmission | 1 | 1 | 0.046 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | vestibular nucleus development | 1 | 1 | 0.046 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | eosinophil chemotaxis | 1 | 1 | 0.046 | 7857 secretogranin II (chromogranin C) |
| GO | fatty acid elongation | 1 | 1 | 0.046 | 79071 ELOVL family member 6, elongation of long chain fatty acids (FEN1/Elo2, SL |
| GO | agmatinase activity | 1 | 1 | 0.046 | 79814 agmatine ureohydrolase (agmatinase) |
| GO | putrescine biosynthetic process | 1 | 1 | 0.046 | 79814 agmatine ureohydrolase (agmatinase) |
| GO | N-terminal peptidyl-L-cysteine N-palmit | 1 | 1 | 0.046 | 79929 MAP6 domain containing 1 |
| GO | nucleologenesis | 1 | 1 | 0.046 | 84172 polymerase (RNA) I polypeptide B, 128kDa |
| GO | rRNA metabolic process | 1 | 1 | 0.046 | 84365 MKI67 (FHA domain) interacting nucleolar phosphoprotein |
| GO | RNA polymerase II transcription terminz | 1 | 1 | 0.046 | 8458 transcription termination factor, RNA polymerase II |
| GO | polarized epithelial cell differentiation | 1 | 1 | 0.046 | 8626 tumor protein p63 |
| GO | squamous basal epithelial stem cell diffi | 1 | 1 | 0.046 | 8626 tumor protein p63 |
| GO | 1-pyrroline-5-carboxylate dehydrogenas | 1 | 1 | 0.046 | 8659 aldehyde dehydrogenase 4 family, member A1 |

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|----|---|----|-----|-------|--------|---|
| GO | tRNA (uracil) methyltransferase activity | 1 | 1 | 0.046 | 91801 | alkB, alkylation repair homolog 8 (E. coli) |
| GO | 25-hydroxycholesterol 7alpha-hydroxylase activity | 1 | 1 | 0.046 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | metabotropic glutamate receptor binding | 1 | 1 | 0.046 | 9455 | homer homolog 2 (Drosophila) |
| GO | heparan sulfate 2-O-sulfotransferase activity | 1 | 1 | 0.046 | 9653 | heparan sulfate 2-O-sulfotransferase 1 |
| GO | heparin metabolic process | 1 | 1 | 0.046 | 9653 | heparan sulfate 2-O-sulfotransferase 1 |
| GO | synaptic transmission | 13 | 167 | 0.048 | 10052 | gap junction protein, gamma 1, 45kDa |
| GO | synaptic transmission | 13 | 167 | 0.048 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | synaptic transmission | 13 | 167 | 0.048 | 200959 | gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | synaptic transmission | 13 | 167 | 0.048 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | synaptic transmission | 13 | 167 | 0.048 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | synaptic transmission | 13 | 167 | 0.048 | 3751 | potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | synaptic transmission | 13 | 167 | 0.048 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha 1 |
| GO | synaptic transmission | 13 | 167 | 0.048 | 4287 | ataxin 3 |
| GO | synaptic transmission | 13 | 167 | 0.048 | 4884 | neuronal pentraxin I |
| GO | synaptic transmission | 13 | 167 | 0.048 | 56126 | protocadherin beta 10 |
| GO | synaptic transmission | 13 | 167 | 0.048 | 56133 | protocadherin beta 2 |
| GO | synaptic transmission | 13 | 167 | 0.048 | 56479 | potassium voltage-gated channel, KQT-like subfamily, member 5 |
| GO | synaptic transmission | 13 | 167 | 0.048 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | structural constituent of muscle | 5 | 43 | 0.048 | 4637 | myosin, light chain 6, alkali, smooth muscle and non-muscle |
| GO | structural constituent of muscle | 5 | 43 | 0.048 | 6525 | smoothelin |
| GO | structural constituent of muscle | 5 | 43 | 0.048 | 7168 | tropomyosin 1 (alpha) |
| GO | structural constituent of muscle | 5 | 43 | 0.048 | 7171 | tropomyosin 4 |
| GO | structural constituent of muscle | 5 | 43 | 0.048 | 9172 | myomesin (M-protein) 2, 165kDa |
| GO | tRNA processing | 6 | 57 | 0.048 | 10799 | ribonuclease P/MRP 40kDa subunit |
| GO | tRNA processing | 6 | 57 | 0.048 | 134637 | adenosine deaminase, tRNA-specific 2, TAD2 homolog (S. cerevisiae) |
| GO | tRNA processing | 6 | 57 | 0.048 | 150962 | pseudouridylate synthase 10 |
| GO | tRNA processing | 6 | 57 | 0.048 | 1787 | tRNA aspartic acid methyltransferase 1 |
| GO | tRNA processing | 6 | 57 | 0.048 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | tRNA processing | 6 | 57 | 0.048 | 345630 | fibrillarin-like 1 |
| GO | neuron migration | 6 | 57 | 0.048 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | neuron migration | 6 | 57 | 0.048 | 266727 | MAM domain containing glycosylphosphatidylinositol anchor 1 |
| GO | neuron migration | 6 | 57 | 0.048 | 347733 | tubulin, beta 2B |
| GO | neuron migration | 6 | 57 | 0.048 | 4897 | neuronal cell adhesion molecule |
| GO | neuron migration | 6 | 57 | 0.048 | 51473 | doublecortin domain containing 2 |
| GO | neuron migration | 6 | 57 | 0.048 | 92737 | delta/notch-like EGF repeat containing |
| GO | regulation of protein localization | 3 | 18 | 0.048 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |

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|----|--|---|----|-------|---|
| GO | regulation of protein localization | 3 | 18 | 0.048 | 7341 SMT3 suppressor of mif two 3 homolog 1 (<i>S. cerevisiae</i>) |
| GO | regulation of protein localization | 3 | 18 | 0.048 | 9910 RAB GTPase activating protein 1-like |
| GO | response to corticosterone stimulus | 3 | 18 | 0.048 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | response to corticosterone stimulus | 3 | 18 | 0.048 | 2878 glutathione peroxidase 3 (plasma) |
| GO | response to corticosterone stimulus | 3 | 18 | 0.048 | 898 cyclin E1 |
| GO | response to inorganic substance | 3 | 18 | 0.048 | 1136 cholinergic receptor, nicotinic, alpha 3 |
| GO | response to inorganic substance | 3 | 18 | 0.048 | 2618 phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | response to inorganic substance | 3 | 18 | 0.048 | 7037 transferrin receptor (p90, CD71) |
| GO | DNA helicase activity | 3 | 18 | 0.048 | 1161 excision repair cross-complementing rodent repair deficiency, complement |
| GO | DNA helicase activity | 3 | 18 | 0.048 | 50485 SWI/SNF related, matrix associated, actin dependent regulator of chromati |
| GO | DNA helicase activity | 3 | 18 | 0.048 | 5965 RecQ protein-like (DNA helicase Q1-like) |
| GO | beta-amyloid binding | 3 | 18 | 0.048 | 3028 hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | beta-amyloid binding | 3 | 18 | 0.048 | 348 apolipoprotein E |
| GO | beta-amyloid binding | 3 | 18 | 0.048 | 590 butyrylcholinesterase |
| GO | beta-tubulin binding | 3 | 18 | 0.048 | 55207 ADP-ribosylation factor-like 8B |
| GO | beta-tubulin binding | 3 | 18 | 0.048 | 6683 spastin |
| GO | beta-tubulin binding | 3 | 18 | 0.048 | 8409 ubiquitously-expressed transcript |
| GO | response to UV | 4 | 30 | 0.049 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | response to UV | 4 | 30 | 0.049 | 1161 excision repair cross-complementing rodent repair deficiency, complement |
| GO | response to UV | 4 | 30 | 0.049 | 1643 damage-specific DNA binding protein 2, 48kDa |
| GO | response to UV | 4 | 30 | 0.049 | 56852 RAD18 homolog (<i>S. cerevisiae</i>) |
| GO | response to arsenic | 2 | 8 | 0.05 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | response to arsenic | 2 | 8 | 0.05 | 1543 cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | response to hyperoxia | 2 | 8 | 0.05 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | response to hyperoxia | 2 | 8 | 0.05 | 1543 cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | nucleotide biosynthetic process | 2 | 8 | 0.05 | 1841 deoxythymidylate kinase (thymidylate kinase) |
| GO | nucleotide biosynthetic process | 2 | 8 | 0.05 | 7298 thymidylate synthetase |
| GO | determination of adult lifespan | 2 | 8 | 0.05 | 29842 transcription factor CP2-like 1 |
| GO | determination of adult lifespan | 2 | 8 | 0.05 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (<i>E. coli</i>) |
| GO | hemopoietic progenitor cell differentiat | 2 | 8 | 0.05 | 3624 inhibin, beta A |
| GO | hemopoietic progenitor cell differentiat | 2 | 8 | 0.05 | 5341 pleckstrin |
| GO | nuclear localization sequence binding | 2 | 8 | 0.05 | 3836 karyopherin alpha 1 (importin alpha 5) |
| GO | nuclear localization sequence binding | 2 | 8 | 0.05 | 3838 karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | mismatched DNA binding | 2 | 8 | 0.05 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (<i>E. coli</i>) |
| GO | mismatched DNA binding | 2 | 8 | 0.05 | 5378 PMS1 postmeiotic segregation increased 1 (<i>S. cerevisiae</i>) |
| GO | proline-rich region binding | 2 | 8 | 0.05 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |

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|----|---------------------------------------|---|-----|-------|--------|---|
| GO | proline-rich region binding | 2 | 8 | 0.05 | 5216 | profilin 1 |
| GO | pharyngeal system development | 2 | 8 | 0.05 | 6899 | T-box 1 |
| GO | pharyngeal system development | 2 | 8 | 0.05 | 7046 | transforming growth factor, beta receptor 1 |
| GO | positive regulation of MAPKKK cascade | 4 | 31 | 0.054 | 2149 | coagulation factor II (thrombin) receptor |
| GO | positive regulation of MAPKKK cascade | 4 | 31 | 0.054 | 3589 | interleukin 11 |
| GO | positive regulation of MAPKKK cascade | 4 | 31 | 0.054 | 3952 | leptin |
| GO | positive regulation of MAPKKK cascade | 4 | 31 | 0.054 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | heparin binding | 9 | 105 | 0.055 | 10457 | glycoprotein (transmembrane) nmb |
| GO | heparin binding | 9 | 105 | 0.055 | 1289 | collagen, type V, alpha 1 |
| GO | heparin binding | 9 | 105 | 0.055 | 143282 | fibroblast growth factor binding protein 3 |
| GO | heparin binding | 9 | 105 | 0.055 | 26577 | procollagen C-endopeptidase enhancer 2 |
| GO | heparin binding | 9 | 105 | 0.055 | 348 | apolipoprotein E |
| GO | heparin binding | 9 | 105 | 0.055 | 3918 | laminin, gamma 2 |
| GO | heparin binding | 9 | 105 | 0.055 | 5228 | placental growth factor |
| GO | heparin binding | 9 | 105 | 0.055 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | heparin binding | 9 | 105 | 0.055 | 7058 | thrombospondin 2 |
| GO | DNA metabolic process | 3 | 19 | 0.056 | 1775 | deoxyribonuclease I-like 2 |
| GO | DNA metabolic process | 3 | 19 | 0.056 | 3838 | karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | DNA metabolic process | 3 | 19 | 0.056 | 50485 | SWI/SNF related, matrix associated, actin dependent regulator of chromati |
| GO | nucleocytoplasmic transport | 3 | 19 | 0.056 | 1984 | eukaryotic translation initiation factor 5A |
| GO | nucleocytoplasmic transport | 3 | 19 | 0.056 | 4928 | nucleoporin 98kDa |
| GO | nucleocytoplasmic transport | 3 | 19 | 0.056 | 8536 | calcium/calmodulin-dependent protein kinase I |
| GO | high-density lipoprotein particle | 3 | 19 | 0.056 | 341 | apolipoprotein C-I |
| GO | high-density lipoprotein particle | 3 | 19 | 0.056 | 348 | apolipoprotein E |
| GO | high-density lipoprotein particle | 3 | 19 | 0.056 | 79135 | apolipoprotein O |
| GO | very-low-density lipoprotein particle | 3 | 19 | 0.056 | 341 | apolipoprotein C-I |
| GO | very-low-density lipoprotein particle | 3 | 19 | 0.056 | 348 | apolipoprotein E |
| GO | very-low-density lipoprotein particle | 3 | 19 | 0.056 | 79135 | apolipoprotein O |
| GO | response to amino acid stimulus | 3 | 19 | 0.056 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | response to amino acid stimulus | 3 | 19 | 0.056 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | response to amino acid stimulus | 3 | 19 | 0.056 | 7078 | TIMP metalloproteinase inhibitor 3 |
| GO | neuron projection | 6 | 60 | 0.059 | 114757 | cytoglobin |
| GO | neuron projection | 6 | 60 | 0.059 | 3800 | kinesin family member 5C |
| GO | neuron projection | 6 | 60 | 0.059 | 4897 | neuronal cell adhesion molecule |
| GO | neuron projection | 6 | 60 | 0.059 | 5494 | protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A |
| GO | neuron projection | 6 | 60 | 0.059 | 8997 | kalirin, RhoGEF kinase |

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|----|---|----|-----|-------|--------|--|
| GO | neuron projection | 6 | 60 | 0.059 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | nuclear pore | 6 | 60 | 0.059 | 1984 | eukaryotic translation initiation factor 5A |
| GO | nuclear pore | 6 | 60 | 0.059 | 3836 | karyopherin alpha 1 (importin alpha 5) |
| GO | nuclear pore | 6 | 60 | 0.059 | 3838 | karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | nuclear pore | 6 | 60 | 0.059 | 4928 | nucleoporin 98kDa |
| GO | nuclear pore | 6 | 60 | 0.059 | 7341 | SMT3 suppressor of mif two 3 homolog 1 (<i>S. cerevisiae</i>) |
| GO | nuclear pore | 6 | 60 | 0.059 | 9688 | nucleoporin 93kDa |
| GO | peptidyl-prolyl cis-trans isomerase activ | 4 | 32 | 0.059 | 10465 | peptidylprolyl isomerase H (cyclophilin H) |
| GO | peptidyl-prolyl cis-trans isomerase activ | 4 | 32 | 0.059 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | peptidyl-prolyl cis-trans isomerase activ | 4 | 32 | 0.059 | 51645 | peptidylprolyl isomerase (cyclophilin)-like 1 |
| GO | peptidyl-prolyl cis-trans isomerase activ | 4 | 32 | 0.059 | 5303 | protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | manganese ion binding | 4 | 32 | 0.059 | 147699 | protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1N (putative) |
| GO | manganese ion binding | 4 | 32 | 0.059 | 2237 | flap structure-specific endonuclease 1 |
| GO | manganese ion binding | 4 | 32 | 0.059 | 5184 | peptidase D |
| GO | manganese ion binding | 4 | 32 | 0.059 | 5494 | protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A |
| GO | sensory perception of sound | 8 | 91 | 0.061 | 1301 | collagen, type XI, alpha 1 |
| GO | sensory perception of sound | 8 | 91 | 0.061 | 1687 | deafness, autosomal dominant 5 |
| GO | sensory perception of sound | 8 | 91 | 0.061 | 1690 | coagulation factor C homolog, cochlin (<i>Limulus polyphemus</i>) |
| GO | sensory perception of sound | 8 | 91 | 0.061 | 26519 | translocase of inner mitochondrial membrane 10 homolog (yeast) |
| GO | sensory perception of sound | 8 | 91 | 0.061 | 26521 | translocase of inner mitochondrial membrane 8 homolog B (yeast) |
| GO | sensory perception of sound | 8 | 91 | 0.061 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | sensory perception of sound | 8 | 91 | 0.061 | 55084 | sine oculis binding protein homolog (<i>Drosophila</i>) |
| GO | sensory perception of sound | 8 | 91 | 0.061 | 7840 | Alstrom syndrome 1 |
| GO | response to hypoxia | 11 | 140 | 0.062 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | response to hypoxia | 11 | 140 | 0.062 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | response to hypoxia | 11 | 140 | 0.062 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | response to hypoxia | 11 | 140 | 0.062 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | response to hypoxia | 11 | 140 | 0.062 | 4763 | neurofibromin 1 |
| GO | response to hypoxia | 11 | 140 | 0.062 | 5228 | placental growth factor |
| GO | response to hypoxia | 11 | 140 | 0.062 | 5588 | protein kinase C, theta |
| GO | response to hypoxia | 11 | 140 | 0.062 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | response to hypoxia | 11 | 140 | 0.062 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | response to hypoxia | 11 | 140 | 0.062 | 7037 | transferrin receptor (p90, CD71) |
| GO | response to hypoxia | 11 | 140 | 0.062 | 7046 | transforming growth factor, beta receptor 1 |
| GO | Rac GTPase activator activity | 2 | 9 | 0.062 | 10395 | deleted in liver cancer 1 |
| GO | Rac GTPase activator activity | 2 | 9 | 0.062 | 9732 | dedicator of cytokinesis 4 |

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|----|--|---|---|-------|--------|--|
| GO | retinal binding | 2 | 9 | 0.062 | 116362 | retinol binding protein 7, cellular |
| GO | retinal binding | 2 | 9 | 0.062 | 5947 | retinol binding protein 1, cellular |
| GO | female gonad development | 2 | 9 | 0.062 | 132625 | zinc finger protein 42 homolog (mouse) |
| GO | female gonad development | 2 | 9 | 0.062 | 431707 | LIM homeobox 8 |
| GO | skeletal muscle tissue regeneration | 2 | 9 | 0.062 | 2027 | enolase 3 (beta, muscle) |
| GO | skeletal muscle tissue regeneration | 2 | 9 | 0.062 | 5081 | paired box 7 |
| GO | spectrin | 2 | 9 | 0.062 | 2037 | erythrocyte membrane protein band 4.1-like 2 |
| GO | spectrin | 2 | 9 | 0.062 | 6711 | spectrin, beta, non-erythrocytic 1 |
| GO | aldehyde dehydrogenase (NAD) activity | 2 | 9 | 0.062 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | aldehyde dehydrogenase (NAD) activity | 2 | 9 | 0.062 | 8659 | aldehyde dehydrogenase 4 family, member A1 |
| GO | lamellipodium membrane | 2 | 9 | 0.062 | 26499 | pleckstrin 2 |
| GO | lamellipodium membrane | 2 | 9 | 0.062 | 84168 | anthrax toxin receptor 1 |
| GO | regulation of smoothened signaling path | 2 | 9 | 0.062 | 2736 | GLI family zinc finger 2 |
| GO | regulation of smoothened signaling path | 2 | 9 | 0.062 | 5015 | orthodenticle homeobox 2 |
| GO | M band | 2 | 9 | 0.062 | 287 | ankyrin 2, neuronal |
| GO | M band | 2 | 9 | 0.062 | 6711 | spectrin, beta, non-erythrocytic 1 |
| GO | positive regulation of synaptic transmission | 2 | 9 | 0.062 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | positive regulation of synaptic transmission | 2 | 9 | 0.062 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | GTP biosynthetic process | 2 | 9 | 0.062 | 29922 | non-metastatic cells 7, protein expressed in (nucleoside-diphosphate kinase) |
| GO | GTP biosynthetic process | 2 | 9 | 0.062 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | nucleoside diphosphate kinase activity | 2 | 9 | 0.062 | 29922 | non-metastatic cells 7, protein expressed in (nucleoside-diphosphate kinase) |
| GO | nucleoside diphosphate kinase activity | 2 | 9 | 0.062 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | UTP biosynthetic process | 2 | 9 | 0.062 | 29922 | non-metastatic cells 7, protein expressed in (nucleoside-diphosphate kinase) |
| GO | UTP biosynthetic process | 2 | 9 | 0.062 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | phospholipid efflux | 2 | 9 | 0.062 | 341 | apolipoprotein C-I |
| GO | phospholipid efflux | 2 | 9 | 0.062 | 348 | apolipoprotein E |
| GO | muscle filament sliding | 2 | 9 | 0.062 | 4637 | myosin, light chain 6, alkali, smooth muscle and non-muscle |
| GO | muscle filament sliding | 2 | 9 | 0.062 | 7168 | tropomyosin 1 (alpha) |
| GO | smooth muscle tissue development | 2 | 9 | 0.062 | 4763 | neurofibromin 1 |
| GO | smooth muscle tissue development | 2 | 9 | 0.062 | 8626 | tumor protein p63 |
| GO | response to growth factor stimulus | 2 | 9 | 0.062 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |
| GO | response to growth factor stimulus | 2 | 9 | 0.062 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | ruffle organization | 2 | 9 | 0.062 | 5341 | pleckstrin |
| GO | ruffle organization | 2 | 9 | 0.062 | 7168 | tropomyosin 1 (alpha) |
| GO | DNA damage response, signal transduction | 2 | 9 | 0.062 | 6672 | SP100 nuclear antigen |
| GO | DNA damage response, signal transduction | 2 | 9 | 0.062 | 672 | breast cancer 1, early onset |

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|----|---|----|-----|-------|--|
| GO | positive regulation of neuron apoptosis | 3 | 20 | 0.063 | 2045 EPH receptor A7 |
| GO | positive regulation of neuron apoptosis | 3 | 20 | 0.063 | 4763 neurofibromin 1 |
| GO | positive regulation of neuron apoptosis | 3 | 20 | 0.063 | 581 BCL2-associated X protein |
| GO | adult walking behavior | 3 | 20 | 0.063 | 27429 HtrA serine peptidase 2 |
| GO | adult walking behavior | 3 | 20 | 0.063 | 3778 potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | adult walking behavior | 3 | 20 | 0.063 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | response to organic cyclic substance | 8 | 92 | 0.064 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | response to organic cyclic substance | 8 | 92 | 0.064 | 1543 cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | response to organic cyclic substance | 8 | 92 | 0.064 | 2878 glutathione peroxidase 3 (plasma) |
| GO | response to organic cyclic substance | 8 | 92 | 0.064 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | response to organic cyclic substance | 8 | 92 | 0.064 | 5021 oxytocin receptor |
| GO | response to organic cyclic substance | 8 | 92 | 0.064 | 5588 protein kinase C, theta |
| GO | response to organic cyclic substance | 8 | 92 | 0.064 | 7046 transforming growth factor, beta receptor 1 |
| GO | response to organic cyclic substance | 8 | 92 | 0.064 | 7078 TIMP metalloproteinase inhibitor 3 |
| GO | elevation of cytosolic calcium ion conce | 8 | 92 | 0.064 | 10672 guanine nucleotide binding protein (G protein), alpha 13 |
| GO | elevation of cytosolic calcium ion conce | 8 | 92 | 0.064 | 2150 coagulation factor II (thrombin) receptor-like 1 |
| GO | elevation of cytosolic calcium ion conce | 8 | 92 | 0.064 | 5021 oxytocin receptor |
| GO | elevation of cytosolic calcium ion conce | 8 | 92 | 0.064 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |
| GO | elevation of cytosolic calcium ion conce | 8 | 92 | 0.064 | 60675 prokineticin 2 |
| GO | elevation of cytosolic calcium ion conce | 8 | 92 | 0.064 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | elevation of cytosolic calcium ion conce | 8 | 92 | 0.064 | 729230 chemokine (C-C motif) receptor 2 |
| GO | elevation of cytosolic calcium ion conce | 8 | 92 | 0.064 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 1045 caudal type homeobox 2 |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 11142 protein kinase (cAMP-dependent, catalytic) inhibitor gamma |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 11278 Kruppel-like factor 12 |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 1746 distal-less homeobox 2 |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 1788 DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 2736 GLI family zinc finger 2 |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 29842 transcription factor CP2-like 1 |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 29995 LIM and cysteine-rich domains 1 |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 3224 homeobox C8 |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 5569 protein kinase (cAMP-dependent, catalytic) inhibitor alpha |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 6299 sal-like 1 (Drosophila) |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 6591 snail homolog 2 (Drosophila) |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 6657 SRY (sex determining region Y)-box 2 |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 6672 SP100 nuclear antigen |

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|----|---|----|------|-------|--|
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 7490 Wilms tumor 1 |
| GO | negative regulation of transcription fror | 16 | 227 | 0.064 | 8626 tumor protein p63 |
| GO | phosphoinositide-mediated signaling | 4 | 33 | 0.065 | 1164 CDC28 protein kinase regulatory subunit 2 |
| GO | phosphoinositide-mediated signaling | 4 | 33 | 0.065 | 2237 flap structure-specific endonuclease 1 |
| GO | phosphoinositide-mediated signaling | 4 | 33 | 0.065 | 7298 thymidylate synthetase |
| GO | phosphoinositide-mediated signaling | 4 | 33 | 0.065 | 767 carbonic anhydrase VIII |
| GO | apical plasma membrane | 12 | 159 | 0.067 | 2151 coagulation factor II (thrombin) receptor-like 2 |
| GO | apical plasma membrane | 12 | 159 | 0.067 | 287 ankyrin 2, neuronal |
| GO | apical plasma membrane | 12 | 159 | 0.067 | 309 annexin A6 |
| GO | apical plasma membrane | 12 | 159 | 0.067 | 3778 potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | apical plasma membrane | 12 | 159 | 0.067 | 5021 oxytocin receptor |
| GO | apical plasma membrane | 12 | 159 | 0.067 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |
| GO | apical plasma membrane | 12 | 159 | 0.067 | 5031 pyrimidinergic receptor P2Y, G-protein coupled, 6 |
| GO | apical plasma membrane | 12 | 159 | 0.067 | 5420 podocalyxin-like |
| GO | apical plasma membrane | 12 | 159 | 0.067 | 7010 TEK tyrosine kinase, endothelial |
| GO | apical plasma membrane | 12 | 159 | 0.067 | 7046 transforming growth factor, beta receptor 1 |
| GO | apical plasma membrane | 12 | 159 | 0.067 | 8777 multiple PDZ domain protein |
| GO | apical plasma membrane | 12 | 159 | 0.067 | 9497 solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | negative regulation of signal transductic | 5 | 48 | 0.071 | 409 arrestin, beta 2 |
| GO | negative regulation of signal transductic | 5 | 48 | 0.071 | 55003 PAK1 interacting protein 1 |
| GO | negative regulation of signal transductic | 5 | 48 | 0.071 | 6000 regulator of G-protein signaling 7 |
| GO | negative regulation of signal transductic | 5 | 48 | 0.071 | 8490 regulator of G-protein signaling 5 |
| GO | negative regulation of signal transductic | 5 | 48 | 0.071 | 8835 suppressor of cytokine signaling 2 |
| GO | collagen binding | 4 | 34 | 0.071 | 22801 integrin, alpha 11 |
| GO | collagen binding | 4 | 34 | 0.071 | 4060 lumican |
| GO | collagen binding | 4 | 34 | 0.071 | 4318 matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV c |
| GO | collagen binding | 4 | 34 | 0.071 | 84168 anthrax toxin receptor 1 |
| GO | response to retinoic acid | 4 | 34 | 0.071 | 54332 ganglioside-induced differentiation-associated protein 1 |
| GO | response to retinoic acid | 4 | 34 | 0.071 | 6657 SRY (sex determining region Y)-box 2 |
| GO | response to retinoic acid | 4 | 34 | 0.071 | 6672 SP100 nuclear antigen |
| GO | response to retinoic acid | 4 | 34 | 0.071 | 7037 transferrin receptor (p90, CD71) |
| GO | ATP binding | 78 | 1426 | 0.073 | 10000 v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma |
| GO | ATP binding | 78 | 1426 | 0.073 | 10051 structural maintenance of chromosomes 4 |
| GO | ATP binding | 78 | 1426 | 0.073 | 10056 phenylalanyl-tRNA synthetase, beta subunit |
| GO | ATP binding | 78 | 1426 | 0.073 | 10096 ARP3 actin-related protein 3 homolog (yeast) |
| GO | ATP binding | 78 | 1426 | 0.073 | 10097 ARP2 actin-related protein 2 homolog (yeast) |

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|----|-------------|----|------|-------|--------|--|
| GO | ATP binding | 78 | 1426 | 0.073 | 10212 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 39 |
| GO | ATP binding | 78 | 1426 | 0.073 | 10808 | heat shock 105kDa/110kDa protein 1 |
| GO | ATP binding | 78 | 1426 | 0.073 | 11056 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 52 |
| GO | ATP binding | 78 | 1426 | 0.073 | 132158 | glycerate kinase |
| GO | ATP binding | 78 | 1426 | 0.073 | 140739 | ubiquitin-conjugating enzyme E2F (putative) |
| GO | ATP binding | 78 | 1426 | 0.073 | 1503 | CTP synthase |
| GO | ATP binding | 78 | 1426 | 0.073 | 1716 | deoxyguanosine kinase |
| GO | ATP binding | 78 | 1426 | 0.073 | 1763 | DNA replication helicase 2 homolog (yeast) |
| GO | ATP binding | 78 | 1426 | 0.073 | 1841 | deoxythymidylate kinase (thymidylate kinase) |
| GO | ATP binding | 78 | 1426 | 0.073 | 203 | adenylate kinase 1 |
| GO | ATP binding | 78 | 1426 | 0.073 | 2045 | EPH receptor A7 |
| GO | ATP binding | 78 | 1426 | 0.073 | 2242 | feline sarcoma oncogene |
| GO | ATP binding | 78 | 1426 | 0.073 | 2264 | fibroblast growth factor receptor 4 |
| GO | ATP binding | 78 | 1426 | 0.073 | 22868 | FAST kinase domains 2 |
| GO | ATP binding | 78 | 1426 | 0.073 | 23057 | nicotinamide nucleotide adenylyltransferase 2 |
| GO | ATP binding | 78 | 1426 | 0.073 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | ATP binding | 78 | 1426 | 0.073 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | ATP binding | 78 | 1426 | 0.073 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | ATP binding | 78 | 1426 | 0.073 | 26154 | ATP-binding cassette, sub-family A (ABC1), member 12 |
| GO | ATP binding | 78 | 1426 | 0.073 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | ATP binding | 78 | 1426 | 0.073 | 27330 | ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | ATP binding | 78 | 1426 | 0.073 | 283455 | kinase suppressor of ras 2 |
| GO | ATP binding | 78 | 1426 | 0.073 | 29922 | non-metastatic cells 7, protein expressed in (nucleoside-diphosphate kinase) |
| GO | ATP binding | 78 | 1426 | 0.073 | 3336 | heat shock 10kDa protein 1 (chaperonin 10) |
| GO | ATP binding | 78 | 1426 | 0.073 | 340273 | ATP-binding cassette, sub-family B (MDR/TAP), member 5 |
| GO | ATP binding | 78 | 1426 | 0.073 | 3797 | kinesin family member 3C |
| GO | ATP binding | 78 | 1426 | 0.073 | 3800 | kinesin family member 5C |
| GO | ATP binding | 78 | 1426 | 0.073 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | ATP binding | 78 | 1426 | 0.073 | 4171 | minichromosome maintenance complex component 2 |
| GO | ATP binding | 78 | 1426 | 0.073 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | ATP binding | 78 | 1426 | 0.073 | 4430 | myosin IB |
| GO | ATP binding | 78 | 1426 | 0.073 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | ATP binding | 78 | 1426 | 0.073 | 4651 | myosin X |
| GO | ATP binding | 78 | 1426 | 0.073 | 479 | ATPase, H+/K+ transporting, nongastric, alpha polypeptide |
| GO | ATP binding | 78 | 1426 | 0.073 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | ATP binding | 78 | 1426 | 0.073 | 5000 | origin recognition complex, subunit 4-like (yeast) |

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|----|-------------|----|------|-------|---|
| GO | ATP binding | 78 | 1426 | 0.073 | 5026 purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | ATP binding | 78 | 1426 | 0.073 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |
| GO | ATP binding | 78 | 1426 | 0.073 | 50485 SWI/SNF related, matrix associated, actin dependent regulator of chromati |
| GO | ATP binding | 78 | 1426 | 0.073 | 5378 PMS1 postmeiotic segregation increased 1 (<i>S. cerevisiae</i>) |
| GO | ATP binding | 78 | 1426 | 0.073 | 54822 transient receptor potential cation channel, subfamily M, member 7 |
| GO | ATP binding | 78 | 1426 | 0.073 | 55137 fidgetin |
| GO | ATP binding | 78 | 1426 | 0.073 | 55577 N-acetylglucosamine kinase |
| GO | ATP binding | 78 | 1426 | 0.073 | 558 AXL receptor tyrosine kinase |
| GO | ATP binding | 78 | 1426 | 0.073 | 5588 protein kinase C, theta |
| GO | ATP binding | 78 | 1426 | 0.073 | 5702 proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | ATP binding | 78 | 1426 | 0.073 | 57144 p21 protein (Cdc42/Rac)-activated kinase 7 |
| GO | ATP binding | 78 | 1426 | 0.073 | 5754 PTK7 protein tyrosine kinase 7 |
| GO | ATP binding | 78 | 1426 | 0.073 | 5889 RAD51 homolog C (<i>S. cerevisiae</i>) |
| GO | ATP binding | 78 | 1426 | 0.073 | 59 actin, alpha 2, smooth muscle, aorta |
| GO | ATP binding | 78 | 1426 | 0.073 | 5965 RecQ protein-like (DNA helicase Q1-like) |
| GO | ATP binding | 78 | 1426 | 0.073 | 64080 ribokinase |
| GO | ATP binding | 78 | 1426 | 0.073 | 641 Bloom syndrome, RecQ helicase-like |
| GO | ATP binding | 78 | 1426 | 0.073 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | ATP binding | 78 | 1426 | 0.073 | 6683 spastin |
| GO | ATP binding | 78 | 1426 | 0.073 | 6833 ATP-binding cassette, sub-family C (CFTR/MRP), member 8 |
| GO | ATP binding | 78 | 1426 | 0.073 | 70 actin, alpha, cardiac muscle 1 |
| GO | ATP binding | 78 | 1426 | 0.073 | 7010 TEK tyrosine kinase, endothelial |
| GO | ATP binding | 78 | 1426 | 0.073 | 7046 transforming growth factor, beta receptor 1 |
| GO | ATP binding | 78 | 1426 | 0.073 | 7324 ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | ATP binding | 78 | 1426 | 0.073 | 79646 pantothenate kinase 3 |
| GO | ATP binding | 78 | 1426 | 0.073 | 79677 structural maintenance of chromosomes 6 |
| GO | ATP binding | 78 | 1426 | 0.073 | 79710 MORC family CW-type zinc finger 4 |
| GO | ATP binding | 78 | 1426 | 0.073 | 84083 zinc finger, RAN-binding domain containing 3 |
| GO | ATP binding | 78 | 1426 | 0.073 | 84319 chromosome 3 open reading frame 26 |
| GO | ATP binding | 78 | 1426 | 0.073 | 8458 transcription termination factor, RNA polymerase II |
| GO | ATP binding | 78 | 1426 | 0.073 | 8536 calcium/calmodulin-dependent protein kinase I |
| GO | ATP binding | 78 | 1426 | 0.073 | 89797 neuron navigator 2 |
| GO | ATP binding | 78 | 1426 | 0.073 | 8997 kalirin, RhoGEF kinase |
| GO | ATP binding | 78 | 1426 | 0.073 | 9262 serine/threonine kinase 17b |
| GO | ATP binding | 78 | 1426 | 0.073 | 9448 mitogen-activated protein kinase kinase kinase kinase 4 |
| GO | ATP binding | 78 | 1426 | 0.073 | 953 ectonucleoside triphosphate diphosphohydrolase 1 |

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|----|---|----|------|-------|--------|---|
| GO | ATP binding | 78 | 1426 | 0.073 | 9833 | maternal embryonic leucine zipper kinase |
| GO | Ras GTPase activator activity | 2 | 10 | 0.076 | 10788 | IQ motif containing GTPase activating protein 2 |
| GO | Ras GTPase activator activity | 2 | 10 | 0.076 | 4763 | neurofibromin 1 |
| GO | substrate adhesion-dependent cell spre | 2 | 10 | 0.076 | 11149 | blood vessel epicardial substance |
| GO | substrate adhesion-dependent cell spre | 2 | 10 | 0.076 | 84168 | anthrax toxin receptor 1 |
| GO | NAD binding | 2 | 10 | 0.076 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | NAD binding | 2 | 10 | 0.076 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | general transcriptional repressor activit | 2 | 10 | 0.076 | 29842 | transcription factor CP2-like 1 |
| GO | general transcriptional repressor activit | 2 | 10 | 0.076 | 6672 | SP100 nuclear antigen |
| GO | limb morphogenesis | 2 | 10 | 0.076 | 344191 | even-skipped homeobox 2 |
| GO | limb morphogenesis | 2 | 10 | 0.076 | 5125 | proprotein convertase subtilisin/kexin type 5 |
| GO | receptor internalization | 2 | 10 | 0.076 | 409 | arrestin, beta 2 |
| GO | receptor internalization | 2 | 10 | 0.076 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | isotype switching | 2 | 10 | 0.076 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | isotype switching | 2 | 10 | 0.076 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | prefoldin complex | 2 | 10 | 0.076 | 5203 | prefoldin subunit 4 |
| GO | prefoldin complex | 2 | 10 | 0.076 | 8409 | ubiquitously-expressed transcript |
| GO | ribosomal large subunit biogenesis | 2 | 10 | 0.076 | 55759 | WD repeat domain 12 |
| GO | ribosomal large subunit biogenesis | 2 | 10 | 0.076 | 6154 | ribosomal protein L26 |
| GO | vascular endothelial growth factor recep | 2 | 10 | 0.076 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | vascular endothelial growth factor recep | 2 | 10 | 0.076 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | G2/M transition DNA damage checkpoir | 2 | 10 | 0.076 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | G2/M transition DNA damage checkpoir | 2 | 10 | 0.076 | 672 | breast cancer 1, early onset |
| GO | acetylglucosaminyltransferase activity | 2 | 10 | 0.076 | 64131 | xylosyltransferase I |
| GO | acetylglucosaminyltransferase activity | 2 | 10 | 0.076 | 9215 | like-glycosyltransferase |
| GO | caveola | 5 | 49 | 0.076 | 10395 | deleted in liver cancer 1 |
| GO | caveola | 5 | 49 | 0.076 | 2149 | coagulation factor II (thrombin) receptor |
| GO | caveola | 5 | 49 | 0.076 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | caveola | 5 | 49 | 0.076 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | caveola | 5 | 49 | 0.076 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 1002 | cadherin 4, type 1, R-cadherin (retinal) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 1008 | cadherin 10, type 2 (T2-cadherin) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 1047 | calmegin |
| GO | calcium ion binding | 36 | 605 | 0.077 | 10893 | matrix metalloproteinase 24 (membrane-inserted) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 120114 | FAT tumor suppressor homolog 3 (Drosophila) |

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|----|--|----|-----|-------|--------|---|
| GO | calcium ion binding | 36 | 605 | 0.077 | 162494 | rhomboïd, veinlet-like 3 (Drosophila) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 1775 | deoxyribonuclease I-like 2 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 182 | jagged 1 (Alagille syndrome) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 1830 | desmoglein 3 (pemphigus vulgaris antigen) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 25780 | RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 27445 | piccolo (presynaptic cytomatrix protein) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 309 | annexin A6 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 3936 | lymphocyte cytosolic protein 1 (L-plastin) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 4052 | latent transforming growth factor beta binding protein 1 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 4312 | matrix metalloproteinase 1 (interstitial collagenase) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 4319 | matrix metalloproteinase 10 (stromelysin 2) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 4637 | myosin, light chain 6, alkali, smooth muscle and non-muscle |
| GO | calcium ion binding | 36 | 605 | 0.077 | 5101 | protocadherin 9 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 55012 | protein phosphatase 2 (formerly 2A), regulatory subunit B'', gamma |
| GO | calcium ion binding | 36 | 605 | 0.077 | 56104 | protocadherin gamma subfamily B, 1 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 56126 | protocadherin beta 10 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 56133 | protocadherin beta 2 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 5624 | protein C (inactivator of coagulation factors Va and VIIIa) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 57333 | reticulocalbin 3, EF-hand calcium binding domain |
| GO | calcium ion binding | 36 | 605 | 0.077 | 57575 | protocadherin 10 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 6442 | sarcoglycan, alpha (50kDa dystrophin-associated glycoprotein) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 6586 | slit homolog 3 (Drosophila) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 667 | dystonin |
| GO | calcium ion binding | 36 | 605 | 0.077 | 6695 | sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 7058 | thrombospondin 2 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 7171 | tropomyosin 4 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 84206 | mex-3 homolog B (C. elegans) |
| GO | calcium ion binding | 36 | 605 | 0.077 | 8604 | solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 90141 | chromosome 14 open reading frame 143 |
| GO | calcium ion binding | 36 | 605 | 0.077 | 92737 | delta/notch-like EGF repeat containing |
| GO | circadian rhythm | 4 | 35 | 0.078 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | circadian rhythm | 4 | 35 | 0.078 | 406 | aryl hydrocarbon receptor nuclear translocator-like |
| GO | circadian rhythm | 4 | 35 | 0.078 | 60675 | prokineticin 2 |
| GO | circadian rhythm | 4 | 35 | 0.078 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | calcium-independent cell-cell adhesion | 3 | 22 | 0.08 | 23562 | claudin 14 |
| GO | calcium-independent cell-cell adhesion | 3 | 22 | 0.08 | 23705 | cell adhesion molecule 1 |

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|----|--|----|-----|-------|--------|--|
| GO | calcium-independent cell-cell adhesion | 3 | 22 | 0.08 | 9076 | claudin 1 |
| GO | eating behavior | 3 | 22 | 0.08 | 3952 | leptin |
| GO | eating behavior | 3 | 22 | 0.08 | 5021 | oxytocin receptor |
| GO | eating behavior | 3 | 22 | 0.08 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 10051 | structural maintenance of chromosomes 4 |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 10055 | SUMO1 activating enzyme subunit 1 |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 2027 | enolase 3 (beta, muscle) |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 23590 | prenyl (decaprenyl) diphosphate synthase, subunit 1 |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 332 | baculoviral IAP repeat-containing 5 |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 348 | apolipoprotein E |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 3624 | inhibin, beta A |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 3751 | potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 5228 | placental growth factor |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 581 | BCL2-associated X protein |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 666 | BCL2-related ovarian killer |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 7046 | transforming growth factor, beta receptor 1 |
| GO | protein heterodimerization activity | 14 | 199 | 0.081 | 83851 | synaptotagmin XVI |
| GO | activation of caspase activity | 5 | 50 | 0.081 | 10395 | deleted in liver cancer 1 |
| GO | activation of caspase activity | 5 | 50 | 0.081 | 2149 | coagulation factor II (thrombin) receptor |
| GO | activation of caspase activity | 5 | 50 | 0.081 | 3336 | heat shock 10kDa protein 1 (chaperonin 10) |
| GO | activation of caspase activity | 5 | 50 | 0.081 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | activation of caspase activity | 5 | 50 | 0.081 | 581 | BCL2-associated X protein |
| GO | anterior/posterior pattern formation | 7 | 81 | 0.082 | 1045 | caudal type homeobox 2 |
| GO | anterior/posterior pattern formation | 7 | 81 | 0.082 | 3224 | homeobox C8 |
| GO | anterior/posterior pattern formation | 7 | 81 | 0.082 | 3236 | homeobox D10 |
| GO | anterior/posterior pattern formation | 7 | 81 | 0.082 | 3237 | homeobox D11 |
| GO | anterior/posterior pattern formation | 7 | 81 | 0.082 | 5125 | proprotein convertase subtilisin/kexin type 5 |
| GO | anterior/posterior pattern formation | 7 | 81 | 0.082 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | anterior/posterior pattern formation | 7 | 81 | 0.082 | 7046 | transforming growth factor, beta receptor 1 |
| GO | nervous system development | 24 | 382 | 0.083 | 10612 | tripartite motif-containing 3 |
| GO | nervous system development | 24 | 382 | 0.083 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | nervous system development | 24 | 382 | 0.083 | 182 | jagged 1 (Alagille syndrome) |
| GO | nervous system development | 24 | 382 | 0.083 | 266727 | MAM domain containing glycosylphosphatidylinositol anchor 1 |
| GO | nervous system development | 24 | 382 | 0.083 | 29767 | tropomodulin 2 (neuronal) |
| GO | nervous system development | 24 | 382 | 0.083 | 3624 | inhibin, beta A |

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|----|----------------------------|----|-----|-------|---|
| GO | nervous system development | 24 | 382 | 0.083 | 3975 LIM homeobox 1 |
| GO | nervous system development | 24 | 382 | 0.083 | 4287 ataxin 3 |
| GO | nervous system development | 24 | 382 | 0.083 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | nervous system development | 24 | 382 | 0.083 | 5026 purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | nervous system development | 24 | 382 | 0.083 | 5264 phytanoyl-CoA 2-hydroxylase |
| GO | nervous system development | 24 | 382 | 0.083 | 56133 protocadherin beta 2 |
| GO | nervous system development | 24 | 382 | 0.083 | 6474 short stature homeobox 2 |
| GO | nervous system development | 24 | 382 | 0.083 | 6586 slit homolog 3 (Drosophila) |
| GO | nervous system development | 24 | 382 | 0.083 | 6683 spastin |
| GO | nervous system development | 24 | 382 | 0.083 | 6695 sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1 |
| GO | nervous system development | 24 | 382 | 0.083 | 7021 transcription factor AP-2 beta (activating enhancer binding protein 2 beta) |
| GO | nervous system development | 24 | 382 | 0.083 | 8193 D4, zinc and double PHD fingers family 1 |
| GO | nervous system development | 24 | 382 | 0.083 | 8482 semaphorin 7A, GPI membrane anchor (John Milton Hagen blood group) |
| GO | nervous system development | 24 | 382 | 0.083 | 8536 calcium/calmodulin-dependent protein kinase I |
| GO | nervous system development | 24 | 382 | 0.083 | 89797 neuron navigator 2 |
| GO | nervous system development | 24 | 382 | 0.083 | 8997 kalirin, RhoGEF kinase |
| GO | nervous system development | 24 | 382 | 0.083 | 91584 plexin A4 |
| GO | nervous system development | 24 | 382 | 0.083 | 9839 zinc finger E-box binding homeobox 2 |
| GO | transporter activity | 19 | 290 | 0.083 | 11154 adaptor-related protein complex 4, sigma 1 subunit |
| GO | transporter activity | 19 | 290 | 0.083 | 116362 retinol binding protein 7, cellular |
| GO | transporter activity | 19 | 290 | 0.083 | 1836 solute carrier family 26 (sulfate transporter), member 2 |
| GO | transporter activity | 19 | 290 | 0.083 | 2171 fatty acid binding protein 5 (psoriasis-associated) |
| GO | transporter activity | 19 | 290 | 0.083 | 2172 fatty acid binding protein 6, ileal |
| GO | transporter activity | 19 | 290 | 0.083 | 2558 gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | transporter activity | 19 | 290 | 0.083 | 27445 piccolo (presynaptic cytomatrix protein) |
| GO | transporter activity | 19 | 290 | 0.083 | 2906 glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | transporter activity | 19 | 290 | 0.083 | 4928 nucleoporin 98kDa |
| GO | transporter activity | 19 | 290 | 0.083 | 516 ATP synthase, H ⁺ transporting, mitochondrial F0 complex, subunit C1 (subu |
| GO | transporter activity | 19 | 290 | 0.083 | 528 ATPase, H ⁺ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | transporter activity | 19 | 290 | 0.083 | 5947 retinol binding protein 1, cellular |
| GO | transporter activity | 19 | 290 | 0.083 | 60386 solute carrier family 25 (mitochondrial thiamine pyrophosphate carrier), m |
| GO | transporter activity | 19 | 290 | 0.083 | 6518 solute carrier family 2 (facilitated glucose/fructose transporter), member 5 |
| GO | transporter activity | 19 | 290 | 0.083 | 6527 solute carrier family 5 (low affinity glucose cotransporter), member 4 |
| GO | transporter activity | 19 | 290 | 0.083 | 6580 solute carrier family 22 (organic cation transporter), member 1 |
| GO | transporter activity | 19 | 290 | 0.083 | 729025 solute carrier family 15, member 5 |
| GO | transporter activity | 19 | 290 | 0.083 | 8604 solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |

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|----|--|----|-----|-------|--------|--|
| GO | transporter activity | 19 | 290 | 0.083 | 9497 | solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | somitogenesis | 4 | 36 | 0.084 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | somitogenesis | 4 | 36 | 0.084 | 10683 | delta-like 3 (Drosophila) |
| GO | somitogenesis | 4 | 36 | 0.084 | 6422 | secreted frizzled-related protein 1 |
| GO | somitogenesis | 4 | 36 | 0.084 | 9839 | zinc finger E-box binding homeobox 2 |
| GO | DNA-directed RNA polymerase activity | 4 | 36 | 0.084 | 10622 | polymerase (RNA) III (DNA directed) polypeptide G (32kD) |
| GO | DNA-directed RNA polymerase activity | 4 | 36 | 0.084 | 25885 | polymerase (RNA) I polypeptide A, 194kDa |
| GO | DNA-directed RNA polymerase activity | 4 | 36 | 0.084 | 5440 | polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |
| GO | DNA-directed RNA polymerase activity | 4 | 36 | 0.084 | 84172 | polymerase (RNA) I polypeptide B, 128kDa |
| GO | odontogenesis of dentine-containing to | 4 | 36 | 0.084 | 1746 | distal-less homeobox 2 |
| GO | odontogenesis of dentine-containing to | 4 | 36 | 0.084 | 2736 | GLI family zinc finger 2 |
| GO | odontogenesis of dentine-containing to | 4 | 36 | 0.084 | 431707 | LIM homeobox 8 |
| GO | odontogenesis of dentine-containing to | 4 | 36 | 0.084 | 8626 | tumor protein p63 |
| GO | lipid transport | 6 | 66 | 0.085 | 114880 | oxysterol binding protein-like 6 |
| GO | lipid transport | 6 | 66 | 0.085 | 26154 | ATP-binding cassette, sub-family A (ABC1), member 12 |
| GO | lipid transport | 6 | 66 | 0.085 | 26207 | phosphatidylinositol transfer protein, cytoplasmic 1 |
| GO | lipid transport | 6 | 66 | 0.085 | 348 | apolipoprotein E |
| GO | lipid transport | 6 | 66 | 0.085 | 5360 | phospholipid transfer protein |
| GO | lipid transport | 6 | 66 | 0.085 | 79135 | apolipoprotein O |
| GO | synapse | 17 | 255 | 0.086 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | synapse | 17 | 255 | 0.086 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | synapse | 17 | 255 | 0.086 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | synapse | 17 | 255 | 0.086 | 200959 | gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | synapse | 17 | 255 | 0.086 | 23705 | cell adhesion molecule 1 |
| GO | synapse | 17 | 255 | 0.086 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | synapse | 17 | 255 | 0.086 | 26059 | ELKS/RAB6-interacting/CAST family member 2 |
| GO | synapse | 17 | 255 | 0.086 | 26999 | cytoplasmic FMR1 interacting protein 2 |
| GO | synapse | 17 | 255 | 0.086 | 27445 | piccolo (presynaptic cytomatrix protein) |
| GO | synapse | 17 | 255 | 0.086 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | synapse | 17 | 255 | 0.086 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | synapse | 17 | 255 | 0.086 | 30011 | SH3-domain kinase binding protein 1 |
| GO | synapse | 17 | 255 | 0.086 | 55752 | septin 11 |
| GO | synapse | 17 | 255 | 0.086 | 8777 | multiple PDZ domain protein |
| GO | synapse | 17 | 255 | 0.086 | 9419 | cysteine-rich PDZ-binding protein |
| GO | synapse | 17 | 255 | 0.086 | 9455 | homer homolog 2 (Drosophila) |
| GO | synapse | 17 | 255 | 0.086 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |

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|----|---|---|----|-------|--------|--|
| GO | negative regulation of neuron apoptosis | 5 | 51 | 0.087 | 2149 | coagulation factor II (thrombin) receptor |
| GO | negative regulation of neuron apoptosis | 5 | 51 | 0.087 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | negative regulation of neuron apoptosis | 5 | 51 | 0.087 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | negative regulation of neuron apoptosis | 5 | 51 | 0.087 | 4893 | neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | negative regulation of neuron apoptosis | 5 | 51 | 0.087 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | ATP-dependent DNA helicase activity | 3 | 23 | 0.089 | 1763 | DNA replication helicase 2 homolog (yeast) |
| GO | ATP-dependent DNA helicase activity | 3 | 23 | 0.089 | 5965 | RecQ protein-like (DNA helicase Q1-like) |
| GO | ATP-dependent DNA helicase activity | 3 | 23 | 0.089 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | activation of MAPKK activity | 3 | 23 | 0.089 | 2149 | coagulation factor II (thrombin) receptor |
| GO | activation of MAPKK activity | 3 | 23 | 0.089 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | activation of MAPKK activity | 3 | 23 | 0.089 | 7046 | transforming growth factor, beta receptor 1 |
| GO | negative regulation of cell adhesion | 3 | 23 | 0.089 | 27289 | Rho family GTPase 1 |
| GO | negative regulation of cell adhesion | 3 | 23 | 0.089 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | negative regulation of cell adhesion | 3 | 23 | 0.089 | 5420 | podocalyxin-like |
| GO | developmental growth | 3 | 23 | 0.089 | 2736 | GLI family zinc finger 2 |
| GO | developmental growth | 3 | 23 | 0.089 | 3237 | homeobox D11 |
| GO | developmental growth | 3 | 23 | 0.089 | 7840 | Alstrom syndrome 1 |
| GO | nuclear chromosome | 3 | 23 | 0.089 | 332 | baculoviral IAP repeat-containing 5 |
| GO | nuclear chromosome | 3 | 23 | 0.089 | 54984 | PIN2-interacting protein 1 |
| GO | nuclear chromosome | 3 | 23 | 0.089 | 642636 | RAD21-like 1 (S. pombe) |
| GO | somatic stem cell maintenance | 2 | 11 | 0.09 | 1045 | caudal type homeobox 2 |
| GO | somatic stem cell maintenance | 2 | 11 | 0.09 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | GTPase inhibitor activity | 2 | 11 | 0.09 | 10788 | IQ motif containing GTPase activating protein 2 |
| GO | GTPase inhibitor activity | 2 | 11 | 0.09 | 6242 | rhotekin |
| GO | glycosaminoglycan biosynthetic process | 2 | 11 | 0.09 | 11227 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | glycosaminoglycan biosynthetic process | 2 | 11 | 0.09 | 64131 | xylosyltransferase I |
| GO | mitotic metaphase plate congression | 2 | 11 | 0.09 | 113130 | cell division cycle associated 5 |
| GO | mitotic metaphase plate congression | 2 | 11 | 0.09 | 54984 | PIN2-interacting protein 1 |
| GO | retinol binding | 2 | 11 | 0.09 | 116362 | retinol binding protein 7, cellular |
| GO | retinol binding | 2 | 11 | 0.09 | 5947 | retinol binding protein 1, cellular |
| GO | platelet-derived growth factor binding | 2 | 11 | 0.09 | 1282 | collagen, type IV, alpha 1 |
| GO | platelet-derived growth factor binding | 2 | 11 | 0.09 | 1289 | collagen, type V, alpha 1 |
| GO | fibroblast growth factor binding | 2 | 11 | 0.09 | 143282 | fibroblast growth factor binding protein 3 |
| GO | fibroblast growth factor binding | 2 | 11 | 0.09 | 2264 | fibroblast growth factor receptor 4 |
| GO | chylomicron | 2 | 11 | 0.09 | 341 | apolipoprotein C-I |
| GO | chylomicron | 2 | 11 | 0.09 | 348 | apolipoprotein E |

| | | | | | | |
|----|---|---|----|-------|--------|---|
| GO | negative regulation of lipid catabolic process | 2 | 11 | 0.09 | 341 | apolipoprotein C-I |
| GO | negative regulation of lipid catabolic process | 2 | 11 | 0.09 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | vasodilation | 2 | 11 | 0.09 | 348 | apolipoprotein E |
| GO | vasodilation | 2 | 11 | 0.09 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | 3',5'-cyclic-nucleotide phosphodiesterase activity | 2 | 11 | 0.09 | 50940 | phosphodiesterase 11A |
| GO | 3',5'-cyclic-nucleotide phosphodiesterase activity | 2 | 11 | 0.09 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | large ribosomal subunit | 2 | 11 | 0.09 | 51121 | ribosomal protein L26-like 1 |
| GO | large ribosomal subunit | 2 | 11 | 0.09 | 65008 | mitochondrial ribosomal protein L1 |
| GO | dipeptidase activity | 2 | 11 | 0.09 | 5184 | peptidase D |
| GO | dipeptidase activity | 2 | 11 | 0.09 | 9805 | secernin 1 |
| GO | phosphatidylinositol-3,4-bisphosphate 3-kinase activity | 2 | 11 | 0.09 | 5341 | pleckstrin |
| GO | phosphatidylinositol-3,4-bisphosphate 3-kinase activity | 2 | 11 | 0.09 | 55803 | ArfGAP with dual PH domains 2 |
| GO | replication fork | 2 | 11 | 0.09 | 56852 | RAD18 homolog (<i>S. cerevisiae</i>) |
| GO | replication fork | 2 | 11 | 0.09 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | ubiquitin activating enzyme activity | 1 | 2 | 0.091 | 10055 | SUMO1 activating enzyme subunit 1 |
| GO | C21-steroid hormone metabolic process | 1 | 2 | 0.091 | 10202 | dehydrogenase/reductase (SDR family) member 2 |
| GO | cardiac right ventricle morphogenesis | 1 | 2 | 0.091 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | pulmonary myocardium development | 1 | 2 | 0.091 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | semaphorin receptor binding | 1 | 2 | 0.091 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | activation of phospholipase D activity | 1 | 2 | 0.091 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | tRNA (guanine-N7-)-methyltransferase activity | 1 | 2 | 0.091 | 10785 | WD repeat domain 4 |
| GO | ADP-sugar diphosphatase activity | 1 | 2 | 0.091 | 11164 | nudix (nucleoside diphosphate linked moiety X)-type motif 5 |
| GO | Rab-protein geranylgeranyltransferase activity | 1 | 2 | 0.091 | 1121 | choroideremia (Rab escort protein 1) |
| GO | regulation of cellular component organization | 1 | 2 | 0.091 | 1289 | collagen, type V, alpha 1 |
| GO | deacetylase activity | 1 | 2 | 0.091 | 13 | arylacetamide deacetylase (esterase) |
| GO | collagen type XI | 1 | 2 | 0.091 | 1301 | collagen, type XI, alpha 1 |
| GO | cytoplasmic transport | 1 | 2 | 0.091 | 135295 | splicing factor, arginine/serine-rich 13B |
| GO | radial glia guided migration of Purkinje cell | 1 | 2 | 0.091 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | regulation of synapse structural plasticity | 1 | 2 | 0.091 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | CTP synthase activity | 1 | 2 | 0.091 | 1503 | CTP synthase |
| GO | demethylase activity | 1 | 2 | 0.091 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | developmental process | 1 | 2 | 0.091 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | vitamin D 24-hydroxylase activity | 1 | 2 | 0.091 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | benzodiazepine receptor binding | 1 | 2 | 0.091 | 1622 | diazepam binding inhibitor (GABA receptor modulator, acyl-Coenzyme A bi |
| GO | cerebral cortex GABAergic interneuron fate | 1 | 2 | 0.091 | 1746 | distal-less homeobox 2 |
| GO | regulation of transcription from RNA polymerase II promoter | 1 | 2 | 0.091 | 1746 | distal-less homeobox 2 |

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|----|--|---|---|-------|-------|--|
| GO | gamma DNA polymerase complex | 1 | 2 | 0.091 | 1763 | DNA replication helicase 2 homolog (yeast) |
| GO | tRNA (cytosine-5-)-methyltransferase ac | 1 | 2 | 0.091 | 1787 | tRNA aspartic acid methyltransferase 1 |
| GO | DNA (cytosine-5-)-methyltransferase ac | 1 | 2 | 0.091 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | DNA methylation on cytosine within a C | 1 | 2 | 0.091 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | annulate lamellae | 1 | 2 | 0.091 | 1984 | eukaryotic translation initiation factor 5A |
| GO | PH domain binding | 1 | 2 | 0.091 | 2037 | erythrocyte membrane protein band 4.1-like 2 |
| GO | glucuronyl-galactosyl-proteoglycan 4-alf | 1 | 2 | 0.091 | 2135 | exostoses (multiple)-like 2 |
| GO | establishment of synaptic specificity at r | 1 | 2 | 0.091 | 2149 | coagulation factor II (thrombin) receptor |
| GO | platelet dense tubular network | 1 | 2 | 0.091 | 2149 | coagulation factor II (thrombin) receptor |
| GO | olfactory pit development | 1 | 2 | 0.091 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | retinoic acid biosynthetic process | 1 | 2 | 0.091 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | de novo' protein folding | 1 | 2 | 0.091 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | negative regulation of protein phosphat | 1 | 2 | 0.091 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | regulation of cardiac muscle contractior | 1 | 2 | 0.091 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | release of sequestered calcium ion into | 1 | 2 | 0.091 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | pentose-phosphate shunt, non-oxidativ | 1 | 2 | 0.091 | 22934 | ribose 5-phosphate isomerase A |
| GO | glycerol-3-phosphate catabolic process | 1 | 2 | 0.091 | 23171 | glycerol-3-phosphate dehydrogenase 1-like |
| GO | negative regulation of actin filament po | 1 | 2 | 0.091 | 23189 | KN motif and ankyrin repeat domains 1 |
| GO | positive regulation of plasma membran | 1 | 2 | 0.091 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | trans-hexaprenyltranstransferase activit | 1 | 2 | 0.091 | 23590 | prenyl (decaprenyl) diphosphate synthase, subunit 1 |
| GO | trans-octaprenyltranstransferase activit | 1 | 2 | 0.091 | 23590 | prenyl (decaprenyl) diphosphate synthase, subunit 1 |
| GO | detection of stimulus | 1 | 2 | 0.091 | 23705 | cell adhesion molecule 1 |
| GO | T cell mediated cytotoxicity | 1 | 2 | 0.091 | 23705 | cell adhesion molecule 1 |
| GO | arachidonate 5-lipoxygenase activity | 1 | 2 | 0.091 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | hydroxyacylglutathione hydrolase activi | 1 | 2 | 0.091 | 25953 | paroxysmal nonkinesigenic dyskinesia |
| GO | carbon-carbon lyase activity | 1 | 2 | 0.091 | 26061 | 2-hydroxyacyl-CoA lyase 1 |
| GO | creatine biosynthetic process | 1 | 2 | 0.091 | 2628 | glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | glycine cleavage complex | 1 | 2 | 0.091 | 2653 | glycine cleavage system protein H (aminomethyl carrier) |
| GO | notochord regression | 1 | 2 | 0.091 | 2736 | GLI family zinc finger 2 |
| GO | smoothened signaling pathway involvec | 1 | 2 | 0.091 | 2736 | GLI family zinc finger 2 |
| GO | smoothened signaling pathway involvec | 1 | 2 | 0.091 | 2736 | GLI family zinc finger 2 |
| GO | specification of segmental identity, max | 1 | 2 | 0.091 | 2736 | GLI family zinc finger 2 |
| GO | spinal cord ventral commissure morpho | 1 | 2 | 0.091 | 2736 | GLI family zinc finger 2 |
| GO | response to lipid hydroperoxide | 1 | 2 | 0.091 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | kainate selective glutamate receptor co | 1 | 2 | 0.091 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | voltage-gated cation channel activity | 1 | 2 | 0.091 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |

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|----|--|---|---|-------|-------|--|
| GO | cytoplasm organization | 1 | 2 | 0.091 | 29842 | transcription factor CP2-like 1 |
| GO | positive regulation of growth | 1 | 2 | 0.091 | 29842 | transcription factor CP2-like 1 |
| GO | dermatan sulfate biosynthetic process | 1 | 2 | 0.091 | 29940 | dermatan sulfate epimerase |
| GO | hydroxymethylglutaryl-CoA synthase ac | 1 | 2 | 0.091 | 3157 | 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) |
| GO | positive regulation of cell development | 1 | 2 | 0.091 | 3237 | homeobox D11 |
| GO | 15-hydroxyprostaglandin dehydrogenas | 1 | 2 | 0.091 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | N-methyltransferase activity | 1 | 2 | 0.091 | 3276 | protein arginine methyltransferase 1 |
| GO | establishment of chromosome localizati | 1 | 2 | 0.091 | 332 | baculoviral IAP repeat-containing 5 |
| GO | follistatin binding | 1 | 2 | 0.091 | 3624 | inhibin, beta A |
| GO | inhibin A complex | 1 | 2 | 0.091 | 3624 | inhibin, beta A |
| GO | negative regulation of lipoprotein metal | 1 | 2 | 0.091 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | neuronal cell body membrane | 1 | 2 | 0.091 | 3763 | potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | smooth muscle contraction involved in i | 1 | 2 | 0.091 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | M phase specific microtubule process | 1 | 2 | 0.091 | 3838 | karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | CD4 receptor binding | 1 | 2 | 0.091 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | leptin-mediated signaling pathway | 1 | 2 | 0.091 | 3952 | leptin |
| GO | cerebellar Purkinje cell-granule cell prec | 1 | 2 | 0.091 | 3975 | LIM homeobox 1 |
| GO | ectoderm formation | 1 | 2 | 0.091 | 3975 | LIM homeobox 1 |
| GO | forebrain regionalization | 1 | 2 | 0.091 | 3975 | LIM homeobox 1 |
| GO | head development | 1 | 2 | 0.091 | 3975 | LIM homeobox 1 |
| GO | angiotensin receptor binding | 1 | 2 | 0.091 | 409 | arrestin, beta 2 |
| GO | N-acetylgalactosamine-4-sulfatase activ | 1 | 2 | 0.091 | 411 | arylsulfatase B |
| GO | chiasma | 1 | 2 | 0.091 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | MutLalpha complex | 1 | 2 | 0.091 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | B cell mediated immunity | 1 | 2 | 0.091 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | dinucleotide repeat insertion binding | 1 | 2 | 0.091 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | MutSalpha complex | 1 | 2 | 0.091 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | MutSbeta complex | 1 | 2 | 0.091 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | single thymine insertion binding | 1 | 2 | 0.091 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | beta-2 adrenergic receptor binding | 1 | 2 | 0.091 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | phosphothreonine binding | 1 | 2 | 0.091 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | regulation of Ras GTPase activity | 1 | 2 | 0.091 | 4763 | neurofibromin 1 |
| GO | Schwann cell development | 1 | 2 | 0.091 | 4763 | neurofibromin 1 |
| GO | hydrogen:potassium-exchanging ATPase | 1 | 2 | 0.091 | 479 | ATPase, H ⁺ /K ⁺ transporting, nongastric, alpha polypeptide |
| GO | protein import into nucleus, docking | 1 | 2 | 0.091 | 4928 | nucleoporin 98kDa |
| GO | regulation of fibroblast growth factor re | 1 | 2 | 0.091 | 5015 | orthodenticle homeobox 2 |

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|----|--|---|---|-------|--|
| GO | regulation of digestive system process | 1 | 2 | 0.091 | 5021 oxytocin receptor |
| GO | response to anoxia | 1 | 2 | 0.091 | 5021 oxytocin receptor |
| GO | negative regulation of norepinephrine s | 1 | 2 | 0.091 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |
| GO | UDP-activated nucleotide receptor activ | 1 | 2 | 0.091 | 5031 pyrimidinergic receptor P2Y, G-protein coupled, 6 |
| GO | chronological cell aging | 1 | 2 | 0.091 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | viral assembly, maturation, egress, and | 1 | 2 | 0.091 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | cGMP-inhibited cyclic-nucleotide phosp | 1 | 2 | 0.091 | 5140 phosphodiesterase 3B, cGMP-inhibited |
| GO | regulation of morphogenesis of a brancl | 1 | 2 | 0.091 | 5228 placental growth factor |
| GO | negative regulation of calcium-mediate | 1 | 2 | 0.091 | 5341 pleckstrin |
| GO | platelet degranulation | 1 | 2 | 0.091 | 5341 pleckstrin |
| GO | positive regulation of actin filament dep | 1 | 2 | 0.091 | 5341 pleckstrin |
| GO | positive regulation of integrin activation | 1 | 2 | 0.091 | 5341 pleckstrin |
| GO | thrombin receptor signaling pathway | 1 | 2 | 0.091 | 5341 pleckstrin |
| GO | calcium-dependent cell-matrix adhesior | 1 | 2 | 0.091 | 54822 transient receptor potential cation channel, subfamily M, member 7 |
| GO | telomeric RNA binding | 1 | 2 | 0.091 | 54984 PIN2-interacting protein 1 |
| GO | drug transmembrane transport | 1 | 2 | 0.091 | 55244 solute carrier family 47, member 1 |
| GO | oleoyl-[acyl-carrier-protein] hydrolase a | 1 | 2 | 0.091 | 55301 oleoyl-ACP hydrolase |
| GO | dosage compensation | 1 | 2 | 0.091 | 55506 H2A histone family, member Y2 |
| GO | N-acylmannosamine kinase activity | 1 | 2 | 0.091 | 55577 N-acetylglucosamine kinase |
| GO | maturation of 5.8S rRNA from tricistron | 1 | 2 | 0.091 | 55759 WD repeat domain 12 |
| GO | preribosome, large subunit precursor | 1 | 2 | 0.091 | 55759 WD repeat domain 12 |
| GO | mRNA (2'-O-methyladenosine-N6-)-met | 1 | 2 | 0.091 | 56339 methyltransferase like 3 |
| GO | interleukin-2 secretion | 1 | 2 | 0.091 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | BH3 domain binding | 1 | 2 | 0.091 | 581 BCL2-associated X protein |
| GO | establishment or maintenance of transr | 1 | 2 | 0.091 | 581 BCL2-associated X protein |
| GO | mitochondrial fragmentation involved in | 1 | 2 | 0.091 | 581 BCL2-associated X protein |
| GO | nuclear fragmentation involved in apop | 1 | 2 | 0.091 | 581 BCL2-associated X protein |
| GO | branched chain family amino acid biosyl | 1 | 2 | 0.091 | 586 branched chain aminotransferase 1, cytosolic |
| GO | branched-chain-amino-acid transamina: | 1 | 2 | 0.091 | 586 branched chain aminotransferase 1, cytosolic |
| GO | crossover junction endodeoxyribonucle: | 1 | 2 | 0.091 | 5889 RAD51 homolog C (S. cerevisiae) |
| GO | female meiosis sister chromatid cohesic | 1 | 2 | 0.091 | 5889 RAD51 homolog C (S. cerevisiae) |
| GO | acetylcholinesterase activity | 1 | 2 | 0.091 | 590 butyrylcholinesterase |
| GO | response to alkaloid | 1 | 2 | 0.091 | 590 butyrylcholinesterase |
| GO | DNA strand renaturation | 1 | 2 | 0.091 | 5965 RecQ protein-like (DNA helicase Q1-like) |
| GO | class I ribonucleotide reductase activity | 1 | 2 | 0.091 | 6241 ribonucleotide reductase M2 |
| GO | deoxyribonucleoside diphosphate meta | 1 | 2 | 0.091 | 6241 ribonucleotide reductase M2 |

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|----|---|---|---|-------|---|
| GO | olfactory bulb interneuron differentiat | 1 | 2 | 0.091 | 6299 sal-like 1 (Drosophila) |
| GO | olfactory nerve development | 1 | 2 | 0.091 | 6299 sal-like 1 (Drosophila) |
| GO | regulation of vascular endothelial growt | 1 | 2 | 0.091 | 6347 chemokine (C-C motif) ligand 2 |
| GO | response to vitamin B3 | 1 | 2 | 0.091 | 6347 chemokine (C-C motif) ligand 2 |
| GO | alpha-beta T cell differentiation | 1 | 2 | 0.091 | 641 Bloom syndrome, RecQ helicase-like |
| GO | four-way junction helicase activity | 1 | 2 | 0.091 | 641 Bloom syndrome, RecQ helicase-like |
| GO | replication fork processing | 1 | 2 | 0.091 | 641 Bloom syndrome, RecQ helicase-like |
| GO | negative regulation of axon regeneratio | 1 | 2 | 0.091 | 64131 xylosyltransferase I |
| GO | protein xylosyltransferase activity | 1 | 2 | 0.091 | 64131 xylosyltransferase I |
| GO | fructose transmembrane transporter ac | 1 | 2 | 0.091 | 6518 solute carrier family 2 (facilitated glucose/fructose transporter), member 5 |
| GO | fructose transport | 1 | 2 | 0.091 | 6518 solute carrier family 2 (facilitated glucose/fructose transporter), member 5 |
| GO | cytosolic calcium ion transport | 1 | 2 | 0.091 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | negative regulation of vasoconstriction | 1 | 2 | 0.091 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | negative regulation of viral transcriptio | 1 | 2 | 0.091 | 6672 SP100 nuclear antigen |
| GO | nuclear periphery | 1 | 2 | 0.091 | 6672 SP100 nuclear antigen |
| GO | cytokinesis, completion of separation | 1 | 2 | 0.091 | 6683 spastin |
| GO | protein hexamerization | 1 | 2 | 0.091 | 6683 spastin |
| GO | 2,3-bisphospho-D-glycerate 2-phospho | 1 | 2 | 0.091 | 669 2,3-bisphosphoglycerate mutase |
| GO | bisphosphoglycerate mutase activity | 1 | 2 | 0.091 | 669 2,3-bisphosphoglycerate mutase |
| GO | phosphoglycerate mutase activity | 1 | 2 | 0.091 | 669 2,3-bisphosphoglycerate mutase |
| GO | cuticular plate | 1 | 2 | 0.091 | 6711 spectrin, beta, non-erythrocytic 1 |
| GO | BRCA1-BARD1 complex | 1 | 2 | 0.091 | 672 breast cancer 1, early onset |
| GO | alcohol sulfotransferase activity | 1 | 2 | 0.091 | 6820 sulfotransferase family, cytosolic, 2B, member 1 |
| GO | steroid sulfotransferase activity | 1 | 2 | 0.091 | 6820 sulfotransferase family, cytosolic, 2B, member 1 |
| GO | sulfonylurea receptor activity | 1 | 2 | 0.091 | 6833 ATP-binding cassette, sub-family C (CFTR/MRP), member 8 |
| GO | transferrin receptor activity | 1 | 2 | 0.091 | 7037 transferrin receptor (p90, CD71) |
| GO | negative regulation of endothelial cell d | 1 | 2 | 0.091 | 7046 transforming growth factor, beta receptor 1 |
| GO | ISG15 ligase activity | 1 | 2 | 0.091 | 7324 ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | musculoskeletal movement, spinal refle | 1 | 2 | 0.091 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | sulfur amino acid metabolic process | 1 | 2 | 0.091 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | regulation of fat cell differentiation | 1 | 2 | 0.091 | 7840 Alstrom syndrome 1 |
| GO | labyrinthine layer morphogenesis | 1 | 2 | 0.091 | 80712 ESX homeobox 1 |
| GO | carbohydrate mediated signaling | 1 | 2 | 0.091 | 81035 collectin sub-family member 12 |
| GO | beta-galactoside alpha-2,6-sialyltransfe | 1 | 2 | 0.091 | 84620 ST6 beta-galactosamide alpha-2,6-sialyltransferase 2 |
| GO | chromatin silencing at telomere | 1 | 2 | 0.091 | 8520 histone acetyltransferase 1 |
| GO | internal protein amino acid acetylation | 1 | 2 | 0.091 | 8520 histone acetyltransferase 1 |

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|----|---|---|-----|-------|--|
| GO | cloacal septation | 1 | 2 | 0.091 | 8626 tumor protein p63 |
| GO | female genitalia morphogenesis | 1 | 2 | 0.091 | 8626 tumor protein p63 |
| GO | rough microsome | 1 | 2 | 0.091 | 8626 tumor protein p63 |
| GO | proline metabolic process | 1 | 2 | 0.091 | 8659 aldehyde dehydrogenase 4 family, member A1 |
| GO | JAK pathway signal transduction adaptor | 1 | 2 | 0.091 | 8835 suppressor of cytokine signaling 2 |
| GO | prolactin receptor binding | 1 | 2 | 0.091 | 8835 suppressor of cytokine signaling 2 |
| GO | male pronucleus | 1 | 2 | 0.091 | 890 cyclin A2 |
| GO | antral ovarian follicle growth | 1 | 2 | 0.091 | 898 cyclin E1 |
| GO | response to purine | 1 | 2 | 0.091 | 898 cyclin E1 |
| GO | cell-substrate adherens junction | 1 | 2 | 0.091 | 91624 nexilin (F actin binding protein) |
| GO | D-amino acid catabolic process | 1 | 2 | 0.091 | 92675 D-tyrosyl-tRNA deacylase 1 homolog (<i>S. cerevisiae</i>) |
| GO | oxysterol 7-alpha-hydroxylase activity | 1 | 2 | 0.091 | 9420 cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | GKAP/Homer scaffold activity | 1 | 2 | 0.091 | 9455 homer homolog 2 (<i>Drosophila</i>) |
| GO | acylphosphatase activity | 1 | 2 | 0.091 | 97 acylphosphatase 1, erythrocyte (common) type |
| GO | stereocilium bundle | 1 | 2 | 0.091 | 9732 dedicator of cytokinesis 4 |
| GO | phosphatase regulator activity | 1 | 2 | 0.091 | 9839 zinc finger E-box binding homeobox 2 |
| GO | central nervous system development | 8 | 100 | 0.093 | 10683 delta-like 3 (<i>Drosophila</i>) |
| GO | central nervous system development | 8 | 100 | 0.093 | 27330 ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | central nervous system development | 8 | 100 | 0.093 | 411 arylsulfatase B |
| GO | central nervous system development | 8 | 100 | 0.093 | 4884 neuronal pentraxin I |
| GO | central nervous system development | 8 | 100 | 0.093 | 4897 neuronal cell adhesion molecule |
| GO | central nervous system development | 8 | 100 | 0.093 | 7078 TIMP metalloproteinase inhibitor 3 |
| GO | central nervous system development | 8 | 100 | 0.093 | 92737 delta/notch-like EGF repeat containing |
| GO | central nervous system development | 8 | 100 | 0.093 | 9839 zinc finger E-box binding homeobox 2 |
| GO | protein domain specific binding | 9 | 117 | 0.094 | 10474 transcriptional adaptor 3 |
| GO | protein domain specific binding | 9 | 117 | 0.094 | 4291 myeloid leukemia factor 1 |
| GO | protein domain specific binding | 9 | 117 | 0.094 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | protein domain specific binding | 9 | 117 | 0.094 | 6672 SP100 nuclear antigen |
| GO | protein domain specific binding | 9 | 117 | 0.094 | 7029 transcription factor Dp-2 (E2F dimerization partner 2) |
| GO | protein domain specific binding | 9 | 117 | 0.094 | 7137 troponin I type 3 (cardiac) |
| GO | protein domain specific binding | 9 | 117 | 0.094 | 7846 tubulin, alpha 1a |
| GO | protein domain specific binding | 9 | 117 | 0.094 | 8626 tumor protein p63 |
| GO | protein domain specific binding | 9 | 117 | 0.094 | 9419 cysteine-rich PDZ-binding protein |
| GO | ubiquitin thiolesterase activity | 6 | 68 | 0.095 | 10213 proteasome (prosome, macropain) 26S subunit, non-ATPase, 14 |
| GO | ubiquitin thiolesterase activity | 6 | 68 | 0.095 | 373856 ubiquitin specific peptidase 41 |
| GO | ubiquitin thiolesterase activity | 6 | 68 | 0.095 | 4287 ataxin 3 |

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|----|---------------------------------------|----|------|-------|-------|---|
| GO | ubiquitin thiolesterase activity | 6 | 68 | 0.095 | 57478 | ubiquitin specific peptidase 31 |
| GO | ubiquitin thiolesterase activity | 6 | 68 | 0.095 | 7347 | ubiquitin carboxyl-terminal esterase L3 (ubiquitin thiolesterase) |
| GO | ubiquitin thiolesterase activity | 6 | 68 | 0.095 | 84101 | ubiquitin specific peptidase 44 |
| GO | calcium-dependent cell-cell adhesion | 3 | 24 | 0.098 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | calcium-dependent cell-cell adhesion | 3 | 24 | 0.098 | 56126 | protocadherin beta 10 |
| GO | calcium-dependent cell-cell adhesion | 3 | 24 | 0.098 | 56133 | protocadherin beta 2 |
| GO | platelet activation | 3 | 24 | 0.098 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | platelet activation | 3 | 24 | 0.098 | 2149 | coagulation factor II (thrombin) receptor |
| GO | platelet activation | 3 | 24 | 0.098 | 3589 | interleukin 11 |
| GO | regulation of membrane potential | 3 | 24 | 0.098 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | regulation of membrane potential | 3 | 24 | 0.098 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | regulation of membrane potential | 3 | 24 | 0.098 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | neuromuscular junction | 3 | 24 | 0.098 | 2045 | EPH receptor A7 |
| GO | neuromuscular junction | 3 | 24 | 0.098 | 2149 | coagulation factor II (thrombin) receptor |
| GO | neuromuscular junction | 3 | 24 | 0.098 | 5588 | protein kinase C, theta |
| GO | response to progesterone stimulus | 3 | 24 | 0.098 | 5021 | oxytocin receptor |
| GO | response to progesterone stimulus | 3 | 24 | 0.098 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | response to progesterone stimulus | 3 | 24 | 0.098 | 898 | cyclin E1 |
| GO | negative regulation of cell migration | 4 | 38 | 0.098 | 10395 | deleted in liver cancer 1 |
| GO | negative regulation of cell migration | 4 | 38 | 0.098 | 4763 | neurofibromin 1 |
| GO | negative regulation of cell migration | 4 | 38 | 0.098 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1) |
| GO | negative regulation of cell migration | 4 | 38 | 0.098 | 7168 | tropomyosin 1 (alpha) |
| GO | spliceosomal complex | 9 | 118 | 0.098 | 10189 | THO complex 4 |
| GO | spliceosomal complex | 9 | 118 | 0.098 | 10465 | peptidylprolyl isomerase H (cyclophilin H) |
| GO | spliceosomal complex | 9 | 118 | 0.098 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | spliceosomal complex | 9 | 118 | 0.098 | 27258 | LSM3 homolog, U6 small nuclear RNA associated (<i>S. cerevisiae</i>) |
| GO | spliceosomal complex | 9 | 118 | 0.098 | 3183 | heterogeneous nuclear ribonucleoprotein C (C1/C2) |
| GO | spliceosomal complex | 9 | 118 | 0.098 | 51645 | peptidylprolyl isomerase (cyclophilin)-like 1 |
| GO | spliceosomal complex | 9 | 118 | 0.098 | 6637 | small nuclear ribonucleoprotein polypeptide G |
| GO | spliceosomal complex | 9 | 118 | 0.098 | 79833 | gem (nuclear organelle) associated protein 6 |
| GO | spliceosomal complex | 9 | 118 | 0.098 | 8458 | transcription termination factor, RNA polymerase II |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 10000 | v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 10051 | structural maintenance of chromosomes 4 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 10056 | phenylalanyl-tRNA synthetase, beta subunit |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 10097 | ARP2 actin-related protein 2 homolog (yeast) |

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|----|--------------------|----|------|-------|--------|---|
| GO | nucleotide binding | 98 | 1859 | 0.099 | 10123 | ADP-ribosylation factor-like 4C |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 10189 | THO complex 4 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 10212 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 39 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 10808 | heat shock 105kDa/110kDa protein 1 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 10890 | RAB10, member RAS oncogene family |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 11056 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 52 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 121268 | Ras homolog enriched in brain like 1 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 124540 | musashi homolog 2 (Drosophila) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 132158 | glycerate kinase |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 132430 | poly(A) binding protein, cytoplasmic 4-like |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 135295 | splicing factor, arginine/serine-rich 13B |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 140739 | ubiquitin-conjugating enzyme E2F (putative) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 1503 | CTP synthase |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 1716 | deoxyguanosine kinase |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 1763 | DNA replication helicase 2 homolog (yeast) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 1841 | deoxythymidylate kinase (thymidylate kinase) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 1983 | eukaryotic translation initiation factor 5 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 201299 | RAD52 motif 1 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 203 | adenylate kinase 1 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 2045 | EPH receptor A7 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 2242 | feline sarcoma oncogene |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 2264 | fibroblast growth factor receptor 4 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 23057 | nicotinamide nucleotide adenyltransferase 2 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 23157 | septin 6 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 26154 | ATP-binding cassette, sub-family A (ABC1), member 12 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 27289 | Rho family GTPase 1 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 27330 | ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 2774 | guanine nucleotide binding protein (G protein), alpha activating activity pol |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 29922 | non-metastatic cells 7, protein expressed in (nucleoside-diphosphate kinase) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 3183 | heterogeneous nuclear ribonucleoprotein C (C1/C2) |

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|----|--------------------|----|------|-------|--------|---|
| GO | nucleotide binding | 98 | 1859 | 0.099 | 340273 | ATP-binding cassette, sub-family B (MDR/TAP), member 5 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 347733 | tubulin, beta 2B |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 348093 | RNA binding protein with multiple splicing 2 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 3797 | kinesin family member 3C |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 3800 | kinesin family member 5C |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 4171 | minichromosome maintenance complex component 2 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 4430 | myosin IB |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 4651 | myosin X |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 479 | ATPase, H+/K+ transporting, nongastric, alpha polypeptide |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 4893 | neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 5000 | origin recognition complex, subunit 4-like (yeast) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 50485 | SWI/SNF related, matrix associated, actin dependent regulator of chromati |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 51062 | atlastin GTPase 1 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 54822 | transient receptor potential cation channel, subfamily M, member 7 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 55137 | fidgetin |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 55207 | ADP-ribosylation factor-like 8B |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 55577 | N-acetylglucosamine kinase |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 55752 | septin 11 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 558 | AXL receptor tyrosine kinase |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 5588 | protein kinase C, theta |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 5702 | proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 57144 | p21 protein (Cdc42/Rac)-activated kinase 7 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 58155 | polypyrimidine tract binding protein 2 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 5889 | RAD51 homolog C (S. cerevisiae) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 59 | actin, alpha 2, smooth muscle, aorta |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 5965 | RecQ protein-like (DNA helicase Q1-like) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 6242 | rhotekin |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 64080 | ribokinase |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 6683 | spastin |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 6741 | Sjogren syndrome antigen B (autoantigen La) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 6833 | ATP-binding cassette, sub-family C (CFTR/MRP), member 8 |

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|----|---------------------------------------|----|------|-------|--------|--|
| GO | nucleotide binding | 98 | 1859 | 0.099 | 70 | actin, alpha, cardiac muscle 1 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 7010 | TEK tyrosine kinase, endothelial |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 7046 | transforming growth factor, beta receptor 1 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 7298 | thymidylate synthetase |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 7324 | ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 7846 | tubulin, alpha 1a |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 79646 | pantothenate kinase 3 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 79677 | structural maintenance of chromosomes 6 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 79861 | tubulin, alpha-like 3 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 81892 | chromosome 14 open reading frame 156 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 83871 | RAB34, member RAS oncogene family |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 84083 | zinc finger, RAN-binding domain containing 3 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 84365 | MKI67 (FHA domain) interacting nucleolar phosphoprotein |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 8458 | transcription termination factor, RNA polymerase II |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 8536 | calcium/calmodulin-dependent protein kinase I |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 89797 | neuron navigator 2 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 8997 | kalirin, RhoGEF kinase |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 9262 | serine/threonine kinase 17b |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 9448 | mitogen-activated protein kinase kinase kinase kinase 4 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 953 | ectonucleoside triphosphate diphosphohydrolase 1 |
| GO | nucleotide binding | 98 | 1859 | 0.099 | 9833 | maternal embryonic leucine zipper kinase |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 2171 | fatty acid binding protein 5 (psoriasis-associated) |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 2172 | fatty acid binding protein 6, ileal |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 26061 | 2-hydroxyacyl-CoA lyase 1 |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 3157 | 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 341 | apolipoprotein C-I |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 348 | apolipoprotein E |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 3952 | leptin |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 5264 | phytanoyl-CoA 2-hydroxylase |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 5360 | phospholipid transfer protein |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 7840 | Alstrom syndrome 1 |
| GO | lipid metabolic process | 14 | 206 | 0.1 | 9744 | ArfGAP with coiled-coil, ankyrin repeat and PH domains 1 |
| GO | voltage-gated potassium channel compl | 7 | 85 | 0.1 | 283518 | potassium channel regulator |

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|----|---|---|----|-------|-------|--|
| GO | voltage-gated potassium channel compl | 7 | 85 | 0.1 | 3751 | potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | voltage-gated potassium channel compl | 7 | 85 | 0.1 | 3754 | potassium voltage-gated channel, subfamily F, member 1 |
| GO | voltage-gated potassium channel compl | 7 | 85 | 0.1 | 3756 | potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | voltage-gated potassium channel compl | 7 | 85 | 0.1 | 3763 | potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | voltage-gated potassium channel compl | 7 | 85 | 0.1 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | voltage-gated potassium channel compl | 7 | 85 | 0.1 | 56479 | potassium voltage-gated channel, KQT-like subfamily, member 5 |
| GO | ligand-dependent nuclear receptor bind | 2 | 12 | 0.105 | 10474 | transcriptional adaptor 3 |
| GO | ligand-dependent nuclear receptor bind | 2 | 12 | 0.105 | 5469 | mediator complex subunit 1 |
| GO | tissue development | 2 | 12 | 0.105 | 10683 | delta-like 3 (Drosophila) |
| GO | tissue development | 2 | 12 | 0.105 | 7490 | Wilms tumor 1 |
| GO | dendrite morphogenesis | 2 | 12 | 0.105 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | dendrite morphogenesis | 2 | 12 | 0.105 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | release of sequestered calcium ion into | 2 | 12 | 0.105 | 2149 | coagulation factor II (thrombin) receptor |
| GO | release of sequestered calcium ion into | 2 | 12 | 0.105 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | smooth muscle contraction | 2 | 12 | 0.105 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | smooth muscle contraction | 2 | 12 | 0.105 | 6525 | smoothelin |
| GO | septin complex | 2 | 12 | 0.105 | 23157 | septin 6 |
| GO | septin complex | 2 | 12 | 0.105 | 55752 | septin 11 |
| GO | mitochondrial inner membrane presequ | 2 | 12 | 0.105 | 26519 | translocase of inner mitochondrial membrane 10 homolog (yeast) |
| GO | mitochondrial inner membrane presequ | 2 | 12 | 0.105 | 26521 | translocase of inner mitochondrial membrane 8 homolog B (yeast) |
| GO | regulation of muscle contraction | 2 | 12 | 0.105 | 309 | annexin A6 |
| GO | regulation of muscle contraction | 2 | 12 | 0.105 | 7168 | tropomyosin 1 (alpha) |
| GO | caspase inhibitor activity | 2 | 12 | 0.105 | 332 | baculoviral IAP repeat-containing 5 |
| GO | caspase inhibitor activity | 2 | 12 | 0.105 | 51499 | TP53 regulated inhibitor of apoptosis 1 |
| GO | low-density lipoprotein particle | 2 | 12 | 0.105 | 348 | apolipoprotein E |
| GO | low-density lipoprotein particle | 2 | 12 | 0.105 | 79135 | apolipoprotein O |
| GO | response to electrical stimulus | 2 | 12 | 0.105 | 3763 | potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | response to electrical stimulus | 2 | 12 | 0.105 | 7046 | transforming growth factor, beta receptor 1 |
| GO | alpha-tubulin binding | 2 | 12 | 0.105 | 55207 | ADP-ribosylation factor-like 8B |
| GO | alpha-tubulin binding | 2 | 12 | 0.105 | 6683 | spastin |
| GO | response to chemical stimulus | 2 | 12 | 0.105 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | response to chemical stimulus | 2 | 12 | 0.105 | 7353 | ubiquitin fusion degradation 1 like (yeast) |
| GO | ubiquitin ligase complex | 5 | 54 | 0.105 | 23194 | F-box and leucine-rich repeat protein 7 |
| GO | ubiquitin ligase complex | 5 | 54 | 0.105 | 26223 | F-box and leucine-rich repeat protein 21 (gene/pseudogene) |
| GO | ubiquitin ligase complex | 5 | 54 | 0.105 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | ubiquitin ligase complex | 5 | 54 | 0.105 | 672 | breast cancer 1, early onset |

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|----|---|----|-----|-------|--------|--|
| GO | ubiquitin ligase complex | 5 | 54 | 0.105 | 7324 | ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | androgen receptor signaling pathway | 4 | 39 | 0.106 | 5469 | mediator complex subunit 1 |
| GO | androgen receptor signaling pathway | 4 | 39 | 0.106 | 56937 | prostate transmembrane protein, androgen induced 1 |
| GO | androgen receptor signaling pathway | 4 | 39 | 0.106 | 672 | breast cancer 1, early onset |
| GO | androgen receptor signaling pathway | 4 | 39 | 0.106 | 898 | cyclin E1 |
| GO | response to antibiotic | 3 | 25 | 0.108 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | response to antibiotic | 3 | 25 | 0.108 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | response to antibiotic | 3 | 25 | 0.108 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | nucleotide metabolic process | 3 | 25 | 0.108 | 11164 | nudix (nucleoside diphosphate linked moiety X)-type motif 5 |
| GO | nucleotide metabolic process | 3 | 25 | 0.108 | 29922 | non-metastatic cells 7, protein expressed in (nucleoside-diphosphate kinase) |
| GO | nucleotide metabolic process | 3 | 25 | 0.108 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | midbody | 3 | 25 | 0.108 | 332 | baculoviral IAP repeat-containing 5 |
| GO | midbody | 3 | 25 | 0.108 | 55207 | ADP-ribosylation factor-like 8B |
| GO | midbody | 3 | 25 | 0.108 | 6683 | spastin |
| GO | protein polymerization | 3 | 25 | 0.108 | 347733 | tubulin, beta 2B |
| GO | protein polymerization | 3 | 25 | 0.108 | 7846 | tubulin, alpha 1a |
| GO | protein polymerization | 3 | 25 | 0.108 | 79861 | tubulin, alpha-like 3 |
| GO | nucleotidyltransferase activity | 6 | 71 | 0.112 | 23057 | nicotinamide nucleotide adenylyltransferase 2 |
| GO | nucleotidyltransferase activity | 6 | 71 | 0.112 | 25885 | polymerase (RNA) I polypeptide A, 194kDa |
| GO | nucleotidyltransferase activity | 6 | 71 | 0.112 | 5558 | primase, DNA, polypeptide 2 (58kDa) |
| GO | nucleotidyltransferase activity | 6 | 71 | 0.112 | 56655 | polymerase (DNA-directed), epsilon 4 (p12 subunit) |
| GO | nucleotidyltransferase activity | 6 | 71 | 0.112 | 5833 | phosphate cytidylyltransferase 2, ethanolamine |
| GO | nucleotidyltransferase activity | 6 | 71 | 0.112 | 84172 | polymerase (RNA) I polypeptide B, 128kDa |
| GO | ubiquitin-dependent protein catabolic process | 10 | 139 | 0.113 | 10213 | proteasome (prosome, macropain) 26S subunit, non-ATPase, 14S |
| GO | ubiquitin-dependent protein catabolic process | 10 | 139 | 0.113 | 130507 | ubiquitin protein ligase E3 component n-recognin 3 (putative) |
| GO | ubiquitin-dependent protein catabolic process | 10 | 139 | 0.113 | 23194 | F-box and leucine-rich repeat protein 7 |
| GO | ubiquitin-dependent protein catabolic process | 10 | 139 | 0.113 | 26263 | F-box protein 22 |
| GO | ubiquitin-dependent protein catabolic process | 10 | 139 | 0.113 | 373856 | ubiquitin specific peptidase 41 |
| GO | ubiquitin-dependent protein catabolic process | 10 | 139 | 0.113 | 57478 | ubiquitin specific peptidase 31 |
| GO | ubiquitin-dependent protein catabolic process | 10 | 139 | 0.113 | 7324 | ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | ubiquitin-dependent protein catabolic process | 10 | 139 | 0.113 | 7347 | ubiquitin carboxyl-terminal esterase L3 (ubiquitin thiolesterase) |
| GO | ubiquitin-dependent protein catabolic process | 10 | 139 | 0.113 | 7353 | ubiquitin fusion degradation 1 like (yeast) |
| GO | ubiquitin-dependent protein catabolic process | 10 | 139 | 0.113 | 84101 | ubiquitin specific peptidase 44 |
| GO | enzyme activator activity | 4 | 40 | 0.113 | 10055 | SUMO1 activating enzyme subunit 1 |
| GO | enzyme activator activity | 4 | 40 | 0.113 | 10893 | matrix metalloproteinase 24 (membrane-inserted) |
| GO | enzyme activator activity | 4 | 40 | 0.113 | 241 | arachidonate 5-lipoxygenase-activating protein |

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|----|--|---|----|-------|--------|--|
| GO | enzyme activator activity | 4 | 40 | 0.113 | 9535 | glia maturation factor, gamma |
| GO | embryonic development | 6 | 72 | 0.117 | 130507 | ubiquitin protein ligase E3 component n-recognin 3 (putative) |
| GO | embryonic development | 6 | 72 | 0.117 | 2628 | glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | embryonic development | 6 | 72 | 0.117 | 7046 | transforming growth factor, beta receptor 1 |
| GO | embryonic development | 6 | 72 | 0.117 | 84172 | polymerase (RNA) I polypeptide B, 128kDa |
| GO | embryonic development | 6 | 72 | 0.117 | 8788 | delta-like 1 homolog (Drosophila) |
| GO | embryonic development | 6 | 72 | 0.117 | 9542 | neuregulin 2 |
| GO | response to nutrient | 6 | 72 | 0.117 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | response to nutrient | 6 | 72 | 0.117 | 2628 | glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | response to nutrient | 6 | 72 | 0.117 | 411 | arylsulfatase B |
| GO | response to nutrient | 6 | 72 | 0.117 | 590 | butyrylcholinesterase |
| GO | response to nutrient | 6 | 72 | 0.117 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | response to nutrient | 6 | 72 | 0.117 | 7037 | transferrin receptor (p90, CD71) |
| GO | embryo implantation | 3 | 26 | 0.118 | 5125 | proprotein convertase subtilisin/kexin type 5 |
| GO | embryo implantation | 3 | 26 | 0.118 | 7046 | transforming growth factor, beta receptor 1 |
| GO | embryo implantation | 3 | 26 | 0.118 | 84172 | polymerase (RNA) I polypeptide B, 128kDa |
| GO | cellular response to hormone stimulus | 3 | 26 | 0.118 | 5228 | placental growth factor |
| GO | cellular response to hormone stimulus | 3 | 26 | 0.118 | 6586 | slit homolog 3 (Drosophila) |
| GO | cellular response to hormone stimulus | 3 | 26 | 0.118 | 8835 | suppressor of cytokine signaling 2 |
| GO | negative regulation of phosphorylation | 2 | 13 | 0.12 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | negative regulation of phosphorylation | 2 | 13 | 0.12 | 3624 | inhibin, beta A |
| GO | acetylcholine receptor activity | 2 | 13 | 0.12 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | acetylcholine receptor activity | 2 | 13 | 0.12 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | protein autoubiquitination | 2 | 13 | 0.12 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | protein autoubiquitination | 2 | 13 | 0.12 | 1643 | damage-specific DNA binding protein 2, 48kDa |
| GO | oogenesis | 2 | 13 | 0.12 | 1730 | diaphanous homolog 2 (Drosophila) |
| GO | oogenesis | 2 | 13 | 0.12 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | embryonic cranial skeleton morphogenesis | 2 | 13 | 0.12 | 1746 | distal-less homeobox 2 |
| GO | embryonic cranial skeleton morphogenesis | 2 | 13 | 0.12 | 7046 | transforming growth factor, beta receptor 1 |
| GO | synaptic transmission, glutamatergic | 2 | 13 | 0.12 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | synaptic transmission, glutamatergic | 2 | 13 | 0.12 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | high-density lipoprotein particle remodeling | 2 | 13 | 0.12 | 341 | apolipoprotein C-I |
| GO | high-density lipoprotein particle remodeling | 2 | 13 | 0.12 | 348 | apolipoprotein E |
| GO | hormone metabolic process | 2 | 13 | 0.12 | 3952 | leptin |
| GO | hormone metabolic process | 2 | 13 | 0.12 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | myosin binding | 2 | 13 | 0.12 | 54822 | transient receptor potential cation channel, subfamily M, member 7 |

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|----|---|----|-----|-------|--------|--|
| GO | myosin binding | 2 | 13 | 0.12 | 70 | actin, alpha, cardiac muscle 1 |
| GO | positive regulation of stress fiber assem | 2 | 13 | 0.12 | 5588 | protein kinase C, theta |
| GO | positive regulation of stress fiber assem | 2 | 13 | 0.12 | 7168 | tropomyosin 1 (alpha) |
| GO | centrosome organization | 2 | 13 | 0.12 | 8409 | ubiquitously-expressed transcript |
| GO | centrosome organization | 2 | 13 | 0.12 | 93323 | HAUS augmin-like complex, subunit 8 |
| GO | coated pit | 4 | 41 | 0.121 | 11154 | adaptor-related protein complex 4, sigma 1 subunit |
| GO | coated pit | 4 | 41 | 0.121 | 409 | arrestin, beta 2 |
| GO | coated pit | 4 | 41 | 0.121 | 7037 | transferrin receptor (p90, CD71) |
| GO | coated pit | 4 | 41 | 0.121 | 8905 | adaptor-related protein complex 1, sigma 2 subunit |
| GO | myosin complex | 4 | 41 | 0.121 | 11259 | filamin A interacting protein 1-like |
| GO | myosin complex | 4 | 41 | 0.121 | 4430 | myosin IB |
| GO | myosin complex | 4 | 41 | 0.121 | 4637 | myosin, light chain 6, alkali, smooth muscle and non-muscle |
| GO | myosin complex | 4 | 41 | 0.121 | 4651 | myosin X |
| GO | magnesium ion binding | 11 | 159 | 0.122 | 10056 | phenylalanyl-tRNA synthetase, beta subunit |
| GO | magnesium ion binding | 11 | 159 | 0.122 | 11164 | nudix (nucleoside diphosphate linked moiety X)-type motif 5 |
| GO | magnesium ion binding | 11 | 159 | 0.122 | 147699 | protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1N (putative) |
| GO | magnesium ion binding | 11 | 159 | 0.122 | 2027 | enolase 3 (beta, muscle) |
| GO | magnesium ion binding | 11 | 159 | 0.122 | 2139 | eyes absent homolog 2 (Drosophila) |
| GO | magnesium ion binding | 11 | 159 | 0.122 | 2237 | flap structure-specific endonuclease 1 |
| GO | magnesium ion binding | 11 | 159 | 0.122 | 26061 | 2-hydroxyacyl-CoA lyase 1 |
| GO | magnesium ion binding | 11 | 159 | 0.122 | 27330 | ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | magnesium ion binding | 11 | 159 | 0.122 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | magnesium ion binding | 11 | 159 | 0.122 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | magnesium ion binding | 11 | 159 | 0.122 | 5494 | protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A |
| GO | nucleolus | 39 | 692 | 0.122 | 10189 | THO complex 4 |
| GO | nucleolus | 39 | 692 | 0.122 | 10199 | M-phase phosphoprotein 10 (U3 small nucleolar ribonucleoprotein) |
| GO | nucleolus | 39 | 692 | 0.122 | 10528 | NOP56 ribonucleoprotein homolog (yeast) |
| GO | nucleolus | 39 | 692 | 0.122 | 10656 | KH domain containing, RNA binding, signal transduction associated 3 |
| GO | nucleolus | 39 | 692 | 0.122 | 10799 | ribonuclease P/MRP 40kDa subunit |
| GO | nucleolus | 39 | 692 | 0.122 | 11056 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 52 |
| GO | nucleolus | 39 | 692 | 0.122 | 11169 | WD repeat and HMG-box DNA binding protein 1 |
| GO | nucleolus | 39 | 692 | 0.122 | 201299 | RAD52 motif 1 |
| GO | nucleolus | 39 | 692 | 0.122 | 219736 | storkhead box 1 |
| GO | nucleolus | 39 | 692 | 0.122 | 25885 | polymerase (RNA) I polypeptide A, 194kDa |
| GO | nucleolus | 39 | 692 | 0.122 | 25926 | nucleolar protein 11 |
| GO | nucleolus | 39 | 692 | 0.122 | 2842 | G protein-coupled receptor 19 |

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|----|-------------------------------------|----|-----|-------|--|
| GO | nucleolus | 39 | 692 | 0.122 | 30011 SH3-domain kinase binding protein 1 |
| GO | nucleolus | 39 | 692 | 0.122 | 3248 hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | nucleolus | 39 | 692 | 0.122 | 332 baculoviral IAP repeat-containing 5 |
| GO | nucleolus | 39 | 692 | 0.122 | 345630 fibrillarin-like 1 |
| GO | nucleolus | 39 | 692 | 0.122 | 3516 recombination signal binding protein for immunoglobulin kappa J region |
| GO | nucleolus | 39 | 692 | 0.122 | 4291 myeloid leukemia factor 1 |
| GO | nucleolus | 39 | 692 | 0.122 | 4603 v-myb myeloblastosis viral oncogene homolog (avian)-like 1 |
| GO | nucleolus | 39 | 692 | 0.122 | 51339 dapper, antagonist of beta-catenin, homolog 1 (<i>Xenopus laevis</i>) |
| GO | nucleolus | 39 | 692 | 0.122 | 51491 NOP16 nucleolar protein homolog (yeast) |
| GO | nucleolus | 39 | 692 | 0.122 | 5303 protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | nucleolus | 39 | 692 | 0.122 | 54984 PIN2-interacting protein 1 |
| GO | nucleolus | 39 | 692 | 0.122 | 55003 PAK1 interacting protein 1 |
| GO | nucleolus | 39 | 692 | 0.122 | 55759 WD repeat domain 12 |
| GO | nucleolus | 39 | 692 | 0.122 | 56902 partner of NOB1 homolog (<i>S. cerevisiae</i>) |
| GO | nucleolus | 39 | 692 | 0.122 | 6133 ribosomal protein L9 |
| GO | nucleolus | 39 | 692 | 0.122 | 641 Bloom syndrome, RecQ helicase-like |
| GO | nucleolus | 39 | 692 | 0.122 | 64318 nucleolar complex associated 3 homolog (<i>S. cerevisiae</i>) |
| GO | nucleolus | 39 | 692 | 0.122 | 64393 zinc finger, matrin type 3 |
| GO | nucleolus | 39 | 692 | 0.122 | 64782 apoptosis enhancing nuclease |
| GO | nucleolus | 39 | 692 | 0.122 | 6662 SRY (sex determining region Y)-box 9 |
| GO | nucleolus | 39 | 692 | 0.122 | 6672 SP100 nuclear antigen |
| GO | nucleolus | 39 | 692 | 0.122 | 6711 spectrin, beta, non-erythrocytic 1 |
| GO | nucleolus | 39 | 692 | 0.122 | 6741 Sjogren syndrome antigen B (autoantigen La) |
| GO | nucleolus | 39 | 692 | 0.122 | 84172 polymerase (RNA) I polypeptide B, 128kDa |
| GO | nucleolus | 39 | 692 | 0.122 | 84365 MKI67 (FHA domain) interacting nucleolar phosphoprotein |
| GO | nucleolus | 39 | 692 | 0.122 | 89797 neuron navigator 2 |
| GO | nucleolus | 39 | 692 | 0.122 | 898 cyclin E1 |
| GO | integrin-mediated signaling pathway | 5 | 57 | 0.124 | 22801 integrin, alpha 11 |
| GO | integrin-mediated signaling pathway | 5 | 57 | 0.124 | 3685 integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | integrin-mediated signaling pathway | 5 | 57 | 0.124 | 3694 integrin, beta 6 |
| GO | integrin-mediated signaling pathway | 5 | 57 | 0.124 | 5341 pleckstrin |
| GO | integrin-mediated signaling pathway | 5 | 57 | 0.124 | 667 dystonin |
| GO | protein complex binding | 7 | 90 | 0.125 | 1000 cadherin 2, type 1, N-cadherin (neuronal) |
| GO | protein complex binding | 7 | 90 | 0.125 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | protein complex binding | 7 | 90 | 0.125 | 1161 excision repair cross-complementing rodent repair deficiency, complement |
| GO | protein complex binding | 7 | 90 | 0.125 | 3516 recombination signal binding protein for immunoglobulin kappa J region |

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|----|--|---|----|-------|---|
| GO | protein complex binding | 7 | 90 | 0.125 | 6711 spectrin, beta, non-erythrocytic 1 |
| GO | protein complex binding | 7 | 90 | 0.125 | 7046 transforming growth factor, beta receptor 1 |
| GO | protein complex binding | 7 | 90 | 0.125 | 898 cyclin E1 |
| GO | neuron development | 3 | 27 | 0.128 | 23305 acyl-CoA synthetase long-chain family member 6 |
| GO | neuron development | 3 | 27 | 0.128 | 2736 GLI family zinc finger 2 |
| GO | neuron development | 3 | 27 | 0.128 | 27429 HtrA serine peptidase 2 |
| GO | kinase binding | 3 | 27 | 0.128 | 25780 RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | kinase binding | 3 | 27 | 0.128 | 355 Fas (TNF receptor superfamily, member 6) |
| GO | kinase binding | 3 | 27 | 0.128 | 6672 SP100 nuclear antigen |
| GO | ATP synthesis coupled proton transport | 3 | 27 | 0.128 | 51382 ATPase, H+ transporting, lysosomal 34kDa, V1 subunit D |
| GO | ATP synthesis coupled proton transport | 3 | 27 | 0.128 | 516 ATP synthase, H+ transporting, mitochondrial F0 complex, subunit C1 (subu |
| GO | ATP synthesis coupled proton transport | 3 | 27 | 0.128 | 528 ATPase, H+ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | JAK-STAT cascade | 3 | 27 | 0.128 | 6347 chemokine (C-C motif) ligand 2 |
| GO | JAK-STAT cascade | 3 | 27 | 0.128 | 729230 chemokine (C-C motif) receptor 2 |
| GO | JAK-STAT cascade | 3 | 27 | 0.128 | 8835 suppressor of cytokine signaling 2 |
| GO | vasculogenesis | 4 | 42 | 0.129 | 10052 gap junction protein, gamma 1, 45kDa |
| GO | vasculogenesis | 4 | 42 | 0.129 | 5795 protein tyrosine phosphatase, receptor type, J |
| GO | vasculogenesis | 4 | 42 | 0.129 | 7137 troponin I type 3 (cardiac) |
| GO | vasculogenesis | 4 | 42 | 0.129 | 7490 Wilms tumor 1 |
| GO | negative regulation of cell growth | 7 | 91 | 0.13 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | negative regulation of cell growth | 7 | 91 | 0.13 | 2786 guanine nucleotide binding protein (G protein), gamma 4 |
| GO | negative regulation of cell growth | 7 | 91 | 0.13 | 3624 inhibin, beta A |
| GO | negative regulation of cell growth | 7 | 91 | 0.13 | 6586 slit homolog 3 (Drosophila) |
| GO | negative regulation of cell growth | 7 | 91 | 0.13 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | negative regulation of cell growth | 7 | 91 | 0.13 | 7490 Wilms tumor 1 |
| GO | negative regulation of cell growth | 7 | 91 | 0.13 | 8626 tumor protein p63 |
| GO | synaptosome | 7 | 91 | 0.13 | 23705 cell adhesion molecule 1 |
| GO | synaptosome | 7 | 91 | 0.13 | 26059 ELKS/RAB6-interacting/CAST family member 2 |
| GO | synaptosome | 7 | 91 | 0.13 | 26999 cytoplasmic FMR1 interacting protein 2 |
| GO | synaptosome | 7 | 91 | 0.13 | 2906 glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | synaptosome | 7 | 91 | 0.13 | 30011 SH3-domain kinase binding protein 1 |
| GO | synaptosome | 7 | 91 | 0.13 | 3751 potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | synaptosome | 7 | 91 | 0.13 | 8777 multiple PDZ domain protein |
| GO | microtubule binding | 5 | 58 | 0.131 | 220134 spindle and kinetochore associated complex subunit 1 |
| GO | microtubule binding | 5 | 58 | 0.131 | 332 baculoviral IAP repeat-containing 5 |
| GO | microtubule binding | 5 | 58 | 0.131 | 6683 spastin |

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|----|--|---|----|-------|--------|--|
| GO | microtubule binding | 5 | 58 | 0.131 | 79929 | MAP6 domain containing 1 |
| GO | microtubule binding | 5 | 58 | 0.131 | 8409 | ubiquitously-expressed transcript |
| GO | cholesterol metabolic process | 5 | 58 | 0.131 | 2232 | ferredoxin reductase |
| GO | cholesterol metabolic process | 5 | 58 | 0.131 | 341 | apolipoprotein C-I |
| GO | cholesterol metabolic process | 5 | 58 | 0.131 | 348 | apolipoprotein E |
| GO | cholesterol metabolic process | 5 | 58 | 0.131 | 3952 | leptin |
| GO | cholesterol metabolic process | 5 | 58 | 0.131 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | positive regulation of lamellipodium ass | 1 | 3 | 0.133 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | carbonyl reductase (NADPH) activity | 1 | 3 | 0.133 | 10202 | dehydrogenase/reductase (SDR family) member 2 |
| GO | negative regulation of stress fiber assen | 1 | 3 | 0.133 | 10395 | deleted in liver cancer 1 |
| GO | U4/U6 snRNP | 1 | 3 | 0.133 | 10465 | peptidylprolyl isomerase H (cyclophilin H) |
| GO | limb bud formation | 1 | 3 | 0.133 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | regulation of Rac GTPase activity | 1 | 3 | 0.133 | 11149 | blood vessel epicardial substance |
| GO | ADP-ribose diphosphatase activity | 1 | 3 | 0.133 | 11164 | nudix (nucleoside diphosphate linked moiety X)-type motif 5 |
| GO | cohesin complex | 1 | 3 | 0.133 | 113130 | cell division cycle associated 5 |
| GO | interphase of mitotic cell cycle | 1 | 3 | 0.133 | 113130 | cell division cycle associated 5 |
| GO | synaptic transmission involved in micturi | 1 | 3 | 0.133 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | nucleotide-excision repair complex | 1 | 3 | 0.133 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | proteoglycan binding | 1 | 3 | 0.133 | 1289 | collagen, type V, alpha 1 |
| GO | lipase activity | 1 | 3 | 0.133 | 13 | arylacetamide deacetylase (esterase) |
| GO | serine hydrolase activity | 1 | 3 | 0.133 | 13 | arylacetamide deacetylase (esterase) |
| GO | negative regulation of nuclear mRNA sp | 1 | 3 | 0.133 | 135295 | splicing factor, arginine/serine-rich 13B |
| GO | NEDD8 ligase activity | 1 | 3 | 0.133 | 140739 | ubiquitin-conjugating enzyme E2F (putative) |
| GO | positive regulation of vascular permeab | 1 | 3 | 0.133 | 143282 | fibroblast growth factor binding protein 3 |
| GO | porphyrin metabolic process | 1 | 3 | 0.133 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | positive regulation of S phase of mitotic | 1 | 3 | 0.133 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | response to nematode | 1 | 3 | 0.133 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | AMP biosynthetic process | 1 | 3 | 0.133 | 158 | adenylosuccinate lyase |
| GO | thyroxine 5'-deiodinase activity | 1 | 3 | 0.133 | 1733 | deiodinase, iodothyronine, type I |
| GO | DNA methylation involved in embryonic | 1 | 3 | 0.133 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | S-adenosylmethioninamine metabolic p | 1 | 3 | 0.133 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | positive regulation of translational elonq | 1 | 3 | 0.133 | 1984 | eukaryotic translation initiation factor 5A |
| GO | positive regulation of translational term | 1 | 3 | 0.133 | 1984 | eukaryotic translation initiation factor 5A |
| GO | translational frameshifting | 1 | 3 | 0.133 | 1984 | eukaryotic translation initiation factor 5A |
| GO | UDP-N-acetylgalactosamine metabolic p | 1 | 3 | 0.133 | 2135 | exostoses (multiple)-like 2 |
| GO | histone dephosphorylation | 1 | 3 | 0.133 | 2139 | eyes absent homolog 2 (Drosophila) |

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|----|---|---|---|-------|-------|--|
| GO | connective tissue replacement during in | 1 | 3 | 0.133 | 2149 | coagulation factor II (thrombin) receptor |
| GO | regulation of interleukin-1 beta product | 1 | 3 | 0.133 | 2149 | coagulation factor II (thrombin) receptor |
| GO | STAT protein nuclear translocation | 1 | 3 | 0.133 | 2149 | coagulation factor II (thrombin) receptor |
| GO | tyrosine phosphorylation of STAT protei | 1 | 3 | 0.133 | 2149 | coagulation factor II (thrombin) receptor |
| GO | thyroid hormone binding | 1 | 3 | 0.133 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | substrate-bound cell migration | 1 | 3 | 0.133 | 22801 | integrin, alpha 11 |
| GO | negative regulation of heart rate | 1 | 3 | 0.133 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | negative regulation of stress-activated β | 1 | 3 | 0.133 | 2305 | forkhead box M1 |
| GO | regulation of oxygen and reactive oxyge | 1 | 3 | 0.133 | 2305 | forkhead box M1 |
| GO | nicotinamide-nucleotide adenylyltransfe | 1 | 3 | 0.133 | 23057 | nicotinamide nucleotide adenylyltransferase 2 |
| GO | nicotinate-nucleotide adenylyltransfera | 1 | 3 | 0.133 | 23057 | nicotinamide nucleotide adenylyltransferase 2 |
| GO | glycerol-3-phosphate dehydrogenase (N | 1 | 3 | 0.133 | 23171 | glycerol-3-phosphate dehydrogenase 1-like |
| GO | glycerol-3-phosphate dehydrogenase cc | 1 | 3 | 0.133 | 23171 | glycerol-3-phosphate dehydrogenase 1-like |
| GO | intracellular receptor mediated signalin | 1 | 3 | 0.133 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular β |
| GO | susceptibility to natural killer cell media | 1 | 3 | 0.133 | 23705 | cell adhesion molecule 1 |
| GO | cellular response to calcium ion | 1 | 3 | 0.133 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | Rap GTPase activator activity | 1 | 3 | 0.133 | 25780 | RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | de novo' IMP biosynthetic process | 1 | 3 | 0.133 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | organ development | 1 | 3 | 0.133 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | cerebellar cortex morphogenesis | 1 | 3 | 0.133 | 2736 | GLI family zinc finger 2 |
| GO | epidermal cell differentiation | 1 | 3 | 0.133 | 2736 | GLI family zinc finger 2 |
| GO | smoothened signaling pathway involvec | 1 | 3 | 0.133 | 2736 | GLI family zinc finger 2 |
| GO | tube development | 1 | 3 | 0.133 | 2736 | GLI family zinc finger 2 |
| GO | ventral midline development | 1 | 3 | 0.133 | 2736 | GLI family zinc finger 2 |
| GO | response to molecule of fungal origin | 1 | 3 | 0.133 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | salivary gland development | 1 | 3 | 0.133 | 29842 | transcription factor CP2-like 1 |
| GO | hyaluronan synthase activity | 1 | 3 | 0.133 | 3037 | hyaluronan synthase 2 |
| GO | peripheral nervous system neuron deve | 1 | 3 | 0.133 | 3236 | homeobox D10 |
| GO | spinal cord motor neuron cell fate speci | 1 | 3 | 0.133 | 3236 | homeobox D10 |
| GO | chromosome passenger complex | 1 | 3 | 0.133 | 332 | baculoviral IAP repeat-containing 5 |
| GO | cobalt ion binding | 1 | 3 | 0.133 | 332 | baculoviral IAP repeat-containing 5 |
| GO | lipase inhibitor activity | 1 | 3 | 0.133 | 341 | apolipoprotein C-I |
| GO | negative regulation of cholesterol transp | 1 | 3 | 0.133 | 341 | apolipoprotein C-I |
| GO | negative regulation of lipid metabolic pr | 1 | 3 | 0.133 | 341 | apolipoprotein C-I |
| GO | negative regulation of very-low-density | 1 | 3 | 0.133 | 341 | apolipoprotein C-I |
| GO | intermediate-density lipoprotein particl | 1 | 3 | 0.133 | 348 | apolipoprotein E |

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|----|--|---|---|-------|--------|---|
| GO | negative regulation of cholesterol biosynthesis | 1 | 3 | 0.133 | 348 | apolipoprotein E |
| GO | very-low-density lipoprotein receptor binding | 1 | 3 | 0.133 | 348 | apolipoprotein E |
| GO | negative regulation of smooth muscle contraction | 1 | 3 | 0.133 | 3516 | recombination signal binding protein for immunoglobulin kappa J region |
| GO | positive regulation of necrotic cell death | 1 | 3 | 0.133 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | negative regulation of B cell differentiation | 1 | 3 | 0.133 | 3624 | inhibin, beta A |
| GO | negative regulation of interferon-gamma production | 1 | 3 | 0.133 | 3624 | inhibin, beta A |
| GO | positive regulation of follicle-stimulating hormone release | 1 | 3 | 0.133 | 3624 | inhibin, beta A |
| GO | negative regulation of low-density lipoprotein receptor activity | 1 | 3 | 0.133 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | A-type (transient outward) potassium channel activity | 1 | 3 | 0.133 | 3751 | potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | locomotor rhythm | 1 | 3 | 0.133 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | relaxation of vascular smooth muscle | 1 | 3 | 0.133 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | miRNA catabolic process | 1 | 3 | 0.133 | 389421 | lin-28 homolog B (C. elegans) |
| GO | positive regulation of T cell receptor signaling pathway | 1 | 3 | 0.133 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | phagocytic cup | 1 | 3 | 0.133 | 3936 | lymphocyte cytosolic protein 1 (L-plastin) |
| GO | T cell activation during immune response | 1 | 3 | 0.133 | 3936 | lymphocyte cytosolic protein 1 (L-plastin) |
| GO | regulation of gluconeogenesis | 1 | 3 | 0.133 | 3952 | leptin |
| GO | aryl hydrocarbon receptor binding | 1 | 3 | 0.133 | 406 | aryl hydrocarbon receptor nuclear translocator-like |
| GO | desensitization of G-protein coupled receptor | 1 | 3 | 0.133 | 409 | arrestin, beta 2 |
| GO | myeloid progenitor cell differentiation | 1 | 3 | 0.133 | 4291 | myeloid leukemia factor 1 |
| GO | dinucleotide insertion or deletion binding | 1 | 3 | 0.133 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | four-way junction DNA binding | 1 | 3 | 0.133 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | maintenance of DNA repeat elements | 1 | 3 | 0.133 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | oxidized purine DNA binding | 1 | 3 | 0.133 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | single guanine insertion binding | 1 | 3 | 0.133 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | negative regulation of vascular endothelial cell proliferation | 1 | 3 | 0.133 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | phosphoserine binding | 1 | 3 | 0.133 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | positive regulation of Ras GTPase activity | 1 | 3 | 0.133 | 4763 | neurofibromin 1 |
| GO | regulation of blood vessel endothelial cell proliferation | 1 | 3 | 0.133 | 4763 | neurofibromin 1 |
| GO | regulation of bone resorption | 1 | 3 | 0.133 | 4763 | neurofibromin 1 |
| GO | hydrogen:potassium-exchanging ATPase activity | 1 | 3 | 0.133 | 479 | ATPase, H+/K+ transporting, nongastric, alpha polypeptide |
| GO | visual behavior | 1 | 3 | 0.133 | 4867 | nephronophthisis 1 (juvenile) |
| GO | clustering of voltage-gated sodium channels | 1 | 3 | 0.133 | 4897 | neuronal cell adhesion molecule |
| GO | nuclear pore organization | 1 | 3 | 0.133 | 4928 | nucleoporin 98kDa |
| GO | depurination | 1 | 3 | 0.133 | 4968 | 8-oxoguanine DNA glycosylase |
| GO | origin recognition complex | 1 | 3 | 0.133 | 5000 | origin recognition complex, subunit 4-like (yeast) |
| GO | estrous cycle phase | 1 | 3 | 0.133 | 5021 | oxytocin receptor |

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|----|---|---|---|-------|--|
| GO | positive regulation of norepinephrine secretion | 1 | 3 | 0.133 | 5021 oxytocin receptor |
| GO | negative regulation of endopeptidase activity | 1 | 3 | 0.133 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1) |
| GO | negative regulation of plasminogen activator activity | 1 | 3 | 0.133 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1) |
| GO | positive regulation of monocyte chemotaxis | 1 | 3 | 0.133 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1) |
| GO | cGMP catabolic process | 1 | 3 | 0.133 | 50940 phosphodiesterase 11A |
| GO | protein-L-isoaspartate (D-aspartate) O-methylation | 1 | 3 | 0.133 | 5110 protein-L-isoaspartate (D-aspartate) O-methyltransferase |
| GO | respiratory tube development | 1 | 3 | 0.133 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | proton-transporting two-sector ATPase activity | 1 | 3 | 0.133 | 51382 ATPase, H ⁺ transporting, lysosomal 34kDa, V1 subunit D |
| GO | positive regulation of actin filament bundle formation | 1 | 3 | 0.133 | 5341 pleckstrin |
| GO | protein kinase C signaling cascade | 1 | 3 | 0.133 | 5341 pleckstrin |
| GO | epithelial cell proliferation involved in morphogenesis | 1 | 3 | 0.133 | 5469 mediator complex subunit 1 |
| GO | mammary gland branching involved in morphogenesis | 1 | 3 | 0.133 | 5469 mediator complex subunit 1 |
| GO | telomerase inhibitor activity | 1 | 3 | 0.133 | 54984 PIN2-interacting protein 1 |
| GO | telomere formation via telomerase | 1 | 3 | 0.133 | 55135 WD repeat containing, antisense to TP53 |
| GO | maturation of LSU-rRNA from tricistron | 1 | 3 | 0.133 | 55759 WD repeat domain 12 |
| GO | PeBoW complex | 1 | 3 | 0.133 | 55759 WD repeat domain 12 |
| GO | inositol 1,3,4,5 tetrakisphosphate binding | 1 | 3 | 0.133 | 55803 ArfGAP with dual PH domains 2 |
| GO | RNA methylation | 1 | 3 | 0.133 | 56339 methyltransferase like 3 |
| GO | Y-form DNA binding | 1 | 3 | 0.133 | 56852 RAD18 homolog (<i>S. cerevisiae</i>) |
| GO | peptidyl-amino acid modification | 1 | 3 | 0.133 | 57168 aspartate beta-hydroxylase domain containing 2 |
| GO | cAMP metabolic process | 1 | 3 | 0.133 | 5744 parathyroid hormone-like hormone |
| GO | fatty acid homeostasis | 1 | 3 | 0.133 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | glycerophospholipid metabolic process | 1 | 3 | 0.133 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | B cell apoptosis | 1 | 3 | 0.133 | 581 BCL2-associated X protein |
| GO | cleavage of lamin | 1 | 3 | 0.133 | 581 BCL2-associated X protein |
| GO | transformed cell apoptosis | 1 | 3 | 0.133 | 581 BCL2-associated X protein |
| GO | choline binding | 1 | 3 | 0.133 | 590 butyrylcholinesterase |
| GO | cholinesterase activity | 1 | 3 | 0.133 | 590 butyrylcholinesterase |
| GO | deoxyribonucleotide biosynthetic process | 1 | 3 | 0.133 | 6241 ribonucleotide reductase M2 |
| GO | ribonucleoside-diphosphate reductase activity | 1 | 3 | 0.133 | 6241 ribonucleotide reductase M2 |
| GO | regulation of anti-apoptosis | 1 | 3 | 0.133 | 6242 rhotekin |
| GO | chromocenter | 1 | 3 | 0.133 | 6299 sal-like 1 (<i>Drosophila</i>) |
| GO | G-quadruplex DNA binding | 1 | 3 | 0.133 | 641 Bloom syndrome, RecQ helicase-like |
| GO | replication fork protection | 1 | 3 | 0.133 | 641 Bloom syndrome, RecQ helicase-like |
| GO | olfactory receptor binding | 1 | 3 | 0.133 | 65055 receptor accessory protein 1 |
| GO | axon extension involved in axon guidance | 1 | 3 | 0.133 | 6586 slit homolog 3 (<i>Drosophila</i>) |

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|----|--|---|---|-------|---|
| GO | chemorepulsion involved in embryonic | 1 | 3 | 0.133 | 6586 slit homolog 3 (Drosophila) |
| GO | negative regulation of chemokine-mediated | 1 | 3 | 0.133 | 6586 slit homolog 3 (Drosophila) |
| GO | response to cortisol stimulus | 1 | 3 | 0.133 | 6586 slit homolog 3 (Drosophila) |
| GO | Roundabout signaling pathway | 1 | 3 | 0.133 | 6586 slit homolog 3 (Drosophila) |
| GO | miRNA binding | 1 | 3 | 0.133 | 6657 SRY (sex determining region Y)-box 2 |
| GO | olfactory placode formation | 1 | 3 | 0.133 | 6657 SRY (sex determining region Y)-box 2 |
| GO | positive regulation of epithelial cell differentiation | 1 | 3 | 0.133 | 6657 SRY (sex determining region Y)-box 2 |
| GO | BH domain binding | 1 | 3 | 0.133 | 666 BCL2-related ovarian killer |
| GO | prostate gland morphogenesis | 1 | 3 | 0.133 | 6662 SRY (sex determining region Y)-box 9 |
| GO | microtubule severing | 1 | 3 | 0.133 | 6683 spastin |
| GO | common-partner SMAD protein phosphorylation | 1 | 3 | 0.133 | 6711 spectrin, beta, non-erythrocytic 1 |
| GO | sulfate assimilation | 1 | 3 | 0.133 | 6820 sulfotransferase family, cytosolic, 2B, member 1 |
| GO | potassium ion transmembrane transport | 1 | 3 | 0.133 | 6833 ATP-binding cassette, sub-family C (CFTR/MRP), member 8 |
| GO | positive regulation of transcription from RNA polymerase II promoter | 1 | 3 | 0.133 | 7021 transcription factor AP-2 beta (activating enhancer binding protein 2 beta) |
| GO | transforming growth factor beta receptor signaling pathway | 1 | 3 | 0.133 | 7046 transforming growth factor, beta receptor 1 |
| GO | transforming growth factor beta receptor signaling pathway | 1 | 3 | 0.133 | 7046 transforming growth factor, beta receptor 1 |
| GO | bleb | 1 | 3 | 0.133 | 7168 tropomyosin 1 (alpha) |
| GO | response to organophosphorus | 1 | 3 | 0.133 | 7298 thymidylate synthetase |
| GO | mesenchymal to epithelial transition | 1 | 3 | 0.133 | 7490 Wilms tumor 1 |
| GO | calcium ion-dependent exocytosis of neurotransmitter | 1 | 3 | 0.133 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | cellular chloride ion homeostasis | 1 | 3 | 0.133 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | cerebellar Purkinje cell layer development | 1 | 3 | 0.133 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | gamma-aminobutyric acid secretion | 1 | 3 | 0.133 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | neurotransmitter metabolic process | 1 | 3 | 0.133 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | retinal rod cell development | 1 | 3 | 0.133 | 7840 Alstrom syndrome 1 |
| GO | transferase activity, transferring acyl groups | 1 | 3 | 0.133 | 79071 ELOVL family member 6, elongation of long chain fatty acids (FEN1/Elo2, SLC7A5) |
| GO | maintenance of mitotic sister chromatid cohesion | 1 | 3 | 0.133 | 79075 defective in sister chromatid cohesion 1 homolog (S. cerevisiae) |
| GO | spermidine biosynthetic process | 1 | 3 | 0.133 | 79814 agmatine ureohydrolase (agmatinase) |
| GO | phagocytosis, recognition | 1 | 3 | 0.133 | 81035 collectin sub-family member 12 |
| GO | ER to Golgi transport vesicle | 1 | 3 | 0.133 | 81562 lectin, mannose-binding 2-like |
| GO | ribonucleoside binding | 1 | 3 | 0.133 | 84172 polymerase (RNA) I polypeptide B, 128kDa |
| GO | malate-aspartate shuttle | 1 | 3 | 0.133 | 8604 solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | negative regulation of keratinocyte differentiation | 1 | 3 | 0.133 | 8626 tumor protein p63 |
| GO | replicative cell aging | 1 | 3 | 0.133 | 8626 tumor protein p63 |
| GO | response to tumor cell | 1 | 3 | 0.133 | 8626 tumor protein p63 |
| GO | proline catabolic process | 1 | 3 | 0.133 | 8659 aldehyde dehydrogenase 4 family, member A1 |

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|----|---|----|-----|-------|--------|---|
| GO | growth hormone receptor signaling patl | 1 | 3 | 0.133 | 8835 | suppressor of cytokine signaling 2 |
| GO | female pronucleus | 1 | 3 | 0.133 | 890 | cyclin A2 |
| GO | cellular response to nutrient | 1 | 3 | 0.133 | 898 | cyclin E1 |
| GO | response to vitamin E | 1 | 3 | 0.133 | 898 | cyclin E1 |
| GO | regulation of dendrite development | 1 | 3 | 0.133 | 8997 | kalirin, RhoGEF kinase |
| GO | Fanconi anaemia nuclear complex | 1 | 3 | 0.133 | 91442 | chromosome 19 open reading frame 40 |
| GO | negative regulation of estrogen recepto | 1 | 3 | 0.133 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | sodium:bicarbonate symporter activity | 1 | 3 | 0.133 | 9497 | solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | GABA-B receptor activity | 1 | 3 | 0.133 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | apoptosis | 26 | 444 | 0.134 | 132851 | spermatogenesis associated 4 |
| GO | apoptosis | 26 | 444 | 0.134 | 2139 | eyes absent homolog 2 (Drosophila) |
| GO | apoptosis | 26 | 444 | 0.134 | 220042 | chromosome 11 open reading frame 82 |
| GO | apoptosis | 26 | 444 | 0.134 | 22868 | FAST kinase domains 2 |
| GO | apoptosis | 26 | 444 | 0.134 | 23705 | cell adhesion molecule 1 |
| GO | apoptosis | 26 | 444 | 0.134 | 26230 | T-cell lymphoma invasion and metastasis 2 |
| GO | apoptosis | 26 | 444 | 0.134 | 26586 | cytoskeleton associated protein 2 |
| GO | apoptosis | 26 | 444 | 0.134 | 26999 | cytoplasmic FMR1 interacting protein 2 |
| GO | apoptosis | 26 | 444 | 0.134 | 2736 | GLI family zinc finger 2 |
| GO | apoptosis | 26 | 444 | 0.134 | 30011 | SH3-domain kinase binding protein 1 |
| GO | apoptosis | 26 | 444 | 0.134 | 332 | baculoviral IAP repeat-containing 5 |
| GO | apoptosis | 26 | 444 | 0.134 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | apoptosis | 26 | 444 | 0.134 | 51499 | TP53 regulated inhibitor of apoptosis 1 |
| GO | apoptosis | 26 | 444 | 0.134 | 57099 | apoptosis, caspase activation inhibitor |
| GO | apoptosis | 26 | 444 | 0.134 | 5924 | Ras protein-specific guanine nucleotide-releasing factor 2 |
| GO | apoptosis | 26 | 444 | 0.134 | 6242 | rhotekin |
| GO | apoptosis | 26 | 444 | 0.134 | 64393 | zinc finger, matrin type 3 |
| GO | apoptosis | 26 | 444 | 0.134 | 64782 | apoptosis enhancing nuclease |
| GO | apoptosis | 26 | 444 | 0.134 | 666 | BCL2-related ovarian killer |
| GO | apoptosis | 26 | 444 | 0.134 | 672 | breast cancer 1, early onset |
| GO | apoptosis | 26 | 444 | 0.134 | 70 | actin, alpha, cardiac muscle 1 |
| GO | apoptosis | 26 | 444 | 0.134 | 7840 | Alstrom syndrome 1 |
| GO | apoptosis | 26 | 444 | 0.134 | 8626 | tumor protein p63 |
| GO | apoptosis | 26 | 444 | 0.134 | 8997 | kalirin, RhoGEF kinase |
| GO | apoptosis | 26 | 444 | 0.134 | 9262 | serine/threonine kinase 17b |
| GO | apoptosis | 26 | 444 | 0.134 | 94241 | tumor protein p53 inducible nuclear protein 1 |
| GO | double-stranded DNA binding | 6 | 75 | 0.135 | 2237 | flap structure-specific endonuclease 1 |

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|----|--|----|-----|-------|--|
| GO | double-stranded DNA binding | 6 | 75 | 0.135 | 3149 high-mobility group box 3 |
| GO | double-stranded DNA binding | 6 | 75 | 0.135 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | double-stranded DNA binding | 6 | 75 | 0.135 | 5303 protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | double-stranded DNA binding | 6 | 75 | 0.135 | 7490 Wilms tumor 1 |
| GO | double-stranded DNA binding | 6 | 75 | 0.135 | 8626 tumor protein p63 |
| GO | regulation of axonogenesis | 2 | 14 | 0.136 | 1000 cadherin 2, type 1, N-cadherin (neuronal) |
| GO | regulation of axonogenesis | 2 | 14 | 0.136 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | senescence | 2 | 14 | 0.136 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | senescence | 2 | 14 | 0.136 | 2305 forkhead box M1 |
| GO | synaptic transmission, cholinergic | 2 | 14 | 0.136 | 1136 cholinergic receptor, nicotinic, alpha 3 |
| GO | synaptic transmission, cholinergic | 2 | 14 | 0.136 | 348 apolipoprotein E |
| GO | selenium binding | 2 | 14 | 0.136 | 1733 deiodinase, iodothyronine, type I |
| GO | selenium binding | 2 | 14 | 0.136 | 2878 glutathione peroxidase 3 (plasma) |
| GO | DNA methylation | 2 | 14 | 0.136 | 1787 tRNA aspartic acid methyltransferase 1 |
| GO | DNA methylation | 2 | 14 | 0.136 | 1788 DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | regulation of sensory perception of pair | 2 | 14 | 0.136 | 2149 coagulation factor II (thrombin) receptor |
| GO | regulation of sensory perception of pair | 2 | 14 | 0.136 | 2906 glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | acyl-CoA metabolic process | 2 | 14 | 0.136 | 23305 acyl-CoA synthetase long-chain family member 6 |
| GO | acyl-CoA metabolic process | 2 | 14 | 0.136 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | isoprenoid biosynthetic process | 2 | 14 | 0.136 | 23590 prenyl (decaprenyl) diphosphate synthase, subunit 1 |
| GO | isoprenoid biosynthetic process | 2 | 14 | 0.136 | 3157 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) |
| GO | behavioral fear response | 2 | 14 | 0.136 | 2558 gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | behavioral fear response | 2 | 14 | 0.136 | 2898 glutamate receptor, ionotropic, kainate 2 |
| GO | regulation of action potential in neuron | 2 | 14 | 0.136 | 2898 glutamate receptor, ionotropic, kainate 2 |
| GO | regulation of action potential in neuron | 2 | 14 | 0.136 | 3778 potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | kinesin complex | 2 | 14 | 0.136 | 3797 kinesin family member 3C |
| GO | kinesin complex | 2 | 14 | 0.136 | 3800 kinesin family member 5C |
| GO | Wnt-protein binding | 2 | 14 | 0.136 | 6422 secreted frizzled-related protein 1 |
| GO | Wnt-protein binding | 2 | 14 | 0.136 | 8325 frizzled homolog 8 (Drosophila) |
| GO | dystrophin-associated glycoprotein complex | 2 | 14 | 0.136 | 6442 sarcoglycan, alpha (50kDa dystrophin-associated glycoprotein) |
| GO | dystrophin-associated glycoprotein complex | 2 | 14 | 0.136 | 6444 sarcoglycan, delta (35kDa dystrophin-associated glycoprotein) |
| GO | DNA damage response, signal transduction | 2 | 14 | 0.136 | 64782 apoptosis enhancing nuclease |
| GO | DNA damage response, signal transduction | 2 | 14 | 0.136 | 8626 tumor protein p63 |
| GO | cell fate specification | 2 | 14 | 0.136 | 6657 SRY (sex determining region Y)-box 2 |
| GO | cell fate specification | 2 | 14 | 0.136 | 6662 SRY (sex determining region Y)-box 9 |
| GO | ubiquitin-protein ligase activity | 10 | 145 | 0.138 | 1161 excision repair cross-complementing rodent repair deficiency, complement |

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|----|---|----|-----|-------|--------|---|
| GO | ubiquitin-protein ligase activity | 10 | 145 | 0.138 | 130507 | ubiquitin protein ligase E3 component n-recognin 3 (putative) |
| GO | ubiquitin-protein ligase activity | 10 | 145 | 0.138 | 1643 | damage-specific DNA binding protein 2, 48kDa |
| GO | ubiquitin-protein ligase activity | 10 | 145 | 0.138 | 23194 | F-box and leucine-rich repeat protein 7 |
| GO | ubiquitin-protein ligase activity | 10 | 145 | 0.138 | 25827 | F-box and leucine-rich repeat protein 2 |
| GO | ubiquitin-protein ligase activity | 10 | 145 | 0.138 | 26223 | F-box and leucine-rich repeat protein 21 (gene/pseudogene) |
| GO | ubiquitin-protein ligase activity | 10 | 145 | 0.138 | 26263 | F-box protein 22 |
| GO | ubiquitin-protein ligase activity | 10 | 145 | 0.138 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | ubiquitin-protein ligase activity | 10 | 145 | 0.138 | 672 | breast cancer 1, early onset |
| GO | ubiquitin-protein ligase activity | 10 | 145 | 0.138 | 7324 | ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | nuclear mRNA splicing, via spliceosome | 4 | 43 | 0.138 | 10212 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 39 |
| GO | nuclear mRNA splicing, via spliceosome | 4 | 43 | 0.138 | 10465 | peptidylprolyl isomerase H (cyclophilin H) |
| GO | nuclear mRNA splicing, via spliceosome | 4 | 43 | 0.138 | 3183 | heterogeneous nuclear ribonucleoprotein C (C1/C2) |
| GO | nuclear mRNA splicing, via spliceosome | 4 | 43 | 0.138 | 79833 | gem (nuclear organelle) associated protein 6 |
| GO | nucleoside-triphosphatase activity | 5 | 59 | 0.138 | 5000 | origin recognition complex, subunit 4-like (yeast) |
| GO | nucleoside-triphosphatase activity | 5 | 59 | 0.138 | 55137 | fidgetin |
| GO | nucleoside-triphosphatase activity | 5 | 59 | 0.138 | 5702 | proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | nucleoside-triphosphatase activity | 5 | 59 | 0.138 | 5889 | RAD51 homolog C (<i>S. cerevisiae</i>) |
| GO | nucleoside-triphosphatase activity | 5 | 59 | 0.138 | 6683 | spastin |
| GO | single fertilization | 3 | 28 | 0.139 | 1047 | calmegin |
| GO | single fertilization | 3 | 28 | 0.139 | 53340 | sperm autoantigenic protein 17 |
| GO | single fertilization | 3 | 28 | 0.139 | 8747 | ADAM metallopeptidase domain 21 |
| GO | regulation of cell migration | 3 | 28 | 0.139 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | regulation of cell migration | 3 | 28 | 0.139 | 182 | jagged 1 (Alagille syndrome) |
| GO | regulation of cell migration | 3 | 28 | 0.139 | 91624 | nexilin (F actin binding protein) |
| GO | RNA polymerase II transcription mediati | 3 | 28 | 0.139 | 116931 | mediator complex subunit 12-like |
| GO | RNA polymerase II transcription mediati | 3 | 28 | 0.139 | 51003 | mediator complex subunit 31 |
| GO | RNA polymerase II transcription mediati | 3 | 28 | 0.139 | 5469 | mediator complex subunit 1 |
| GO | camera-type eye development | 3 | 28 | 0.139 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | camera-type eye development | 3 | 28 | 0.139 | 5469 | mediator complex subunit 1 |
| GO | camera-type eye development | 3 | 28 | 0.139 | 7490 | Wilms tumor 1 |
| GO | integrin complex | 3 | 28 | 0.139 | 22801 | integrin, alpha 11 |
| GO | integrin complex | 3 | 28 | 0.139 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | integrin complex | 3 | 28 | 0.139 | 3694 | integrin, beta 6 |
| GO | lactation | 3 | 28 | 0.139 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | lactation | 3 | 28 | 0.139 | 5021 | oxytocin receptor |
| GO | lactation | 3 | 28 | 0.139 | 5469 | mediator complex subunit 1 |

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|----|-------------------------|-----|------|-------|--------|---|
| GO | protein oligomerization | 3 | 28 | 0.139 | 6241 | ribonucleotide reductase M2 |
| GO | protein oligomerization | 3 | 28 | 0.139 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | protein oligomerization | 3 | 28 | 0.139 | 7010 | TEK tyrosine kinase, endothelial |
| GO | nucleus | 234 | 4735 | 0.14 | 1E+08 | forkhead box O6 |
| GO | nucleus | 234 | 4735 | 0.14 | 10051 | structural maintenance of chromosomes 4 |
| GO | nucleus | 234 | 4735 | 0.14 | 10055 | SUMO1 activating enzyme subunit 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 10123 | ADP-ribosylation factor-like 4C |
| GO | nucleus | 234 | 4735 | 0.14 | 10189 | THO complex 4 |
| GO | nucleus | 234 | 4735 | 0.14 | 10199 | M-phase phosphoprotein 10 (U3 small nucleolar ribonucleoprotein) |
| GO | nucleus | 234 | 4735 | 0.14 | 10202 | dehydrogenase/reductase (SDR family) member 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 10212 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 39 |
| GO | nucleus | 234 | 4735 | 0.14 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | nucleus | 234 | 4735 | 0.14 | 10395 | deleted in liver cancer 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 1045 | caudal type homeobox 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 10465 | peptidylprolyl isomerase H (cyclophilin H) |
| GO | nucleus | 234 | 4735 | 0.14 | 10474 | transcriptional adaptor 3 |
| GO | nucleus | 234 | 4735 | 0.14 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | nucleus | 234 | 4735 | 0.14 | 10528 | NOP56 ribonucleoprotein homolog (yeast) |
| GO | nucleus | 234 | 4735 | 0.14 | 10622 | polymerase (RNA) III (DNA directed) polypeptide G (32kD) |
| GO | nucleus | 234 | 4735 | 0.14 | 10656 | KH domain containing, RNA binding, signal transduction associated 3 |
| GO | nucleus | 234 | 4735 | 0.14 | 10785 | WD repeat domain 4 |
| GO | nucleus | 234 | 4735 | 0.14 | 10799 | ribonuclease P/MRP 40kDa subunit |
| GO | nucleus | 234 | 4735 | 0.14 | 11056 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 52 |
| GO | nucleus | 234 | 4735 | 0.14 | 11169 | WD repeat and HMG-box DNA binding protein 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 11259 | filamin A interacting protein 1-like |
| GO | nucleus | 234 | 4735 | 0.14 | 11278 | Kruppel-like factor 12 |
| GO | nucleus | 234 | 4735 | 0.14 | 113130 | cell division cycle associated 5 |
| GO | nucleus | 234 | 4735 | 0.14 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | nucleus | 234 | 4735 | 0.14 | 116931 | mediator complex subunit 12-like |
| GO | nucleus | 234 | 4735 | 0.14 | 118924 | chromosome 10 open reading frame 4 |
| GO | nucleus | 234 | 4735 | 0.14 | 12 | serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), me |
| GO | nucleus | 234 | 4735 | 0.14 | 126374 | Wilms tumor 1 interacting protein |
| GO | nucleus | 234 | 4735 | 0.14 | 132625 | zinc finger protein 42 homolog (mouse) |
| GO | nucleus | 234 | 4735 | 0.14 | 135114 | histidine triad nucleotide binding protein 3 |
| GO | nucleus | 234 | 4735 | 0.14 | 135295 | splicing factor, arginine/serine-rich 13B |
| GO | nucleus | 234 | 4735 | 0.14 | 139324 | highly divergent homeobox |

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|----|---------|-----|------|------|--------|--|
| GO | nucleus | 234 | 4735 | 0.14 | 148213 | zinc finger protein 681 |
| GO | nucleus | 234 | 4735 | 0.14 | 150684 | copper metabolism (Murr1) domain containing 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 157570 | establishment of cohesion 1 homolog 2 (<i>S. cerevisiae</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 1643 | damage-specific DNA binding protein 2, 48kDa |
| GO | nucleus | 234 | 4735 | 0.14 | 166336 | prickle homolog 2 (<i>Drosophila</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 170082 | transcription elongation factor A (SII) N-terminal and central domain containi |
| GO | nucleus | 234 | 4735 | 0.14 | 1746 | distal-less homeobox 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 1787 | tRNA aspartic acid methyltransferase 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | nucleus | 234 | 4735 | 0.14 | 195828 | zinc finger protein 367 |
| GO | nucleus | 234 | 4735 | 0.14 | 1984 | eukaryotic translation initiation factor 5A |
| GO | nucleus | 234 | 4735 | 0.14 | 201299 | RAD52 motif 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 203 | adenylate kinase 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 2139 | eyes absent homolog 2 (<i>Drosophila</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 219736 | storkhead box 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 220042 | chromosome 11 open reading frame 82 |
| GO | nucleus | 234 | 4735 | 0.14 | 2237 | flap structure-specific endonuclease 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 2273 | four and a half LIM domains 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 2305 | forkhead box M1 |
| GO | nucleus | 234 | 4735 | 0.14 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | nucleus | 234 | 4735 | 0.14 | 23594 | origin recognition complex, subunit 6 like (yeast) |
| GO | nucleus | 234 | 4735 | 0.14 | 23658 | LSM5 homolog, U6 small nuclear RNA associated (<i>S. cerevisiae</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | nucleus | 234 | 4735 | 0.14 | 2533 | FYN binding protein (FYB-120/130) |
| GO | nucleus | 234 | 4735 | 0.14 | 25758 | chromosome 11 open reading frame 41 |
| GO | nucleus | 234 | 4735 | 0.14 | 25885 | polymerase (RNA) I polypeptide A, 194kDa |
| GO | nucleus | 234 | 4735 | 0.14 | 25926 | nucleolar protein 11 |
| GO | nucleus | 234 | 4735 | 0.14 | 25953 | paroxysmal nonkinesigenic dyskinesia |
| GO | nucleus | 234 | 4735 | 0.14 | 26019 | UPF2 regulator of nonsense transcripts homolog (yeast) |
| GO | nucleus | 234 | 4735 | 0.14 | 27065 | DNA segment on chromosome 4 (unique) 234 expressed sequence |
| GO | nucleus | 234 | 4735 | 0.14 | 27244 | sestrin 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 27258 | LSM3 homolog, U6 small nuclear RNA associated (<i>S. cerevisiae</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 2736 | GLI family zinc finger 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 27429 | HtrA serine peptidase 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 2842 | G protein-coupled receptor 19 |
| GO | nucleus | 234 | 4735 | 0.14 | 284443 | zinc finger protein 493 |

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|----|---------|-----|------|------|---|
| GO | nucleus | 234 | 4735 | 0.14 | 28984 chromosome 13 open reading frame 15 |
| GO | nucleus | 234 | 4735 | 0.14 | 29128 ubiquitin-like with PHD and ring finger domains 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 2965 general transcription factor IIH, polypeptide 1, 62kDa |
| GO | nucleus | 234 | 4735 | 0.14 | 29842 transcription factor CP2-like 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 29893 PSMC3 interacting protein |
| GO | nucleus | 234 | 4735 | 0.14 | 29995 LIM and cysteine-rich domains 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 30011 SH3-domain kinase binding protein 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 3149 high-mobility group box 3 |
| GO | nucleus | 234 | 4735 | 0.14 | 3183 heterogeneous nuclear ribonucleoprotein C (C1/C2) |
| GO | nucleus | 234 | 4735 | 0.14 | 3224 homeobox C8 |
| GO | nucleus | 234 | 4735 | 0.14 | 3236 homeobox D10 |
| GO | nucleus | 234 | 4735 | 0.14 | 3237 homeobox D11 |
| GO | nucleus | 234 | 4735 | 0.14 | 3248 hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | nucleus | 234 | 4735 | 0.14 | 3276 protein arginine methyltransferase 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 332 baculoviral IAP repeat-containing 5 |
| GO | nucleus | 234 | 4735 | 0.14 | 344191 even-skipped homeobox 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 345630 fibrillarin-like 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 347902 adhesion molecule with Ig-like domain 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 3516 recombination signal binding protein for immunoglobulin kappa J region |
| GO | nucleus | 234 | 4735 | 0.14 | 3836 karyopherin alpha 1 (importin alpha 5) |
| GO | nucleus | 234 | 4735 | 0.14 | 3838 karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | nucleus | 234 | 4735 | 0.14 | 387103 centromere protein W |
| GO | nucleus | 234 | 4735 | 0.14 | 389421 lin-28 homolog B (C. elegans) |
| GO | nucleus | 234 | 4735 | 0.14 | 3975 LIM homeobox 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 406 aryl hydrocarbon receptor nuclear translocator-like |
| GO | nucleus | 234 | 4735 | 0.14 | 409 arrestin, beta 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 4094 v-maf musculoaponeurotic fibrosarcoma oncogene homolog (avian) |
| GO | nucleus | 234 | 4735 | 0.14 | 4171 minichromosome maintenance complex component 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 4287 ataxin 3 |
| GO | nucleus | 234 | 4735 | 0.14 | 4291 myeloid leukemia factor 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 4292 mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | nucleus | 234 | 4735 | 0.14 | 431707 LIM homeobox 8 |
| GO | nucleus | 234 | 4735 | 0.14 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | nucleus | 234 | 4735 | 0.14 | 4603 v-myb myeloblastosis viral oncogene homolog (avian)-like 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 4763 neurofibromin 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |

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|----|---------|-----|------|------|-------|---|
| GO | nucleus | 234 | 4735 | 0.14 | 4928 | nucleoporin 98kDa |
| GO | nucleus | 234 | 4735 | 0.14 | 4968 | 8-oxoguanine DNA glycosylase |
| GO | nucleus | 234 | 4735 | 0.14 | 5000 | origin recognition complex, subunit 4-like (yeast) |
| GO | nucleus | 234 | 4735 | 0.14 | 5015 | orthodenticle homeobox 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 50485 | SWI/SNF related, matrix associated, actin dependent regulator of chromati |
| GO | nucleus | 234 | 4735 | 0.14 | 5081 | paired box 7 |
| GO | nucleus | 234 | 4735 | 0.14 | 51003 | mediator complex subunit 31 |
| GO | nucleus | 234 | 4735 | 0.14 | 51177 | pleckstrin homology domain containing, family O member 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 51213 | leucine zipper protein 4 |
| GO | nucleus | 234 | 4735 | 0.14 | 51339 | dapper, antagonist of beta-catenin, homolog 1 (Xenopus laevis) |
| GO | nucleus | 234 | 4735 | 0.14 | 51460 | Scm-like with four mbt domains 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 51491 | NOP16 nucleolar protein homolog (yeast) |
| GO | nucleus | 234 | 4735 | 0.14 | 5216 | profilin 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 5245 | prohibitin |
| GO | nucleus | 234 | 4735 | 0.14 | 5303 | protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | nucleus | 234 | 4735 | 0.14 | 5378 | PMS1 postmeiotic segregation increased 1 (S. cerevisiae) |
| GO | nucleus | 234 | 4735 | 0.14 | 53981 | cleavage and polyadenylation specific factor 2, 100kDa |
| GO | nucleus | 234 | 4735 | 0.14 | 5440 | polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |
| GO | nucleus | 234 | 4735 | 0.14 | 5469 | mediator complex subunit 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 54796 | basonuclin 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 54828 | breast carcinoma amplified sequence 3 |
| GO | nucleus | 234 | 4735 | 0.14 | 54984 | PIN2-interacting protein 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 54993 | zinc finger and SCAN domain containing 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 55003 | PAK1 interacting protein 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 55012 | protein phosphatase 2 (formerly 2A), regulatory subunit B", gamma |
| GO | nucleus | 234 | 4735 | 0.14 | 55135 | WD repeat containing, antisense to TP53 |
| GO | nucleus | 234 | 4735 | 0.14 | 55137 | fidgetin |
| GO | nucleus | 234 | 4735 | 0.14 | 55215 | Fanconi anemia, complementation group I |
| GO | nucleus | 234 | 4735 | 0.14 | 55323 | La ribonucleoprotein domain family, member 6 |
| GO | nucleus | 234 | 4735 | 0.14 | 55506 | H2A histone family, member Y2 |
| GO | nucleus | 234 | 4735 | 0.14 | 5569 | protein kinase (cAMP-dependent, catalytic) inhibitor alpha |
| GO | nucleus | 234 | 4735 | 0.14 | 55759 | WD repeat domain 12 |
| GO | nucleus | 234 | 4735 | 0.14 | 55854 | zinc finger CCCH-type containing 15 |
| GO | nucleus | 234 | 4735 | 0.14 | 5588 | protein kinase C, theta |
| GO | nucleus | 234 | 4735 | 0.14 | 55916 | nuclear transport factor 2-like export factor 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 56339 | methyltransferase like 3 |

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|----|---------|-----|------|------|--|
| GO | nucleus | 234 | 4735 | 0.14 | 56655 polymerase (DNA-directed), epsilon 4 (p12 subunit) |
| GO | nucleus | 234 | 4735 | 0.14 | 56852 RAD18 homolog (<i>S. cerevisiae</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 56902 partner of NOB1 homolog (<i>S. cerevisiae</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 5702 proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | nucleus | 234 | 4735 | 0.14 | 5744 parathyroid hormone-like hormone |
| GO | nucleus | 234 | 4735 | 0.14 | 57590 WD repeat and FYVE domain containing 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 57599 WD repeat domain 48 |
| GO | nucleus | 234 | 4735 | 0.14 | 5795 protein tyrosine phosphatase, receptor type, J |
| GO | nucleus | 234 | 4735 | 0.14 | 58155 polypyrimidine tract binding protein 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 58499 zinc finger protein 462 |
| GO | nucleus | 234 | 4735 | 0.14 | 5889 RAD51 homolog C (<i>S. cerevisiae</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 59336 PR domain containing 13 |
| GO | nucleus | 234 | 4735 | 0.14 | 5965 RecQ protein-like (DNA helicase Q1-like) |
| GO | nucleus | 234 | 4735 | 0.14 | 6000 regulator of G-protein signaling 7 |
| GO | nucleus | 234 | 4735 | 0.14 | 6299 sal-like 1 (<i>Drosophila</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 641 Bloom syndrome, RecQ helicase-like |
| GO | nucleus | 234 | 4735 | 0.14 | 64151 non-SMC condensin I complex, subunit G |
| GO | nucleus | 234 | 4735 | 0.14 | 64318 nucleolar complex associated 3 homolog (<i>S. cerevisiae</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 64393 zinc finger, matrin type 3 |
| GO | nucleus | 234 | 4735 | 0.14 | 644890 meiosis expressed gene 1 homolog (mouse) |
| GO | nucleus | 234 | 4735 | 0.14 | 6474 short stature homeobox 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 64782 apoptosis enhancing nuclease |
| GO | nucleus | 234 | 4735 | 0.14 | 64785 GINS complex subunit 3 (Psf3 homolog) |
| GO | nucleus | 234 | 4735 | 0.14 | 6591 snail homolog 2 (<i>Drosophila</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 6615 snail homolog 1 (<i>Drosophila</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 6637 small nuclear ribonucleoprotein polypeptide G |
| GO | nucleus | 234 | 4735 | 0.14 | 6657 SRY (sex determining region Y)-box 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 6659 SRY (sex determining region Y)-box 4 |
| GO | nucleus | 234 | 4735 | 0.14 | 6662 SRY (sex determining region Y)-box 9 |
| GO | nucleus | 234 | 4735 | 0.14 | 6672 SP100 nuclear antigen |
| GO | nucleus | 234 | 4735 | 0.14 | 6683 spastin |
| GO | nucleus | 234 | 4735 | 0.14 | 6711 spectrin, beta, non-erythrocytic 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 672 breast cancer 1, early onset |
| GO | nucleus | 234 | 4735 | 0.14 | 6741 Sjogren syndrome antigen B (autoantigen La) |
| GO | nucleus | 234 | 4735 | 0.14 | 6899 T-box 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 7021 transcription factor AP-2 beta (activating enhancer binding protein 2 beta) |

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|----|---------|-----|------|------|--|
| GO | nucleus | 234 | 4735 | 0.14 | 7029 transcription factor Dp-2 (E2F dimerization partner 2) |
| GO | nucleus | 234 | 4735 | 0.14 | 7341 SMT3 suppressor of mif two 3 homolog 1 (<i>S. cerevisiae</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 7353 ubiquitin fusion degradation 1 like (yeast) |
| GO | nucleus | 234 | 4735 | 0.14 | 7490 Wilms tumor 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 7552 zinc finger protein 711 |
| GO | nucleus | 234 | 4735 | 0.14 | 7711 zinc finger protein 155 |
| GO | nucleus | 234 | 4735 | 0.14 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | nucleus | 234 | 4735 | 0.14 | 79075 defective in sister chromatid cohesion 1 homolog (<i>S. cerevisiae</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 79172 centromere protein O |
| GO | nucleus | 234 | 4735 | 0.14 | 79187 fibronectin type III and SPRY domain containing 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 79677 structural maintenance of chromosomes 6 |
| GO | nucleus | 234 | 4735 | 0.14 | 79682 MLF1 interacting protein |
| GO | nucleus | 234 | 4735 | 0.14 | 79698 zinc finger, matrin type 4 |
| GO | nucleus | 234 | 4735 | 0.14 | 79833 gem (nuclear organelle) associated protein 6 |
| GO | nucleus | 234 | 4735 | 0.14 | 80712 ESX homeobox 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 8091 high mobility group AT-hook 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 81606 limb bud and heart development homolog (mouse) |
| GO | nucleus | 234 | 4735 | 0.14 | 81786 tripartite motif-containing 7 |
| GO | nucleus | 234 | 4735 | 0.14 | 81892 chromosome 14 open reading frame 156 |
| GO | nucleus | 234 | 4735 | 0.14 | 8193 D4, zinc and double PHD fingers family 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 8348 histone cluster 1, H2bo |
| GO | nucleus | 234 | 4735 | 0.14 | 8349 histone cluster 2, H2be |
| GO | nucleus | 234 | 4735 | 0.14 | 83879 cell division cycle associated 7 |
| GO | nucleus | 234 | 4735 | 0.14 | 8409 ubiquitously-expressed transcript |
| GO | nucleus | 234 | 4735 | 0.14 | 84101 ubiquitin specific peptidase 44 |
| GO | nucleus | 234 | 4735 | 0.14 | 84172 polymerase (RNA) I polypeptide B, 128kDa |
| GO | nucleus | 234 | 4735 | 0.14 | 84206 mex-3 homolog B (<i>C. elegans</i>) |
| GO | nucleus | 234 | 4735 | 0.14 | 84296 GINS complex subunit 4 (Sld5 homolog) |
| GO | nucleus | 234 | 4735 | 0.14 | 84365 MKI67 (FHA domain) interacting nucleolar phosphoprotein |
| GO | nucleus | 234 | 4735 | 0.14 | 8458 transcription termination factor, RNA polymerase II |
| GO | nucleus | 234 | 4735 | 0.14 | 84622 zinc finger protein 594 |
| GO | nucleus | 234 | 4735 | 0.14 | 84665 myopalladin |
| GO | nucleus | 234 | 4735 | 0.14 | 84878 zinc finger and BTB domain containing 45 |
| GO | nucleus | 234 | 4735 | 0.14 | 84959 ubiquitin associated and SH3 domain containing, B |
| GO | nucleus | 234 | 4735 | 0.14 | 8520 histone acetyltransferase 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 8533 COP9 constitutive photomorphogenic homolog subunit 3 (<i>Arabidopsis</i>) |

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|----|----------------------------------|-----|------|-------|-------|--|
| GO | nucleus | 234 | 4735 | 0.14 | 8536 | calcium/calmodulin-dependent protein kinase I |
| GO | nucleus | 234 | 4735 | 0.14 | 8563 | THO complex 5 |
| GO | nucleus | 234 | 4735 | 0.14 | 8626 | tumor protein p63 |
| GO | nucleus | 234 | 4735 | 0.14 | 890 | cyclin A2 |
| GO | nucleus | 234 | 4735 | 0.14 | 8970 | histone cluster 1, H2bj |
| GO | nucleus | 234 | 4735 | 0.14 | 89797 | neuron navigator 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 898 | cyclin E1 |
| GO | nucleus | 234 | 4735 | 0.14 | 91442 | chromosome 19 open reading frame 40 |
| GO | nucleus | 234 | 4735 | 0.14 | 91801 | alkB, alkylation repair homolog 8 (E. coli) |
| GO | nucleus | 234 | 4735 | 0.14 | 91975 | zinc finger protein 300 |
| GO | nucleus | 234 | 4735 | 0.14 | 92312 | mex-3 homolog A (C. elegans) |
| GO | nucleus | 234 | 4735 | 0.14 | 9242 | musculin (activated B-cell factor-1) |
| GO | nucleus | 234 | 4735 | 0.14 | 9262 | serine/threonine kinase 17b |
| GO | nucleus | 234 | 4735 | 0.14 | 93474 | zinc finger protein 670 |
| GO | nucleus | 234 | 4735 | 0.14 | 9355 | LIM homeobox 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 93649 | myocardin |
| GO | nucleus | 234 | 4735 | 0.14 | 94241 | tumor protein p53 inducible nuclear protein 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 9688 | nucleoporin 93kDa |
| GO | nucleus | 234 | 4735 | 0.14 | 9805 | secernin 1 |
| GO | nucleus | 234 | 4735 | 0.14 | 9839 | zinc finger E-box binding homeobox 2 |
| GO | nucleus | 234 | 4735 | 0.14 | 9910 | RAB GTPase activating protein 1-like |
| GO | cellular calcium ion homeostasis | 5 | 60 | 0.145 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | cellular calcium ion homeostasis | 5 | 60 | 0.145 | 348 | apolipoprotein E |
| GO | cellular calcium ion homeostasis | 5 | 60 | 0.145 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | cellular calcium ion homeostasis | 5 | 60 | 0.145 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | cellular calcium ion homeostasis | 5 | 60 | 0.145 | 7137 | troponin I type 3 (cardiac) |
| GO | pattern specification process | 4 | 44 | 0.146 | 1045 | caudal type homeobox 2 |
| GO | pattern specification process | 4 | 44 | 0.146 | 2736 | GLI family zinc finger 2 |
| GO | pattern specification process | 4 | 44 | 0.146 | 3237 | homeobox D11 |
| GO | pattern specification process | 4 | 44 | 0.146 | 8626 | tumor protein p63 |
| GO | ubiquitin protein ligase binding | 4 | 44 | 0.146 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | ubiquitin protein ligase binding | 4 | 44 | 0.146 | 409 | arrestin, beta 2 |
| GO | ubiquitin protein ligase binding | 4 | 44 | 0.146 | 56852 | RAD18 homolog (S. cerevisiae) |
| GO | ubiquitin protein ligase binding | 4 | 44 | 0.146 | 7046 | transforming growth factor, beta receptor 1 |
| GO | scavenger receptor activity | 4 | 44 | 0.146 | 56241 | sushi domain containing 2 |
| GO | scavenger receptor activity | 4 | 44 | 0.146 | 7113 | transmembrane protease, serine 2 |

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|----|--|----|-----|-------|--------|--|
| GO | scavenger receptor activity | 4 | 44 | 0.146 | 81035 | collectin sub-family member 12 |
| GO | scavenger receptor activity | 4 | 44 | 0.146 | 8685 | macrophage receptor with collagenous structure |
| GO | protein homotetramerization | 3 | 29 | 0.15 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | protein homotetramerization | 3 | 29 | 0.15 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | protein homotetramerization | 3 | 29 | 0.15 | 8626 | tumor protein p63 |
| GO | androgen receptor binding | 3 | 29 | 0.15 | 29893 | PSMC3 interacting protein |
| GO | androgen receptor binding | 3 | 29 | 0.15 | 672 | breast cancer 1, early onset |
| GO | androgen receptor binding | 3 | 29 | 0.15 | 898 | cyclin E1 |
| GO | metanephros development | 3 | 29 | 0.15 | 3237 | homeobox D11 |
| GO | metanephros development | 3 | 29 | 0.15 | 4763 | neurofibromin 1 |
| GO | metanephros development | 3 | 29 | 0.15 | 7490 | Wilms tumor 1 |
| GO | chaperone binding | 3 | 29 | 0.15 | 332 | baculoviral IAP repeat-containing 5 |
| GO | chaperone binding | 3 | 29 | 0.15 | 3336 | heat shock 10kDa protein 1 (chaperonin 10) |
| GO | chaperone binding | 3 | 29 | 0.15 | 5203 | prefoldin subunit 4 |
| GO | ruffle membrane | 3 | 29 | 0.15 | 3936 | lymphocyte cytosolic protein 1 (L-plastin) |
| GO | ruffle membrane | 3 | 29 | 0.15 | 5341 | pleckstrin |
| GO | ruffle membrane | 3 | 29 | 0.15 | 7168 | tropomyosin 1 (alpha) |
| GO | neuronal cell body | 10 | 148 | 0.151 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | neuronal cell body | 10 | 148 | 0.151 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | neuronal cell body | 10 | 148 | 0.151 | 114757 | cytoglobin |
| GO | neuronal cell body | 10 | 148 | 0.151 | 1984 | eukaryotic translation initiation factor 5A |
| GO | neuronal cell body | 10 | 148 | 0.151 | 2045 | EPH receptor A7 |
| GO | neuronal cell body | 10 | 148 | 0.151 | 348 | apolipoprotein E |
| GO | neuronal cell body | 10 | 148 | 0.151 | 3751 | potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | neuronal cell body | 10 | 148 | 0.151 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | neuronal cell body | 10 | 148 | 0.151 | 8997 | kalirin, RhoGEF kinase |
| GO | neuronal cell body | 10 | 148 | 0.151 | 92737 | delta/notch-like EGF repeat containing |
| GO | cellular response to extracellular stimuli | 2 | 15 | 0.152 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | cellular response to extracellular stimuli | 2 | 15 | 0.152 | 558 | AXL receptor tyrosine kinase |
| GO | neural tube development | 2 | 15 | 0.152 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | neural tube development | 2 | 15 | 0.152 | 2736 | GLI family zinc finger 2 |
| GO | protein disulfide oxidoreductase activity | 2 | 15 | 0.152 | 10539 | glutaredoxin 3 |
| GO | protein disulfide oxidoreductase activity | 2 | 15 | 0.152 | 51218 | glutaredoxin 5 |
| GO | acyl-CoA binding | 2 | 15 | 0.152 | 1622 | diazepam binding inhibitor (GABA receptor modulator, acyl-Coenzyme A bi |
| GO | acyl-CoA binding | 2 | 15 | 0.152 | 414149 | acyl-Coenzyme A binding domain containing 7 |
| GO | cellular component organization | 2 | 15 | 0.152 | 1730 | diaphanous homolog 2 (Drosophila) |

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|----|---|----|-----|-------|--------|---|
| GO | cellular component organization | 2 | 15 | 0.152 | 81624 | diaphanous homolog 3 (Drosophila) |
| GO | estrogen receptor binding | 2 | 15 | 0.152 | 29893 | PSMC3 interacting protein |
| GO | estrogen receptor binding | 2 | 15 | 0.152 | 5469 | mediator complex subunit 1 |
| GO | protein amino acid methylation | 2 | 15 | 0.152 | 3276 | protein arginine methyltransferase 1 |
| GO | protein amino acid methylation | 2 | 15 | 0.152 | 5110 | protein-L-isoaspartate (D-aspartate) O-methyltransferase |
| GO | male germ cell nucleus | 2 | 15 | 0.152 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | male germ cell nucleus | 2 | 15 | 0.152 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | phosphatidylinositol-4,5-bisphosphate t | 2 | 15 | 0.152 | 54843 | synaptotagmin-like 2 |
| GO | phosphatidylinositol-4,5-bisphosphate t | 2 | 15 | 0.152 | 55803 | ArfGAP with dual PH domains 2 |
| GO | double-strand break repair via homolog | 2 | 15 | 0.152 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | double-strand break repair via homolog | 2 | 15 | 0.152 | 672 | breast cancer 1, early onset |
| GO | actin filament-based movement | 2 | 15 | 0.152 | 70 | actin, alpha, cardiac muscle 1 |
| GO | actin filament-based movement | 2 | 15 | 0.152 | 7456 | WAS/WASL interacting protein family, member 1 |
| GO | ATP-dependent helicase activity | 5 | 61 | 0.153 | 10212 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 39 |
| GO | ATP-dependent helicase activity | 5 | 61 | 0.153 | 11056 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 52 |
| GO | ATP-dependent helicase activity | 5 | 61 | 0.153 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | ATP-dependent helicase activity | 5 | 61 | 0.153 | 84319 | chromosome 3 open reading frame 26 |
| GO | ATP-dependent helicase activity | 5 | 61 | 0.153 | 8458 | transcription termination factor, RNA polymerase II |
| GO | axonogenesis | 5 | 61 | 0.153 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | axonogenesis | 5 | 61 | 0.153 | 4897 | neuronal cell adhesion molecule |
| GO | axonogenesis | 5 | 61 | 0.153 | 51062 | atlastin GTPase 1 |
| GO | axonogenesis | 5 | 61 | 0.153 | 84189 | SLIT and NTRK-like family, member 6 |
| GO | axonogenesis | 5 | 61 | 0.153 | 8997 | kalirin, RhoGEF kinase |
| GO | protein tyrosine kinase activity | 6 | 78 | 0.154 | 2045 | EPH receptor A7 |
| GO | protein tyrosine kinase activity | 6 | 78 | 0.154 | 2242 | feline sarcoma oncogene |
| GO | protein tyrosine kinase activity | 6 | 78 | 0.154 | 2264 | fibroblast growth factor receptor 4 |
| GO | protein tyrosine kinase activity | 6 | 78 | 0.154 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | protein tyrosine kinase activity | 6 | 78 | 0.154 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | protein tyrosine kinase activity | 6 | 78 | 0.154 | 7010 | TEK tyrosine kinase, endothelial |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 10893 | matrix metalloproteinase 24 (membrane-inserted) |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 115908 | collagen triple helix repeat containing 1 |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 145864 | hyaluronan and proteoglycan link protein 3 |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 1690 | coagulation factor C homolog, cochlin (Limulus polyphemus) |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 221044 | upper zone of growth plate and cartilage matrix associated |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 23768 | fibronectin leucine rich transmembrane protein 2 |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 4052 | latent transforming growth factor beta binding protein 1 |

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|----|--------------------------------------|----|-----|-------|---|
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 4060 lumican |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 4312 matrix metallopeptidase 1 (interstitial collagenase) |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 4318 matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 4319 matrix metallopeptidase 10 (stromelysin 2) |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 6695 sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1 |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 7481 wingless-type MMTV integration site family, member 11 |
| GO | proteinaceous extracellular matrix | 14 | 223 | 0.157 | 81029 wingless-type MMTV integration site family, member 5B |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 10683 delta-like 3 (Drosophila) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 10761 placenta-specific 1 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 11149 blood vessel epicardial substance |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 120114 FAT tumor suppressor homolog 3 (Drosophila) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 132671 spermatogenesis associated 18 homolog (rat) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 1496 catenin (cadherin-associated protein), alpha 2 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 1730 diaphanous homolog 2 (Drosophila) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 1746 distal-less homeobox 2 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 182 jagged 1 (Alagille syndrome) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 2139 eyes absent homolog 2 (Drosophila) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 2242 feline sarcoma oncogene |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 2273 four and a half LIM domains 1 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 2321 fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 23432 G protein-coupled receptor 161 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 23705 cell adhesion molecule 1 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 25884 chordin-like 2 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 266727 MAM domain containing glycosylphosphatidylinositol anchor 1 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 3149 high-mobility group box 3 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 3224 homeobox C8 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 3236 homeobox D10 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 344191 even-skipped homeobox 2 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 4291 myeloid leukemia factor 1 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 5015 orthodenticle homeobox 2 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 5081 paired box 7 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 51339 dapper, antagonist of beta-catenin, homolog 1 (Xenopus laevis) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 5228 placental growth factor |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 5469 mediator complex subunit 1 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 54993 zinc finger and SCAN domain containing 2 |

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|----|--------------------------------------|----|-----|-------|--|
| GO | multicellular organismal development | 48 | 890 | 0.157 | 6422 secreted frizzled-related protein 1 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 6474 short stature homeobox 2 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 65009 NDRG family member 4 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 6586 slit homolog 3 (Drosophila) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 6591 snail homolog 2 (Drosophila) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 6615 snail homolog 1 (Drosophila) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 6683 spastin |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 6695 sparco/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 7481 wingless-type MMTV integration site family, member 11 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 8091 high mobility group AT-hook 2 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 81029 wingless-type MMTV integration site family, member 5B |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 81606 limb bud and heart development homolog (mouse) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 8325 frizzled homolog 8 (Drosophila) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 84620 ST6 beta-galactosamide alpha-2,6-sialyltransferase 2 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 8482 semaphorin 7A, GPI membrane anchor (John Milton Hagen blood group) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 8536 calcium/calmodulin-dependent protein kinase I |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 8788 delta-like 1 homolog (Drosophila) |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 91584 plexin A4 |
| GO | multicellular organismal development | 48 | 890 | 0.157 | 9260 PDZ and LIM domain 7 (enigma) |
| GO | cell differentiation | 27 | 474 | 0.16 | 10672 guanine nucleotide binding protein (G protein), alpha 13 |
| GO | cell differentiation | 27 | 474 | 0.16 | 10683 delta-like 3 (Drosophila) |
| GO | cell differentiation | 27 | 474 | 0.16 | 132671 spermatogenesis associated 18 homolog (rat) |
| GO | cell differentiation | 27 | 474 | 0.16 | 1496 catenin (cadherin-associated protein), alpha 2 |
| GO | cell differentiation | 27 | 474 | 0.16 | 1730 diaphanous homolog 2 (Drosophila) |
| GO | cell differentiation | 27 | 474 | 0.16 | 1746 distal-less homeobox 2 |
| GO | cell differentiation | 27 | 474 | 0.16 | 2273 four and a half LIM domains 1 |
| GO | cell differentiation | 27 | 474 | 0.16 | 2321 fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor) |
| GO | cell differentiation | 27 | 474 | 0.16 | 23705 cell adhesion molecule 1 |
| GO | cell differentiation | 27 | 474 | 0.16 | 25884 chordin-like 2 |
| GO | cell differentiation | 27 | 474 | 0.16 | 266727 MAM domain containing glycosylphosphatidylinositol anchor 1 |
| GO | cell differentiation | 27 | 474 | 0.16 | 2736 GLI family zinc finger 2 |
| GO | cell differentiation | 27 | 474 | 0.16 | 3624 inhibin, beta A |
| GO | cell differentiation | 27 | 474 | 0.16 | 3975 LIM homeobox 1 |
| GO | cell differentiation | 27 | 474 | 0.16 | 4291 myeloid leukemia factor 1 |
| GO | cell differentiation | 27 | 474 | 0.16 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | cell differentiation | 27 | 474 | 0.16 | 5228 placental growth factor |

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|----|--|----|-----|-------|--|
| GO | cell differentiation | 27 | 474 | 0.16 | 54993 zinc finger and SCAN domain containing 2 |
| GO | cell differentiation | 27 | 474 | 0.16 | 6422 secreted frizzled-related protein 1 |
| GO | cell differentiation | 27 | 474 | 0.16 | 65009 NDRG family member 4 |
| GO | cell differentiation | 27 | 474 | 0.16 | 6586 slit homolog 3 (Drosophila) |
| GO | cell differentiation | 27 | 474 | 0.16 | 6683 spastin |
| GO | cell differentiation | 27 | 474 | 0.16 | 8482 semaphorin 7A, GPI membrane anchor (John Milton Hagen blood group) |
| GO | cell differentiation | 27 | 474 | 0.16 | 8536 calcium/calmodulin-dependent protein kinase I |
| GO | cell differentiation | 27 | 474 | 0.16 | 8563 THO complex 5 |
| GO | cell differentiation | 27 | 474 | 0.16 | 8788 delta-like 1 homolog (Drosophila) |
| GO | cell differentiation | 27 | 474 | 0.16 | 9260 PDZ and LIM domain 7 (enigma) |
| GO | nuclear matrix | 5 | 62 | 0.16 | 1161 excision repair cross-complementing rodent repair deficiency, complement |
| GO | nuclear matrix | 5 | 62 | 0.16 | 1788 DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | nuclear matrix | 5 | 62 | 0.16 | 4287 ataxin 3 |
| GO | nuclear matrix | 5 | 62 | 0.16 | 55137 fidgetin |
| GO | nuclear matrix | 5 | 62 | 0.16 | 641 Bloom syndrome, RecQ helicase-like |
| GO | extracellular matrix organization | 5 | 62 | 0.16 | 1284 collagen, type IV, alpha 2 |
| GO | extracellular matrix organization | 5 | 62 | 0.16 | 1288 collagen, type IV, alpha 6 |
| GO | extracellular matrix organization | 5 | 62 | 0.16 | 1301 collagen, type XI, alpha 1 |
| GO | extracellular matrix organization | 5 | 62 | 0.16 | 4318 matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV c |
| GO | extracellular matrix organization | 5 | 62 | 0.16 | 4763 neurofibromin 1 |
| GO | response to organic nitrogen | 3 | 30 | 0.161 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | response to organic nitrogen | 3 | 30 | 0.161 | 3157 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) |
| GO | response to organic nitrogen | 3 | 30 | 0.161 | 898 cyclin E1 |
| GO | cellular response to insulin stimulus | 4 | 46 | 0.164 | 10395 deleted in liver cancer 1 |
| GO | cellular response to insulin stimulus | 4 | 46 | 0.164 | 23305 acyl-CoA synthetase long-chain family member 6 |
| GO | cellular response to insulin stimulus | 4 | 46 | 0.164 | 5140 phosphodiesterase 3B, cGMP-inhibited |
| GO | cellular response to insulin stimulus | 4 | 46 | 0.164 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | regulation of small GTPase mediated sig | 4 | 46 | 0.164 | 10788 IQ motif containing GTPase activating protein 2 |
| GO | regulation of small GTPase mediated sig | 4 | 46 | 0.164 | 25780 RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | regulation of small GTPase mediated sig | 4 | 46 | 0.164 | 4763 neurofibromin 1 |
| GO | regulation of small GTPase mediated sig | 4 | 46 | 0.164 | 5924 Ras protein-specific guanine nucleotide-releasing factor 2 |
| GO | extracellular ligand-gated ion channel a | 4 | 46 | 0.164 | 1136 cholinergic receptor, nicotinic, alpha 3 |
| GO | extracellular ligand-gated ion channel a | 4 | 46 | 0.164 | 1138 cholinergic receptor, nicotinic, alpha 5 |
| GO | extracellular ligand-gated ion channel a | 4 | 46 | 0.164 | 200959 gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | extracellular ligand-gated ion channel a | 4 | 46 | 0.164 | 2558 gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | response to calcium ion | 4 | 46 | 0.164 | 3778 potassium large conductance calcium-activated channel, subfamily M, alph |

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|----|---|----|-----|-------|--------|---|
| GO | response to calcium ion | 4 | 46 | 0.164 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | response to calcium ion | 4 | 46 | 0.164 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | response to calcium ion | 4 | 46 | 0.164 | 8604 | solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | organ morphogenesis | 8 | 115 | 0.166 | 1045 | caudal type homeobox 2 |
| GO | organ morphogenesis | 8 | 115 | 0.166 | 182 | jagged 1 (Alagille syndrome) |
| GO | organ morphogenesis | 8 | 115 | 0.166 | 2273 | four and a half LIM domains 1 |
| GO | organ morphogenesis | 8 | 115 | 0.166 | 3975 | LIM homeobox 1 |
| GO | organ morphogenesis | 8 | 115 | 0.166 | 5469 | mediator complex subunit 1 |
| GO | organ morphogenesis | 8 | 115 | 0.166 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | organ morphogenesis | 8 | 115 | 0.166 | 6586 | slit homolog 3 (Drosophila) |
| GO | organ morphogenesis | 8 | 115 | 0.166 | 8626 | tumor protein p63 |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 10474 | transcriptional adaptor 3 |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 11278 | Kruppel-like factor 12 |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 116931 | mediator complex subunit 12-like |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 170082 | transcription elongation factor A (SII) N-terminal and central domain contain |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 195828 | zinc finger protein 367 |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 29128 | ubiquitin-like with PHD and ring finger domains 1 |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 29842 | transcription factor CP2-like 1 |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 50485 | SWI/SNF related, matrix associated, actin dependent regulator of chromatin |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 5216 | profilin 1 |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 6662 | SRY (sex determining region Y)-box 9 |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 672 | breast cancer 1, early onset |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 6899 | T-box 1 |
| GO | regulation of transcription from RNA po | 13 | 207 | 0.167 | 7021 | transcription factor AP-2 beta (activating enhancer binding protein 2 beta) |
| GO | gap junction | 2 | 16 | 0.169 | 10052 | gap junction protein, gamma 1, 45kDa |
| GO | gap junction | 2 | 16 | 0.169 | 127534 | gap junction protein, beta 4, 30.3kDa |
| GO | regulation of the force of heart contract | 2 | 16 | 0.169 | 10539 | glutaredoxin 3 |
| GO | regulation of the force of heart contract | 2 | 16 | 0.169 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | regulation of GTPase activity | 2 | 16 | 0.169 | 1121 | choroideremia (Rab escort protein 1) |
| GO | regulation of GTPase activity | 2 | 16 | 0.169 | 25780 | RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | nicotinic acetylcholine-activated cation- | 2 | 16 | 0.169 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | nicotinic acetylcholine-activated cation- | 2 | 16 | 0.169 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | nicotinic acetylcholine-gated receptor-c | 2 | 16 | 0.169 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | nicotinic acetylcholine-gated receptor-c | 2 | 16 | 0.169 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | purine nucleotide biosynthetic process | 2 | 16 | 0.169 | 158 | adenylosuccinate lyase |
| GO | purine nucleotide biosynthetic process | 2 | 16 | 0.169 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |

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|----|---|---|----|-------|---|
| GO | mitochondrial envelope | 2 | 16 | 0.169 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | mitochondrial envelope | 2 | 16 | 0.169 | 55803 ArfGAP with dual PH domains 2 |
| GO | neuron apoptosis | 2 | 16 | 0.169 | 2898 glutamate receptor, ionotropic, kainate 2 |
| GO | neuron apoptosis | 2 | 16 | 0.169 | 8626 tumor protein p63 |
| GO | negative regulation of MAP kinase activ | 2 | 16 | 0.169 | 348 apolipoprotein E |
| GO | negative regulation of MAP kinase activ | 2 | 16 | 0.169 | 4763 neurofibromin 1 |
| GO | carbonate dehydratase activity | 2 | 16 | 0.169 | 377677 carbonic anhydrase XIII |
| GO | carbonate dehydratase activity | 2 | 16 | 0.169 | 767 carbonic anhydrase VIII |
| GO | DNA-dependent DNA replication initiati | 2 | 16 | 0.169 | 4171 minichromosome maintenance complex component 2 |
| GO | DNA-dependent DNA replication initiati | 2 | 16 | 0.169 | 5000 origin recognition complex, subunit 4-like (yeast) |
| GO | cerebral cortex development | 2 | 16 | 0.169 | 4763 neurofibromin 1 |
| GO | cerebral cortex development | 2 | 16 | 0.169 | 6657 SRY (sex determining region Y)-box 2 |
| GO | hair follicle morphogenesis | 2 | 16 | 0.169 | 6615 snail homolog 1 (Drosophila) |
| GO | hair follicle morphogenesis | 2 | 16 | 0.169 | 8626 tumor protein p63 |
| GO | spliceosome assembly | 2 | 16 | 0.169 | 6637 small nuclear ribonucleoprotein polypeptide G |
| GO | spliceosome assembly | 2 | 16 | 0.169 | 79833 gem (nuclear organelle) associated protein 6 |
| GO | stereocilium | 2 | 16 | 0.169 | 9497 solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | stereocilium | 2 | 16 | 0.169 | 9732 dedicator of cytokinesis 4 |
| GO | cellular component movement | 7 | 98 | 0.171 | 10096 ARP3 actin-related protein 3 homolog (yeast) |
| GO | cellular component movement | 7 | 98 | 0.171 | 10097 ARP2 actin-related protein 2 homolog (yeast) |
| GO | cellular component movement | 7 | 98 | 0.171 | 10672 guanine nucleotide binding protein (G protein), alpha 13 |
| GO | cellular component movement | 7 | 98 | 0.171 | 6695 sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1 |
| GO | cellular component movement | 7 | 98 | 0.171 | 7168 tropomyosin 1 (alpha) |
| GO | cellular component movement | 7 | 98 | 0.171 | 7171 tropomyosin 4 |
| GO | cellular component movement | 7 | 98 | 0.171 | 7857 secretogranin II (chromogranin C) |
| GO | mediator complex | 3 | 31 | 0.173 | 116931 mediator complex subunit 12-like |
| GO | mediator complex | 3 | 31 | 0.173 | 51003 mediator complex subunit 31 |
| GO | mediator complex | 3 | 31 | 0.173 | 5469 mediator complex subunit 1 |
| GO | SMAD binding | 3 | 31 | 0.173 | 1290 collagen, type V, alpha 2 |
| GO | SMAD binding | 3 | 31 | 0.173 | 7046 transforming growth factor, beta receptor 1 |
| GO | SMAD binding | 3 | 31 | 0.173 | 9839 zinc finger E-box binding homeobox 2 |
| GO | MAPKKK cascade | 3 | 31 | 0.173 | 25780 RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | MAPKKK cascade | 3 | 31 | 0.173 | 4763 neurofibromin 1 |
| GO | MAPKKK cascade | 3 | 31 | 0.173 | 7857 secretogranin II (chromogranin C) |
| GO | embryonic digit morphogenesis | 3 | 31 | 0.173 | 2736 GLI family zinc finger 2 |
| GO | embryonic digit morphogenesis | 3 | 31 | 0.173 | 3237 homeobox D11 |

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|----|--|---|----|-------|--------|--|
| GO | embryonic digit morphogenesis | 3 | 31 | 0.173 | 6299 | sal-like 1 (Drosophila) |
| GO | ATPase activity, coupled to transmembr | 3 | 31 | 0.173 | 340273 | ATP-binding cassette, sub-family B (MDR/TAP), member 5 |
| GO | ATPase activity, coupled to transmembr | 3 | 31 | 0.173 | 51382 | ATPase, H+ transporting, lysosomal 34kDa, V1 subunit D |
| GO | ATPase activity, coupled to transmembr | 3 | 31 | 0.173 | 6833 | ATP-binding cassette, sub-family C (CFTR/MRP), member 8 |
| GO | keratinization | 3 | 31 | 0.173 | 353133 | late cornified envelope 1C |
| GO | keratinization | 3 | 31 | 0.173 | 84518 | cornifelin |
| GO | keratinization | 3 | 31 | 0.173 | 84648 | late cornified envelope 3D |
| GO | chromosome, centromeric region | 4 | 47 | 0.173 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | chromosome, centromeric region | 4 | 47 | 0.173 | 332 | baculoviral IAP repeat-containing 5 |
| GO | chromosome, centromeric region | 4 | 47 | 0.173 | 387103 | centromere protein W |
| GO | chromosome, centromeric region | 4 | 47 | 0.173 | 79075 | defective in sister chromatid cohesion 1 homolog (S. cerevisiae) |
| GO | RPTP-like protein binding | 1 | 4 | 0.173 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | ATP-dependent protein binding | 1 | 4 | 0.173 | 10055 | SUMO1 activating enzyme subunit 1 |
| GO | phenylalanyl-tRNA aminoacylation | 1 | 4 | 0.173 | 10056 | phenylalanyl-tRNA synthetase, beta subunit |
| GO | excitatory synapse | 1 | 4 | 0.173 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | positive regulation of programmed cell | 1 | 4 | 0.173 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | hindbrain morphogenesis | 1 | 4 | 0.173 | 10395 | deleted in liver cancer 1 |
| GO | positive regulation of protein amino aci | 1 | 4 | 0.173 | 10395 | deleted in liver cancer 1 |
| GO | U4/U6 x U5 tri-snRNP complex | 1 | 4 | 0.173 | 10465 | peptidylprolyl isomerase H (cyclophilin H) |
| GO | box C/D snoRNP complex | 1 | 4 | 0.173 | 10528 | NOP56 ribonucleoprotein homolog (yeast) |
| GO | compartment pattern formation | 1 | 4 | 0.173 | 10683 | delta-like 3 (Drosophila) |
| GO | protein amino acid geranylgeranylation | 1 | 4 | 0.173 | 1121 | choroideremia (Rab escort protein 1) |
| GO | Rab geranylgeranyltransferase activity | 1 | 4 | 0.173 | 1121 | choroideremia (Rab escort protein 1) |
| GO | regulation of dendrite morphogenesis | 1 | 4 | 0.173 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | transmembrane receptor protein tyrosin | 1 | 4 | 0.173 | 118788 | phosphoinositide-3-kinase adaptor protein 1 |
| GO | TOR signaling pathway | 1 | 4 | 0.173 | 121268 | Ras homolog enriched in brain like 1 |
| GO | 9-cis-retinoic acid biosynthetic process | 1 | 4 | 0.173 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | embryonic development ending in birth | 1 | 4 | 0.173 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | hepatocyte differentiation | 1 | 4 | 0.173 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | pyrimidine dimer repair | 1 | 4 | 0.173 | 1643 | damage-specific DNA binding protein 2, 48kDa |
| GO | inner ear receptor cell differentiation | 1 | 4 | 0.173 | 1687 | deafness, autosomal dominant 5 |
| GO | methylation-dependent chromatin silen | 1 | 4 | 0.173 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | unmethylated CpG binding | 1 | 4 | 0.173 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | U6 snRNA binding | 1 | 4 | 0.173 | 1984 | eukaryotic translation initiation factor 5A |
| GO | phosphopyruvate hydratase activity | 1 | 4 | 0.173 | 2027 | enolase 3 (beta, muscle) |
| GO | phosphopyruvate hydratase complex | 1 | 4 | 0.173 | 2027 | enolase 3 (beta, muscle) |

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|----|---|---|---|-------|--------|--|
| GO | regulation of microtubule polymerization | 1 | 4 | 0.173 | 220134 | spindle and kinetochore associated complex subunit 1 |
| GO | paranode region of axon | 1 | 4 | 0.173 | 23136 | erythrocyte membrane protein band 4.1-like 3 |
| GO | arachidonic acid binding | 1 | 4 | 0.173 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | detection of mechanical stimulus involvement | 1 | 4 | 0.173 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | fatty acid alpha-oxidation | 1 | 4 | 0.173 | 26061 | 2-hydroxyacyl-CoA lyase 1 |
| GO | hindgut morphogenesis | 1 | 4 | 0.173 | 2736 | GLI family zinc finger 2 |
| GO | mammary gland duct morphogenesis | 1 | 4 | 0.173 | 2736 | GLI family zinc finger 2 |
| GO | smoothed signaling pathway involvement | 1 | 4 | 0.173 | 2736 | GLI family zinc finger 2 |
| GO | procollagen-proline 4-dioxygenase activation | 1 | 4 | 0.173 | 283208 | prolyl 4-hydroxylase, alpha polypeptide III |
| GO | ubiquitin conjugating enzyme binding | 1 | 4 | 0.173 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | epithelial cell maturation | 1 | 4 | 0.173 | 29842 | transcription factor CP2-like 1 |
| GO | positive regulation of exit from mitosis | 1 | 4 | 0.173 | 332 | baculoviral IAP repeat-containing 5 |
| GO | protein complex localization | 1 | 4 | 0.173 | 332 | baculoviral IAP repeat-containing 5 |
| GO | regulation of cholesterol transport | 1 | 4 | 0.173 | 341 | apolipoprotein C-I |
| GO | axon regeneration in the peripheral nerve | 1 | 4 | 0.173 | 348 | apolipoprotein E |
| GO | Cdc42 protein signal transduction | 1 | 4 | 0.173 | 348 | apolipoprotein E |
| GO | cGMP-mediated signaling | 1 | 4 | 0.173 | 348 | apolipoprotein E |
| GO | death-inducing signaling complex | 1 | 4 | 0.173 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | megakaryocyte differentiation | 1 | 4 | 0.173 | 3589 | interleukin 11 |
| GO | hemoglobin biosynthetic process | 1 | 4 | 0.173 | 3624 | inhibin, beta A |
| GO | negative regulation of follicle-stimulating hormone response | 1 | 4 | 0.173 | 3624 | inhibin, beta A |
| GO | negative regulation of macrophage differentiation | 1 | 4 | 0.173 | 3624 | inhibin, beta A |
| GO | apoptotic cell clearance | 1 | 4 | 0.173 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | negative regulation of lipid storage | 1 | 4 | 0.173 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | negative regulation of lipid transport | 1 | 4 | 0.173 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | G-protein activated inward rectifier potassium channel activity | 1 | 4 | 0.173 | 3763 | potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | RNA 3'-end processing | 1 | 4 | 0.173 | 389421 | lin-28 homolog B (C. elegans) |
| GO | negative regulation of appetite | 1 | 4 | 0.173 | 3952 | leptin |
| GO | regulation of intestinal cholesterol absorption | 1 | 4 | 0.173 | 3952 | leptin |
| GO | pachytene | 1 | 4 | 0.173 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | forebrain neuron development | 1 | 4 | 0.173 | 431707 | LIM homeobox 8 |
| GO | positive regulation of keratinocyte migration | 1 | 4 | 0.173 | 4318 | matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) |
| GO | somatic recombination of immunoglobulin genes | 1 | 4 | 0.173 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | progesterone receptor signaling pathway | 1 | 4 | 0.173 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | receptor catabolic process | 1 | 4 | 0.173 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | positive regulation of adenylate cyclase activity | 1 | 4 | 0.173 | 4763 | neurofibromin 1 |

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|----|--|---|---|-------|--|
| GO | positive regulation of Rac protein signal | 1 | 4 | 0.173 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | ERK1 and ERK2 cascade | 1 | 4 | 0.173 | 5021 oxytocin receptor |
| GO | positive regulation of ion transport | 1 | 4 | 0.173 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |
| GO | cellular response to chemical stimulus | 1 | 4 | 0.173 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | Golgi cis cisterna | 1 | 4 | 0.173 | 51062 atlastin GTPase 1 |
| GO | protein repair | 1 | 4 | 0.173 | 5110 protein-L-isoaspartate (D-aspartate) O-methyltransferase |
| GO | cytokine biosynthetic process | 1 | 4 | 0.173 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | nerve growth factor processing | 1 | 4 | 0.173 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | platelet aggregation | 1 | 4 | 0.173 | 5341 pleckstrin |
| GO | positive regulation of platelet activation | 1 | 4 | 0.173 | 5341 pleckstrin |
| GO | regulation of transcription from RNA po | 1 | 4 | 0.173 | 5440 polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |
| GO | peroxisome proliferator activated recep | 1 | 4 | 0.173 | 5469 mediator complex subunit 1 |
| GO | retinoic acid receptor binding | 1 | 4 | 0.173 | 5469 mediator complex subunit 1 |
| GO | positive regulation of telomerase activit | 1 | 4 | 0.173 | 55135 WD repeat containing, antisense to TP53 |
| GO | DNA primase activity | 1 | 4 | 0.173 | 5558 primase, DNA, polypeptide 2 (58kDa) |
| GO | DNA replication, synthesis of RNA prime | 1 | 4 | 0.173 | 5558 primase, DNA, polypeptide 2 (58kDa) |
| GO | peptide-aspartate beta-dioxygenase act | 1 | 4 | 0.173 | 57168 aspartate beta-hydroxylase domain containing 2 |
| GO | glycerol-3-phosphate O-acyltransferase | 1 | 4 | 0.173 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | mitochondrial fusion | 1 | 4 | 0.173 | 581 BCL2-associated X protein |
| GO | regulation of protein heterodimerizatio | 1 | 4 | 0.173 | 581 BCL2-associated X protein |
| GO | choline metabolic process | 1 | 4 | 0.173 | 590 butyrylcholinesterase |
| GO | outer ear morphogenesis | 1 | 4 | 0.173 | 6299 sal-like 1 (Drosophila) |
| GO | ventricular septum development | 1 | 4 | 0.173 | 6299 sal-like 1 (Drosophila) |
| GO | monocyte chemotaxis | 1 | 4 | 0.173 | 6347 chemokine (C-C motif) ligand 2 |
| GO | positive regulation of macrophage chern | 1 | 4 | 0.173 | 6347 chemokine (C-C motif) ligand 2 |
| GO | bubble DNA binding | 1 | 4 | 0.173 | 641 Bloom syndrome, RecQ helicase-like |
| GO | lateral element | 1 | 4 | 0.173 | 641 Bloom syndrome, RecQ helicase-like |
| GO | calcium ion transmembrane transporter | 1 | 4 | 0.173 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | calcium:sodium antiporter activity | 1 | 4 | 0.173 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | sodium ion transmembrane transporter | 1 | 4 | 0.173 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | Roundabout binding | 1 | 4 | 0.173 | 6586 slit homolog 3 (Drosophila) |
| GO | lens induction in camera-type eye | 1 | 4 | 0.173 | 6657 SRY (sex determining region Y)-box 2 |
| GO | Sertoli cell development | 1 | 4 | 0.173 | 6662 SRY (sex determining region Y)-box 9 |
| GO | intermediate filament cytoskeleton orga | 1 | 4 | 0.173 | 667 dystonin |
| GO | soft palate development | 1 | 4 | 0.173 | 6899 T-box 1 |
| GO | cardiac myofibril assembly | 1 | 4 | 0.173 | 70 actin, alpha, cardiac muscle 1 |

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|----|---|---|-----|-------|---|
| GO | negative regulation of membrane prote | 1 | 4 | 0.173 | 7078 TIMP metallopeptidase inhibitor 3 |
| GO | calcium channel inhibitor activity | 1 | 4 | 0.173 | 7137 troponin I type 3 (cardiac) |
| GO | negative regulation of ATPase activity | 1 | 4 | 0.173 | 7137 troponin I type 3 (cardiac) |
| GO | troponin C binding | 1 | 4 | 0.173 | 7137 troponin I type 3 (cardiac) |
| GO | troponin T binding | 1 | 4 | 0.173 | 7137 troponin I type 3 (cardiac) |
| GO | ISG15-protein conjugation | 1 | 4 | 0.173 | 7324 ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | protein sumoylation | 1 | 4 | 0.173 | 7341 SMT3 suppressor of mif two 3 homolog 1 (<i>S. cerevisiae</i>) |
| GO | high voltage-gated calcium channel acti | 1 | 4 | 0.173 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | pantothenate kinase activity | 1 | 4 | 0.173 | 79646 pantothenate kinase 3 |
| GO | AT DNA binding | 1 | 4 | 0.173 | 8091 high mobility group AT-hook 2 |
| GO | galactose binding | 1 | 4 | 0.173 | 81035 collectin sub-family member 12 |
| GO | aspartate transport | 1 | 4 | 0.173 | 8604 solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | L-aspartate transmembrane transporter | 1 | 4 | 0.173 | 8604 solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | urinary bladder development | 1 | 4 | 0.173 | 8626 tumor protein p63 |
| GO | growth hormone receptor binding | 1 | 4 | 0.173 | 8835 suppressor of cytokine signaling 2 |
| GO | tRNA methylation | 1 | 4 | 0.173 | 91801 alkB, alkylation repair homolog 8 (<i>E. coli</i>) |
| GO | cardiac cell differentiation | 1 | 4 | 0.173 | 93649 myocardin |
| GO | metabotropic glutamate receptor signal | 1 | 4 | 0.173 | 9455 homer homolog 2 (<i>Drosophila</i>) |
| GO | NADP metabolic process | 1 | 4 | 0.173 | 9540 tumor protein p53 inducible protein 3 |
| GO | NADPH:quinone reductase activity | 1 | 4 | 0.173 | 9540 tumor protein p53 inducible protein 3 |
| GO | heparan sulfate proteoglycan biosynthe | 1 | 4 | 0.173 | 9653 heparan sulfate 2-O-sulfotransferase 1 |
| GO | cell proliferation in forebrain | 1 | 4 | 0.173 | 9839 zinc finger E-box binding homeobox 2 |
| GO | embryonic morphogenesis | 1 | 4 | 0.173 | 9839 zinc finger E-box binding homeobox 2 |
| GO | chromatin | 6 | 81 | 0.174 | 4094 v-maf musculoaponeurotic fibrosarcoma oncogene homolog (avian) |
| GO | chromatin | 6 | 81 | 0.174 | 4171 minichromosome maintenance complex component 2 |
| GO | chromatin | 6 | 81 | 0.174 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | chromatin | 6 | 81 | 0.174 | 56852 RAD18 homolog (<i>S. cerevisiae</i>) |
| GO | chromatin | 6 | 81 | 0.174 | 79075 defective in sister chromatid cohesion 1 homolog (<i>S. cerevisiae</i>) |
| GO | chromatin | 6 | 81 | 0.174 | 8091 high mobility group AT-hook 2 |
| GO | Ras protein signal transduction | 5 | 64 | 0.176 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | Ras protein signal transduction | 5 | 64 | 0.176 | 25780 RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | Ras protein signal transduction | 5 | 64 | 0.176 | 4763 neurofibromin 1 |
| GO | Ras protein signal transduction | 5 | 64 | 0.176 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | Ras protein signal transduction | 5 | 64 | 0.176 | 890 cyclin A2 |
| GO | kinase activity | 8 | 117 | 0.177 | 1716 deoxyguanosine kinase |
| GO | kinase activity | 8 | 117 | 0.177 | 1841 deoxythymidylate kinase (thymidylate kinase) |

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|----|--|---|-----|-------|--------|--|
| GO | kinase activity | 8 | 117 | 0.177 | 27330 | ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | kinase activity | 8 | 117 | 0.177 | 29922 | non-metastatic cells 7, protein expressed in (nucleoside-diphosphate kinase) |
| GO | kinase activity | 8 | 117 | 0.177 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | kinase activity | 8 | 117 | 0.177 | 54822 | transient receptor potential cation channel, subfamily M, member 7 |
| GO | kinase activity | 8 | 117 | 0.177 | 55577 | N-acetylglucosamine kinase |
| GO | kinase activity | 8 | 117 | 0.177 | 64080 | ribokinase |
| GO | nucleosome assembly | 5 | 65 | 0.184 | 4171 | minichromosome maintenance complex component 2 |
| GO | nucleosome assembly | 5 | 65 | 0.184 | 55506 | H2A histone family, member Y2 |
| GO | nucleosome assembly | 5 | 65 | 0.184 | 8348 | histone cluster 1, H2bo |
| GO | nucleosome assembly | 5 | 65 | 0.184 | 8349 | histone cluster 2, H2be |
| GO | nucleosome assembly | 5 | 65 | 0.184 | 8970 | histone cluster 1, H2bj |
| GO | neural tube closure | 3 | 32 | 0.184 | 10395 | deleted in liver cancer 1 |
| GO | neural tube closure | 3 | 32 | 0.184 | 5216 | profilin 1 |
| GO | neural tube closure | 3 | 32 | 0.184 | 9839 | zinc finger E-box binding homeobox 2 |
| GO | peptidyl-tyrosine phosphorylation | 3 | 32 | 0.184 | 2242 | feline sarcoma oncogene |
| GO | peptidyl-tyrosine phosphorylation | 3 | 32 | 0.184 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor tyrosine kinase) |
| GO | peptidyl-tyrosine phosphorylation | 3 | 32 | 0.184 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | regulation of G-protein coupled receptor activity | 3 | 32 | 0.184 | 2786 | guanine nucleotide binding protein (G protein), gamma 4 |
| GO | regulation of G-protein coupled receptor activity | 3 | 32 | 0.184 | 6000 | regulator of G-protein signaling 7 |
| GO | regulation of G-protein coupled receptor activity | 3 | 32 | 0.184 | 8490 | regulator of G-protein signaling 5 |
| GO | regulation of gene expression | 3 | 32 | 0.184 | 348 | apolipoprotein E |
| GO | regulation of gene expression | 3 | 32 | 0.184 | 5744 | parathyroid hormone-like hormone |
| GO | regulation of gene expression | 3 | 32 | 0.184 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | positive regulation of cell differentiation | 2 | 17 | 0.186 | 1045 | caudal type homeobox 2 |
| GO | positive regulation of cell differentiation | 2 | 17 | 0.186 | 898 | cyclin E1 |
| GO | guanyl nucleotide binding | 2 | 17 | 0.186 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | guanyl nucleotide binding | 2 | 17 | 0.186 | 2774 | guanine nucleotide binding protein (G protein), alpha activating activity polypeptide 1 |
| GO | regulation of excitatory postsynaptic membrane potential | 2 | 17 | 0.186 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | regulation of excitatory postsynaptic membrane potential | 2 | 17 | 0.186 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | positive regulation of DNA repair | 2 | 17 | 0.186 | 1161 | excision repair cross-complementing rodent repair deficiency, complementation group 1 |
| GO | positive regulation of DNA repair | 2 | 17 | 0.186 | 672 | breast cancer 1, early onset |
| GO | anchored to plasma membrane | 2 | 17 | 0.186 | 146760 | reticulon 4 receptor-like 1 |
| GO | anchored to plasma membrane | 2 | 17 | 0.186 | 266727 | MAM domain containing glycosylphosphatidylinositol anchor 1 |
| GO | purine ribonucleoside monophosphate biosynthetic process | 2 | 17 | 0.186 | 158 | adenylosuccinate lyase |
| GO | purine ribonucleoside monophosphate biosynthetic process | 2 | 17 | 0.186 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide succinyltransferase |
| GO | negative regulation of osteoblast differentiation | 2 | 17 | 0.186 | 221044 | upper zone of growth plate and cartilage matrix associated |

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|----|--|---|----|-------|---|
| GO | negative regulation of osteoblast differ | 2 | 17 | 0.186 | 6657 SRY (sex determining region Y)-box 2 |
| GO | regulation of long-term neuronal synapi | 2 | 17 | 0.186 | 2898 glutamate receptor, ionotropic, kainate 2 |
| GO | regulation of long-term neuronal synapi | 2 | 17 | 0.186 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | cytoplasmic microtubule | 2 | 17 | 0.186 | 332 baculoviral IAP repeat-containing 5 |
| GO | cytoplasmic microtubule | 2 | 17 | 0.186 | 7846 tubulin, alpha 1a |
| GO | DNA damage response, signal transduct | 2 | 17 | 0.186 | 4292 mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | DNA damage response, signal transduct | 2 | 17 | 0.186 | 672 breast cancer 1, early onset |
| GO | cAMP binding | 2 | 17 | 0.186 | 50940 phosphodiesterase 11A |
| GO | cAMP binding | 2 | 17 | 0.186 | 5140 phosphodiesterase 3B, cGMP-inhibited |
| GO | positive regulation of pathway-restrict | 2 | 17 | 0.186 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | positive regulation of pathway-restrict | 2 | 17 | 0.186 | 7046 transforming growth factor, beta receptor 1 |
| GO | male genitalia development | 2 | 17 | 0.186 | 6657 SRY (sex determining region Y)-box 2 |
| GO | male genitalia development | 2 | 17 | 0.186 | 7490 Wilms tumor 1 |
| GO | nucleobase, nucleoside, nucleotide and | 5 | 66 | 0.192 | 1503 CTP synthase |
| GO | nucleobase, nucleoside, nucleotide and | 5 | 66 | 0.192 | 1716 deoxyguanosine kinase |
| GO | nucleobase, nucleoside, nucleotide and | 5 | 66 | 0.192 | 203 adenylate kinase 1 |
| GO | nucleobase, nucleoside, nucleotide and | 5 | 66 | 0.192 | 56339 methyltransferase like 3 |
| GO | nucleobase, nucleoside, nucleotide and | 5 | 66 | 0.192 | 7298 thymidylate synthetase |
| GO | biosynthetic process | 4 | 49 | 0.192 | 23057 nicotinamide nucleotide adenyltransferase 2 |
| GO | biosynthetic process | 4 | 49 | 0.192 | 2618 phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | biosynthetic process | 4 | 49 | 0.192 | 5833 phosphate cytidyltransferase 2, ethanolamine |
| GO | biosynthetic process | 4 | 49 | 0.192 | 79712 glycosyltransferase-like domain containing 1 |
| GO | PDZ domain binding | 4 | 49 | 0.192 | 23705 cell adhesion molecule 1 |
| GO | PDZ domain binding | 4 | 49 | 0.192 | 2898 glutamate receptor, ionotropic, kainate 2 |
| GO | PDZ domain binding | 4 | 49 | 0.192 | 9076 claudin 1 |
| GO | PDZ domain binding | 4 | 49 | 0.192 | 9732 dedicator of cytokinesis 4 |
| GO | microtubule-based movement | 6 | 84 | 0.195 | 1781 dynein, cytoplasmic 1, intermediate chain 2 |
| GO | microtubule-based movement | 6 | 84 | 0.195 | 347733 tubulin, beta 2B |
| GO | microtubule-based movement | 6 | 84 | 0.195 | 3797 kinesin family member 3C |
| GO | microtubule-based movement | 6 | 84 | 0.195 | 3800 kinesin family member 5C |
| GO | microtubule-based movement | 6 | 84 | 0.195 | 7846 tubulin, alpha 1a |
| GO | microtubule-based movement | 6 | 84 | 0.195 | 79861 tubulin, alpha-like 3 |
| GO | actin filament binding | 4 | 50 | 0.202 | 3936 lymphocyte cytosolic protein 1 (L-plastin) |
| GO | actin filament binding | 4 | 50 | 0.202 | 8409 ubiquitously-expressed transcript |
| GO | actin filament binding | 4 | 50 | 0.202 | 84168 anthrax toxin receptor 1 |
| GO | actin filament binding | 4 | 50 | 0.202 | 91624 nexilin (F actin binding protein) |

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|----|---|---|-----|-------|--------|---|
| GO | response to estrogen stimulus | 4 | 50 | 0.202 | 411 | arylsulfatase B |
| GO | response to estrogen stimulus | 4 | 50 | 0.202 | 672 | breast cancer 1, early onset |
| GO | response to estrogen stimulus | 4 | 50 | 0.202 | 7046 | transforming growth factor, beta receptor 1 |
| GO | response to estrogen stimulus | 4 | 50 | 0.202 | 7078 | TIMP metalloproteinase inhibitor 3 |
| GO | response to cytokine stimulus | 4 | 50 | 0.202 | 5021 | oxytocin receptor |
| GO | response to cytokine stimulus | 4 | 50 | 0.202 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | response to cytokine stimulus | 4 | 50 | 0.202 | 6672 | SP100 nuclear antigen |
| GO | response to cytokine stimulus | 4 | 50 | 0.202 | 898 | cyclin E1 |
| GO | rRNA processing | 6 | 85 | 0.202 | 10199 | M-phase phosphoprotein 10 (U3 small nucleolar ribonucleoprotein) |
| GO | rRNA processing | 6 | 85 | 0.202 | 10528 | NOP56 ribonucleoprotein homolog (yeast) |
| GO | rRNA processing | 6 | 85 | 0.202 | 345630 | fibrillarin-like 1 |
| GO | rRNA processing | 6 | 85 | 0.202 | 5303 | protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | rRNA processing | 6 | 85 | 0.202 | 55759 | WD repeat domain 12 |
| GO | rRNA processing | 6 | 85 | 0.202 | 6154 | ribosomal protein L26 |
| GO | inward rectifier potassium channel activ | 2 | 18 | 0.203 | 3763 | potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | inward rectifier potassium channel activ | 2 | 18 | 0.203 | 56479 | potassium voltage-gated channel, KQT-like subfamily, member 5 |
| GO | ADP binding | 2 | 18 | 0.203 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | ADP binding | 2 | 18 | 0.203 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |
| GO | proton-transporting ATPase activity, rot | 2 | 18 | 0.203 | 51382 | ATPase, H+ transporting, lysosomal 34kDa, V1 subunit D |
| GO | proton-transporting ATPase activity, rot | 2 | 18 | 0.203 | 528 | ATPase, H+ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | hydrolase activity, acting on ester bond: | 2 | 18 | 0.203 | 55301 | oleoyl-ACP hydrolase |
| GO | hydrolase activity, acting on ester bond: | 2 | 18 | 0.203 | 92675 | D-tyrosyl-tRNA deacylase 1 homolog (S. cerevisiae) |
| GO | response to activity | 2 | 18 | 0.203 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | response to activity | 2 | 18 | 0.203 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | negative regulation of apoptosis | 9 | 140 | 0.204 | 10202 | dehydrogenase/reductase (SDR family) member 2 |
| GO | negative regulation of apoptosis | 9 | 140 | 0.204 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | negative regulation of apoptosis | 9 | 140 | 0.204 | 1984 | eukaryotic translation initiation factor 5A |
| GO | negative regulation of apoptosis | 9 | 140 | 0.204 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | negative regulation of apoptosis | 9 | 140 | 0.204 | 5624 | protein C (inactivator of coagulation factors Va and VIIIa) |
| GO | negative regulation of apoptosis | 9 | 140 | 0.204 | 6659 | SRY (sex determining region Y)-box 4 |
| GO | negative regulation of apoptosis | 9 | 140 | 0.204 | 7046 | transforming growth factor, beta receptor 1 |
| GO | negative regulation of apoptosis | 9 | 140 | 0.204 | 7490 | Wilms tumor 1 |
| GO | negative regulation of apoptosis | 9 | 140 | 0.204 | 7857 | secretogranin II (chromogranin C) |
| GO | calmodulin binding | 9 | 140 | 0.204 | 10788 | IQ motif containing GTPase activating protein 2 |
| GO | calmodulin binding | 9 | 140 | 0.204 | 1264 | calponin 1, basic, smooth muscle |
| GO | calmodulin binding | 9 | 140 | 0.204 | 3756 | potassium voltage-gated channel, subfamily H (eag-related), member 1 |

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|----|-------------------------------------|----|-----|-------|---|
| GO | calmodulin binding | 9 | 140 | 0.204 | 4430 myosin IB |
| GO | calmodulin binding | 9 | 140 | 0.204 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | calmodulin binding | 9 | 140 | 0.204 | 6711 spectrin, beta, non-erythrocytic 1 |
| GO | calmodulin binding | 9 | 140 | 0.204 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | calmodulin binding | 9 | 140 | 0.204 | 79929 MAP6 domain containing 1 |
| GO | calmodulin binding | 9 | 140 | 0.204 | 8536 calcium/calmodulin-dependent protein kinase I |
| GO | protein homooligomerization | 5 | 68 | 0.208 | 3778 potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | protein homooligomerization | 5 | 68 | 0.208 | 51062 atlastin GTPase 1 |
| GO | protein homooligomerization | 5 | 68 | 0.208 | 581 BCL2-associated X protein |
| GO | protein homooligomerization | 5 | 68 | 0.208 | 6683 spastin |
| GO | protein homooligomerization | 5 | 68 | 0.208 | 81035 collectin sub-family member 12 |
| GO | receptor signaling protein activity | 3 | 34 | 0.208 | 10293 TRAF interacting protein |
| GO | receptor signaling protein activity | 3 | 34 | 0.208 | 23768 fibronectin leucine rich transmembrane protein 2 |
| GO | receptor signaling protein activity | 3 | 34 | 0.208 | 26230 T-cell lymphoma invasion and metastasis 2 |
| GO | cytokinesis | 3 | 34 | 0.208 | 1730 diaphanous homolog 2 (Drosophila) |
| GO | cytokinesis | 3 | 34 | 0.208 | 23157 septin 6 |
| GO | cytokinesis | 3 | 34 | 0.208 | 332 baculoviral IAP repeat-containing 5 |
| GO | perikaryon | 3 | 34 | 0.208 | 2898 glutamate receptor, ionotropic, kainate 2 |
| GO | perikaryon | 3 | 34 | 0.208 | 50940 phosphodiesterase 11A |
| GO | perikaryon | 3 | 34 | 0.208 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | PML body | 3 | 34 | 0.208 | 641 Bloom syndrome, RecQ helicase-like |
| GO | PML body | 3 | 34 | 0.208 | 6672 SP100 nuclear antigen |
| GO | PML body | 3 | 34 | 0.208 | 7341 SMT3 suppressor of mif two 3 homolog 1 (S. cerevisiae) |
| GO | transmembrane transport | 27 | 492 | 0.211 | 1836 solute carrier family 26 (sulfate transporter), member 2 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 1984 eukaryotic translation initiation factor 5A |
| GO | transmembrane transport | 27 | 492 | 0.211 | 26519 translocase of inner mitochondrial membrane 10 homolog (yeast) |
| GO | transmembrane transport | 27 | 492 | 0.211 | 26521 translocase of inner mitochondrial membrane 8 homolog B (yeast) |
| GO | transmembrane transport | 27 | 492 | 0.211 | 340273 ATP-binding cassette, sub-family B (MDR/TAP), member 5 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 3751 potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 3754 potassium voltage-gated channel, subfamily F, member 1 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 3756 potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 3778 potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | transmembrane transport | 27 | 492 | 0.211 | 387700 solute carrier family 16, member 12 (monocarboxylic acid transporter 12) |
| GO | transmembrane transport | 27 | 492 | 0.211 | 4928 nucleoporin 98kDa |
| GO | transmembrane transport | 27 | 492 | 0.211 | 54822 transient receptor potential cation channel, subfamily M, member 7 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 56479 potassium voltage-gated channel, KQT-like subfamily, member 5 |

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|----|-------------------------|-----|------|-------|--------|--|
| GO | transmembrane transport | 27 | 492 | 0.211 | 60386 | solute carrier family 25 (mitochondrial thiamine pyrophosphate carrier), m |
| GO | transmembrane transport | 27 | 492 | 0.211 | 6335 | sodium channel, voltage-gated, type IX, alpha subunit |
| GO | transmembrane transport | 27 | 492 | 0.211 | 64393 | zinc finger, matrin type 3 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 64747 | major facilitator superfamily domain containing 1 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 6518 | solute carrier family 2 (facilitated glucose/fructose transporter), member 5 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 6527 | solute carrier family 5 (low affinity glucose cotransporter), member 4 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 6549 | solute carrier family 9 (sodium/hydrogen exchanger), member 2 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 6580 | solute carrier family 22 (organic cation transporter), member 1 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 6833 | ATP-binding cassette, sub-family C (CFTR/MRP), member 8 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | transmembrane transport | 27 | 492 | 0.211 | 8604 | solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | transmembrane transport | 27 | 492 | 0.211 | 9688 | nucleoporin 93kDa |
| GO | plasma membrane | 137 | 2763 | 0.211 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 1002 | cadherin 4, type 1, R-cadherin (retinal) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 10052 | gap junction protein, gamma 1, 45kDa |
| GO | plasma membrane | 137 | 2763 | 0.211 | 1008 | cadherin 10, type 2 (T2-cadherin) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 10890 | RAB10, member RAS oncogene family |
| GO | plasma membrane | 137 | 2763 | 0.211 | 10893 | matrix metalloproteinase 24 (membrane-inserted) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 11149 | blood vessel epicardial substance |
| GO | plasma membrane | 137 | 2763 | 0.211 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 116372 | LY6/PLAUR domain containing 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 118788 | phosphoinositide-3-kinase adaptor protein 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 119749 | olfactory receptor, family 4, subfamily C, member 46 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 120114 | FAT tumor suppressor homolog 3 (Drosophila) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 121268 | Ras homolog enriched in brain like 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 122786 | FERM domain containing 6 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 125962 | olfactory receptor, family 7, subfamily G, member 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 127534 | gap junction protein, beta 4, 30.3kDa |
| GO | plasma membrane | 137 | 2763 | 0.211 | 128414 | Na ⁺ /K ⁺ transporting ATPase interacting 4 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 128853 | dual specificity phosphatase 15 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 131450 | CD200 receptor 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 146760 | reticulon 4 receptor-like 1 |

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|----|-----------------|-----|------|-------|--------|---|
| GO | plasma membrane | 137 | 2763 | 0.211 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 154215 | Na ⁺ /K ⁺ transporting ATPase interacting 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 1733 | deiodinase, iodothyronine, type I |
| GO | plasma membrane | 137 | 2763 | 0.211 | 182 | jagged 1 (Alagille syndrome) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 1830 | desmoglein 3 (pemphigus vulgaris antigen) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 200959 | gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2037 | erythrocyte membrane protein band 4.1-like 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2149 | coagulation factor II (thrombin) receptor |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2150 | coagulation factor II (thrombin) receptor-like 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2151 | coagulation factor II (thrombin) receptor-like 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 222611 | G protein-coupled receptor 111 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2264 | fibroblast growth factor receptor 4 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 23136 | erythrocyte membrane protein band 4.1-like 3 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | plasma membrane | 137 | 2763 | 0.211 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 23432 | G protein-coupled receptor 161 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 23562 | claudin 14 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 23705 | cell adhesion molecule 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 26499 | pleckstrin 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 266727 | MAM domain containing glycosylphosphatidylinositol anchor 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 27241 | Bardet-Biedl syndrome 9 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 27289 | Rho family GTPase 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2774 | guanine nucleotide binding protein (G protein), alpha activating activity pol |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2786 | guanine nucleotide binding protein (G protein), gamma 4 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 282770 | olfactory receptor, family 10, subfamily AG, member 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 283111 | olfactory receptor, family 51, subfamily V, member 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2842 | G protein-coupled receptor 19 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2845 | G protein-coupled receptor 22 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2850 | G protein-coupled receptor 27 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 285659 | olfactory receptor, family 2, subfamily V, member 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2863 | G protein-coupled receptor 39 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 287 | ankyrin 2, neuronal |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |

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|----|-----------------|-----|------|-------|---|
| GO | plasma membrane | 137 | 2763 | 0.211 | 30011 SH3-domain kinase binding protein 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 3028 hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 340273 ATP-binding cassette, sub-family B (MDR/TAP), member 5 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 344805 transmembrane protease, serine 7 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 347902 adhesion molecule with Ig-like domain 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 348 apolipoprotein E |
| GO | plasma membrane | 137 | 2763 | 0.211 | 353091 retinoic acid early transcript 1G |
| GO | plasma membrane | 137 | 2763 | 0.211 | 355 Fas (TNF receptor superfamily, member 6) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 3685 integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 3751 potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 3763 potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 3778 potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | plasma membrane | 137 | 2763 | 0.211 | 387700 solute carrier family 16, member 12 (monocarboxylic acid transporter 12) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 390061 olfactory receptor, family 51, subfamily Q, member 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 391114 olfactory receptor, family 6, subfamily K, member 3 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | plasma membrane | 137 | 2763 | 0.211 | 3936 lymphocyte cytosolic protein 1 (L-plastin) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 409 arrestin, beta 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 4158 melanocortin 2 receptor (adrenocorticotrophic hormone) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | plasma membrane | 137 | 2763 | 0.211 | 4897 neuronal cell adhesion molecule |
| GO | plasma membrane | 137 | 2763 | 0.211 | 5021 oxytocin receptor |
| GO | plasma membrane | 137 | 2763 | 0.211 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 5031 pyrimidinergic receptor P2Y, G-protein coupled, 6 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor 1) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 5101 protocadherin 9 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 51177 pleckstrin homology domain containing, family O member 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 5145 phosphodiesterase 6A, cGMP-specific, rod, alpha |
| GO | plasma membrane | 137 | 2763 | 0.211 | 51768 transmembrane 7 superfamily member 3 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 528 ATPase, H+ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 53637 sphingosine-1-phosphate receptor 5 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 5420 podocalyxin-like |
| GO | plasma membrane | 137 | 2763 | 0.211 | 54210 triggering receptor expressed on myeloid cells 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 54331 guanine nucleotide binding protein (G protein), gamma 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 54756 interleukin 17 receptor D |

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|----|-----------------|-----|------|-------|--------|--|
| GO | plasma membrane | 137 | 2763 | 0.211 | 54822 | transient receptor potential cation channel, subfamily M, member 7 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 54843 | synaptotagmin-like 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 55117 | solute carrier family 6 (neutral amino acid transporter), member 15 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 55244 | solute carrier family 47, member 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 55283 | mucolipin 3 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 55803 | ArfGAP with dual PH domains 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 56104 | protocadherin gamma subfamily B, 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 56126 | protocadherin beta 10 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 56133 | protocadherin beta 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 5624 | protein C (inactivator of coagulation factors Va and VIIIa) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 56937 | prostate transmembrane protein, androgen induced 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 57575 | protocadherin 10 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 5795 | protein tyrosine phosphatase, receptor type, J |
| GO | plasma membrane | 137 | 2763 | 0.211 | 5924 | Ras protein-specific guanine nucleotide-releasing factor 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 6000 | regulator of G-protein signaling 7 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 6444 | sarcoglycan, delta (35kDa dystrophin-associated glycoprotein) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 6518 | solute carrier family 2 (facilitated glucose/fructose transporter), member 5 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 6580 | solute carrier family 22 (organic cation transporter), member 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 6711 | spectrin, beta, non-erythrocytic 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 7010 | TEK tyrosine kinase, endothelial |
| GO | plasma membrane | 137 | 2763 | 0.211 | 7037 | transferrin receptor (p90, CD71) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 7046 | transforming growth factor, beta receptor 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 7113 | transmembrane protease, serine 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | plasma membrane | 137 | 2763 | 0.211 | 83700 | junctional adhesion molecule 3 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 84168 | anthrax toxin receptor 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 84552 | par-6 partitioning defective 6 homolog gamma (C. elegans) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 8482 | semaphorin 7A, GPI membrane anchor (John Milton Hagen blood group) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 8777 | multiple PDZ domain protein |
| GO | plasma membrane | 137 | 2763 | 0.211 | 9053 | microtubule-associated protein 7 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 9076 | claudin 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 91584 | plexin A4 |

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|----|---|-----|------|-------|--------|---|
| GO | plasma membrane | 137 | 2763 | 0.211 | 92737 | delta/notch-like EGF repeat containing |
| GO | plasma membrane | 137 | 2763 | 0.211 | 9455 | homer homolog 2 (Drosophila) |
| GO | plasma membrane | 137 | 2763 | 0.211 | 9497 | solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 953 | ectonucleoside triphosphate diphosphohydrolase 1 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 9542 | neuregulin 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | plasma membrane | 137 | 2763 | 0.211 | 9635 | chloride channel accessory 2 |
| GO | GTPase activity | 12 | 198 | 0.211 | 10123 | ADP-ribosylation factor-like 4C |
| GO | GTPase activity | 12 | 198 | 0.211 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | GTPase activity | 12 | 198 | 0.211 | 121268 | Ras homolog enriched in brain like 1 |
| GO | GTPase activity | 12 | 198 | 0.211 | 1983 | eukaryotic translation initiation factor 5 |
| GO | GTPase activity | 12 | 198 | 0.211 | 27289 | Rho family GTPase 1 |
| GO | GTPase activity | 12 | 198 | 0.211 | 2774 | guanine nucleotide binding protein (G protein), alpha activating activity pol |
| GO | GTPase activity | 12 | 198 | 0.211 | 347733 | tubulin, beta 2B |
| GO | GTPase activity | 12 | 198 | 0.211 | 4893 | neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | GTPase activity | 12 | 198 | 0.211 | 51062 | atlastin GTPase 1 |
| GO | GTPase activity | 12 | 198 | 0.211 | 55207 | ADP-ribosylation factor-like 8B |
| GO | GTPase activity | 12 | 198 | 0.211 | 7846 | tubulin, alpha 1a |
| GO | GTPase activity | 12 | 198 | 0.211 | 79861 | tubulin, alpha-like 3 |
| GO | phenylalanine-tRNA ligase activity | 1 | 5 | 0.212 | 10056 | phenylalanyl-tRNA synthetase, beta subunit |
| GO | negative regulation of Rho protein signa | 1 | 5 | 0.212 | 10395 | deleted in liver cancer 1 |
| GO | CRD-mediated mRNA stability complex | 1 | 5 | 0.212 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | CRD-mediated mRNA stabilization | 1 | 5 | 0.212 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | histone pre-mRNA 3'end processing con | 1 | 5 | 0.212 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | dichotomous subdivision of terminal un | 1 | 5 | 0.212 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | outflow tract morphogenesis | 1 | 5 | 0.212 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | negative regulation of cardiac muscle h | 1 | 5 | 0.212 | 10539 | glutaredoxin 3 |
| GO | type 1 angiotensin receptor binding | 1 | 5 | 0.212 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | negative regulation of astrocyte differer | 1 | 5 | 0.212 | 10683 | delta-like 3 (Drosophila) |
| GO | negative regulation of Notch signaling p | 1 | 5 | 0.212 | 10683 | delta-like 3 (Drosophila) |
| GO | epithelial cell-cell adhesion | 1 | 5 | 0.212 | 11149 | blood vessel epicardial substance |
| GO | positive regulation of receptor recycling | 1 | 5 | 0.212 | 11149 | blood vessel epicardial substance |
| GO | transcription-coupled nucleotide-excisic | 1 | 5 | 0.212 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | collagen biosynthetic process | 1 | 5 | 0.212 | 1289 | collagen, type V, alpha 1 |
| GO | positive regulation of triglyceride catab | 1 | 5 | 0.212 | 13 | arylacetylase (esterase) |
| GO | positive regulation of fibroblast growth | 1 | 5 | 0.212 | 143282 | fibroblast growth factor binding protein 3 |

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|----|---|---|---|-------|--------|--|
| GO | vitamin D metabolic process | 1 | 5 | 0.212 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | establishment or maintenance of epithe | 1 | 5 | 0.212 | 166336 | prickle homolog 2 (Drosophila) |
| GO | DNA catabolic process | 1 | 5 | 0.212 | 1775 | deoxyribonuclease I-like 2 |
| GO | dynactin complex | 1 | 5 | 0.212 | 1781 | dynein, cytoplasmic 1, intermediate chain 2 |
| GO | sulfate transmembrane transporter acti | 1 | 5 | 0.212 | 1836 | solute carrier family 26 (sulfate transporter), member 2 |
| GO | peptidyl-lysine modification to hypusine | 1 | 5 | 0.212 | 1984 | eukaryotic translation initiation factor 5A |
| GO | nucleobase, nucleoside, nucleotide kina | 1 | 5 | 0.212 | 203 | adenylate kinase 1 |
| GO | chemorepellent activity | 1 | 5 | 0.212 | 2045 | EPH receptor A7 |
| GO | embryonic camera-type eye developme | 1 | 5 | 0.212 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | embryonic eye morphogenesis | 1 | 5 | 0.212 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | face development | 1 | 5 | 0.212 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | ribonuclease H activity | 1 | 5 | 0.212 | 2237 | flap structure-specific endonuclease 1 |
| GO | fibroblast growth factor receptor activit | 1 | 5 | 0.212 | 2264 | fibroblast growth factor receptor 4 |
| GO | neuronal action potential propagation | 1 | 5 | 0.212 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | protein maturation by protein folding | 1 | 5 | 0.212 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | protein refolding | 1 | 5 | 0.212 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | ryanodine-sensitive calcium-release cha | 1 | 5 | 0.212 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | long-chain fatty acid metabolic process | 1 | 5 | 0.212 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | response to gravity | 1 | 5 | 0.212 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | thiamin pyrophosphate binding | 1 | 5 | 0.212 | 26061 | 2-hydroxyacyl-CoA lyase 1 |
| GO | purine base biosynthetic process | 1 | 5 | 0.212 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | phosphatidylinositol transporter activity | 1 | 5 | 0.212 | 26207 | phosphatidylinositol transfer protein, cytoplasmic 1 |
| GO | dopamine receptor binding | 1 | 5 | 0.212 | 27065 | DNA segment on chromosome 4 (unique) 234 expressed sequence |
| GO | neuron remodeling | 1 | 5 | 0.212 | 27289 | Rho family GTPase 1 |
| GO | motile primary cilium | 1 | 5 | 0.212 | 2736 | GLI family zinc finger 2 |
| GO | spinal cord dorsal/ventral patterning | 1 | 5 | 0.212 | 2736 | GLI family zinc finger 2 |
| GO | regulation of short-term neuronal synap | 1 | 5 | 0.212 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | nerve-nerve synaptic transmission | 1 | 5 | 0.212 | 29767 | tropomodulin 2 (neuronal) |
| GO | neuromuscular process | 1 | 5 | 0.212 | 3236 | homeobox D10 |
| GO | cartilage development involved in endo | 1 | 5 | 0.212 | 3237 | homeobox D11 |
| GO | prostaglandin E receptor activity | 1 | 5 | 0.212 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | negative regulation of lipoprotein lipase | 1 | 5 | 0.212 | 341 | apolipoprotein C-I |
| GO | negative regulation of receptor-mediate | 1 | 5 | 0.212 | 341 | apolipoprotein C-I |
| GO | high-density lipoprotein particle assembl | 1 | 5 | 0.212 | 348 | apolipoprotein E |
| GO | high-density lipoprotein particle clearan | 1 | 5 | 0.212 | 348 | apolipoprotein E |
| GO | lipoprotein biosynthetic process | 1 | 5 | 0.212 | 348 | apolipoprotein E |

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|----|--|---|---|-------|--------|---|
| GO | lipoprotein catabolic process | 1 | 5 | 0.212 | 348 | apolipoprotein E |
| GO | positive regulation of cGMP biosynthesi | 1 | 5 | 0.212 | 348 | apolipoprotein E |
| GO | tau protein binding | 1 | 5 | 0.212 | 348 | apolipoprotein E |
| GO | magnesium ion transport | 1 | 5 | 0.212 | 348938 | NIPA-like domain containing 4 |
| GO | regulation of activin receptor signaling p | 1 | 5 | 0.212 | 3624 | inhibin, beta A |
| GO | peptide hormone receptor binding | 1 | 5 | 0.212 | 3952 | leptin |
| GO | endoderm formation | 1 | 5 | 0.212 | 3975 | LIM homeobox 1 |
| GO | G-protein coupled receptor internalizati | 1 | 5 | 0.212 | 409 | arrestin, beta 2 |
| GO | melanocortin receptor activity | 1 | 5 | 0.212 | 4158 | melanocortin 2 receptor (adrenocorticotropic hormone) |
| GO | MutSalpha complex binding | 1 | 5 | 0.212 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | intra-S DNA damage checkpoint | 1 | 5 | 0.212 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | positive regulation of helicase activity | 1 | 5 | 0.212 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | RNA polymerase binding | 1 | 5 | 0.212 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | forebrain morphogenesis | 1 | 5 | 0.212 | 4763 | neurofibromin 1 |
| GO | myelination in the peripheral nervous sy | 1 | 5 | 0.212 | 4763 | neurofibromin 1 |
| GO | negative regulation of neuroblast prolif | 1 | 5 | 0.212 | 4763 | neurofibromin 1 |
| GO | structural constituent of nuclear pore | 1 | 5 | 0.212 | 4928 | nucleoporin 98kDa |
| GO | eukaryotic initiation factor 4E binding | 1 | 5 | 0.212 | 5015 | orthodenticle homeobox 2 |
| GO | gastric acid secretion | 1 | 5 | 0.212 | 5021 | oxytocin receptor |
| GO | positive regulation of uterine smooth m | 1 | 5 | 0.212 | 5021 | oxytocin receptor |
| GO | sperm ejaculation | 1 | 5 | 0.212 | 5021 | oxytocin receptor |
| GO | vasopressin receptor activity | 1 | 5 | 0.212 | 5021 | oxytocin receptor |
| GO | transepithelial chloride transport | 1 | 5 | 0.212 | 5031 | pyrimidinergic receptor P2Y, G-protein coupled, 6 |
| GO | regulation of receptor activity | 1 | 5 | 0.212 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | protein kinase B binding | 1 | 5 | 0.212 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | proton-transporting two-sector ATPase | 1 | 5 | 0.212 | 528 | ATPase, H+ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | mammary gland branching involved in t | 1 | 5 | 0.212 | 5469 | mediator complex subunit 1 |
| GO | neurotransmitter transporter activity | 1 | 5 | 0.212 | 55117 | solute carrier family 6 (neutral amino acid transporter), member 15 |
| GO | telomerase holoenzyme complex | 1 | 5 | 0.212 | 55135 | WD repeat containing, antisense to TP53 |
| GO | spindle midzone | 1 | 5 | 0.212 | 55207 | ADP-ribosylation factor-like 8B |
| GO | Barr body | 1 | 5 | 0.212 | 55506 | H2A histone family, member Y2 |
| GO | negative regulation of synaptic transmis | 1 | 5 | 0.212 | 590 | butyrylcholinesterase |
| GO | mesenchymal to epithelial transition in | 1 | 5 | 0.212 | 6299 | sal-like 1 (Drosophila) |
| GO | regulation of binding | 1 | 5 | 0.212 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | luteolysis | 1 | 5 | 0.212 | 6586 | slit homolog 3 (Drosophila) |
| GO | regulation of caspase activity | 1 | 5 | 0.212 | 6657 | SRY (sex determining region Y)-box 2 |

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|----|--|---|----|-------|--|
| GO | retina morphogenesis in camera-type eye | 1 | 5 | 0.212 | 6657 SRY (sex determining region Y)-box 2 |
| GO | pro-B cell differentiation | 1 | 5 | 0.212 | 6659 SRY (sex determining region Y)-box 4 |
| GO | negative regulation of cellular component organization | 1 | 5 | 0.212 | 6672 SP100 nuclear antigen |
| GO | microtubule-severing ATPase activity | 1 | 5 | 0.212 | 6683 spastin |
| GO | cellular response to indole-3-methanol | 1 | 5 | 0.212 | 672 breast cancer 1, early onset |
| GO | skeletal muscle thin filament assembly | 1 | 5 | 0.212 | 70 actin, alpha, cardiac muscle 1 |
| GO | response to cholesterol | 1 | 5 | 0.212 | 7046 transforming growth factor, beta receptor 1 |
| GO | response to prostaglandin E stimulus | 1 | 5 | 0.212 | 7046 transforming growth factor, beta receptor 1 |
| GO | oligopeptide transport | 1 | 5 | 0.212 | 729025 solute carrier family 15, member 5 |
| GO | positive regulation of protein complex assembly | 1 | 5 | 0.212 | 7341 SMT3 suppressor of mif two 3 homolog 1 (<i>S. cerevisiae</i>) |
| GO | glomerular basement membrane development | 1 | 5 | 0.212 | 7490 Wilms tumor 1 |
| GO | glomerulus development | 1 | 5 | 0.212 | 7490 Wilms tumor 1 |
| GO | behavioral response to pain | 1 | 5 | 0.212 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | protein serine/threonine phosphatase inhibition | 1 | 5 | 0.212 | 81706 protein phosphatase 1, regulatory (inhibitor) subunit 14C |
| GO | gamma-tubulin complex | 1 | 5 | 0.212 | 8409 ubiquitously-expressed transcript |
| GO | mitochondrion transport along microtubule | 1 | 5 | 0.212 | 8409 ubiquitously-expressed transcript |
| GO | transcription termination | 1 | 5 | 0.212 | 8458 transcription termination factor, RNA polymerase II |
| GO | THO complex part of transcription export | 1 | 5 | 0.212 | 8563 THO complex 5 |
| GO | THO complex | 1 | 5 | 0.212 | 8563 THO complex 5 |
| GO | establishment of planar polarity | 1 | 5 | 0.212 | 8626 tumor protein p63 |
| GO | multicellular organismal aging | 1 | 5 | 0.212 | 8626 tumor protein p63 |
| GO | skin morphogenesis | 1 | 5 | 0.212 | 8626 tumor protein p63 |
| GO | mitotic cell cycle G2/M transition DNA replication | 1 | 5 | 0.212 | 890 cyclin A2 |
| GO | AP-type membrane coat adaptor complex | 1 | 5 | 0.212 | 8905 adaptor-related protein complex 1, sigma 2 subunit |
| GO | regulation of cytoskeleton organization | 1 | 5 | 0.212 | 91624 nexilin (F actin binding protein) |
| GO | regulation of smooth muscle cell differentiation | 1 | 5 | 0.212 | 93649 myocardin |
| GO | NADPH binding | 1 | 5 | 0.212 | 9540 tumor protein p53 inducible protein 3 |
| GO | ligand-gated ion channel activity | 1 | 5 | 0.212 | 9635 chloride channel accessory 2 |
| GO | G2/M transition of mitotic cell cycle | 2 | 19 | 0.22 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | G2/M transition of mitotic cell cycle | 2 | 19 | 0.22 | 332 baculoviral IAP repeat-containing 5 |
| GO | hyaluronic acid binding | 2 | 19 | 0.22 | 145864 hyaluronan and proteoglycan link protein 3 |
| GO | hyaluronic acid binding | 2 | 19 | 0.22 | 26032 sushi domain containing 5 |
| GO | nucleotide-excision repair, DNA damage | 2 | 19 | 0.22 | 1643 damage-specific DNA binding protein 2, 48kDa |
| GO | nucleotide-excision repair, DNA damage | 2 | 19 | 0.22 | 2965 general transcription factor IIH, polypeptide 1, 62kDa |
| GO | base-excision repair | 2 | 19 | 0.22 | 1763 DNA replication helicase 2 homolog (yeast) |
| GO | base-excision repair | 2 | 19 | 0.22 | 4968 8-oxoguanine DNA glycosylase |

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|----|---|---|----|-------|--------|---|
| GO | GABA-A receptor activity | 2 | 19 | 0.22 | 200959 | gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | GABA-A receptor activity | 2 | 19 | 0.22 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | extracellular-glutamate-gated ion chanr | 2 | 19 | 0.22 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | extracellular-glutamate-gated ion chanr | 2 | 19 | 0.22 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | cofactor binding | 2 | 19 | 0.22 | 332 | baculoviral IAP repeat-containing 5 |
| GO | cofactor binding | 2 | 19 | 0.22 | 7298 | thymidylate synthetase |
| GO | cholesterol efflux | 2 | 19 | 0.22 | 341 | apolipoprotein C-I |
| GO | cholesterol efflux | 2 | 19 | 0.22 | 348 | apolipoprotein E |
| GO | T cell differentiation | 2 | 19 | 0.22 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | T cell differentiation | 2 | 19 | 0.22 | 6659 | SRY (sex determining region Y)-box 4 |
| GO | hydrolase activity, acting on acid anhydi | 2 | 19 | 0.22 | 50485 | SWI/SNF related, matrix associated, actin dependent regulator of chromati |
| GO | hydrolase activity, acting on acid anhydi | 2 | 19 | 0.22 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | actin cytoskeleton reorganization | 2 | 19 | 0.22 | 5341 | pleckstrin |
| GO | actin cytoskeleton reorganization | 2 | 19 | 0.22 | 84168 | anthrax toxin receptor 1 |
| GO | vesicle docking involved in exocytosis | 2 | 19 | 0.22 | 5341 | pleckstrin |
| GO | vesicle docking involved in exocytosis | 2 | 19 | 0.22 | 54843 | synaptotagmin-like 2 |
| GO | chromatin organization | 2 | 19 | 0.22 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | chromatin organization | 2 | 19 | 0.22 | 8091 | high mobility group AT-hook 2 |
| GO | negative regulation of adenylate cyclase | 2 | 19 | 0.22 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | negative regulation of adenylate cyclase | 2 | 19 | 0.22 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | extracellular matrix | 3 | 35 | 0.221 | 1289 | collagen, type V, alpha 1 |
| GO | extracellular matrix | 3 | 35 | 0.221 | 1290 | collagen, type V, alpha 2 |
| GO | extracellular matrix | 3 | 35 | 0.221 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | nucleosome | 4 | 52 | 0.221 | 55506 | H2A histone family, member Y2 |
| GO | nucleosome | 4 | 52 | 0.221 | 8348 | histone cluster 1, H2bo |
| GO | nucleosome | 4 | 52 | 0.221 | 8349 | histone cluster 2, H2be |
| GO | nucleosome | 4 | 52 | 0.221 | 8970 | histone cluster 1, H2bj |
| GO | cell-cell adhesion | 5 | 70 | 0.225 | 1008 | cadherin 10, type 2 (T2-cadherin) |
| GO | cell-cell adhesion | 5 | 70 | 0.225 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | cell-cell adhesion | 5 | 70 | 0.225 | 26999 | cytoplasmic FMR1 interacting protein 2 |
| GO | cell-cell adhesion | 5 | 70 | 0.225 | 4867 | nephronophthisis 1 (juvenile) |
| GO | cell-cell adhesion | 5 | 70 | 0.225 | 4897 | neuronal cell adhesion molecule |
| GO | response to ethanol | 5 | 70 | 0.225 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | response to ethanol | 5 | 70 | 0.225 | 348 | apolipoprotein E |
| GO | response to ethanol | 5 | 70 | 0.225 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | response to ethanol | 5 | 70 | 0.225 | 70 | actin, alpha, cardiac muscle 1 |

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|----|------------------------------------|----|-----|-------|--|
| GO | response to ethanol | 5 | 70 | 0.225 | 898 cyclin E1 |
| GO | intracellular signaling pathway | 11 | 182 | 0.226 | 25780 RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | intracellular signaling pathway | 11 | 182 | 0.226 | 26499 pleckstrin 2 |
| GO | intracellular signaling pathway | 11 | 182 | 0.226 | 51676 ankyrin repeat and SOCS box-containing 2 |
| GO | intracellular signaling pathway | 11 | 182 | 0.226 | 5341 pleckstrin |
| GO | intracellular signaling pathway | 11 | 182 | 0.226 | 54210 triggering receptor expressed on myeloid cells 1 |
| GO | intracellular signaling pathway | 11 | 182 | 0.226 | 55789 DEP domain containing 1B |
| GO | intracellular signaling pathway | 11 | 182 | 0.226 | 5588 protein kinase C, theta |
| GO | intracellular signaling pathway | 11 | 182 | 0.226 | 7857 secretogranin II (chromogranin C) |
| GO | intracellular signaling pathway | 11 | 182 | 0.226 | 8835 suppressor of cytokine signaling 2 |
| GO | intracellular signaling pathway | 11 | 182 | 0.226 | 8997 kalirin, RhoGEF kinase |
| GO | intracellular signaling pathway | 11 | 182 | 0.226 | 9744 ArfGAP with coiled-coil, ankyrin repeat and PH domains 1 |
| GO | serine-type endopeptidase activity | 9 | 144 | 0.227 | 132724 transmembrane protease, serine 11B |
| GO | serine-type endopeptidase activity | 9 | 144 | 0.227 | 162494 rhomboid, veinlet-like 3 (Drosophila) |
| GO | serine-type endopeptidase activity | 9 | 144 | 0.227 | 27429 HtrA serine peptidase 2 |
| GO | serine-type endopeptidase activity | 9 | 144 | 0.227 | 344805 transmembrane protease, serine 7 |
| GO | serine-type endopeptidase activity | 9 | 144 | 0.227 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | serine-type endopeptidase activity | 9 | 144 | 0.227 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | serine-type endopeptidase activity | 9 | 144 | 0.227 | 5624 protein C (inactivator of coagulation factors Va and VIIIa) |
| GO | serine-type endopeptidase activity | 9 | 144 | 0.227 | 5654 HtrA serine peptidase 1 |
| GO | serine-type endopeptidase activity | 9 | 144 | 0.227 | 7113 transmembrane protease, serine 2 |
| GO | helicase activity | 7 | 107 | 0.229 | 10212 DEAD (Asp-Glu-Ala-Asp) box polypeptide 39 |
| GO | helicase activity | 7 | 107 | 0.229 | 11056 DEAD (Asp-Glu-Ala-Asp) box polypeptide 52 |
| GO | helicase activity | 7 | 107 | 0.229 | 1763 DNA replication helicase 2 homolog (yeast) |
| GO | helicase activity | 7 | 107 | 0.229 | 641 Bloom syndrome, RecQ helicase-like |
| GO | helicase activity | 7 | 107 | 0.229 | 84083 zinc finger, RAN-binding domain containing 3 |
| GO | helicase activity | 7 | 107 | 0.229 | 8458 transcription termination factor, RNA polymerase II |
| GO | helicase activity | 7 | 107 | 0.229 | 89797 neuron navigator 2 |
| GO | double-strand break repair | 3 | 36 | 0.233 | 2237 flap structure-specific endonuclease 1 |
| GO | double-strand break repair | 3 | 36 | 0.233 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | double-strand break repair | 3 | 36 | 0.233 | 672 breast cancer 1, early onset |
| GO | response to organic substance | 3 | 36 | 0.233 | 2618 phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | response to organic substance | 3 | 36 | 0.233 | 2628 glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | response to organic substance | 3 | 36 | 0.233 | 7037 transferrin receptor (p90, CD71) |
| GO | skeletal muscle tissue development | 3 | 36 | 0.233 | 3236 homeobox D10 |
| GO | skeletal muscle tissue development | 3 | 36 | 0.233 | 4637 myosin, light chain 6, alkali, smooth muscle and non-muscle |

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|----|--|----|-----|-------|--------|--|
| GO | skeletal muscle tissue development | 3 | 36 | 0.233 | 5081 | paired box 7 |
| GO | lamellipodium | 5 | 71 | 0.234 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | lamellipodium | 5 | 71 | 0.234 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | lamellipodium | 5 | 71 | 0.234 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | lamellipodium | 5 | 71 | 0.234 | 26230 | T-cell lymphoma invasion and metastasis 2 |
| GO | lamellipodium | 5 | 71 | 0.234 | 5420 | podocalyxin-like |
| GO | regulation of Rho protein signal transdu | 5 | 71 | 0.234 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | regulation of Rho protein signal transdu | 5 | 71 | 0.234 | 153478 | pleckstrin homology domain containing, family G (with RhoGef domain) me |
| GO | regulation of Rho protein signal transdu | 5 | 71 | 0.234 | 26230 | T-cell lymphoma invasion and metastasis 2 |
| GO | regulation of Rho protein signal transdu | 5 | 71 | 0.234 | 5924 | Ras protein-specific guanine nucleotide-releasing factor 2 |
| GO | regulation of Rho protein signal transdu | 5 | 71 | 0.234 | 8997 | kalirin, RhoGEF kinase |
| GO | transmembrane receptor protein tyrosii | 5 | 71 | 0.234 | 2045 | EPH receptor A7 |
| GO | transmembrane receptor protein tyrosii | 5 | 71 | 0.234 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | transmembrane receptor protein tyrosii | 5 | 71 | 0.234 | 558 | AXL receptor tyrosine kinase |
| GO | transmembrane receptor protein tyrosii | 5 | 71 | 0.234 | 5795 | protein tyrosine phosphatase, receptor type, J |
| GO | transmembrane receptor protein tyrosii | 5 | 71 | 0.234 | 7010 | TEK tyrosine kinase, endothelial |
| GO | spermatogenesis | 15 | 261 | 0.234 | 10656 | KH domain containing, RNA binding, signal transduction associated 3 |
| GO | spermatogenesis | 15 | 261 | 0.234 | 11077 | heat shock transcription factor 2 binding protein |
| GO | spermatogenesis | 15 | 261 | 0.234 | 132671 | spermatogenesis associated 18 homolog (rat) |
| GO | spermatogenesis | 15 | 261 | 0.234 | 132851 | spermatogenesis associated 4 |
| GO | spermatogenesis | 15 | 261 | 0.234 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | spermatogenesis | 15 | 261 | 0.234 | 23705 | cell adhesion molecule 1 |
| GO | spermatogenesis | 15 | 261 | 0.234 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | spermatogenesis | 15 | 261 | 0.234 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | spermatogenesis | 15 | 261 | 0.234 | 53340 | sperm autoantigenic protein 17 |
| GO | spermatogenesis | 15 | 261 | 0.234 | 54993 | zinc finger and SCAN domain containing 2 |
| GO | spermatogenesis | 15 | 261 | 0.234 | 56852 | RAD18 homolog (S. cerevisiae) |
| GO | spermatogenesis | 15 | 261 | 0.234 | 5889 | RAD51 homolog C (S. cerevisiae) |
| GO | spermatogenesis | 15 | 261 | 0.234 | 60675 | prokineticin 2 |
| GO | spermatogenesis | 15 | 261 | 0.234 | 6662 | SRY (sex determining region Y)-box 9 |
| GO | spermatogenesis | 15 | 261 | 0.234 | 8626 | tumor protein p63 |
| GO | connexon complex | 2 | 20 | 0.237 | 10052 | gap junction protein, gamma 1, 45kDa |
| GO | connexon complex | 2 | 20 | 0.237 | 127534 | gap junction protein, beta 4, 30.3kDa |
| GO | neural crest cell migration | 2 | 20 | 0.237 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | neural crest cell migration | 2 | 20 | 0.237 | 9839 | zinc finger E-box binding homeobox 2 |
| GO | hippocampus development | 2 | 20 | 0.237 | 1746 | distal-less homeobox 2 |

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|----|---|---|-----|-------|--|
| GO | hippocampus development | 2 | 20 | 0.237 | 9839 zinc finger E-box binding homeobox 2 |
| GO | response to amphetamine | 2 | 20 | 0.237 | 1787 tRNA aspartic acid methyltransferase 1 |
| GO | response to amphetamine | 2 | 20 | 0.237 | 5021 oxytocin receptor |
| GO | L-ascorbic acid binding | 2 | 20 | 0.237 | 283208 prolyl 4-hydroxylase, alpha polypeptide III |
| GO | L-ascorbic acid binding | 2 | 20 | 0.237 | 5264 phytanoyl-CoA 2-hydroxylase |
| GO | positive regulation of protein kinase B s | 2 | 20 | 0.237 | 7010 TEK tyrosine kinase, endothelial |
| GO | positive regulation of protein kinase B s | 2 | 20 | 0.237 | 7046 transforming growth factor, beta receptor 1 |
| GO | protein C-terminus binding | 9 | 146 | 0.238 | 10055 SUMO1 activating enzyme subunit 1 |
| GO | protein C-terminus binding | 9 | 146 | 0.238 | 10612 tripartite motif-containing 3 |
| GO | protein C-terminus binding | 9 | 146 | 0.238 | 23705 cell adhesion molecule 1 |
| GO | protein C-terminus binding | 9 | 146 | 0.238 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | protein C-terminus binding | 9 | 146 | 0.238 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | protein C-terminus binding | 9 | 146 | 0.238 | 5494 protein phosphatase, Mg2+/Mn2+ dependent, 1A |
| GO | protein C-terminus binding | 9 | 146 | 0.238 | 55137 fidgetin |
| GO | protein C-terminus binding | 9 | 146 | 0.238 | 667 dystonin |
| GO | protein C-terminus binding | 9 | 146 | 0.238 | 8777 multiple PDZ domain protein |
| GO | proton transport | 4 | 54 | 0.241 | 479 ATPase, H+/K+ transporting, nongastric, alpha polypeptide |
| GO | proton transport | 4 | 54 | 0.241 | 51382 ATPase, H+ transporting, lysosomal 34kDa, V1 subunit D |
| GO | proton transport | 4 | 54 | 0.241 | 516 ATP synthase, H+ transporting, mitochondrial F0 complex, subunit C1 (subu |
| GO | proton transport | 4 | 54 | 0.241 | 528 ATPase, H+ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | tight junction | 5 | 72 | 0.242 | 11149 blood vessel epicardial substance |
| GO | tight junction | 5 | 72 | 0.242 | 23562 claudin 14 |
| GO | tight junction | 5 | 72 | 0.242 | 84552 par-6 partitioning defective 6 homolog gamma (C. elegans) |
| GO | tight junction | 5 | 72 | 0.242 | 8777 multiple PDZ domain protein |
| GO | tight junction | 5 | 72 | 0.242 | 9076 claudin 1 |
| GO | cartilage development | 3 | 37 | 0.246 | 1746 distal-less homeobox 2 |
| GO | cartilage development | 3 | 37 | 0.246 | 25884 chordin-like 2 |
| GO | cartilage development | 3 | 37 | 0.246 | 5081 paired box 7 |
| GO | NAD or NADH binding | 3 | 37 | 0.246 | 23171 glycerol-3-phosphate dehydrogenase 1-like |
| GO | NAD or NADH binding | 3 | 37 | 0.246 | 3028 hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | NAD or NADH binding | 3 | 37 | 0.246 | 3248 hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | podosome | 1 | 6 | 0.248 | 10096 ARP3 actin-related protein 3 homolog (yeast) |
| GO | pre-snoRNP complex | 1 | 6 | 0.248 | 10528 NOP56 ribonucleoprotein homolog (yeast) |
| GO | paraxial mesoderm development | 1 | 6 | 0.248 | 10683 delta-like 3 (Drosophila) |
| GO | activation of transmembrane receptor ρ | 1 | 6 | 0.248 | 1136 cholinergic receptor, nicotinic, alpha 3 |
| GO | maintenance of gastrointestinal epitheli | 1 | 6 | 0.248 | 12 serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), me |

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|----|--|---|---|-------|--------|---|
| GO | poly(U) RNA binding | 1 | 6 | 0.248 | 124540 | musashi homolog 2 (Drosophila) |
| GO | assembly of spliceosomal tri-snRNP | 1 | 6 | 0.248 | 135295 | splicing factor, arginine/serine-rich 13B |
| GO | RS domain binding | 1 | 6 | 0.248 | 135295 | splicing factor, arginine/serine-rich 13B |
| GO | protein neddylation | 1 | 6 | 0.248 | 140739 | ubiquitin-conjugating enzyme E2F (putative) |
| GO | fucose metabolic process | 1 | 6 | 0.248 | 145173 | beta 1,3-galactosyltransferase-like |
| GO | amine metabolic process | 1 | 6 | 0.248 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | mitochondrial DNA replication | 1 | 6 | 0.248 | 1763 | DNA replication helicase 2 homolog (yeast) |
| GO | S-adenosylhomocysteine metabolic process | 1 | 6 | 0.248 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | endothelial cell differentiation | 1 | 6 | 0.248 | 182 | jagged 1 (Alagille syndrome) |
| GO | aldehyde dehydrogenase [NAD(P)+] activity | 1 | 6 | 0.248 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | retinoic acid metabolic process | 1 | 6 | 0.248 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | 5'-3' exonuclease activity | 1 | 6 | 0.248 | 2237 | flap structure-specific endonuclease 1 |
| GO | regulation of ryanodine-sensitive calcium release | 1 | 6 | 0.248 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | response to redox state | 1 | 6 | 0.248 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | regulation of Ras protein signal transduction | 1 | 6 | 0.248 | 2305 | forkhead box M1 |
| GO | juxtaparanode region of axon | 1 | 6 | 0.248 | 23136 | erythrocyte membrane protein band 4.1-like 3 |
| GO | aminomethyltransferase activity | 1 | 6 | 0.248 | 2653 | glycine cleavage system protein H (aminomethyl carrier) |
| GO | lipoic acid binding | 1 | 6 | 0.248 | 2653 | glycine cleavage system protein H (aminomethyl carrier) |
| GO | glutathione binding | 1 | 6 | 0.248 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | negative regulation of synaptic transmission | 1 | 6 | 0.248 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | regulation of inhibitory postsynaptic membrane potential | 1 | 6 | 0.248 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | N-methyl-D-aspartate selective glutamate receptor activity | 1 | 6 | 0.248 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | startle response | 1 | 6 | 0.248 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | glucocorticoid receptor binding | 1 | 6 | 0.248 | 29893 | PSMC3 interacting protein |
| GO | Leydig cell differentiation | 1 | 6 | 0.248 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | forelimb morphogenesis | 1 | 6 | 0.248 | 3236 | homeobox D10 |
| GO | hindlimb morphogenesis | 1 | 6 | 0.248 | 3236 | homeobox D10 |
| GO | parturition | 1 | 6 | 0.248 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | very-low-density lipoprotein particle assembly | 1 | 6 | 0.248 | 341 | apolipoprotein C-I |
| GO | extrinsic to external side of plasma membrane | 1 | 6 | 0.248 | 348 | apolipoprotein E |
| GO | negative regulation of platelet activation | 1 | 6 | 0.248 | 348 | apolipoprotein E |
| GO | very-low-density lipoprotein particle reassembly | 1 | 6 | 0.248 | 348 | apolipoprotein E |
| GO | interleukin-1 receptor antagonist activity | 1 | 6 | 0.248 | 3557 | interleukin 1 receptor antagonist |
| GO | pre-microRNA processing | 1 | 6 | 0.248 | 389421 | lin-28 homolog B (C. elegans) |
| GO | regulation of steroid biosynthetic process | 1 | 6 | 0.248 | 3952 | leptin |
| GO | centromeric DNA binding | 1 | 6 | 0.248 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |

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|----|---|---|---|-------|---|
| GO | MutLalpha complex binding | 1 | 6 | 0.248 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | cellular response to UV | 1 | 6 | 0.248 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | glucocorticoid receptor signaling pathw | 1 | 6 | 0.248 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | regulation of synaptic transmission, GAT | 1 | 6 | 0.248 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | striated muscle cell differentiation | 1 | 6 | 0.248 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | positive regulation of synaptic transmis | 1 | 6 | 0.248 | 5021 oxytocin receptor |
| GO | positive regulation of synaptogenesis | 1 | 6 | 0.248 | 5021 oxytocin receptor |
| GO | DNA damage response, signal transduct | 1 | 6 | 0.248 | 51499 TP53 regulated inhibitor of apoptosis 1 |
| GO | proton-transporting ATP synthase comp | 1 | 6 | 0.248 | 516 ATP synthase, H ⁺ transporting, mitochondrial F0 complex, subunit C1 (subu |
| GO | negative regulation of G-protein couple | 1 | 6 | 0.248 | 5341 pleckstrin |
| GO | histone mRNA 3'-end processing | 1 | 6 | 0.248 | 53981 cleavage and polyadenylation specific factor 2, 100kDa |
| GO | exocytic vesicle | 1 | 6 | 0.248 | 54843 synaptotagmin-like 2 |
| GO | neurexin binding | 1 | 6 | 0.248 | 54843 synaptotagmin-like 2 |
| GO | drug transmembrane transporter activit | 1 | 6 | 0.248 | 55244 solute carrier family 47, member 1 |
| GO | alpha DNA polymerase:primase comple | 1 | 6 | 0.248 | 5558 primase, DNA, polypeptide 2 (58kDa) |
| GO | phospholipid homeostasis | 1 | 6 | 0.248 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | response to fructose stimulus | 1 | 6 | 0.248 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | apical cortex | 1 | 6 | 0.248 | 57817 hepcidin antimicrobial peptide |
| GO | negative regulation of survival gene pro | 1 | 6 | 0.248 | 581 BCL2-associated X protein |
| GO | nuclear envelope lumen | 1 | 6 | 0.248 | 590 butyrylcholinesterase |
| GO | vitamin A metabolic process | 1 | 6 | 0.248 | 5947 retinol binding protein 1, cellular |
| GO | transition metal ion binding | 1 | 6 | 0.248 | 6241 ribonucleotide reductase M2 |
| GO | lymphocyte chemotaxis | 1 | 6 | 0.248 | 6347 chemokine (C-C motif) ligand 2 |
| GO | prostate epithelial cord arborization inv | 1 | 6 | 0.248 | 6422 secreted frizzled-related protein 1 |
| GO | regulation of branching involved in pros | 1 | 6 | 0.248 | 6422 secreted frizzled-related protein 1 |
| GO | protein insertion into membrane | 1 | 6 | 0.248 | 65055 receptor accessory protein 1 |
| GO | positive regulation of BMP signaling pat | 1 | 6 | 0.248 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | tongue development | 1 | 6 | 0.248 | 6657 SRY (sex determining region Y)-box 2 |
| GO | exocrine pancreas development | 1 | 6 | 0.248 | 6659 SRY (sex determining region Y)-box 4 |
| GO | chromo shadow domain binding | 1 | 6 | 0.248 | 6672 SP100 nuclear antigen |
| GO | erythrocyte development | 1 | 6 | 0.248 | 669 2,3-bisphosphoglycerate mutase |
| GO | SMAD protein nuclear translocation | 1 | 6 | 0.248 | 6711 spectrin, beta, non-erythrocytic 1 |
| GO | gamma-tubulin ring complex | 1 | 6 | 0.248 | 672 breast cancer 1, early onset |
| GO | G-protein coupled photoreceptor activit | 1 | 6 | 0.248 | 6785 elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like |
| GO | cardiac muscle tissue morphogenesis | 1 | 6 | 0.248 | 70 actin, alpha, cardiac muscle 1 |
| GO | response to manganese ion | 1 | 6 | 0.248 | 7037 transferrin receptor (p90, CD71) |

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|----|---|----|-----|-------|--|
| GO | cell motility | 1 | 6 | 0.248 | 7046 transforming growth factor, beta receptor 1 |
| GO | germ cell migration | 1 | 6 | 0.248 | 7046 transforming growth factor, beta receptor 1 |
| GO | store-operated calcium channel activity | 1 | 6 | 0.248 | 7220 transient receptor potential cation channel, subfamily C, member 1 |
| GO | sex determination | 1 | 6 | 0.248 | 7490 Wilms tumor 1 |
| GO | spinal cord motor neuron differentiatio | 1 | 6 | 0.248 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | DNA packaging | 1 | 6 | 0.248 | 8520 histone acetyltransferase 1 |
| GO | epithelial cell development | 1 | 6 | 0.248 | 8626 tumor protein p63 |
| GO | prostate gland development | 1 | 6 | 0.248 | 8626 tumor protein p63 |
| GO | proline biosynthetic process | 1 | 6 | 0.248 | 8659 aldehyde dehydrogenase 4 family, member A1 |
| GO | response to glucagon stimulus | 1 | 6 | 0.248 | 890 cyclin A2 |
| GO | glycoprotein biosynthetic process | 1 | 6 | 0.248 | 9215 like-glycosyltransferase |
| GO | Notch receptor processing | 1 | 6 | 0.248 | 92737 delta/notch-like EGF repeat containing |
| GO | bicarbonate transport | 1 | 6 | 0.248 | 9497 solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | response to toxin | 4 | 55 | 0.252 | 10202 dehydrogenase/reductase (SDR family) member 2 |
| GO | response to toxin | 4 | 55 | 0.252 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | response to toxin | 4 | 55 | 0.252 | 581 BCL2-associated X protein |
| GO | response to toxin | 4 | 55 | 0.252 | 7046 transforming growth factor, beta receptor 1 |
| GO | post-embryonic development | 4 | 55 | 0.252 | 10512 sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | post-embryonic development | 4 | 55 | 0.252 | 3975 LIM homeobox 1 |
| GO | post-embryonic development | 4 | 55 | 0.252 | 7046 transforming growth factor, beta receptor 1 |
| GO | post-embryonic development | 4 | 55 | 0.252 | 8788 delta-like 1 homolog (Drosophila) |
| GO | ossification | 4 | 55 | 0.252 | 1290 collagen, type V, alpha 2 |
| GO | ossification | 4 | 55 | 0.252 | 1836 solute carrier family 26 (sulfate transporter), member 2 |
| GO | ossification | 4 | 55 | 0.252 | 25884 chordin-like 2 |
| GO | ossification | 4 | 55 | 0.252 | 9260 PDZ and LIM domain 7 (enigma) |
| GO | transforming growth factor beta recepti | 4 | 55 | 0.252 | 3248 hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | transforming growth factor beta recepti | 4 | 55 | 0.252 | 409 arrestin, beta 2 |
| GO | transforming growth factor beta recepti | 4 | 55 | 0.252 | 6347 chemokine (C-C motif) ligand 2 |
| GO | transforming growth factor beta recepti | 4 | 55 | 0.252 | 7046 transforming growth factor, beta receptor 1 |
| GO | signal transducer activity | 16 | 285 | 0.252 | 10672 guanine nucleotide binding protein (G protein), alpha 13 |
| GO | signal transducer activity | 16 | 285 | 0.252 | 25780 RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | signal transducer activity | 16 | 285 | 0.252 | 2774 guanine nucleotide binding protein (G protein), alpha activating activity pol |
| GO | signal transducer activity | 16 | 285 | 0.252 | 2786 guanine nucleotide binding protein (G protein), gamma 4 |
| GO | signal transducer activity | 16 | 285 | 0.252 | 355 Fas (TNF receptor superfamily, member 6) |
| GO | signal transducer activity | 16 | 285 | 0.252 | 3624 inhibin, beta A |
| GO | signal transducer activity | 16 | 285 | 0.252 | 406 aryl hydrocarbon receptor nuclear translocator-like |

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|----|--|----|-----|-------|--------|---|
| GO | signal transducer activity | 16 | 285 | 0.252 | 54331 | guanine nucleotide binding protein (G protein), gamma 2 |
| GO | signal transducer activity | 16 | 285 | 0.252 | 5494 | protein phosphatase, Mg2+/Mn2+ dependent, 1A |
| GO | signal transducer activity | 16 | 285 | 0.252 | 59345 | guanine nucleotide binding protein (G protein), beta polypeptide 4 |
| GO | signal transducer activity | 16 | 285 | 0.252 | 6000 | regulator of G-protein signaling 7 |
| GO | signal transducer activity | 16 | 285 | 0.252 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | signal transducer activity | 16 | 285 | 0.252 | 7481 | wingless-type MMTV integration site family, member 11 |
| GO | signal transducer activity | 16 | 285 | 0.252 | 81029 | wingless-type MMTV integration site family, member 5B |
| GO | signal transducer activity | 16 | 285 | 0.252 | 84668 | family with sequence similarity 126, member A |
| GO | signal transducer activity | 16 | 285 | 0.252 | 8490 | regulator of G-protein signaling 5 |
| GO | calcium-dependent phospholipid bindin | 2 | 21 | 0.255 | 27445 | piccolo (presynaptic cytomatrix protein) |
| GO | calcium-dependent phospholipid bindin | 2 | 21 | 0.255 | 309 | annexin A6 |
| GO | ventricular cardiac muscle tissue morph | 2 | 21 | 0.255 | 7137 | troponin I type 3 (cardiac) |
| GO | ventricular cardiac muscle tissue morph | 2 | 21 | 0.255 | 7168 | tropomyosin 1 (alpha) |
| GO | Wnt receptor signaling pathway, calciur | 2 | 21 | 0.255 | 7481 | wingless-type MMTV integration site family, member 11 |
| GO | Wnt receptor signaling pathway, calciur | 2 | 21 | 0.255 | 81029 | wingless-type MMTV integration site family, member 5B |
| GO | transferase activity, transferring glycosy | 9 | 149 | 0.257 | 11226 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | transferase activity, transferring glycosy | 9 | 149 | 0.257 | 11227 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | transferase activity, transferring glycosy | 9 | 149 | 0.257 | 114805 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | transferase activity, transferring glycosy | 9 | 149 | 0.257 | 145173 | beta 1,3-galactosyltransferase-like |
| GO | transferase activity, transferring glycosy | 9 | 149 | 0.257 | 64131 | xylosyltransferase I |
| GO | transferase activity, transferring glycosy | 9 | 149 | 0.257 | 79623 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | transferase activity, transferring glycosy | 9 | 149 | 0.257 | 79712 | glycosyltransferase-like domain containing 1 |
| GO | transferase activity, transferring glycosy | 9 | 149 | 0.257 | 84752 | UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 9 |
| GO | transferase activity, transferring glycosy | 9 | 149 | 0.257 | 9215 | like-glycosyltransferase |
| GO | response to mechanical stimulus | 3 | 38 | 0.258 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |
| GO | response to mechanical stimulus | 3 | 38 | 0.258 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | response to mechanical stimulus | 3 | 38 | 0.258 | 7078 | TIMP metalloproteinase inhibitor 3 |
| GO | antiporter activity | 3 | 38 | 0.258 | 55244 | solute carrier family 47, member 1 |
| GO | antiporter activity | 3 | 38 | 0.258 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | antiporter activity | 3 | 38 | 0.258 | 6549 | solute carrier family 9 (sodium/hydrogen exchanger), member 2 |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 10000 | v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 132158 | glycerate kinase |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 1716 | deoxyguanosine kinase |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 2045 | EPH receptor A7 |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 2242 | feline sarcoma oncogene |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 2264 | fibroblast growth factor receptor 4 |

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|----|------------------------------------|----|-----|-------|--|
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 2533 FYN binding protein (FYB-120/130) |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 27330 ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 283455 kinase suppressor of ras 2 |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 558 AXL receptor tyrosine kinase |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 5588 protein kinase C, theta |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 57144 p21 protein (Cdc42/Rac)-activated kinase 7 |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 5754 PTK7 protein tyrosine kinase 7 |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 6347 chemokine (C-C motif) ligand 2 |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 7010 TEK tyrosine kinase, endothelial |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 7046 transforming growth factor, beta receptor 1 |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 84206 mex-3 homolog B (C. elegans) |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 8536 calcium/calmodulin-dependent protein kinase I |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 8997 kalirin, RhoGEF kinase |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 9262 serine/threonine kinase 17b |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 9448 mitogen-activated protein kinase kinase kinase kinase 4 |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 9535 glia maturation factor, gamma |
| GO | protein amino acid phosphorylation | 26 | 488 | 0.262 | 9833 maternal embryonic leucine zipper kinase |
| GO | GTP binding | 19 | 347 | 0.262 | 10123 ADP-ribosylation factor-like 4C |
| GO | GTP binding | 19 | 347 | 0.262 | 10672 guanine nucleotide binding protein (G protein), alpha 13 |
| GO | GTP binding | 19 | 347 | 0.262 | 10890 RAB10, member RAS oncogene family |
| GO | GTP binding | 19 | 347 | 0.262 | 121268 Ras homolog enriched in brain like 1 |
| GO | GTP binding | 19 | 347 | 0.262 | 1983 eukaryotic translation initiation factor 5 |
| GO | GTP binding | 19 | 347 | 0.262 | 23157 septin 6 |
| GO | GTP binding | 19 | 347 | 0.262 | 27289 Rho family GTPase 1 |
| GO | GTP binding | 19 | 347 | 0.262 | 2774 guanine nucleotide binding protein (G protein), alpha activating activity pol |
| GO | GTP binding | 19 | 347 | 0.262 | 347733 tubulin, beta 2B |
| GO | GTP binding | 19 | 347 | 0.262 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | GTP binding | 19 | 347 | 0.262 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | GTP binding | 19 | 347 | 0.262 | 51062 atlastin GTPase 1 |
| GO | GTP binding | 19 | 347 | 0.262 | 55207 ADP-ribosylation factor-like 8B |
| GO | GTP binding | 19 | 347 | 0.262 | 55752 septin 11 |
| GO | GTP binding | 19 | 347 | 0.262 | 6242 rhotekin |
| GO | GTP binding | 19 | 347 | 0.262 | 7846 tubulin, alpha 1a |

| | | | | | |
|----|----------------------|----|------|-------|---|
| GO | GTP binding | 19 | 347 | 0.262 | 79861 tubulin, alpha-like 3 |
| GO | GTP binding | 19 | 347 | 0.262 | 83871 RAB34, member RAS oncogene family |
| GO | GTP binding | 19 | 347 | 0.262 | 9732 dedicator of cytokinesis 4 |
| GO | transferase activity | 57 | 1127 | 0.268 | 10000 v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) |
| GO | transferase activity | 57 | 1127 | 0.268 | 131965 methyltransferase like 6 |
| GO | transferase activity | 57 | 1127 | 0.268 | 132158 glycerate kinase |
| GO | transferase activity | 57 | 1127 | 0.268 | 149281 methyltransferase like 11B |
| GO | transferase activity | 57 | 1127 | 0.268 | 157570 establishment of cohesion 1 homolog 2 (<i>S. cerevisiae</i>) |
| GO | transferase activity | 57 | 1127 | 0.268 | 1716 deoxyguanosine kinase |
| GO | transferase activity | 57 | 1127 | 0.268 | 1787 tRNA aspartic acid methyltransferase 1 |
| GO | transferase activity | 57 | 1127 | 0.268 | 1788 DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | transferase activity | 57 | 1127 | 0.268 | 1841 deoxythymidylate kinase (thymidylate kinase) |
| GO | transferase activity | 57 | 1127 | 0.268 | 203 adenylate kinase 1 |
| GO | transferase activity | 57 | 1127 | 0.268 | 2045 EPH receptor A7 |
| GO | transferase activity | 57 | 1127 | 0.268 | 221357 glutathione S-transferase alpha 5 |
| GO | transferase activity | 57 | 1127 | 0.268 | 2242 feline sarcoma oncogene |
| GO | transferase activity | 57 | 1127 | 0.268 | 2264 fibroblast growth factor receptor 4 |
| GO | transferase activity | 57 | 1127 | 0.268 | 23057 nicotinamide nucleotide adenylyltransferase 2 |
| GO | transferase activity | 57 | 1127 | 0.268 | 2321 fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor) |
| GO | transferase activity | 57 | 1127 | 0.268 | 23590 prenyl (decaprenyl) diphosphate synthase, subunit 1 |
| GO | transferase activity | 57 | 1127 | 0.268 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | transferase activity | 57 | 1127 | 0.268 | 25885 polymerase (RNA) I polypeptide A, 194kDa |
| GO | transferase activity | 57 | 1127 | 0.268 | 2618 phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | transferase activity | 57 | 1127 | 0.268 | 2628 glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | transferase activity | 57 | 1127 | 0.268 | 27330 ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | transferase activity | 57 | 1127 | 0.268 | 283209 phosphoglucomutase 2-like 1 |
| GO | transferase activity | 57 | 1127 | 0.268 | 29922 non-metastatic cells 7, protein expressed in (nucleoside-diphosphate kinase) |
| GO | transferase activity | 57 | 1127 | 0.268 | 3157 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) |
| GO | transferase activity | 57 | 1127 | 0.268 | 3276 protein arginine methyltransferase 1 |
| GO | transferase activity | 57 | 1127 | 0.268 | 345630 fibrillarin-like 1 |
| GO | transferase activity | 57 | 1127 | 0.268 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | transferase activity | 57 | 1127 | 0.268 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | transferase activity | 57 | 1127 | 0.268 | 5110 protein-L-isoaspartate (D-aspartate) O-methyltransferase |
| GO | transferase activity | 57 | 1127 | 0.268 | 54822 transient receptor potential cation channel, subfamily M, member 7 |
| GO | transferase activity | 57 | 1127 | 0.268 | 55577 N-acetylglucosamine kinase |
| GO | transferase activity | 57 | 1127 | 0.268 | 5558 primase, DNA, polypeptide 2 (58kDa) |

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|----|-------------------------|----|------|-------|--------|--|
| GO | transferase activity | 57 | 1127 | 0.268 | 558 | AXL receptor tyrosine kinase |
| GO | transferase activity | 57 | 1127 | 0.268 | 5588 | protein kinase C, theta |
| GO | transferase activity | 57 | 1127 | 0.268 | 56339 | methyltransferase like 3 |
| GO | transferase activity | 57 | 1127 | 0.268 | 56655 | polymerase (DNA-directed), epsilon 4 (p12 subunit) |
| GO | transferase activity | 57 | 1127 | 0.268 | 57144 | p21 protein (Cdc42/Rac)-activated kinase 7 |
| GO | transferase activity | 57 | 1127 | 0.268 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | transferase activity | 57 | 1127 | 0.268 | 5833 | phosphate cytidyltransferase 2, ethanolamine |
| GO | transferase activity | 57 | 1127 | 0.268 | 586 | branched chain aminotransferase 1, cytosolic |
| GO | transferase activity | 57 | 1127 | 0.268 | 64080 | ribokinase |
| GO | transferase activity | 57 | 1127 | 0.268 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | transferase activity | 57 | 1127 | 0.268 | 6820 | sulfotransferase family, cytosolic, 2B, member 1 |
| GO | transferase activity | 57 | 1127 | 0.268 | 7010 | TEK tyrosine kinase, endothelial |
| GO | transferase activity | 57 | 1127 | 0.268 | 7046 | transforming growth factor, beta receptor 1 |
| GO | transferase activity | 57 | 1127 | 0.268 | 7298 | thymidylate synthetase |
| GO | transferase activity | 57 | 1127 | 0.268 | 79646 | pantothenate kinase 3 |
| GO | transferase activity | 57 | 1127 | 0.268 | 84172 | polymerase (RNA) I polypeptide B, 128kDa |
| GO | transferase activity | 57 | 1127 | 0.268 | 8520 | histone acetyltransferase 1 |
| GO | transferase activity | 57 | 1127 | 0.268 | 8536 | calcium/calmodulin-dependent protein kinase I |
| GO | transferase activity | 57 | 1127 | 0.268 | 8997 | kalirin, RhoGEF kinase |
| GO | transferase activity | 57 | 1127 | 0.268 | 91801 | alkB, alkylation repair homolog 8 (E. coli) |
| GO | transferase activity | 57 | 1127 | 0.268 | 9262 | serine/threonine kinase 17b |
| GO | transferase activity | 57 | 1127 | 0.268 | 9448 | mitogen-activated protein kinase kinase kinase kinase 4 |
| GO | transferase activity | 57 | 1127 | 0.268 | 9653 | heparan sulfate 2-O-sulfotransferase 1 |
| GO | transferase activity | 57 | 1127 | 0.268 | 9833 | maternal embryonic leucine zipper kinase |
| GO | ion channel activity | 9 | 151 | 0.269 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | ion channel activity | 9 | 151 | 0.269 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | ion channel activity | 9 | 151 | 0.269 | 200959 | gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | ion channel activity | 9 | 151 | 0.269 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | ion channel activity | 9 | 151 | 0.269 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | ion channel activity | 9 | 151 | 0.269 | 5026 | purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | ion channel activity | 9 | 151 | 0.269 | 54822 | transient receptor potential cation channel, subfamily M, member 7 |
| GO | ion channel activity | 9 | 151 | 0.269 | 55283 | mucolipin 3 |
| GO | ion channel activity | 9 | 151 | 0.269 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | potassium ion transport | 9 | 151 | 0.269 | 283518 | potassium channel regulator |
| GO | potassium ion transport | 9 | 151 | 0.269 | 3751 | potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | potassium ion transport | 9 | 151 | 0.269 | 3754 | potassium voltage-gated channel, subfamily F, member 1 |

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|----|--------------------------------------|---|-----|-------|-------|---|
| GO | potassium ion transport | 9 | 151 | 0.269 | 3756 | potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | potassium ion transport | 9 | 151 | 0.269 | 3763 | potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | potassium ion transport | 9 | 151 | 0.269 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | potassium ion transport | 9 | 151 | 0.269 | 479 | ATPase, H+/K+ transporting, nongastric, alpha polypeptide |
| GO | potassium ion transport | 9 | 151 | 0.269 | 56479 | potassium voltage-gated channel, KQT-like subfamily, member 5 |
| GO | potassium ion transport | 9 | 151 | 0.269 | 6833 | ATP-binding cassette, sub-family C (CFTR/MRP), member 8 |
| GO | epithelial cell differentiation | 3 | 39 | 0.271 | 1282 | collagen, type IV, alpha 1 |
| GO | epithelial cell differentiation | 3 | 39 | 0.271 | 7348 | uroplakin 1B |
| GO | epithelial cell differentiation | 3 | 39 | 0.271 | 7490 | Wilms tumor 1 |
| GO | intracellular protein kinase cascade | 6 | 94 | 0.271 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | intracellular protein kinase cascade | 6 | 94 | 0.271 | 2533 | FYN binding protein (FYB-120/130) |
| GO | intracellular protein kinase cascade | 6 | 94 | 0.271 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | intracellular protein kinase cascade | 6 | 94 | 0.271 | 27330 | ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | intracellular protein kinase cascade | 6 | 94 | 0.271 | 9262 | serine/threonine kinase 17b |
| GO | intracellular protein kinase cascade | 6 | 94 | 0.271 | 9448 | mitogen-activated protein kinase kinase kinase kinase 4 |
| GO | muscle organ development | 6 | 94 | 0.271 | 11149 | blood vessel epicardial substance |
| GO | muscle organ development | 6 | 94 | 0.271 | 2273 | four and a half LIM domains 1 |
| GO | muscle organ development | 6 | 94 | 0.271 | 22801 | integrin, alpha 11 |
| GO | muscle organ development | 6 | 94 | 0.271 | 6442 | sarcoglycan, alpha (50kDa dystrophin-associated glycoprotein) |
| GO | muscle organ development | 6 | 94 | 0.271 | 6444 | sarcoglycan, delta (35kDa dystrophin-associated glycoprotein) |
| GO | muscle organ development | 6 | 94 | 0.271 | 6525 | smoothelin |
| GO | endonuclease activity | 4 | 57 | 0.272 | 1775 | deoxyribonuclease I-like 2 |
| GO | endonuclease activity | 4 | 57 | 0.272 | 2237 | flap structure-specific endonuclease 1 |
| GO | endonuclease activity | 4 | 57 | 0.272 | 4968 | 8-oxoguanine DNA glycosylase |
| GO | endonuclease activity | 4 | 57 | 0.272 | 84083 | zinc finger, RAN-binding domain containing 3 |
| GO | response to glucose stimulus | 4 | 57 | 0.272 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | response to glucose stimulus | 4 | 57 | 0.272 | 5588 | protein kinase C, theta |
| GO | response to glucose stimulus | 4 | 57 | 0.272 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | response to glucose stimulus | 4 | 57 | 0.272 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | regulation of cell growth | 4 | 57 | 0.272 | 2305 | forkhead box M1 |
| GO | regulation of cell growth | 4 | 57 | 0.272 | 5588 | protein kinase C, theta |
| GO | regulation of cell growth | 4 | 57 | 0.272 | 5654 | HtrA serine peptidase 1 |
| GO | regulation of cell growth | 4 | 57 | 0.272 | 8835 | suppressor of cytokine signaling 2 |
| GO | liver development | 4 | 57 | 0.272 | 23705 | cell adhesion molecule 1 |
| GO | liver development | 4 | 57 | 0.272 | 4763 | neurofibromin 1 |
| GO | liver development | 4 | 57 | 0.272 | 5469 | mediator complex subunit 1 |

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|----|--|----|-----|-------|--------|---|
| GO | liver development | 4 | 57 | 0.272 | 898 | cyclin E1 |
| GO | placenta development | 2 | 22 | 0.272 | 1045 | caudal type homeobox 2 |
| GO | placenta development | 2 | 22 | 0.272 | 10761 | placenta-specific 1 |
| GO | germ cell development | 2 | 22 | 0.272 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | germ cell development | 2 | 22 | 0.272 | 7490 | Wilms tumor 1 |
| GO | microvillus | 2 | 22 | 0.272 | 5021 | oxytocin receptor |
| GO | microvillus | 2 | 22 | 0.272 | 7010 | TEK tyrosine kinase, endothelial |
| GO | purinergic nucleotide receptor activity, i | 2 | 22 | 0.272 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |
| GO | purinergic nucleotide receptor activity, i | 2 | 22 | 0.272 | 5031 | pyrimidineric receptor P2Y, G-protein coupled, 6 |
| GO | voltage-gated calcium channel complex | 2 | 22 | 0.272 | 5494 | protein phosphatase, Mg2+/Mn2+ dependent, 1A |
| GO | voltage-gated calcium channel complex | 2 | 22 | 0.272 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | basal plasma membrane | 2 | 22 | 0.272 | 667 | dystonin |
| GO | basal plasma membrane | 2 | 22 | 0.272 | 9635 | chloride channel accessory 2 |
| GO | cysteine-type peptidase activity | 5 | 76 | 0.278 | 373856 | ubiquitin specific peptidase 41 |
| GO | cysteine-type peptidase activity | 5 | 76 | 0.278 | 4287 | ataxin 3 |
| GO | cysteine-type peptidase activity | 5 | 76 | 0.278 | 57478 | ubiquitin specific peptidase 31 |
| GO | cysteine-type peptidase activity | 5 | 76 | 0.278 | 7347 | ubiquitin carboxyl-terminal esterase L3 (ubiquitin thiolesterase) |
| GO | cysteine-type peptidase activity | 5 | 76 | 0.278 | 84101 | ubiquitin specific peptidase 44 |
| GO | ribosome | 10 | 172 | 0.278 | 11222 | mitochondrial ribosomal protein L3 |
| GO | ribosome | 10 | 172 | 0.278 | 28998 | mitochondrial ribosomal protein L13 |
| GO | ribosome | 10 | 172 | 0.278 | 51023 | mitochondrial ribosomal protein S18C |
| GO | ribosome | 10 | 172 | 0.278 | 51121 | ribosomal protein L26-like 1 |
| GO | ribosome | 10 | 172 | 0.278 | 54534 | mitochondrial ribosomal protein L50 |
| GO | ribosome | 10 | 172 | 0.278 | 6133 | ribosomal protein L9 |
| GO | ribosome | 10 | 172 | 0.278 | 6154 | ribosomal protein L26 |
| GO | ribosome | 10 | 172 | 0.278 | 6204 | ribosomal protein S10 |
| GO | ribosome | 10 | 172 | 0.278 | 65003 | mitochondrial ribosomal protein L11 |
| GO | ribosome | 10 | 172 | 0.278 | 65008 | mitochondrial ribosomal protein L1 |
| GO | regulation of apoptosis | 7 | 114 | 0.279 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | regulation of apoptosis | 7 | 114 | 0.279 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | regulation of apoptosis | 7 | 114 | 0.279 | 5245 | prohibitin |
| GO | regulation of apoptosis | 7 | 114 | 0.279 | 581 | BCL2-associated X protein |
| GO | regulation of apoptosis | 7 | 114 | 0.279 | 597 | BCL2-related protein A1 |
| GO | regulation of apoptosis | 7 | 114 | 0.279 | 6662 | SRY (sex determining region Y)-box 9 |
| GO | regulation of apoptosis | 7 | 114 | 0.279 | 672 | breast cancer 1, early onset |
| GO | ribonucleoprotein complex | 6 | 95 | 0.279 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |

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|----|---|---|----|-------|--------|--|
| GO | ribonucleoprotein complex | 6 | 95 | 0.279 | 23658 | LSM5 homolog, U6 small nuclear RNA associated (<i>S. cerevisiae</i>) |
| GO | ribonucleoprotein complex | 6 | 95 | 0.279 | 345630 | fibrillarin-like 1 |
| GO | ribonucleoprotein complex | 6 | 95 | 0.279 | 55323 | La ribonucleoprotein domain family, member 6 |
| GO | ribonucleoprotein complex | 6 | 95 | 0.279 | 672 | breast cancer 1, early onset |
| GO | ribonucleoprotein complex | 6 | 95 | 0.279 | 6741 | Sjogren syndrome antigen B (autoantigen La) |
| GO | regulation of cell shape | 4 | 58 | 0.283 | 10395 | deleted in liver cancer 1 |
| GO | regulation of cell shape | 4 | 58 | 0.283 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | regulation of cell shape | 4 | 58 | 0.283 | 11149 | blood vessel epicardial substance |
| GO | regulation of cell shape | 4 | 58 | 0.283 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | meiosis | 4 | 58 | 0.283 | 132625 | zinc finger protein 42 homolog (mouse) |
| GO | meiosis | 4 | 58 | 0.283 | 254528 | chromosome 16 open reading frame 73 |
| GO | meiosis | 4 | 58 | 0.283 | 286151 | F-box protein 43 |
| GO | meiosis | 4 | 58 | 0.283 | 29893 | PSMC3 interacting protein |
| GO | growth cone | 4 | 58 | 0.283 | 26059 | ELKS/RAB6-interacting/CAST family member 2 |
| GO | growth cone | 4 | 58 | 0.283 | 26230 | T-cell lymphoma invasion and metastasis 2 |
| GO | growth cone | 4 | 58 | 0.283 | 29767 | tropomodulin 2 (neuronal) |
| GO | growth cone | 4 | 58 | 0.283 | 5015 | orthodenticle homeobox 2 |
| GO | alpha-catenin binding | 1 | 7 | 0.283 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | proteasome binding | 1 | 7 | 0.283 | 10213 | proteasome (prosome, macropain) 26S subunit, non-ATPase, 14 |
| GO | labyrinthine layer development | 1 | 7 | 0.283 | 1045 | caudal type homeobox 2 |
| GO | cyclosporin A binding | 1 | 7 | 0.283 | 10465 | peptidylprolyl isomerase H (cyclophilin H) |
| GO | snoRNA binding | 1 | 7 | 0.283 | 10528 | NOP56 ribonucleoprotein homolog (yeast) |
| GO | DNA-directed RNA polymerase III compl | 1 | 7 | 0.283 | 10622 | polymerase (RNA) III (DNA directed) polypeptide G (32kD) |
| GO | nucleolar ribonuclease P complex | 1 | 7 | 0.283 | 10799 | ribonuclease P/MRP 40kDa subunit |
| GO | regulation of Cdc42 GTPase activity | 1 | 7 | 0.283 | 11149 | blood vessel epicardial substance |
| GO | cyclin-dependent protein kinase regulat | 1 | 7 | 0.283 | 1164 | CDC28 protein kinase regulatory subunit 2 |
| GO | fibril organization | 1 | 7 | 0.283 | 1289 | collagen, type V, alpha 1 |
| GO | wound healing, spreading of epidermal | 1 | 7 | 0.283 | 1289 | collagen, type V, alpha 1 |
| GO | axon regeneration | 1 | 7 | 0.283 | 146760 | reticulon 4 receptor-like 1 |
| GO | brain morphogenesis | 1 | 7 | 0.283 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | pyrimidine nucleotide biosynthetic proc | 1 | 7 | 0.283 | 1503 | CTP synthase |
| GO | steroid hydroxylase activity | 1 | 7 | 0.283 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | morphogenesis of an epithelial sheet | 1 | 7 | 0.283 | 182 | jagged 1 (Alagille syndrome) |
| GO | bile acid:sodium symporter activity | 1 | 7 | 0.283 | 201780 | solute carrier family 10 (sodium/bile acid cotransporter family), member 4 |
| GO | spectrin binding | 1 | 7 | 0.283 | 2037 | erythrocyte membrane protein band 4.1-like 2 |
| GO | death | 1 | 7 | 0.283 | 2149 | coagulation factor II (thrombin) receptor |

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|----|---|---|---|-------|--------|--|
| GO | mitotic anaphase | 1 | 7 | 0.283 | 220134 | spindle and kinetochore associated complex subunit 1 |
| GO | NAD biosynthetic process | 1 | 7 | 0.283 | 23057 | nicotinamide nucleotide adenylyltransferase 2 |
| GO | Ras guanyl-nucleotide exchange factor a | 1 | 7 | 0.283 | 25780 | RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | cellular homeostasis | 1 | 7 | 0.283 | 26154 | ATP-binding cassette, sub-family A (ABC1), member 12 |
| GO | response to mercury ion | 1 | 7 | 0.283 | 2628 | glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | BBSome | 1 | 7 | 0.283 | 27241 | Bardet-Biedl syndrome 9 |
| GO | synaptic vesicle exocytosis | 1 | 7 | 0.283 | 27445 | piccolo (presynaptic cytomatrix protein) |
| GO | response to selenium ion | 1 | 7 | 0.283 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | kainate selective glutamate receptor ac | 1 | 7 | 0.283 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | regulation of JNK cascade | 1 | 7 | 0.283 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | glutamate binding | 1 | 7 | 0.283 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | neurotransmitter binding | 1 | 7 | 0.283 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | 3-hydroxyacyl-CoA dehydrogenase activ | 1 | 7 | 0.283 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | cellular zinc ion homeostasis | 1 | 7 | 0.283 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | central nervous system neuron develop | 1 | 7 | 0.283 | 3952 | leptin |
| GO | fatty acid catabolic process | 1 | 7 | 0.283 | 3952 | leptin |
| GO | urogenital system development | 1 | 7 | 0.283 | 3975 | LIM homeobox 1 |
| GO | cell chemotaxis | 1 | 7 | 0.283 | 409 | arrestin, beta 2 |
| GO | oxidative phosphorylation | 1 | 7 | 0.283 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | unconventional myosin complex | 1 | 7 | 0.283 | 4637 | myosin, light chain 6, alkali, smooth muscle and non-muscle |
| GO | protein targeting to lysosome | 1 | 7 | 0.283 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | regulation of cell-matrix adhesion | 1 | 7 | 0.283 | 4763 | neurofibromin 1 |
| GO | monovalent inorganic cation transmembr | 1 | 7 | 0.283 | 479 | ATPase, H ⁺ /K ⁺ transporting, nongastric, alpha polypeptide |
| GO | ankyrin binding | 1 | 7 | 0.283 | 4897 | neuronal cell adhesion molecule |
| GO | maternal behavior | 1 | 7 | 0.283 | 5021 | oxytocin receptor |
| GO | positive regulation of synaptic transmiss | 1 | 7 | 0.283 | 5021 | oxytocin receptor |
| GO | extracellular ATP-gated cation channel a | 1 | 7 | 0.283 | 5026 | purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | purinergic nucleotide receptor activity | 1 | 7 | 0.283 | 5026 | purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | regulation of vasodilation | 1 | 7 | 0.283 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |
| GO | cellular response to lipopolysaccharide | 1 | 7 | 0.283 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | peptide biosynthetic process | 1 | 7 | 0.283 | 5125 | proprotein convertase subtilisin/kexin type 5 |
| GO | extrinsic to plasma membrane | 1 | 7 | 0.283 | 54843 | synaptotagmin-like 2 |
| GO | negative regulation of catalytic activity | 1 | 7 | 0.283 | 5569 | protein kinase (cAMP-dependent, catalytic) inhibitor alpha |
| GO | fructose-2,6-bisphosphate 2-phosphata | 1 | 7 | 0.283 | 57103 | chromosome 12 open reading frame 5 |
| GO | regulation of protein homodimerization | 1 | 7 | 0.283 | 581 | BCL2-associated X protein |
| GO | GTP-Rho binding | 1 | 7 | 0.283 | 6242 | rhotekin |

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|----|--|---|-----|-------|---|
| GO | positive regulation of alpha-beta T cell p | 1 | 7 | 0.283 | 641 Bloom syndrome, RecQ helicase-like |
| GO | pronucleus | 1 | 7 | 0.283 | 641 Bloom syndrome, RecQ helicase-like |
| GO | organic cation transmembrane transpor | 1 | 7 | 0.283 | 6580 solute carrier family 22 (organic cation transporter), member 1 |
| GO | U7 snRNP | 1 | 7 | 0.283 | 6637 small nuclear ribonucleoprotein polypeptide G |
| GO | adenohypophysis development | 1 | 7 | 0.283 | 6657 SRY (sex determining region Y)-box 2 |
| GO | negative regulation of bone mineralizati | 1 | 7 | 0.283 | 6662 SRY (sex determining region Y)-box 9 |
| GO | negative regulation of myoblast differer | 1 | 7 | 0.283 | 6662 SRY (sex determining region Y)-box 9 |
| GO | BRCA1-A complex | 1 | 7 | 0.283 | 672 breast cancer 1, early onset |
| GO | transmembrane receptor protein serine | 1 | 7 | 0.283 | 7046 transforming growth factor, beta receptor 1 |
| GO | type II transforming growth factor beta | 1 | 7 | 0.283 | 7046 transforming growth factor, beta receptor 1 |
| GO | contractile fiber | 1 | 7 | 0.283 | 7137 troponin I type 3 (cardiac) |
| GO | coenzyme A biosynthetic process | 1 | 7 | 0.283 | 79646 pantothenate kinase 3 |
| GO | filopodium membrane | 1 | 7 | 0.283 | 84168 anthrax toxin receptor 1 |
| GO | semaphorin receptor activity | 1 | 7 | 0.283 | 91584 plexin A4 |
| GO | male gonad development | 3 | 40 | 0.284 | 132625 zinc finger protein 42 homolog (mouse) |
| GO | male gonad development | 3 | 40 | 0.284 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | male gonad development | 3 | 40 | 0.284 | 7490 Wilms tumor 1 |
| GO | non-membrane spanning protein tyrosin | 3 | 40 | 0.284 | 2242 feline sarcoma oncogene |
| GO | non-membrane spanning protein tyrosin | 3 | 40 | 0.284 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | non-membrane spanning protein tyrosin | 3 | 40 | 0.284 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | dendritic spine | 3 | 40 | 0.284 | 3751 potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | dendritic spine | 3 | 40 | 0.284 | 55752 septin 11 |
| GO | dendritic spine | 3 | 40 | 0.284 | 9419 cysteine-rich PDZ-binding protein |
| GO | brain development | 7 | 115 | 0.286 | 1746 distal-less homeobox 2 |
| GO | brain development | 7 | 115 | 0.286 | 2558 gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | brain development | 7 | 115 | 0.286 | 266727 MAM domain containing glycosylphosphatidylinositol anchor 1 |
| GO | brain development | 7 | 115 | 0.286 | 4763 neurofibromin 1 |
| GO | brain development | 7 | 115 | 0.286 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |
| GO | brain development | 7 | 115 | 0.286 | 5469 mediator complex subunit 1 |
| GO | brain development | 7 | 115 | 0.286 | 6586 slit homolog 3 (Drosophila) |
| GO | condensed nuclear chromosome | 2 | 23 | 0.29 | 1045 caudal type homeobox 2 |
| GO | condensed nuclear chromosome | 2 | 23 | 0.29 | 84365 MKI67 (FHA domain) interacting nucleolar phosphoprotein |
| GO | neuromuscular process controlling balai | 2 | 23 | 0.29 | 3778 potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | neuromuscular process controlling balai | 2 | 23 | 0.29 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | positive regulation of cAMP biosyntheti | 2 | 23 | 0.29 | 4158 melanocortin 2 receptor (adrenocorticotrophic hormone) |
| GO | positive regulation of cAMP biosyntheti | 2 | 23 | 0.29 | 5744 parathyroid hormone-like hormone |

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|----|--|----|-----|-------|--|
| GO | chromosome, telomeric region | 2 | 23 | 0.29 | 54984 PIN2-interacting protein 1 |
| GO | chromosome, telomeric region | 2 | 23 | 0.29 | 641 Bloom syndrome, RecQ helicase-like |
| GO | regulation of ARF GTPase activity | 2 | 23 | 0.29 | 55803 ArfGAP with dual PH domains 2 |
| GO | regulation of ARF GTPase activity | 2 | 23 | 0.29 | 9744 ArfGAP with coiled-coil, ankyrin repeat and PH domains 1 |
| GO | positive regulation of osteoblast differentiation | 2 | 23 | 0.29 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | positive regulation of osteoblast differentiation | 2 | 23 | 0.29 | 9260 PDZ and LIM domain 7 (enigma) |
| GO | Wnt receptor signaling pathway through Frizzled | 2 | 23 | 0.29 | 6659 SRY (sex determining region Y)-box 4 |
| GO | Wnt receptor signaling pathway through Frizzled | 2 | 23 | 0.29 | 8325 frizzled homolog 8 (Drosophila) |
| GO | thymus development | 2 | 23 | 0.29 | 6899 T-box 1 |
| GO | thymus development | 2 | 23 | 0.29 | 7046 transforming growth factor, beta receptor 1 |
| GO | cytoplasmic mRNA processing body | 2 | 23 | 0.29 | 84206 mex-3 homolog B (C. elegans) |
| GO | cytoplasmic mRNA processing body | 2 | 23 | 0.29 | 92312 mex-3 homolog A (C. elegans) |
| GO | negative regulation of protein kinase activity | 3 | 41 | 0.297 | 11142 protein kinase (cAMP-dependent, catalytic) inhibitor gamma |
| GO | negative regulation of protein kinase activity | 3 | 41 | 0.297 | 4763 neurofibromin 1 |
| GO | negative regulation of protein kinase activity | 3 | 41 | 0.297 | 5569 protein kinase (cAMP-dependent, catalytic) inhibitor alpha |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 11278 Kruppel-like factor 12 |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 1746 distal-less homeobox 2 |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 2736 GLI family zinc finger 2 |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 2965 general transcription factor IIH, polypeptide 1, 62kDa |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 29893 PSMC3 interacting protein |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 3236 homeobox D10 |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 3589 interleukin 11 |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 3624 inhibin, beta A |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 406 aryl hydrocarbon receptor nuclear translocator-like |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 5469 mediator complex subunit 1 |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 58499 zinc finger protein 462 |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 6299 sal-like 1 (Drosophila) |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 6657 SRY (sex determining region Y)-box 2 |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 6662 SRY (sex determining region Y)-box 9 |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 7490 Wilms tumor 1 |
| GO | positive regulation of transcription from RNA polymerase II promoter | 16 | 295 | 0.297 | 8626 tumor protein p63 |
| GO | GTPase activator activity | 9 | 156 | 0.3 | 10395 deleted in liver cancer 1 |
| GO | GTPase activator activity | 9 | 156 | 0.3 | 1121 choroideremia (Rab escort protein 1) |
| GO | GTPase activator activity | 9 | 156 | 0.3 | 1123 chimerin (chimaerin) 1 |
| GO | GTPase activator activity | 9 | 156 | 0.3 | 51256 TBC1 domain family, member 7 |
| GO | GTPase activator activity | 9 | 156 | 0.3 | 55789 DEP domain containing 1B |

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|----|---------------------------|----|------|-------|--|
| GO | GTPase activator activity | 9 | 156 | 0.3 | 55803 ArfGAP with dual PH domains 2 |
| GO | GTPase activator activity | 9 | 156 | 0.3 | 8490 regulator of G-protein signaling 5 |
| GO | GTPase activator activity | 9 | 156 | 0.3 | 9882 TBC1 domain family, member 4 |
| GO | GTPase activator activity | 9 | 156 | 0.3 | 9910 RAB GTPase activating protein 1-like |
| GO | chromatin binding | 9 | 156 | 0.3 | 113130 cell division cycle associated 5 |
| GO | chromatin binding | 9 | 156 | 0.3 | 1746 distal-less homeobox 2 |
| GO | chromatin binding | 9 | 156 | 0.3 | 1788 DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | chromatin binding | 9 | 156 | 0.3 | 2736 GLI family zinc finger 2 |
| GO | chromatin binding | 9 | 156 | 0.3 | 3236 homeobox D10 |
| GO | chromatin binding | 9 | 156 | 0.3 | 5469 mediator complex subunit 1 |
| GO | chromatin binding | 9 | 156 | 0.3 | 6657 SRY (sex determining region Y)-box 2 |
| GO | chromatin binding | 9 | 156 | 0.3 | 8626 tumor protein p63 |
| GO | chromatin binding | 9 | 156 | 0.3 | 91442 chromosome 19 open reading frame 40 |
| GO | hormone activity | 5 | 79 | 0.305 | 3624 inhibin, beta A |
| GO | hormone activity | 5 | 79 | 0.305 | 3952 leptin |
| GO | hormone activity | 5 | 79 | 0.305 | 5744 parathyroid hormone-like hormone |
| GO | hormone activity | 5 | 79 | 0.305 | 57817 hepcidin antimicrobial peptide |
| GO | hormone activity | 5 | 79 | 0.305 | 6019 relaxin 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 10512 sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | extracellular region | 85 | 1730 | 0.305 | 10761 placenta-specific 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 10893 matrix metalloproteinase 24 (membrane-inserted) |
| GO | extracellular region | 85 | 1730 | 0.305 | 11010 GLI pathogenesis-related 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 11249 neurexophilin 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 115908 collagen triple helix repeat containing 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 12 serpin peptidase inhibitor, clade A (alpha-1 antitrypsin, antitrypsin), me |
| GO | extracellular region | 85 | 1730 | 0.305 | 1282 collagen, type IV, alpha 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 1284 collagen, type IV, alpha 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 1288 collagen, type IV, alpha 6 |
| GO | extracellular region | 85 | 1730 | 0.305 | 1289 collagen, type V, alpha 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 1290 collagen, type V, alpha 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 1301 collagen, type XI, alpha 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 131450 CD200 receptor 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 132724 transmembrane protease, serine 11B |
| GO | extracellular region | 85 | 1730 | 0.305 | 1379 complement component (3b/4b) receptor 1-like |
| GO | extracellular region | 85 | 1730 | 0.305 | 140902 R3H domain containing-like |
| GO | extracellular region | 85 | 1730 | 0.305 | 143282 fibroblast growth factor binding protein 3 |

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|----|----------------------|----|------|-------|--------|--|
| GO | extracellular region | 85 | 1730 | 0.305 | 145864 | hyaluronan and proteoglycan link protein 3 |
| GO | extracellular region | 85 | 1730 | 0.305 | 146556 | chromosome 16 open reading frame 89 |
| GO | extracellular region | 85 | 1730 | 0.305 | 147920 | IGF-like family member 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 152007 | GLI pathogenesis-related 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 152816 | chromosome 4 open reading frame 26 |
| GO | extracellular region | 85 | 1730 | 0.305 | 162681 | chromosome 18 open reading frame 54 |
| GO | extracellular region | 85 | 1730 | 0.305 | 1690 | coagulation factor C homolog, cochlin (Limulus polyphemus) |
| GO | extracellular region | 85 | 1730 | 0.305 | 1775 | deoxyribonuclease I-like 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 182 | jagged 1 (Alagille syndrome) |
| GO | extracellular region | 85 | 1730 | 0.305 | 2135 | exostoses (multiple)-like 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 219990 | placenta-specific 1-like |
| GO | extracellular region | 85 | 1730 | 0.305 | 221044 | upper zone of growth plate and cartilage matrix associated |
| GO | extracellular region | 85 | 1730 | 0.305 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | extracellular region | 85 | 1730 | 0.305 | 24147 | four jointed box 1 (Drosophila) |
| GO | extracellular region | 85 | 1730 | 0.305 | 245929 | defensin, beta 115 |
| GO | extracellular region | 85 | 1730 | 0.305 | 25817 | family with sequence similarity 19 (chemokine (C-C motif)-like), member A' |
| GO | extracellular region | 85 | 1730 | 0.305 | 25884 | chordin-like 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 26577 | procollagen C-endopeptidase enhancer 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 284207 | meteorin, glial cell differentiation regulator-like |
| GO | extracellular region | 85 | 1730 | 0.305 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | extracellular region | 85 | 1730 | 0.305 | 341 | apolipoprotein C-I |
| GO | extracellular region | 85 | 1730 | 0.305 | 348 | apolipoprotein E |
| GO | extracellular region | 85 | 1730 | 0.305 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | extracellular region | 85 | 1730 | 0.305 | 3557 | interleukin 1 receptor antagonist |
| GO | extracellular region | 85 | 1730 | 0.305 | 3589 | interleukin 11 |
| GO | extracellular region | 85 | 1730 | 0.305 | 3624 | inhibin, beta A |
| GO | extracellular region | 85 | 1730 | 0.305 | 374897 | suprabasin |
| GO | extracellular region | 85 | 1730 | 0.305 | 374918 | IGF-like family member 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 388555 | IGF-like family member 3 |
| GO | extracellular region | 85 | 1730 | 0.305 | 3918 | laminin, gamma 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 3952 | leptin |
| GO | extracellular region | 85 | 1730 | 0.305 | 4052 | latent transforming growth factor beta binding protein 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 4060 | lumican |
| GO | extracellular region | 85 | 1730 | 0.305 | 4312 | matrix metalloproteinase 1 (interstitial collagenase) |
| GO | extracellular region | 85 | 1730 | 0.305 | 4318 | matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV c |
| GO | extracellular region | 85 | 1730 | 0.305 | 4319 | matrix metalloproteinase 10 (stromelysin 2) |

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|----|-------------------------------|----|------|-------|--|
| GO | extracellular region | 85 | 1730 | 0.305 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | extracellular region | 85 | 1730 | 0.305 | 51050 peptidase inhibitor 15 |
| GO | extracellular region | 85 | 1730 | 0.305 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | extracellular region | 85 | 1730 | 0.305 | 5228 placental growth factor |
| GO | extracellular region | 85 | 1730 | 0.305 | 5341 pleckstrin |
| GO | extracellular region | 85 | 1730 | 0.305 | 5360 phospholipid transfer protein |
| GO | extracellular region | 85 | 1730 | 0.305 | 54210 triggering receptor expressed on myeloid cells 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 5624 protein C (inactivator of coagulation factors Va and VIIIa) |
| GO | extracellular region | 85 | 1730 | 0.305 | 5654 HtrA serine peptidase 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 5744 parathyroid hormone-like hormone |
| GO | extracellular region | 85 | 1730 | 0.305 | 57642 collagen, type XX, alpha 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 57817 hepcidin antimicrobial peptide |
| GO | extracellular region | 85 | 1730 | 0.305 | 590 butyrylcholinesterase |
| GO | extracellular region | 85 | 1730 | 0.305 | 6019 relaxin 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 60675 prokineticin 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 6347 chemokine (C-C motif) ligand 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 64131 xylosyltransferase I |
| GO | extracellular region | 85 | 1730 | 0.305 | 6422 secreted frizzled-related protein 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 6586 slit homolog 3 (Drosophila) |
| GO | extracellular region | 85 | 1730 | 0.305 | 6695 sparco/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 7037 transferrin receptor (p90, CD71) |
| GO | extracellular region | 85 | 1730 | 0.305 | 7058 thrombospondin 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 7078 TIMP metalloproteinase inhibitor 3 |
| GO | extracellular region | 85 | 1730 | 0.305 | 7113 transmembrane protease, serine 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 7481 wntless-type MMTV integration site family, member 11 |
| GO | extracellular region | 85 | 1730 | 0.305 | 7857 secretogranin II (chromogranin C) |
| GO | extracellular region | 85 | 1730 | 0.305 | 79135 apolipoprotein O |
| GO | extracellular region | 85 | 1730 | 0.305 | 81029 wntless-type MMTV integration site family, member 5B |
| GO | extracellular region | 85 | 1730 | 0.305 | 9244 cytokine receptor-like factor 1 |
| GO | extracellular region | 85 | 1730 | 0.305 | 9542 neuregulin 2 |
| GO | extracellular region | 85 | 1730 | 0.305 | 9635 chloride channel accessory 2 |
| GO | learning | 2 | 24 | 0.307 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | learning | 2 | 24 | 0.307 | 590 butyrylcholinesterase |
| GO | visual learning | 2 | 24 | 0.307 | 4763 neurofibromin 1 |
| GO | visual learning | 2 | 24 | 0.307 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | ARF GTPase activator activity | 2 | 24 | 0.307 | 55803 ArfGAP with dual PH domains 2 |

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|----|---|---|----|-------|--------|--|
| GO | ARF GTPase activator activity | 2 | 24 | 0.307 | 9744 | ArfGAP with coiled-coil, ankyrin repeat and PH domains 1 |
| GO | cellular iron ion homeostasis | 2 | 24 | 0.307 | 57817 | hepcidin antimicrobial peptide |
| GO | cellular iron ion homeostasis | 2 | 24 | 0.307 | 7037 | transferrin receptor (p90, CD71) |
| GO | lung alveolus development | 2 | 24 | 0.307 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | lung alveolus development | 2 | 24 | 0.307 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | regulation of protein metabolic process | 3 | 42 | 0.31 | 140739 | ubiquitin-conjugating enzyme E2F (putative) |
| GO | regulation of protein metabolic process | 3 | 42 | 0.31 | 389898 | ubiquitin-conjugating enzyme E2N-like |
| GO | regulation of protein metabolic process | 3 | 42 | 0.31 | 7324 | ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | cell growth | 3 | 42 | 0.31 | 2273 | four and a half LIM domains 1 |
| GO | cell growth | 3 | 42 | 0.31 | 65009 | NDRG family member 4 |
| GO | cell growth | 3 | 42 | 0.31 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | RNA processing | 5 | 80 | 0.314 | 10199 | M-phase phosphoprotein 10 (U3 small nucleolar ribonucleoprotein) |
| GO | RNA processing | 5 | 80 | 0.314 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | RNA processing | 5 | 80 | 0.314 | 55323 | La ribonucleoprotein domain family, member 6 |
| GO | RNA processing | 5 | 80 | 0.314 | 65008 | mitochondrial ribosomal protein L1 |
| GO | RNA processing | 5 | 80 | 0.314 | 6741 | Sjogren syndrome antigen B (autoantigen La) |
| GO | basement membrane | 4 | 61 | 0.314 | 1289 | collagen, type V, alpha 1 |
| GO | basement membrane | 4 | 61 | 0.314 | 3918 | laminin, gamma 2 |
| GO | basement membrane | 4 | 61 | 0.314 | 667 | dystonin |
| GO | basement membrane | 4 | 61 | 0.314 | 7078 | TIMP metalloproteinase inhibitor 3 |
| GO | cytoplasmic vesicle membrane | 4 | 61 | 0.314 | 23138 | Nedd4 binding protein 3 |
| GO | cytoplasmic vesicle membrane | 4 | 61 | 0.314 | 30011 | SH3-domain kinase binding protein 1 |
| GO | cytoplasmic vesicle membrane | 4 | 61 | 0.314 | 55016 | membrane-associated ring finger (C3HC4) 1 |
| GO | cytoplasmic vesicle membrane | 4 | 61 | 0.314 | 8905 | adaptor-related protein complex 1, sigma 2 subunit |
| GO | cytoskeleton organization | 4 | 61 | 0.314 | 27445 | piccolo (presynaptic cytomatrix protein) |
| GO | cytoskeleton organization | 4 | 61 | 0.314 | 348 | apolipoprotein E |
| GO | cytoskeleton organization | 4 | 61 | 0.314 | 6444 | sarcoglycan, delta (35kDa dystrophin-associated glycoprotein) |
| GO | cytoskeleton organization | 4 | 61 | 0.314 | 7168 | tropomyosin 1 (alpha) |
| GO | response to estradiol stimulus | 4 | 61 | 0.314 | 5021 | oxytocin receptor |
| GO | response to estradiol stimulus | 4 | 61 | 0.314 | 8835 | suppressor of cytokine signaling 2 |
| GO | response to estradiol stimulus | 4 | 61 | 0.314 | 890 | cyclin A2 |
| GO | response to estradiol stimulus | 4 | 61 | 0.314 | 898 | cyclin E1 |
| GO | catenin complex | 1 | 8 | 0.316 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | positive regulation of dendrite morphog | 1 | 8 | 0.316 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | response to carbohydrate stimulus | 1 | 8 | 0.316 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | protein K63-linked deubiquitination | 1 | 8 | 0.316 | 10213 | proteasome (prosome, macropain) 26S subunit, non-ATPase, 14 |

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|----|---|---|---|-------|---|
| GO | cyclin binding | 1 | 8 | 0.316 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | cyclin-dependent protein kinase holoen | 1 | 8 | 0.316 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | poly(A) RNA binding | 1 | 8 | 0.316 | 10492 synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | negative regulation of neurogenesis | 1 | 8 | 0.316 | 10683 delta-like 3 (Drosophila) |
| GO | prepulse inhibition | 1 | 8 | 0.316 | 1496 catenin (cadherin-associated protein), alpha 2 |
| GO | hydrogen peroxide biosynthetic process | 1 | 8 | 0.316 | 1543 cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | olfactory bulb development | 1 | 8 | 0.316 | 1746 distal-less homeobox 2 |
| GO | secondary active sulfate transmembran | 1 | 8 | 0.316 | 1836 solute carrier family 26 (sulfate transporter), member 2 |
| GO | adenylate kinase activity | 1 | 8 | 0.316 | 203 adenylate kinase 1 |
| GO | ephrin receptor binding | 1 | 8 | 0.316 | 2045 EPH receptor A7 |
| GO | positive regulation of JAK-STAT cascade | 1 | 8 | 0.316 | 2149 coagulation factor II (thrombin) receptor |
| GO | positive regulation of leukocyte chemot | 1 | 8 | 0.316 | 2150 coagulation factor II (thrombin) receptor-like 1 |
| GO | retinal metabolic process | 1 | 8 | 0.316 | 220 aldehyde dehydrogenase 1 family, member A3 |
| GO | calcium channel complex | 1 | 8 | 0.316 | 2281 FK506 binding protein 1B, 12.6 kDa |
| GO | FK506 binding | 1 | 8 | 0.316 | 2281 FK506 binding protein 1B, 12.6 kDa |
| GO | vascular endothelial growth factor recei | 1 | 8 | 0.316 | 2321 fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular r |
| GO | protein homotrimerization | 1 | 8 | 0.316 | 241 arachidonate 5-lipoxygenase-activating protein |
| GO | diacylglycerol binding | 1 | 8 | 0.316 | 25780 RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | creatine metabolic process | 1 | 8 | 0.316 | 2628 glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | glycine catabolic process | 1 | 8 | 0.316 | 2653 glycine cleavage system protein H (aminomethyl carrier) |
| GO | dopamine receptor signaling pathway | 1 | 8 | 0.316 | 27065 DNA segment on chromosome 4 (unique) 234 expressed sequence |
| GO | N-methyl-D-aspartate selective glutama | 1 | 8 | 0.316 | 2906 glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | positive regulation of G-protein couplec | 1 | 8 | 0.316 | 29767 tropomodulin 2 (neuronal) |
| GO | positive regulation of chondrocyte diffe | 1 | 8 | 0.316 | 3237 homeobox D11 |
| GO | phosphatidylcholine binding | 1 | 8 | 0.316 | 341 apolipoprotein C-I |
| GO | phospholipase inhibitor activity | 1 | 8 | 0.316 | 341 apolipoprotein C-I |
| GO | negative regulation of programmed cell | 1 | 8 | 0.316 | 347902 adhesion molecule with Ig-like domain 2 |
| GO | antioxidant activity | 1 | 8 | 0.316 | 348 apolipoprotein E |
| GO | positive regulation of cholesterol efflux | 1 | 8 | 0.316 | 348 apolipoprotein E |
| GO | protein-DNA complex | 1 | 8 | 0.316 | 3516 recombination signal binding protein for immunoglobulin kappa J region |
| GO | ciliary rootlet | 1 | 8 | 0.316 | 3800 kinesin family member 5C |
| GO | energy reserve metabolic process | 1 | 8 | 0.316 | 3952 leptin |
| GO | response to UV-B | 1 | 8 | 0.316 | 4436 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | actin-dependent ATPase activity | 1 | 8 | 0.316 | 4637 myosin, light chain 6, alkali, smooth muscle and non-muscle |
| GO | phosphoinositide 3-kinase cascade | 1 | 8 | 0.316 | 4763 neurofibromin 1 |
| GO | hydrogen-exporting ATPase activity, ph | 1 | 8 | 0.316 | 528 ATPase, H+ transporting, lysosomal 42kDa, V1 subunit C1 |

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|----|---|---|-----|-------|--|
| GO | proton-transporting V-type ATPase, V1 | 1 | 8 | 0.316 | 528 ATPase, H ⁺ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | embryonic hemopoiesis | 1 | 8 | 0.316 | 5469 mediator complex subunit 1 |
| GO | positive regulation of NF-kappaB import | 1 | 8 | 0.316 | 5588 protein kinase C, theta |
| GO | activation of caspase activity by cytochr | 1 | 8 | 0.316 | 581 BCL2-associated X protein |
| GO | retinoid binding | 1 | 8 | 0.316 | 5947 retinol binding protein 1, cellular |
| GO | heterochromatin | 1 | 8 | 0.316 | 6299 sal-like 1 (Drosophila) |
| GO | regulation of ossification | 1 | 8 | 0.316 | 6422 secreted frizzled-related protein 1 |
| GO | regulation of sodium ion transport | 1 | 8 | 0.316 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | organic cation transport | 1 | 8 | 0.316 | 6580 solute carrier family 22 (organic cation transporter), member 1 |
| GO | negative chemotaxis | 1 | 8 | 0.316 | 6586 slit homolog 3 (Drosophila) |
| GO | transmembrane receptor protein serine | 1 | 8 | 0.316 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | positive regulation of neuroblast prolife | 1 | 8 | 0.316 | 6657 SRY (sex determining region Y)-box 2 |
| GO | embryonic viscerocranium morphogene | 1 | 8 | 0.316 | 6899 T-box 1 |
| GO | positive regulation of SMAD protein nuc | 1 | 8 | 0.316 | 7046 transforming growth factor, beta receptor 1 |
| GO | troponin complex | 1 | 8 | 0.316 | 7137 troponin I type 3 (cardiac) |
| GO | sarcomere organization | 1 | 8 | 0.316 | 7168 tropomyosin 1 (alpha) |
| GO | cytosolic calcium ion homeostasis | 1 | 8 | 0.316 | 7220 transient receptor potential cation channel, subfamily C, member 1 |
| GO | histone H2B ubiquitination | 1 | 8 | 0.316 | 7324 ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | C2H2 zinc finger domain binding | 1 | 8 | 0.316 | 7490 Wilms tumor 1 |
| GO | mesonephros development | 1 | 8 | 0.316 | 7490 Wilms tumor 1 |
| GO | regulation of calcium ion-dependent ex | 1 | 8 | 0.316 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | epithelial cell proliferation | 1 | 8 | 0.316 | 7840 Alstrom syndrome 1 |
| GO | positive regulation of fat cell differentia | 1 | 8 | 0.316 | 81029 wingless-type MMTV integration site family, member 5B |
| GO | L-glutamate transport | 1 | 8 | 0.316 | 8604 solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | tail morphogenesis | 1 | 8 | 0.316 | 8626 tumor protein p63 |
| GO | glycosphingolipid biosynthetic process | 1 | 8 | 0.316 | 9215 like-glycosyltransferase |
| GO | clathrin binding | 1 | 8 | 0.316 | 92737 delta/notch-like EGF repeat containing |
| GO | HAUS complex | 1 | 8 | 0.316 | 93323 HAUS augmin-like complex, subunit 8 |
| GO | bile acid biosynthetic process | 1 | 8 | 0.316 | 9420 cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | induction of apoptosis by oxidative stre | 1 | 8 | 0.316 | 9540 tumor protein p53 inducible protein 3 |
| GO | protein folding | 8 | 139 | 0.318 | 10465 peptidylprolyl isomerase H (cyclophilin H) |
| GO | protein folding | 8 | 139 | 0.318 | 1047 calmegin |
| GO | protein folding | 8 | 139 | 0.318 | 3336 heat shock 10kDa protein 1 (chaperonin 10) |
| GO | protein folding | 8 | 139 | 0.318 | 51645 peptidylprolyl isomerase (cyclophilin)-like 1 |
| GO | protein folding | 8 | 139 | 0.318 | 5203 prefoldin subunit 4 |
| GO | protein folding | 8 | 139 | 0.318 | 5303 protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |

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|----|----------------------------|----|-----|-------|--------|---|
| GO | protein folding | 8 | 139 | 0.318 | 81562 | lectin, mannose-binding 2-like |
| GO | protein folding | 8 | 139 | 0.318 | 8409 | ubiquitously-expressed transcript |
| GO | ion transport | 26 | 505 | 0.322 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | ion transport | 26 | 505 | 0.322 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | ion transport | 26 | 505 | 0.322 | 200959 | gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | ion transport | 26 | 505 | 0.322 | 201780 | solute carrier family 10 (sodium/bile acid cotransporter family), member 4 |
| GO | ion transport | 26 | 505 | 0.322 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | ion transport | 26 | 505 | 0.322 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | ion transport | 26 | 505 | 0.322 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | ion transport | 26 | 505 | 0.322 | 348938 | NIPA-like domain containing 4 |
| GO | ion transport | 26 | 505 | 0.322 | 3751 | potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | ion transport | 26 | 505 | 0.322 | 3754 | potassium voltage-gated channel, subfamily F, member 1 |
| GO | ion transport | 26 | 505 | 0.322 | 3756 | potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | ion transport | 26 | 505 | 0.322 | 3763 | potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | ion transport | 26 | 505 | 0.322 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | ion transport | 26 | 505 | 0.322 | 5026 | purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | ion transport | 26 | 505 | 0.322 | 51382 | ATPase, H ⁺ transporting, lysosomal 34kDa, V1 subunit D |
| GO | ion transport | 26 | 505 | 0.322 | 516 | ATP synthase, H ⁺ transporting, mitochondrial F0 complex, subunit C1 (subunit c) |
| GO | ion transport | 26 | 505 | 0.322 | 528 | ATPase, H ⁺ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | ion transport | 26 | 505 | 0.322 | 54822 | transient receptor potential cation channel, subfamily M, member 7 |
| GO | ion transport | 26 | 505 | 0.322 | 55283 | mucolipin 3 |
| GO | ion transport | 26 | 505 | 0.322 | 56479 | potassium voltage-gated channel, KQT-like subfamily, member 5 |
| GO | ion transport | 26 | 505 | 0.322 | 6335 | sodium channel, voltage-gated, type IX, alpha subunit |
| GO | ion transport | 26 | 505 | 0.322 | 6527 | solute carrier family 5 (low affinity glucose cotransporter), member 4 |
| GO | ion transport | 26 | 505 | 0.322 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | ion transport | 26 | 505 | 0.322 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | ion transport | 26 | 505 | 0.322 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | ion transport | 26 | 505 | 0.322 | 9635 | chloride channel accessory 2 |
| GO | Notch signaling pathway | 3 | 43 | 0.322 | 182 | jagged 1 (Alagille syndrome) |
| GO | Notch signaling pathway | 3 | 43 | 0.322 | 3516 | recombination signal binding protein for immunoglobulin kappa J region |
| GO | Notch signaling pathway | 3 | 43 | 0.322 | 55759 | WD repeat domain 12 |
| GO | glucose metabolic process | 3 | 43 | 0.322 | 283209 | phosphoglucosyltransferase 2-like 1 |
| GO | glucose metabolic process | 3 | 43 | 0.322 | 3952 | leptin |
| GO | glucose metabolic process | 3 | 43 | 0.322 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | protein polyubiquitination | 2 | 25 | 0.325 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | protein polyubiquitination | 2 | 25 | 0.325 | 1643 | damage-specific DNA binding protein 2, 48kDa |

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|----|--|----|-----|-------|--------|--|
| GO | spindle microtubule | 2 | 25 | 0.325 | 220134 | spindle and kinetochore associated complex subunit 1 |
| GO | spindle microtubule | 2 | 25 | 0.325 | 332 | baculoviral IAP repeat-containing 5 |
| GO | glycoprotein binding | 2 | 25 | 0.325 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | glycoprotein binding | 2 | 25 | 0.325 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | filopodium | 2 | 25 | 0.325 | 26230 | T-cell lymphoma invasion and metastasis 2 |
| GO | filopodium | 2 | 25 | 0.325 | 5420 | podocalyxin-like |
| GO | mitochondrial intermembrane space | 2 | 25 | 0.325 | 2628 | glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | mitochondrial intermembrane space | 2 | 25 | 0.325 | 27429 | HtrA serine peptidase 2 |
| GO | protein targeting to mitochondrion | 2 | 25 | 0.325 | 26519 | translocase of inner mitochondrial membrane 10 homolog (yeast) |
| GO | protein targeting to mitochondrion | 2 | 25 | 0.325 | 26521 | translocase of inner mitochondrial membrane 8 homolog B (yeast) |
| GO | thyroid hormone receptor binding | 2 | 25 | 0.325 | 29893 | PSMC3 interacting protein |
| GO | thyroid hormone receptor binding | 2 | 25 | 0.325 | 5469 | mediator complex subunit 1 |
| GO | skeletal system morphogenesis | 2 | 25 | 0.325 | 3224 | homeobox C8 |
| GO | skeletal system morphogenesis | 2 | 25 | 0.325 | 7046 | transforming growth factor, beta receptor 1 |
| GO | spliceosomal snRNP assembly | 2 | 25 | 0.325 | 6637 | small nuclear ribonucleoprotein polypeptide G |
| GO | spliceosomal snRNP assembly | 2 | 25 | 0.325 | 79833 | gem (nuclear organelle) associated protein 6 |
| GO | negative regulation of ubiquitin-protein | 4 | 62 | 0.325 | 10213 | proteasome (prosome, macropain) 26S subunit, non-ATPase, 14 |
| GO | negative regulation of ubiquitin-protein | 4 | 62 | 0.325 | 5702 | proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | negative regulation of ubiquitin-protein | 4 | 62 | 0.325 | 5717 | proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 |
| GO | negative regulation of ubiquitin-protein | 4 | 62 | 0.325 | 7324 | ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | integrin binding | 4 | 62 | 0.325 | 10457 | glycoprotein (transmembrane) nmb |
| GO | integrin binding | 4 | 62 | 0.325 | 1289 | collagen, type V, alpha 1 |
| GO | integrin binding | 4 | 62 | 0.325 | 3694 | integrin, beta 6 |
| GO | integrin binding | 4 | 62 | 0.325 | 667 | dystonin |
| GO | positive regulation of cell migration | 4 | 62 | 0.325 | 2149 | coagulation factor II (thrombin) receptor |
| GO | positive regulation of cell migration | 4 | 62 | 0.325 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular |
| GO | positive regulation of cell migration | 4 | 62 | 0.325 | 5420 | podocalyxin-like |
| GO | positive regulation of cell migration | 4 | 62 | 0.325 | 81029 | wingless-type MMTV integration site family, member 5B |
| GO | protein complex assembly | 6 | 101 | 0.328 | 10465 | peptidylprolyl isomerase H (cyclophilin H) |
| GO | protein complex assembly | 6 | 101 | 0.328 | 23562 | claudin 14 |
| GO | protein complex assembly | 6 | 101 | 0.328 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | protein complex assembly | 6 | 101 | 0.328 | 56479 | potassium voltage-gated channel, KQT-like subfamily, member 5 |
| GO | protein complex assembly | 6 | 101 | 0.328 | 7456 | WAS/WASL interacting protein family, member 1 |
| GO | protein complex assembly | 6 | 101 | 0.328 | 84365 | MKI67 (FHA domain) interacting nucleolar phosphoprotein |
| GO | cellular_component | 27 | 528 | 0.33 | 10190 | thioredoxin domain containing 9 |
| GO | cellular_component | 27 | 528 | 0.33 | 10761 | placenta-specific 1 |

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|----|--------------------|----|-----|-------|--------|--|
| GO | cellular_component | 27 | 528 | 0.33 | 10777 | cyclic AMP-regulated phosphoprotein, 21 kD |
| GO | cellular_component | 27 | 528 | 0.33 | 10962 | myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophi |
| GO | cellular_component | 27 | 528 | 0.33 | 11227 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | cellular_component | 27 | 528 | 0.33 | 132851 | spermatogenesis associated 4 |
| GO | cellular_component | 27 | 528 | 0.33 | 1503 | CTP synthase |
| GO | cellular_component | 27 | 528 | 0.33 | 200959 | gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | cellular_component | 27 | 528 | 0.33 | 2273 | four and a half LIM domains 1 |
| GO | cellular_component | 27 | 528 | 0.33 | 23157 | septin 6 |
| GO | cellular_component | 27 | 528 | 0.33 | 29893 | PSMC3 interacting protein |
| GO | cellular_component | 27 | 528 | 0.33 | 29995 | LIM and cysteine-rich domains 1 |
| GO | cellular_component | 27 | 528 | 0.33 | 50940 | phosphodiesterase 11A |
| GO | cellular_component | 27 | 528 | 0.33 | 51050 | peptidase inhibitor 15 |
| GO | cellular_component | 27 | 528 | 0.33 | 54726 | OTU domain containing 4 |
| GO | cellular_component | 27 | 528 | 0.33 | 54733 | solute carrier family 35, member F2 |
| GO | cellular_component | 27 | 528 | 0.33 | 5494 | protein phosphatase, Mg2+/Mn2+ dependent, 1A |
| GO | cellular_component | 27 | 528 | 0.33 | 56651 | chromosome 18 open reading frame 2 |
| GO | cellular_component | 27 | 528 | 0.33 | 5833 | phosphate cytidyltransferase 2, ethanolamine |
| GO | cellular_component | 27 | 528 | 0.33 | 6000 | regulator of G-protein signaling 7 |
| GO | cellular_component | 27 | 528 | 0.33 | 6242 | rhotekin |
| GO | cellular_component | 27 | 528 | 0.33 | 66000 | transmembrane protein 108 |
| GO | cellular_component | 27 | 528 | 0.33 | 666 | BCL2-related ovarian killer |
| GO | cellular_component | 27 | 528 | 0.33 | 6785 | elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like |
| GO | cellular_component | 27 | 528 | 0.33 | 84668 | family with sequence similarity 126, member A |
| GO | cellular_component | 27 | 528 | 0.33 | 9448 | mitogen-activated protein kinase kinase kinase 4 |
| GO | cellular_component | 27 | 528 | 0.33 | 9540 | tumor protein p53 inducible protein 3 |
| GO | ligase activity | 16 | 303 | 0.335 | 10055 | SUMO1 activating enzyme subunit 1 |
| GO | ligase activity | 16 | 303 | 0.335 | 10056 | phenylalanyl-tRNA synthetase, beta subunit |
| GO | ligase activity | 16 | 303 | 0.335 | 130507 | ubiquitin protein ligase E3 component n-recogin 3 (putative) |
| GO | ligase activity | 16 | 303 | 0.335 | 140739 | ubiquitin-conjugating enzyme E2F (putative) |
| GO | ligase activity | 16 | 303 | 0.335 | 1503 | CTP synthase |
| GO | ligase activity | 16 | 303 | 0.335 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | ligase activity | 16 | 303 | 0.335 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | ligase activity | 16 | 303 | 0.335 | 29128 | ubiquitin-like with PHD and ring finger domains 1 |
| GO | ligase activity | 16 | 303 | 0.335 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | ligase activity | 16 | 303 | 0.335 | 51191 | hect domain and RLD 5 |
| GO | ligase activity | 16 | 303 | 0.335 | 55016 | membrane-associated ring finger (C3HC4) 1 |

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|----|---|----|-----|-------|---|
| GO | ligase activity | 16 | 303 | 0.335 | 55521 tripartite motif-containing 36 |
| GO | ligase activity | 16 | 303 | 0.335 | 56852 RAD18 homolog (<i>S. cerevisiae</i>) |
| GO | ligase activity | 16 | 303 | 0.335 | 57574 membrane-associated ring finger (C3HC4) 4 |
| GO | ligase activity | 16 | 303 | 0.335 | 672 breast cancer 1, early onset |
| GO | ligase activity | 16 | 303 | 0.335 | 7324 ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | protein binding, bridging | 3 | 44 | 0.335 | 1301 collagen, type XI, alpha 1 |
| GO | protein binding, bridging | 3 | 44 | 0.335 | 23768 fibronectin leucine rich transmembrane protein 2 |
| GO | protein binding, bridging | 3 | 44 | 0.335 | 55803 ArfGAP with dual PH domains 2 |
| GO | Rab GTPase activator activity | 3 | 44 | 0.335 | 51256 TBC1 domain family, member 7 |
| GO | Rab GTPase activator activity | 3 | 44 | 0.335 | 9882 TBC1 domain family, member 4 |
| GO | Rab GTPase activator activity | 3 | 44 | 0.335 | 9910 RAB GTPase activating protein 1-like |
| GO | regulation of Rab GTPase activity | 3 | 44 | 0.335 | 51256 TBC1 domain family, member 7 |
| GO | regulation of Rab GTPase activity | 3 | 44 | 0.335 | 9882 TBC1 domain family, member 4 |
| GO | regulation of Rab GTPase activity | 3 | 44 | 0.335 | 9910 RAB GTPase activating protein 1-like |
| GO | anaphase-promoting complex-depende | 4 | 63 | 0.336 | 10213 proteasome (prosome, macropain) 26S subunit, non-ATPase, 14 |
| GO | anaphase-promoting complex-depende | 4 | 63 | 0.336 | 5702 proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | anaphase-promoting complex-depende | 4 | 63 | 0.336 | 5717 proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 |
| GO | anaphase-promoting complex-depende | 4 | 63 | 0.336 | 7324 ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | voltage-gated potassium channel activit | 4 | 63 | 0.336 | 283518 potassium channel regulator |
| GO | voltage-gated potassium channel activit | 4 | 63 | 0.336 | 3751 potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | voltage-gated potassium channel activit | 4 | 63 | 0.336 | 3754 potassium voltage-gated channel, subfamily F, member 1 |
| GO | voltage-gated potassium channel activit | 4 | 63 | 0.336 | 3778 potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | metalloendopeptidase activity | 6 | 102 | 0.337 | 10893 matrix metallopeptidase 24 (membrane-inserted) |
| GO | metalloendopeptidase activity | 6 | 102 | 0.337 | 4312 matrix metallopeptidase 1 (interstitial collagenase) |
| GO | metalloendopeptidase activity | 6 | 102 | 0.337 | 4318 matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV c |
| GO | metalloendopeptidase activity | 6 | 102 | 0.337 | 4319 matrix metallopeptidase 10 (stromelysin 2) |
| GO | metalloendopeptidase activity | 6 | 102 | 0.337 | 8728 ADAM metallopeptidase domain 19 (meltrin beta) |
| GO | metalloendopeptidase activity | 6 | 102 | 0.337 | 8747 ADAM metallopeptidase domain 21 |
| GO | positive regulation of transcription, DN/ | 7 | 122 | 0.339 | 2149 coagulation factor II (thrombin) receptor |
| GO | positive regulation of transcription, DN/ | 7 | 122 | 0.339 | 5494 protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A |
| GO | positive regulation of transcription, DN/ | 7 | 122 | 0.339 | 6659 SRY (sex determining region Y)-box 4 |
| GO | positive regulation of transcription, DN/ | 7 | 122 | 0.339 | 6672 SP100 nuclear antigen |
| GO | positive regulation of transcription, DN/ | 7 | 122 | 0.339 | 672 breast cancer 1, early onset |
| GO | positive regulation of transcription, DN/ | 7 | 122 | 0.339 | 8626 tumor protein p63 |
| GO | positive regulation of transcription, DN/ | 7 | 122 | 0.339 | 898 cyclin E1 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 1002 cadherin 4, type 1, R-cadherin (retinal) |

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|----|-----------------------------|----|-----|-------|---|
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 10457 glycoprotein (transmembrane) nmb |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 10893 matrix metalloproteinase 24 (membrane-inserted) |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 132724 transmembrane protease, serine 11B |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 182 jagged 1 (Alagille syndrome) |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 1836 solute carrier family 26 (sulfate transporter), member 2 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 2045 EPH receptor A7 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 2149 coagulation factor II (thrombin) receptor |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 2150 coagulation factor II (thrombin) receptor-like 1 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 2151 coagulation factor II (thrombin) receptor-like 2 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 2264 fibroblast growth factor receptor 4 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 2321 fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 23768 fibronectin leucine rich transmembrane protein 2 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 2558 gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 25780 RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 2842 G protein-coupled receptor 19 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 2845 G protein-coupled receptor 22 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 2863 G protein-coupled receptor 39 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 2898 glutamate receptor, ionotropic, kainate 2 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 3037 hyaluronan synthase 2 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 3685 integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 4158 melanocortin 2 receptor (adrenocorticotrophic hormone) |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 4897 neuronal cell adhesion molecule |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 5021 oxytocin receptor |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 5026 purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 5031 pyrimidinergic receptor P2Y, G-protein coupled, 6 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 5245 prohibitin |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 5420 podocalyxin-like |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 55117 solute carrier family 6 (neutral amino acid transporter), member 15 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 558 AXL receptor tyrosine kinase |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 56133 protocadherin beta 2 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 5754 PTK7 protein tyrosine kinase 7 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 5795 protein tyrosine phosphatase, receptor type, J |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 6580 solute carrier family 22 (organic cation transporter), member 1 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |

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|----|-----------------------------|----|-----|-------|--------|---|
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 7010 | TEK tyrosine kinase, endothelial |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 7037 | transferrin receptor (p90, CD71) |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 7113 | transmembrane protease, serine 2 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 8685 | macrophage receptor with collagenous structure |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 9076 | claudin 1 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 9482 | syntaxin 8 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 953 | ectonucleoside triphosphate diphosphohydrolase 1 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | integral to plasma membrane | 48 | 969 | 0.341 | 9635 | chloride channel accessory 2 |
| GO | skin development | 2 | 26 | 0.342 | 1289 | collagen, type V, alpha 1 |
| GO | skin development | 2 | 26 | 0.342 | 1290 | collagen, type V, alpha 2 |
| GO | terminal button | 2 | 26 | 0.342 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | terminal button | 2 | 26 | 0.342 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | unfolded protein binding | 6 | 103 | 0.345 | 1047 | calmegin |
| GO | unfolded protein binding | 6 | 103 | 0.345 | 135295 | splicing factor, arginine/serine-rich 13B |
| GO | unfolded protein binding | 6 | 103 | 0.345 | 27429 | HtrA serine peptidase 2 |
| GO | unfolded protein binding | 6 | 103 | 0.345 | 3336 | heat shock 10kDa protein 1 (chaperonin 10) |
| GO | unfolded protein binding | 6 | 103 | 0.345 | 5203 | prefoldin subunit 4 |
| GO | unfolded protein binding | 6 | 103 | 0.345 | 8409 | ubiquitously-expressed transcript |
| GO | membrane raft | 6 | 103 | 0.345 | 146760 | reticulon 4 receptor-like 1 |
| GO | membrane raft | 6 | 103 | 0.345 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | membrane raft | 6 | 103 | 0.345 | 5420 | podocalyxin-like |
| GO | membrane raft | 6 | 103 | 0.345 | 6442 | sarcoglycan, alpha (50kDa dystrophin-associated glycoprotein) |
| GO | membrane raft | 6 | 103 | 0.345 | 7010 | TEK tyrosine kinase, endothelial |
| GO | membrane raft | 6 | 103 | 0.345 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | endocytosis | 6 | 103 | 0.345 | 30011 | SH3-domain kinase binding protein 1 |
| GO | endocytosis | 6 | 103 | 0.345 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | endocytosis | 6 | 103 | 0.345 | 4893 | neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | endocytosis | 6 | 103 | 0.345 | 7037 | transferrin receptor (p90, CD71) |
| GO | endocytosis | 6 | 103 | 0.345 | 8905 | adaptor-related protein complex 1, sigma 2 subunit |
| GO | endocytosis | 6 | 103 | 0.345 | 92737 | delta/notch-like EGF repeat containing |
| GO | cell death | 7 | 123 | 0.346 | 27429 | HtrA serine peptidase 2 |
| GO | cell death | 7 | 123 | 0.346 | 4287 | ataxin 3 |
| GO | cell death | 7 | 123 | 0.346 | 51062 | atlastin GTPase 1 |

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|----|--|---|-----|-------|--------|---|
| GO | cell death | 7 | 123 | 0.346 | 65055 | receptor accessory protein 1 |
| GO | cell death | 7 | 123 | 0.346 | 6683 | spastin |
| GO | cell death | 7 | 123 | 0.346 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | cell death | 7 | 123 | 0.346 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | motor activity | 4 | 64 | 0.346 | 3797 | kinesin family member 3C |
| GO | motor activity | 4 | 64 | 0.346 | 4430 | myosin IB |
| GO | motor activity | 4 | 64 | 0.346 | 4637 | myosin, light chain 6, alkali, smooth muscle and non-muscle |
| GO | motor activity | 4 | 64 | 0.346 | 4651 | myosin X |
| GO | glucose homeostasis | 3 | 45 | 0.348 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | glucose homeostasis | 3 | 45 | 0.348 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | glucose homeostasis | 3 | 45 | 0.348 | 7840 | Alstrom syndrome 1 |
| GO | blood vessel morphogenesis | 1 | 9 | 0.348 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | fascia adherens | 1 | 9 | 0.348 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | myeloid dendritic cell differentiation | 1 | 9 | 0.348 | 10202 | dehydrogenase/reductase (SDR family) member 2 |
| GO | phospholipase binding | 1 | 9 | 0.348 | 10395 | deleted in liver cancer 1 |
| GO | vinculin binding | 1 | 9 | 0.348 | 10395 | deleted in liver cancer 1 |
| GO | ribonuclease P activity | 1 | 9 | 0.348 | 10799 | ribonuclease P/MRP 40kDa subunit |
| GO | regulation of alternative nuclear mRNA | 1 | 9 | 0.348 | 135295 | splicing factor, arginine/serine-rich 13B |
| GO | response to food | 1 | 9 | 0.348 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | outer kinetochore of condensed chromo | 1 | 9 | 0.348 | 220134 | spindle and kinetochore associated complex subunit 1 |
| GO | UV protection | 1 | 9 | 0.348 | 2237 | flap structure-specific endonuclease 1 |
| GO | ubiquinone biosynthetic process | 1 | 9 | 0.348 | 23590 | prenyl (decaprenyl) diphosphate synthase, subunit 1 |
| GO | associative learning | 1 | 9 | 0.348 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | dendrite cytoplasm | 1 | 9 | 0.348 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | holo TFIID complex | 1 | 9 | 0.348 | 2965 | general transcription factor IID, polypeptide 1, 62kDa |
| GO | prostaglandin metabolic process | 1 | 9 | 0.348 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | negative regulation of blood vessel endo | 1 | 9 | 0.348 | 348 | apolipoprotein E |
| GO | positive regulation of membrane protei | 1 | 9 | 0.348 | 348 | apolipoprotein E |
| GO | positive regulation of nitric-oxide syntha | 1 | 9 | 0.348 | 348 | apolipoprotein E |
| GO | regulation of gene-specific transcription | 1 | 9 | 0.348 | 3624 | inhibin, beta A |
| GO | two-component signal transduction syst | 1 | 9 | 0.348 | 3756 | potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | organelle organization | 1 | 9 | 0.348 | 3800 | kinesin family member 5C |
| GO | adult feeding behavior | 1 | 9 | 0.348 | 3952 | leptin |
| GO | ovulation from ovarian follicle | 1 | 9 | 0.348 | 3952 | leptin |
| GO | anterior/posterior axis specification | 1 | 9 | 0.348 | 3975 | LIM homeobox 1 |
| GO | Hsp90 protein binding | 1 | 9 | 0.348 | 406 | aryl hydrocarbon receptor nuclear translocator-like |

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|----|--|---|----|-------|---|
| GO | regulation of protein catabolic process | 1 | 9 | 0.348 | 406 aryl hydrocarbon receptor nuclear translocator-like |
| GO | synaptonemal complex | 1 | 9 | 0.348 | 4292 mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | macrophage differentiation | 1 | 9 | 0.348 | 4318 matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) |
| GO | axonal fasciculation | 1 | 9 | 0.348 | 4897 neuronal cell adhesion molecule |
| GO | Nup107-160 complex | 1 | 9 | 0.348 | 4928 nucleoporin 98kDa |
| GO | sleep | 1 | 9 | 0.348 | 5021 oxytocin receptor |
| GO | telencephalon development | 1 | 9 | 0.348 | 5021 oxytocin receptor |
| GO | positive regulation of receptor-mediated signaling pathway | 1 | 9 | 0.348 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1) |
| GO | vacuolar proton-transporting V-type ATPase activity | 1 | 9 | 0.348 | 51382 ATPase, H ⁺ transporting, lysosomal 34kDa, V1 subunit D |
| GO | phosphoinositide metabolic process | 1 | 9 | 0.348 | 5341 pleckstrin |
| GO | respiratory burst | 1 | 9 | 0.348 | 5588 protein kinase C, theta |
| GO | triglyceride biosynthetic process | 1 | 9 | 0.348 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | male meiosis I | 1 | 9 | 0.348 | 5889 RAD51 homolog C (<i>S. cerevisiae</i>) |
| GO | gonad development | 1 | 9 | 0.348 | 6299 sal-like 1 (<i>Drosophila</i>) |
| GO | proteoglycan biosynthetic process | 1 | 9 | 0.348 | 64131 xylosyltransferase I |
| GO | sodium:hydrogen antiporter activity | 1 | 9 | 0.348 | 6549 solute carrier family 9 (sodium/hydrogen exchanger), member 2 |
| GO | embryonic organ development | 1 | 9 | 0.348 | 6657 SRY (sex determining region Y)-box 2 |
| GO | epithelial tube branching involved in lung morphogenesis | 1 | 9 | 0.348 | 6657 SRY (sex determining region Y)-box 2 |
| GO | cellular response to reactive oxygen species | 1 | 9 | 0.348 | 7168 tropomyosin 1 (alpha) |
| GO | positive regulation of ATPase activity | 1 | 9 | 0.348 | 7168 tropomyosin 1 (alpha) |
| GO | positive regulation of release of sequestered calcium ion | 1 | 9 | 0.348 | 7220 transient receptor potential cation channel, subfamily C, member 1 |
| GO | histone monoubiquitination | 1 | 9 | 0.348 | 7324 ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | actin polymerization or depolymerization | 1 | 9 | 0.348 | 7456 WAS/WASL interacting protein family, member 1 |
| GO | oligosaccharide metabolic process | 1 | 9 | 0.348 | 84620 ST6 beta-galactosamide alpha-2,6-sialyltransferase 2 |
| GO | clathrin coat of trans-Golgi network vesicle | 1 | 9 | 0.348 | 8905 adaptor-related protein complex 1, sigma 2 subunit |
| GO | skeletal muscle fiber development | 1 | 9 | 0.348 | 92737 delta/notch-like EGF repeat containing |
| GO | quinone binding | 1 | 9 | 0.348 | 9540 tumor protein p53 inducible protein 3 |
| GO | positive regulation of JUN kinase activity | 1 | 9 | 0.348 | 9839 zinc finger E-box binding homeobox 2 |
| GO | melanosome | 5 | 84 | 0.351 | 10457 glycoprotein (transmembrane) nmb |
| GO | melanosome | 5 | 84 | 0.351 | 10672 guanine nucleotide binding protein (G protein), alpha 13 |
| GO | melanosome | 5 | 84 | 0.351 | 309 annexin A6 |
| GO | melanosome | 5 | 84 | 0.351 | 54843 synaptotagmin-like 2 |
| GO | melanosome | 5 | 84 | 0.351 | 7037 transferrin receptor (p90, CD71) |
| GO | positive regulation of ubiquitin-protein linkage formation | 4 | 65 | 0.357 | 10213 proteasome (prosome, macropain) 26S subunit, non-ATPase, 14S |
| GO | positive regulation of ubiquitin-protein linkage formation | 4 | 65 | 0.357 | 5702 proteasome (prosome, macropain) 26S subunit, ATPase, 3S |
| GO | positive regulation of ubiquitin-protein linkage formation | 4 | 65 | 0.357 | 5717 proteasome (prosome, macropain) 26S subunit, non-ATPase, 11S |

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|----|--|----|------|-------|--|
| GO | positive regulation of ubiquitin-protein | 4 | 65 | 0.357 | 7324 ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | positive regulation of fibroblast prolifer | 2 | 27 | 0.359 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | positive regulation of fibroblast prolifer | 2 | 27 | 0.359 | 890 cyclin A2 |
| GO | SH2 domain binding | 2 | 27 | 0.359 | 10395 deleted in liver cancer 1 |
| GO | SH2 domain binding | 2 | 27 | 0.359 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | cell-cell adherens junction | 2 | 27 | 0.359 | 1496 catenin (cadherin-associated protein), alpha 2 |
| GO | cell-cell adherens junction | 2 | 27 | 0.359 | 5021 oxytocin receptor |
| GO | cell aging | 2 | 27 | 0.359 | 3028 hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | cell aging | 2 | 27 | 0.359 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | protein ubiquitination | 5 | 85 | 0.361 | 10055 SUMO1 activating enzyme subunit 1 |
| GO | protein ubiquitination | 5 | 85 | 0.361 | 26223 F-box and leucine-rich repeat protein 21 (gene/pseudogene) |
| GO | protein ubiquitination | 5 | 85 | 0.361 | 409 arrestin, beta 2 |
| GO | protein ubiquitination | 5 | 85 | 0.361 | 672 breast cancer 1, early onset |
| GO | protein ubiquitination | 5 | 85 | 0.361 | 7324 ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | cytoplasmic membrane-bounded vesicle | 5 | 85 | 0.361 | 10457 glycoprotein (transmembrane) nmb |
| GO | cytoplasmic membrane-bounded vesicle | 5 | 85 | 0.361 | 409 arrestin, beta 2 |
| GO | cytoplasmic membrane-bounded vesicle | 5 | 85 | 0.361 | 667 dystonin |
| GO | cytoplasmic membrane-bounded vesicle | 5 | 85 | 0.361 | 7037 transferrin receptor (p90, CD71) |
| GO | cytoplasmic membrane-bounded vesicle | 5 | 85 | 0.361 | 7456 WAS/WASL interacting protein family, member 1 |
| GO | early endosome | 5 | 85 | 0.361 | 10612 tripartite motif-containing 3 |
| GO | early endosome | 5 | 85 | 0.361 | 1730 diaphanous homolog 2 (Drosophila) |
| GO | early endosome | 5 | 85 | 0.361 | 57590 WD repeat and FYVE domain containing 1 |
| GO | early endosome | 5 | 85 | 0.361 | 92737 delta/notch-like EGF repeat containing |
| GO | early endosome | 5 | 85 | 0.361 | 9910 RAB GTPase activating protein 1-like |
| GO | peptidase inhibitor activity | 5 | 85 | 0.361 | 12 serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), me |
| GO | peptidase inhibitor activity | 5 | 85 | 0.361 | 140902 R3H domain containing-like |
| GO | peptidase inhibitor activity | 5 | 85 | 0.361 | 332 baculoviral IAP repeat-containing 5 |
| GO | peptidase inhibitor activity | 5 | 85 | 0.361 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | peptidase inhibitor activity | 5 | 85 | 0.361 | 51050 peptidase inhibitor 15 |
| GO | cytosol | 60 | 1230 | 0.364 | 10056 phenylalanyl-tRNA synthetase, beta subunit |
| GO | cytosol | 60 | 1230 | 0.364 | 10254 signal transducing adaptor molecule (SH3 domain and ITAM motif) 2 |
| GO | cytosol | 60 | 1230 | 0.364 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | cytosol | 60 | 1230 | 0.364 | 10395 deleted in liver cancer 1 |
| GO | cytosol | 60 | 1230 | 0.364 | 11077 heat shock transcription factor 2 binding protein |
| GO | cytosol | 60 | 1230 | 0.364 | 158 adenylosuccinate lyase |
| GO | cytosol | 60 | 1230 | 0.364 | 1716 deoxyguanosine kinase |

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|----|---------|----|------|-------|--|
| GO | cytosol | 60 | 1230 | 0.364 | 1730 diaphanous homolog 2 (Drosophila) |
| GO | cytosol | 60 | 1230 | 0.364 | 1781 dynein, cytoplasmic 1, intermediate chain 2 |
| GO | cytosol | 60 | 1230 | 0.364 | 1830 desmoglein 3 (pemphigus vulgaris antigen) |
| GO | cytosol | 60 | 1230 | 0.364 | 1841 deoxythymidylate kinase (thymidylate kinase) |
| GO | cytosol | 60 | 1230 | 0.364 | 1983 eukaryotic translation initiation factor 5 |
| GO | cytosol | 60 | 1230 | 0.364 | 1984 eukaryotic translation initiation factor 5A |
| GO | cytosol | 60 | 1230 | 0.364 | 2172 fatty acid binding protein 6, ileal |
| GO | cytosol | 60 | 1230 | 0.364 | 2242 feline sarcoma oncogene |
| GO | cytosol | 60 | 1230 | 0.364 | 2273 four and a half LIM domains 1 |
| GO | cytosol | 60 | 1230 | 0.364 | 2281 FK506 binding protein 1B, 12.6 kDa |
| GO | cytosol | 60 | 1230 | 0.364 | 22934 ribose 5-phosphate isomerase A |
| GO | cytosol | 60 | 1230 | 0.364 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | cytosol | 60 | 1230 | 0.364 | 26230 T-cell lymphoma invasion and metastasis 2 |
| GO | cytosol | 60 | 1230 | 0.364 | 27289 Rho family GTPase 1 |
| GO | cytosol | 60 | 1230 | 0.364 | 27330 ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | cytosol | 60 | 1230 | 0.364 | 27429 HtrA serine peptidase 2 |
| GO | cytosol | 60 | 1230 | 0.364 | 30011 SH3-domain kinase binding protein 1 |
| GO | cytosol | 60 | 1230 | 0.364 | 3157 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) |
| GO | cytosol | 60 | 1230 | 0.364 | 3248 hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | cytosol | 60 | 1230 | 0.364 | 332 baculoviral IAP repeat-containing 5 |
| GO | cytosol | 60 | 1230 | 0.364 | 355 Fas (TNF receptor superfamily, member 6) |
| GO | cytosol | 60 | 1230 | 0.364 | 3836 karyopherin alpha 1 (importin alpha 5) |
| GO | cytosol | 60 | 1230 | 0.364 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | cytosol | 60 | 1230 | 0.364 | 3936 lymphocyte cytosolic protein 1 (L-plastin) |
| GO | cytosol | 60 | 1230 | 0.364 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | cytosol | 60 | 1230 | 0.364 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | cytosol | 60 | 1230 | 0.364 | 50940 phosphodiesterase 11A |
| GO | cytosol | 60 | 1230 | 0.364 | 51121 ribosomal protein L26-like 1 |
| GO | cytosol | 60 | 1230 | 0.364 | 5203 prefoldin subunit 4 |
| GO | cytosol | 60 | 1230 | 0.364 | 5341 pleckstrin |
| GO | cytosol | 60 | 1230 | 0.364 | 57590 WD repeat and FYVE domain containing 1 |
| GO | cytosol | 60 | 1230 | 0.364 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | cytosol | 60 | 1230 | 0.364 | 581 BCL2-associated X protein |
| GO | cytosol | 60 | 1230 | 0.364 | 586 branched chain aminotransferase 1, cytosolic |
| GO | cytosol | 60 | 1230 | 0.364 | 5924 Ras protein-specific guanine nucleotide-releasing factor 2 |
| GO | cytosol | 60 | 1230 | 0.364 | 6133 ribosomal protein L9 |

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|----|---|----|------|-------|-------|--|
| GO | cytosol | 60 | 1230 | 0.364 | 6154 | ribosomal protein L26 |
| GO | cytosol | 60 | 1230 | 0.364 | 6204 | ribosomal protein S10 |
| GO | cytosol | 60 | 1230 | 0.364 | 6251 | Ras suppressor protein 1 |
| GO | cytosol | 60 | 1230 | 0.364 | 6637 | small nuclear ribonucleoprotein polypeptide G |
| GO | cytosol | 60 | 1230 | 0.364 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | cytosol | 60 | 1230 | 0.364 | 6711 | spectrin, beta, non-erythrocytic 1 |
| GO | cytosol | 60 | 1230 | 0.364 | 6820 | sulfotransferase family, cytosolic, 2B, member 1 |
| GO | cytosol | 60 | 1230 | 0.364 | 7324 | ubiquitin-conjugating enzyme E2E 1 (UBC4/5 homolog, yeast) |
| GO | cytosol | 60 | 1230 | 0.364 | 7353 | ubiquitin fusion degradation 1 like (yeast) |
| GO | cytosol | 60 | 1230 | 0.364 | 7389 | uroporphyrinogen decarboxylase |
| GO | cytosol | 60 | 1230 | 0.364 | 7840 | Alstrom syndrome 1 |
| GO | cytosol | 60 | 1230 | 0.364 | 7846 | tubulin, alpha 1a |
| GO | cytosol | 60 | 1230 | 0.364 | 79833 | gem (nuclear organelle) associated protein 6 |
| GO | cytosol | 60 | 1230 | 0.364 | 8905 | adaptor-related protein complex 1, sigma 2 subunit |
| GO | cytosol | 60 | 1230 | 0.364 | 898 | cyclin E1 |
| GO | cytosol | 60 | 1230 | 0.364 | 8997 | kalirin, RhoGEF kinase |
| GO | cytosol | 60 | 1230 | 0.364 | 91801 | alkB, alkylation repair homolog 8 (E. coli) |
| GO | positive regulation of transcription | 8 | 146 | 0.368 | 10474 | transcriptional adaptor 3 |
| GO | positive regulation of transcription | 8 | 146 | 0.368 | 2736 | GLI family zinc finger 2 |
| GO | positive regulation of transcription | 8 | 146 | 0.368 | 3516 | recombination signal binding protein for immunoglobulin kappa J region |
| GO | positive regulation of transcription | 8 | 146 | 0.368 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | positive regulation of transcription | 8 | 146 | 0.368 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | positive regulation of transcription | 8 | 146 | 0.368 | 7046 | transforming growth factor, beta receptor 1 |
| GO | positive regulation of transcription | 8 | 146 | 0.368 | 7490 | Wilms tumor 1 |
| GO | positive regulation of transcription | 8 | 146 | 0.368 | 890 | cyclin A2 |
| GO | structural constituent of ribosome | 8 | 146 | 0.368 | 11222 | mitochondrial ribosomal protein L3 |
| GO | structural constituent of ribosome | 8 | 146 | 0.368 | 28998 | mitochondrial ribosomal protein L13 |
| GO | structural constituent of ribosome | 8 | 146 | 0.368 | 51023 | mitochondrial ribosomal protein S18C |
| GO | structural constituent of ribosome | 8 | 146 | 0.368 | 51121 | ribosomal protein L26-like 1 |
| GO | structural constituent of ribosome | 8 | 146 | 0.368 | 6133 | ribosomal protein L9 |
| GO | structural constituent of ribosome | 8 | 146 | 0.368 | 6154 | ribosomal protein L26 |
| GO | structural constituent of ribosome | 8 | 146 | 0.368 | 65003 | mitochondrial ribosomal protein L11 |
| GO | structural constituent of ribosome | 8 | 146 | 0.368 | 65008 | mitochondrial ribosomal protein L1 |
| GO | RNA polymerase II transcription factor α | 7 | 126 | 0.369 | 2305 | forkhead box M1 |
| GO | RNA polymerase II transcription factor α | 7 | 126 | 0.369 | 29128 | ubiquitin-like with PHD and ring finger domains 1 |
| GO | RNA polymerase II transcription factor α | 7 | 126 | 0.369 | 3236 | homeobox D10 |

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|----|---|---|-----|-------|--|
| GO | RNA polymerase II transcription factor α | 7 | 126 | 0.369 | 3975 LIM homeobox 1 |
| GO | RNA polymerase II transcription factor α | 7 | 126 | 0.369 | 4094 v-maf musculoaponeurotic fibrosarcoma oncogene homolog (avian) |
| GO | RNA polymerase II transcription factor α | 7 | 126 | 0.369 | 6662 SRY (sex determining region Y)-box 9 |
| GO | RNA polymerase II transcription factor α | 7 | 126 | 0.369 | 6899 T-box 1 |
| GO | protein heterooligomerization | 3 | 47 | 0.374 | 1000 cadherin 2, type 1, N-cadherin (neuronal) |
| GO | protein heterooligomerization | 3 | 47 | 0.374 | 3751 potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | protein heterooligomerization | 3 | 47 | 0.374 | 55752 septin 11 |
| GO | neuron differentiation | 3 | 47 | 0.374 | 3224 homeobox C8 |
| GO | neuron differentiation | 3 | 47 | 0.374 | 347733 tubulin, beta 2B |
| GO | neuron differentiation | 3 | 47 | 0.374 | 5588 protein kinase C, theta |
| GO | voltage-gated ion channel activity | 8 | 147 | 0.375 | 3751 potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | voltage-gated ion channel activity | 8 | 147 | 0.375 | 3754 potassium voltage-gated channel, subfamily F, member 1 |
| GO | voltage-gated ion channel activity | 8 | 147 | 0.375 | 3756 potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | voltage-gated ion channel activity | 8 | 147 | 0.375 | 3763 potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | voltage-gated ion channel activity | 8 | 147 | 0.375 | 3778 potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | voltage-gated ion channel activity | 8 | 147 | 0.375 | 56479 potassium voltage-gated channel, KQT-like subfamily, member 5 |
| GO | voltage-gated ion channel activity | 8 | 147 | 0.375 | 6335 sodium channel, voltage-gated, type IX, alpha subunit |
| GO | voltage-gated ion channel activity | 8 | 147 | 0.375 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | negative regulation of angiogenesis | 2 | 28 | 0.376 | 1284 collagen, type IV, alpha 2 |
| GO | negative regulation of angiogenesis | 2 | 28 | 0.376 | 6347 chemokine (C-C motif) ligand 2 |
| GO | positive regulation of DNA replication | 2 | 28 | 0.376 | 1763 DNA replication helicase 2 homolog (yeast) |
| GO | positive regulation of DNA replication | 2 | 28 | 0.376 | 2736 GLI family zinc finger 2 |
| GO | memory | 2 | 28 | 0.376 | 5021 oxytocin receptor |
| GO | memory | 2 | 28 | 0.376 | 9420 cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | activation of phospholipase C activity by | 2 | 28 | 0.376 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |
| GO | activation of phospholipase C activity by | 2 | 28 | 0.376 | 5031 pyrimidinergic receptor P2Y, G-protein coupled, 6 |
| GO | sensory perception of pain | 2 | 28 | 0.376 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |
| GO | sensory perception of pain | 2 | 28 | 0.376 | 60675 prokineticin 2 |
| GO | axon | 7 | 127 | 0.377 | 1496 catenin (cadherin-associated protein), alpha 2 |
| GO | axon | 7 | 127 | 0.377 | 23705 cell adhesion molecule 1 |
| GO | axon | 7 | 127 | 0.377 | 2898 glutamate receptor, ionotropic, kainate 2 |
| GO | axon | 7 | 127 | 0.377 | 3763 potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | axon | 7 | 127 | 0.377 | 4763 neurofibromin 1 |
| GO | axon | 7 | 127 | 0.377 | 51062 atlastin GTPase 1 |
| GO | axon | 7 | 127 | 0.377 | 55752 septin 11 |
| GO | cardiac muscle tissue development | 1 | 10 | 0.379 | 10052 gap junction protein, gamma 1, 45kDa |

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|----|--|---|----|-------|--------|---|
| GO | regulation of actin cytoskeleton organiz | 1 | 10 | 0.379 | 10395 | deleted in liver cancer 1 |
| GO | ribonucleoprotein binding | 1 | 10 | 0.379 | 10465 | peptidylprolyl isomerase H (cyclophilin H) |
| GO | acetylcholine binding | 1 | 10 | 0.379 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | oxygen transporter activity | 1 | 10 | 0.379 | 114757 | cytoglobin |
| GO | oxygen transport | 1 | 10 | 0.379 | 114757 | cytoglobin |
| GO | transcription elongation regulator activi | 1 | 10 | 0.379 | 170082 | transcription elongation factor A (SII) N-terminal and central domain contain |
| GO | hormone biosynthetic process | 1 | 10 | 0.379 | 1733 | deiodinase, iodothyronine, type I |
| GO | cytoplasmic dynein complex | 1 | 10 | 0.379 | 1781 | dynein, cytoplasmic 1, intermediate chain 2 |
| GO | regulation of gene expression by geneti | 1 | 10 | 0.379 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | ATP metabolic process | 1 | 10 | 0.379 | 203 | adenylate kinase 1 |
| GO | elevation of cytosolic calcium ion conce | 1 | 10 | 0.379 | 2149 | coagulation factor II (thrombin) receptor |
| GO | positive regulation of collagen biosynthe | 1 | 10 | 0.379 | 2149 | coagulation factor II (thrombin) receptor |
| GO | positive regulation of positive chemotax | 1 | 10 | 0.379 | 2150 | coagulation factor II (thrombin) receptor-like 1 |
| GO | NAD metabolic process | 1 | 10 | 0.379 | 23057 | nicotinamide nucleotide adenylyltransferase 2 |
| GO | fatty acid transport | 1 | 10 | 0.379 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | cilium membrane | 1 | 10 | 0.379 | 27241 | Bardet-Biedl syndrome 9 |
| GO | osteoblast development | 1 | 10 | 0.379 | 2736 | GLI family zinc finger 2 |
| GO | glutathione peroxidase activity | 1 | 10 | 0.379 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | outer membrane-bounded periplasmic : | 1 | 10 | 0.379 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | Ran GTPase binding | 1 | 10 | 0.379 | 332 | baculoviral IAP repeat-containing 5 |
| GO | cholesterol catabolic process | 1 | 10 | 0.379 | 348 | apolipoprotein E |
| GO | lipoprotein binding | 1 | 10 | 0.379 | 348 | apolipoprotein E |
| GO | negative regulation of hormone secretio | 1 | 10 | 0.379 | 3589 | interleukin 11 |
| GO | small conjugating protein ligase activity | 1 | 10 | 0.379 | 389898 | ubiquitin-conjugating enzyme E2N-like |
| GO | phosphoinositide 3-kinase binding | 1 | 10 | 0.379 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | positive regulation of T cell activation | 1 | 10 | 0.379 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | double-strand break repair via nonhom | 1 | 10 | 0.379 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | cognition | 1 | 10 | 0.379 | 4763 | neurofibromin 1 |
| GO | positive regulation of smooth muscle ce | 1 | 10 | 0.379 | 5031 | pyrimidinergic receptor P2Y, G-protein coupled, 6 |
| GO | defense response to Gram-negative bac | 1 | 10 | 0.379 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | negative regulation of fibrinolysis | 1 | 10 | 0.379 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | positive regulation of interleukin-8 prod | 1 | 10 | 0.379 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | Golgi lumen | 1 | 10 | 0.379 | 5125 | proprotein convertase subtilisin/kexin type 5 |
| GO | 3',5'-cyclic-AMP phosphodiesterase acti | 1 | 10 | 0.379 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | XY body | 1 | 10 | 0.379 | 56852 | RAD18 homolog (S. cerevisiae) |
| GO | positive regulation of activated T cell pr | 1 | 10 | 0.379 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |

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|----|--|----|-----|-------|--------|--|
| GO | defense response to fungus | 1 | 10 | 0.379 | 57817 | hepcidin antimicrobial peptide |
| GO | killing of cells of another organism | 1 | 10 | 0.379 | 57817 | hepcidin antimicrobial peptide |
| GO | apoptotic mitochondrial changes | 1 | 10 | 0.379 | 581 | BCL2-associated X protein |
| GO | regulation of mitochondrial membrane | 1 | 10 | 0.379 | 581 | BCL2-associated X protein |
| GO | limb development | 1 | 10 | 0.379 | 6299 | sal-like 1 (Drosophila) |
| GO | macrophage chemotaxis | 1 | 10 | 0.379 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | positive regulation of epithelial cell migration | 1 | 10 | 0.379 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | microtubule plus-end binding | 1 | 10 | 0.379 | 667 | dystonin |
| GO | microtubule bundle formation | 1 | 10 | 0.379 | 6683 | spastin |
| GO | I band | 1 | 10 | 0.379 | 70 | actin, alpha, cardiac muscle 1 |
| GO | response to iron ion | 1 | 10 | 0.379 | 7037 | transferrin receptor (p90, CD71) |
| GO | I-SMAD binding | 1 | 10 | 0.379 | 7046 | transforming growth factor, beta receptor 1 |
| GO | transforming growth factor beta binding | 1 | 10 | 0.379 | 7046 | transforming growth factor, beta receptor 1 |
| GO | metalloendopeptidase inhibitor activity | 1 | 10 | 0.379 | 7078 | TIMP metallopeptidase inhibitor 3 |
| GO | Wnt receptor activity | 1 | 10 | 0.379 | 8325 | frizzled homolog 8 (Drosophila) |
| GO | signalosome | 1 | 10 | 0.379 | 8533 | COP9 constitutive photomorphogenic homolog subunit 3 (Arabidopsis) |
| GO | L-glutamate transmembrane transporter | 1 | 10 | 0.379 | 8604 | solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | G1 phase of mitotic cell cycle | 1 | 10 | 0.379 | 8872 | cell division cycle 123 homolog (S. cerevisiae) |
| GO | cytokine binding | 1 | 10 | 0.379 | 9244 | cytokine receptor-like factor 1 |
| GO | prostate gland epithelium morphogenesis | 1 | 10 | 0.379 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | nuclear membrane | 5 | 87 | 0.379 | 166336 | prickle homolog 2 (Drosophila) |
| GO | nuclear membrane | 5 | 87 | 0.379 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | nuclear membrane | 5 | 87 | 0.379 | 4928 | nucleoporin 98kDa |
| GO | nuclear membrane | 5 | 87 | 0.379 | 7341 | SMT3 suppressor of mif two 3 homolog 1 (S. cerevisiae) |
| GO | nuclear membrane | 5 | 87 | 0.379 | 9805 | secernin 1 |
| GO | visual perception | 10 | 189 | 0.382 | 10052 | gap junction protein, gamma 1, 45kDa |
| GO | visual perception | 10 | 189 | 0.382 | 1121 | choroideremia (Rab escort protein 1) |
| GO | visual perception | 10 | 189 | 0.382 | 1301 | collagen, type XI, alpha 1 |
| GO | visual perception | 10 | 189 | 0.382 | 27241 | Bardet-Biedl syndrome 9 |
| GO | visual perception | 10 | 189 | 0.382 | 4060 | lumican |
| GO | visual perception | 10 | 189 | 0.382 | 5145 | phosphodiesterase 6A, cGMP-specific, rod, alpha |
| GO | visual perception | 10 | 189 | 0.382 | 5264 | phytanoyl-CoA 2-hydroxylase |
| GO | visual perception | 10 | 189 | 0.382 | 6785 | elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like |
| GO | visual perception | 10 | 189 | 0.382 | 7078 | TIMP metallopeptidase inhibitor 3 |
| GO | visual perception | 10 | 189 | 0.382 | 7840 | Alstrom syndrome 1 |
| GO | ATPase activity | 7 | 128 | 0.385 | 1763 | DNA replication helicase 2 homolog (yeast) |

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|----|-------------------------------------|----|-----|-------|--------|--|
| GO | ATPase activity | 7 | 128 | 0.385 | 26154 | ATP-binding cassette, sub-family A (ABC1), member 12 |
| GO | ATPase activity | 7 | 128 | 0.385 | 340273 | ATP-binding cassette, sub-family B (MDR/TAP), member 5 |
| GO | ATPase activity | 7 | 128 | 0.385 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | ATPase activity | 7 | 128 | 0.385 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | ATPase activity | 7 | 128 | 0.385 | 6833 | ATP-binding cassette, sub-family C (CFTR/MRP), member 8 |
| GO | ATPase activity | 7 | 128 | 0.385 | 70 | actin, alpha, cardiac muscle 1 |
| GO | serine-type peptidase activity | 3 | 48 | 0.387 | 344805 | transmembrane protease, serine 7 |
| GO | serine-type peptidase activity | 3 | 48 | 0.387 | 7113 | transmembrane protease, serine 2 |
| GO | serine-type peptidase activity | 3 | 48 | 0.387 | 90701 | SEC11 homolog C (S. cerevisiae) |
| GO | fatty acid biosynthetic process | 3 | 48 | 0.387 | 55301 | oleoyl-ACP hydrolase |
| GO | fatty acid biosynthetic process | 3 | 48 | 0.387 | 6785 | elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like |
| GO | fatty acid biosynthetic process | 3 | 48 | 0.387 | 79993 | ELOVL family member 7, elongation of long chain fatty acids (yeast) |
| GO | cytokine-mediated signaling pathway | 3 | 48 | 0.387 | 55854 | zinc finger CCCH-type containing 15 |
| GO | cytokine-mediated signaling pathway | 3 | 48 | 0.387 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | cytokine-mediated signaling pathway | 3 | 48 | 0.387 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | positive regulation of apoptosis | 6 | 108 | 0.387 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | positive regulation of apoptosis | 6 | 108 | 0.387 | 27429 | HtrA serine peptidase 2 |
| GO | positive regulation of apoptosis | 6 | 108 | 0.387 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | positive regulation of apoptosis | 6 | 108 | 0.387 | 4318 | matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) |
| GO | positive regulation of apoptosis | 6 | 108 | 0.387 | 4763 | neurofibromin 1 |
| GO | positive regulation of apoptosis | 6 | 108 | 0.387 | 6659 | SRY (sex determining region Y)-box 4 |
| GO | mRNA processing | 12 | 231 | 0.387 | 10189 | THO complex 4 |
| GO | mRNA processing | 12 | 231 | 0.387 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | mRNA processing | 12 | 231 | 0.387 | 10656 | KH domain containing, RNA binding, signal transduction associated 3 |
| GO | mRNA processing | 12 | 231 | 0.387 | 135295 | splicing factor, arginine/serine-rich 13B |
| GO | mRNA processing | 12 | 231 | 0.387 | 23658 | LSM5 homolog, U6 small nuclear RNA associated (S. cerevisiae) |
| GO | mRNA processing | 12 | 231 | 0.387 | 27258 | LSM3 homolog, U6 small nuclear RNA associated (S. cerevisiae) |
| GO | mRNA processing | 12 | 231 | 0.387 | 51645 | peptidylprolyl isomerase (cyclophilin)-like 1 |
| GO | mRNA processing | 12 | 231 | 0.387 | 53981 | cleavage and polyadenylation specific factor 2, 100kDa |
| GO | mRNA processing | 12 | 231 | 0.387 | 58155 | polypyrimidine tract binding protein 2 |
| GO | mRNA processing | 12 | 231 | 0.387 | 6637 | small nuclear ribonucleoprotein polypeptide G |
| GO | mRNA processing | 12 | 231 | 0.387 | 8458 | transcription termination factor, RNA polymerase II |
| GO | mRNA processing | 12 | 231 | 0.387 | 8563 | THO complex 5 |
| GO | electron carrier activity | 8 | 149 | 0.389 | 10539 | glutaredoxin 3 |
| GO | electron carrier activity | 8 | 149 | 0.389 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | electron carrier activity | 8 | 149 | 0.389 | 339761 | cytochrome P450, family 27, subfamily C, polypeptide 1 |

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|----|---|----|-----|-------|--------|---|
| GO | electron carrier activity | 8 | 149 | 0.389 | 51218 | glutaredoxin 5 |
| GO | electron carrier activity | 8 | 149 | 0.389 | 5264 | phytanoyl-CoA 2-hydroxylase |
| GO | electron carrier activity | 8 | 149 | 0.389 | 8659 | aldehyde dehydrogenase 4 family, member A1 |
| GO | electron carrier activity | 8 | 149 | 0.389 | 91942 | NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, assembly factor 2 |
| GO | electron carrier activity | 8 | 149 | 0.389 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | steroid metabolic process | 4 | 68 | 0.389 | 114880 | oxysterol binding protein-like 6 |
| GO | steroid metabolic process | 4 | 68 | 0.389 | 2172 | fatty acid binding protein 6, ileal |
| GO | steroid metabolic process | 4 | 68 | 0.389 | 6820 | sulfotransferase family, cytosolic, 2B, member 1 |
| GO | steroid metabolic process | 4 | 68 | 0.389 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | Rho guanyl-nucleotide exchange factor | 4 | 68 | 0.389 | 153478 | pleckstrin homology domain containing, family G (with RhoGef domain) me |
| GO | Rho guanyl-nucleotide exchange factor | 4 | 68 | 0.389 | 26230 | T-cell lymphoma invasion and metastasis 2 |
| GO | Rho guanyl-nucleotide exchange factor | 4 | 68 | 0.389 | 5924 | Ras protein-specific guanine nucleotide-releasing factor 2 |
| GO | Rho guanyl-nucleotide exchange factor | 4 | 68 | 0.389 | 8997 | kalirin, RhoGEF kinase |
| GO | protein kinase C binding | 2 | 29 | 0.393 | 10539 | glutaredoxin 3 |
| GO | protein kinase C binding | 2 | 29 | 0.393 | 5341 | pleckstrin |
| GO | positive regulation of smooth muscle ce | 2 | 29 | 0.393 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | positive regulation of smooth muscle ce | 2 | 29 | 0.393 | 3516 | recombination signal binding protein for immunoglobulin kappa J region |
| GO | growth | 2 | 29 | 0.393 | 3624 | inhibin, beta A |
| GO | growth | 2 | 29 | 0.393 | 84620 | ST6 beta-galactosamide alpha-2,6-sialyltransferase 2 |
| GO | positive regulation of ERK1 and ERK2 ca | 2 | 29 | 0.393 | 409 | arrestin, beta 2 |
| GO | positive regulation of ERK1 and ERK2 ca | 2 | 29 | 0.393 | 7010 | TEK tyrosine kinase, endothelial |
| GO | soluble fraction | 16 | 315 | 0.393 | 10056 | phenylalanyl-tRNA synthetase, beta subunit |
| GO | soluble fraction | 16 | 315 | 0.393 | 11142 | protein kinase (cAMP-dependent, catalytic) inhibitor gamma |
| GO | soluble fraction | 16 | 315 | 0.393 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | soluble fraction | 16 | 315 | 0.393 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | soluble fraction | 16 | 315 | 0.393 | 3157 | 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) |
| GO | soluble fraction | 16 | 315 | 0.393 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | soluble fraction | 16 | 315 | 0.393 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | soluble fraction | 16 | 315 | 0.393 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | soluble fraction | 16 | 315 | 0.393 | 50940 | phosphodiesterase 11A |
| GO | soluble fraction | 16 | 315 | 0.393 | 5341 | pleckstrin |
| GO | soluble fraction | 16 | 315 | 0.393 | 55577 | N-acetylglucosamine kinase |
| GO | soluble fraction | 16 | 315 | 0.393 | 5569 | protein kinase (cAMP-dependent, catalytic) inhibitor alpha |
| GO | soluble fraction | 16 | 315 | 0.393 | 5588 | protein kinase C, theta |
| GO | soluble fraction | 16 | 315 | 0.393 | 70 | actin, alpha, cardiac muscle 1 |
| GO | soluble fraction | 16 | 315 | 0.393 | 729230 | chemokine (C-C motif) receptor 2 |

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|----|-----------------------------------|----|-----|-------|--------|---|
| GO | soluble fraction | 16 | 315 | 0.393 | 8788 | delta-like 1 homolog (Drosophila) |
| GO | microtubule | 12 | 233 | 0.399 | 1781 | dynein, cytoplasmic 1, intermediate chain 2 |
| GO | microtubule | 12 | 233 | 0.399 | 26586 | cytoskeleton associated protein 2 |
| GO | microtubule | 12 | 233 | 0.399 | 347733 | tubulin, beta 2B |
| GO | microtubule | 12 | 233 | 0.399 | 3797 | kinesin family member 3C |
| GO | microtubule | 12 | 233 | 0.399 | 3800 | kinesin family member 5C |
| GO | microtubule | 12 | 233 | 0.399 | 400954 | echinoderm microtubule associated protein like 6 |
| GO | microtubule | 12 | 233 | 0.399 | 54839 | leucine rich repeat containing 49 |
| GO | microtubule | 12 | 233 | 0.399 | 6683 | spastin |
| GO | microtubule | 12 | 233 | 0.399 | 79187 | fibronectin type III and SPRY domain containing 1 |
| GO | microtubule | 12 | 233 | 0.399 | 79861 | tubulin, alpha-like 3 |
| GO | microtubule | 12 | 233 | 0.399 | 9053 | microtubule-associated protein 7 |
| GO | microtubule | 12 | 233 | 0.399 | 93323 | HAUS augmin-like complex, subunit 8 |
| GO | phospholipid biosynthetic process | 3 | 49 | 0.399 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | phospholipid biosynthetic process | 3 | 49 | 0.399 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | phospholipid biosynthetic process | 3 | 49 | 0.399 | 5833 | phosphate cytidyltransferase 2, ethanolamine |
| GO | single-stranded DNA binding | 3 | 49 | 0.399 | 4292 | mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli) |
| GO | single-stranded DNA binding | 3 | 49 | 0.399 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | single-stranded DNA binding | 3 | 49 | 0.399 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | mRNA transport | 3 | 49 | 0.399 | 4928 | nucleoporin 98kDa |
| GO | mRNA transport | 3 | 49 | 0.399 | 55916 | nuclear transport factor 2-like export factor 2 |
| GO | mRNA transport | 3 | 49 | 0.399 | 9688 | nucleoporin 93kDa |
| GO | protein transporter activity | 4 | 69 | 0.4 | 11154 | adaptor-related protein complex 4, sigma 1 subunit |
| GO | protein transporter activity | 4 | 69 | 0.4 | 3836 | karyopherin alpha 1 (importin alpha 5) |
| GO | protein transporter activity | 4 | 69 | 0.4 | 3838 | karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | protein transporter activity | 4 | 69 | 0.4 | 8905 | adaptor-related protein complex 1, sigma 2 subunit |
| GO | cell communication | 5 | 90 | 0.407 | 127534 | gap junction protein, beta 4, 30.3kDa |
| GO | cell communication | 5 | 90 | 0.407 | 182 | jagged 1 (Alagille syndrome) |
| GO | cell communication | 5 | 90 | 0.407 | 29887 | sorting nexin 10 |
| GO | cell communication | 5 | 90 | 0.407 | 4763 | neurofibromin 1 |
| GO | cell communication | 5 | 90 | 0.407 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | spindle | 5 | 90 | 0.407 | 23157 | septin 6 |
| GO | spindle | 5 | 90 | 0.407 | 332 | baculoviral IAP repeat-containing 5 |
| GO | spindle | 5 | 90 | 0.407 | 5303 | protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | spindle | 5 | 90 | 0.407 | 54984 | PIN2-interacting protein 1 |
| GO | spindle | 5 | 90 | 0.407 | 6683 | spastin |

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|----|--|---|----|-------|--------|--|
| GO | gamma-catenin binding | 1 | 11 | 0.407 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | positive regulation of axon extension | 1 | 11 | 0.407 | 1002 | cadherin 4, type 1, R-cadherin (retinal) |
| GO | mitotic sister chromatid segregation | 1 | 11 | 0.407 | 10051 | structural maintenance of chromosomes 4 |
| GO | cell-cell junction assembly | 1 | 11 | 0.407 | 10052 | gap junction protein, gamma 1, 45kDa |
| GO | cellular response to oxidative stress | 1 | 11 | 0.407 | 10202 | dehydrogenase/reductase (SDR family) member 2 |
| GO | cyclin-dependent protein kinase inhibition | 1 | 11 | 0.407 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | trophoblast cell differentiation | 1 | 11 | 0.407 | 1045 | caudal type homeobox 2 |
| GO | estrogen receptor signaling pathway | 1 | 11 | 0.407 | 10474 | transcriptional adaptor 3 |
| GO | positive regulation of neurogenesis | 1 | 11 | 0.407 | 10683 | delta-like 3 (Drosophila) |
| GO | gap junction channel activity | 1 | 11 | 0.407 | 127534 | gap junction protein, beta 4, 30.3kDa |
| GO | response to vitamin A | 1 | 11 | 0.407 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | protein tetramerization | 1 | 11 | 0.407 | 158 | adenylosuccinate lyase |
| GO | DNA methylation involved in gamete gene | 1 | 11 | 0.407 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | cell fate determination | 1 | 11 | 0.407 | 182 | jagged 1 (Alagille syndrome) |
| GO | pyridine nucleotide biosynthetic process | 1 | 11 | 0.407 | 23057 | nicotinamide nucleotide adenylyltransferase 2 |
| GO | positive regulation of vascular endothelial | 1 | 11 | 0.407 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability) |
| GO | long-chain fatty acid-CoA ligase activity | 1 | 11 | 0.407 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | positive regulation of neuron projection | 1 | 11 | 0.407 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | cell recognition | 1 | 11 | 0.407 | 23705 | cell adhesion molecule 1 |
| GO | Ras GTPase binding | 1 | 11 | 0.407 | 25780 | RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | morphogenesis of an epithelium | 1 | 11 | 0.407 | 2736 | GLI family zinc finger 2 |
| GO | adenylate cyclase activity | 1 | 11 | 0.407 | 2774 | guanine nucleotide binding protein (G protein), alpha activating activity polypeptide 1 |
| GO | regulation of synaptic transmission | 1 | 11 | 0.407 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | RNA polymerase II carboxy-terminal domain | 1 | 11 | 0.407 | 2965 | general transcription factor IIF, polypeptide 1, 62kDa |
| GO | DNA bending activity | 1 | 11 | 0.407 | 3149 | high-mobility group box 3 |
| GO | low-density lipoprotein receptor binding | 1 | 11 | 0.407 | 348 | apolipoprotein E |
| GO | positive regulation of erythrocyte differentiation | 1 | 11 | 0.407 | 3624 | inhibin, beta A |
| GO | delayed rectifier potassium channel activity | 1 | 11 | 0.407 | 3756 | potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | myoblast fusion | 1 | 11 | 0.407 | 3756 | potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | motor axon guidance | 1 | 11 | 0.407 | 3800 | kinesin family member 5C |
| GO | hemidesmosome assembly | 1 | 11 | 0.407 | 3918 | laminin, gamma 2 |
| GO | pericentriolar material | 1 | 11 | 0.407 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | bile acid metabolic process | 1 | 11 | 0.407 | 3952 | leptin |
| GO | cerebellum development | 1 | 11 | 0.407 | 3975 | LIM homeobox 1 |
| GO | negative regulation of protein ubiquitination | 1 | 11 | 0.407 | 409 | arrestin, beta 2 |
| GO | negative regulation of MAPKKK cascade | 1 | 11 | 0.407 | 4763 | neurofibromin 1 |

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|----|---|----|-----|-------|---|
| GO | gamma-tubulin binding | 1 | 11 | 0.407 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | positive regulation of DNA binding | 1 | 11 | 0.407 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | positive regulation of calcium ion transp | 1 | 11 | 0.407 | 5026 purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | endoplasmic reticulum organization | 1 | 11 | 0.407 | 51062 atlastin GTPase 1 |
| GO | peptide hormone processing | 1 | 11 | 0.407 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | protein maturation by peptide bond cle | 1 | 11 | 0.407 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | phosphatidylserine binding | 1 | 11 | 0.407 | 54843 synaptotagmin-like 2 |
| GO | polysaccharide binding | 1 | 11 | 0.407 | 56241 sushi domain containing 2 |
| GO | glucose transmembrane transporter act | 1 | 11 | 0.407 | 6518 solute carrier family 2 (facilitated glucose/fructose transporter), member 5 |
| GO | regulation of calcium ion transport | 1 | 11 | 0.407 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | neural crest cell development | 1 | 11 | 0.407 | 6662 SRY (sex determining region Y)-box 9 |
| GO | oligodendrocyte differentiation | 1 | 11 | 0.407 | 6662 SRY (sex determining region Y)-box 9 |
| GO | non-G-protein coupled 7TM receptor ac | 1 | 11 | 0.407 | 8325 frizzled homolog 8 (Drosophila) |
| GO | phospholipase C activity | 1 | 11 | 0.407 | 9744 ArfGAP with coiled-coil, ankyrin repeat and PH domains 1 |
| GO | peptidase activity | 23 | 465 | 0.408 | 10213 proteasome (prosome, macropain) 26S subunit, non-ATPase, 14 |
| GO | peptidase activity | 23 | 465 | 0.408 | 10893 matrix metallopeptidase 24 (membrane-inserted) |
| GO | peptidase activity | 23 | 465 | 0.408 | 132724 transmembrane protease, serine 11B |
| GO | peptidase activity | 23 | 465 | 0.408 | 162494 rhomboid, veinlet-like 3 (Drosophila) |
| GO | peptidase activity | 23 | 465 | 0.408 | 27429 HtrA serine peptidase 2 |
| GO | peptidase activity | 23 | 465 | 0.408 | 344805 transmembrane protease, serine 7 |
| GO | peptidase activity | 23 | 465 | 0.408 | 373856 ubiquitin specific peptidase 41 |
| GO | peptidase activity | 23 | 465 | 0.408 | 4287 ataxin 3 |
| GO | peptidase activity | 23 | 465 | 0.408 | 4312 matrix metallopeptidase 1 (interstitial collagenase) |
| GO | peptidase activity | 23 | 465 | 0.408 | 4318 matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV c |
| GO | peptidase activity | 23 | 465 | 0.408 | 4319 matrix metallopeptidase 10 (stromelysin 2) |
| GO | peptidase activity | 23 | 465 | 0.408 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | peptidase activity | 23 | 465 | 0.408 | 5184 peptidase D |
| GO | peptidase activity | 23 | 465 | 0.408 | 5624 protein C (inactivator of coagulation factors Va and VIIIa) |
| GO | peptidase activity | 23 | 465 | 0.408 | 5654 HtrA serine peptidase 1 |
| GO | peptidase activity | 23 | 465 | 0.408 | 57478 ubiquitin specific peptidase 31 |
| GO | peptidase activity | 23 | 465 | 0.408 | 7037 transferrin receptor (p90, CD71) |
| GO | peptidase activity | 23 | 465 | 0.408 | 7113 transmembrane protease, serine 2 |
| GO | peptidase activity | 23 | 465 | 0.408 | 7347 ubiquitin carboxyl-terminal esterase L3 (ubiquitin thiolesterase) |
| GO | peptidase activity | 23 | 465 | 0.408 | 84101 ubiquitin specific peptidase 44 |
| GO | peptidase activity | 23 | 465 | 0.408 | 8728 ADAM metallopeptidase domain 19 (meltrin beta) |
| GO | peptidase activity | 23 | 465 | 0.408 | 8747 ADAM metallopeptidase domain 21 |

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|----|---|----|-----|-------|--|
| GO | peptidase activity | 23 | 465 | 0.408 | 90701 SEC11 homolog C (<i>S. cerevisiae</i>) |
| GO | DNA-directed DNA polymerase activity | 2 | 30 | 0.409 | 157570 establishment of cohesion 1 homolog 2 (<i>S. cerevisiae</i>) |
| GO | DNA-directed DNA polymerase activity | 2 | 30 | 0.409 | 56655 polymerase (DNA-directed), epsilon 4 (p12 subunit) |
| GO | steroid biosynthetic process | 2 | 30 | 0.409 | 2232 ferredoxin reductase |
| GO | steroid biosynthetic process | 2 | 30 | 0.409 | 29842 transcription factor CP2-like 1 |
| GO | adult locomotory behavior | 2 | 30 | 0.409 | 2906 glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | adult locomotory behavior | 2 | 30 | 0.409 | 3236 homeobox D10 |
| GO | dorsal/ventral pattern formation | 2 | 30 | 0.409 | 3237 homeobox D11 |
| GO | dorsal/ventral pattern formation | 2 | 30 | 0.409 | 3975 LIM homeobox 1 |
| GO | one-carbon metabolic process | 2 | 30 | 0.409 | 377677 carbonic anhydrase XIII |
| GO | one-carbon metabolic process | 2 | 30 | 0.409 | 767 carbonic anhydrase VIII |
| GO | response to ionizing radiation | 2 | 30 | 0.409 | 64782 apoptosis enhancing nuclease |
| GO | response to ionizing radiation | 2 | 30 | 0.409 | 672 breast cancer 1, early onset |
| GO | negative regulation of transcription fact | 2 | 30 | 0.409 | 6672 SP100 nuclear antigen |
| GO | negative regulation of transcription fact | 2 | 30 | 0.409 | 7341 SMT3 suppressor of mif two 3 homolog 1 (<i>S. cerevisiae</i>) |
| GO | nuclear speck | 6 | 111 | 0.412 | 10189 THO complex 4 |
| GO | nuclear speck | 6 | 111 | 0.412 | 10465 peptidylprolyl isomerase H (cyclophilin H) |
| GO | nuclear speck | 6 | 111 | 0.412 | 56339 methyltransferase like 3 |
| GO | nuclear speck | 6 | 111 | 0.412 | 64318 nucleolar complex associated 3 homolog (<i>S. cerevisiae</i>) |
| GO | nuclear speck | 6 | 111 | 0.412 | 7341 SMT3 suppressor of mif two 3 homolog 1 (<i>S. cerevisiae</i>) |
| GO | nuclear speck | 6 | 111 | 0.412 | 7490 Wilms tumor 1 |
| GO | spindle pole | 3 | 50 | 0.412 | 26586 cytoskeleton associated protein 2 |
| GO | spindle pole | 3 | 50 | 0.412 | 7840 Alstrom syndrome 1 |
| GO | spindle pole | 3 | 50 | 0.412 | 93323 HAUS augmin-like complex, subunit 8 |
| GO | hormone-mediated signaling pathway | 3 | 50 | 0.412 | 2786 guanine nucleotide binding protein (G protein), gamma 4 |
| GO | hormone-mediated signaling pathway | 3 | 50 | 0.412 | 54331 guanine nucleotide binding protein (G protein), gamma 2 |
| GO | hormone-mediated signaling pathway | 3 | 50 | 0.412 | 59345 guanine nucleotide binding protein (G protein), beta polypeptide 4 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 1E+08 forkhead box O6 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 1045 caudal type homeobox 2 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 139324 highly divergent homeobox |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 1746 distal-less homeobox 2 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 2305 forkhead box M1 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 2736 GLI family zinc finger 2 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 3224 homeobox C8 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 3236 homeobox D10 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 3237 homeobox D11 |

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|----|---|----|-----|-------|--------|---|
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 344191 | even-skipped homeobox 2 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 3975 | LIM homeobox 1 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 4094 | v-maf musculoaponeurotic fibrosarcoma oncogene homolog (avian) |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 431707 | LIM homeobox 8 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 5015 | orthodenticle homeobox 2 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 5081 | paired box 7 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 56655 | polymerase (DNA-directed), epsilon 4 (p12 subunit) |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 6474 | short stature homeobox 2 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 6899 | T-box 1 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 7021 | transcription factor AP-2 beta (activating enhancer binding protein 2 beta) |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 7490 | Wilms tumor 1 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 80712 | ESX homeobox 1 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 8626 | tumor protein p63 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 9355 | LIM homeobox 2 |
| GO | sequence-specific DNA binding | 24 | 487 | 0.412 | 9839 | zinc finger E-box binding homeobox 2 |
| GO | induction of apoptosis by extracellular s | 5 | 91 | 0.416 | 26230 | T-cell lymphoma invasion and metastasis 2 |
| GO | induction of apoptosis by extracellular s | 5 | 91 | 0.416 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | induction of apoptosis by extracellular s | 5 | 91 | 0.416 | 581 | BCL2-associated X protein |
| GO | induction of apoptosis by extracellular s | 5 | 91 | 0.416 | 5924 | Ras protein-specific guanine nucleotide-releasing factor 2 |
| GO | induction of apoptosis by extracellular s | 5 | 91 | 0.416 | 8997 | kalirin, RhoGEF kinase |
| GO | protein complex | 8 | 153 | 0.417 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | protein complex | 8 | 153 | 0.417 | 1643 | damage-specific DNA binding protein 2, 48kDa |
| GO | protein complex | 8 | 153 | 0.417 | 309 | annexin A6 |
| GO | protein complex | 8 | 153 | 0.417 | 3516 | recombination signal binding protein for immunoglobulin kappa J region |
| GO | protein complex | 8 | 153 | 0.417 | 6711 | spectrin, beta, non-erythrocytic 1 |
| GO | protein complex | 8 | 153 | 0.417 | 672 | breast cancer 1, early onset |
| GO | protein complex | 8 | 153 | 0.417 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | protein complex | 8 | 153 | 0.417 | 8626 | tumor protein p63 |
| GO | axon guidance | 4 | 71 | 0.421 | 1002 | cadherin 4, type 1, R-cadherin (retinal) |
| GO | axon guidance | 4 | 71 | 0.421 | 2736 | GLI family zinc finger 2 |
| GO | axon guidance | 4 | 71 | 0.421 | 5015 | orthodenticle homeobox 2 |
| GO | axon guidance | 4 | 71 | 0.421 | 6586 | slit homolog 3 (Drosophila) |
| GO | response to glucocorticoid stimulus | 4 | 71 | 0.421 | 3557 | interleukin 1 receptor antagonist |
| GO | response to glucocorticoid stimulus | 4 | 71 | 0.421 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | response to glucocorticoid stimulus | 4 | 71 | 0.421 | 590 | butyrylcholinesterase |
| GO | response to glucocorticoid stimulus | 4 | 71 | 0.421 | 6347 | chemokine (C-C motif) ligand 2 |

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|----|--|----|-----|-------|--------|--|
| GO | hemopoiesis | 3 | 51 | 0.424 | 182 | jagged 1 (Alagille syndrome) |
| GO | hemopoiesis | 3 | 51 | 0.424 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | hemopoiesis | 3 | 51 | 0.424 | 51218 | glutaredoxin 5 |
| GO | heart morphogenesis | 2 | 31 | 0.425 | 10395 | deleted in liver cancer 1 |
| GO | heart morphogenesis | 2 | 31 | 0.425 | 1289 | collagen, type V, alpha 1 |
| GO | ligand-dependent nuclear receptor tran | 2 | 31 | 0.425 | 10474 | transcriptional adaptor 3 |
| GO | ligand-dependent nuclear receptor tran | 2 | 31 | 0.425 | 5469 | mediator complex subunit 1 |
| GO | exonuclease activity | 2 | 31 | 0.425 | 2237 | flap structure-specific endonuclease 1 |
| GO | exonuclease activity | 2 | 31 | 0.425 | 64782 | apoptosis enhancing nuclease |
| GO | symporter activity | 6 | 113 | 0.429 | 201780 | solute carrier family 10 (sodium/bile acid cotransporter family), member 4 |
| GO | symporter activity | 6 | 113 | 0.429 | 387700 | solute carrier family 16, member 12 (monocarboxylic acid transporter 12) |
| GO | symporter activity | 6 | 113 | 0.429 | 55117 | solute carrier family 6 (neutral amino acid transporter), member 15 |
| GO | symporter activity | 6 | 113 | 0.429 | 6527 | solute carrier family 5 (low affinity glucose cotransporter), member 4 |
| GO | symporter activity | 6 | 113 | 0.429 | 729025 | solute carrier family 15, member 5 |
| GO | symporter activity | 6 | 113 | 0.429 | 9497 | solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 114088 | tripartite motif-containing 9 |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 2027 | enolase 3 (beta, muscle) |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 23171 | glycerol-3-phosphate dehydrogenase 1-like |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 23705 | cell adhesion molecule 1 |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 332 | baculoviral IAP repeat-containing 5 |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 348 | apolipoprotein E |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 5228 | placental growth factor |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 5341 | pleckstrin |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 581 | BCL2-associated X protein |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 6672 | SP100 nuclear antigen |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 6899 | T-box 1 |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 83851 | synaptotagmin XVI |
| GO | protein homodimerization activity | 18 | 365 | 0.431 | 9540 | tumor protein p53 inducible protein 3 |
| GO | translation | 10 | 197 | 0.433 | 10056 | phenylalanyl-tRNA synthetase, beta subunit |
| GO | translation | 10 | 197 | 0.433 | 11222 | mitochondrial ribosomal protein L3 |
| GO | translation | 10 | 197 | 0.433 | 1984 | eukaryotic translation initiation factor 5A |

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|----|---|----|-----|-------|-------|---|
| GO | translation | 10 | 197 | 0.433 | 28998 | mitochondrial ribosomal protein L13 |
| GO | translation | 10 | 197 | 0.433 | 51023 | mitochondrial ribosomal protein S18C |
| GO | translation | 10 | 197 | 0.433 | 6133 | ribosomal protein L9 |
| GO | translation | 10 | 197 | 0.433 | 6154 | ribosomal protein L26 |
| GO | translation | 10 | 197 | 0.433 | 6204 | ribosomal protein S10 |
| GO | translation | 10 | 197 | 0.433 | 65003 | mitochondrial ribosomal protein L11 |
| GO | translation | 10 | 197 | 0.433 | 65008 | mitochondrial ribosomal protein L1 |
| GO | negative regulation of cyclin-dependent | 1 | 12 | 0.435 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | STAGA complex | 1 | 12 | 0.435 | 10474 | transcriptional adaptor 3 |
| GO | iron-sulfur cluster binding | 1 | 12 | 0.435 | 10539 | glutaredoxin 3 |
| GO | positive regulation of innate immune re | 1 | 12 | 0.435 | 10622 | polymerase (RNA) III (DNA directed) polypeptide G (32kD) |
| GO | positive regulation of interferon-beta pr | 1 | 12 | 0.435 | 10622 | polymerase (RNA) III (DNA directed) polypeptide G (32kD) |
| GO | regulation of lipid metabolic process | 1 | 12 | 0.435 | 12 | serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), me |
| GO | drug metabolic process | 1 | 12 | 0.435 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | ephrin receptor activity | 1 | 12 | 0.435 | 2045 | EPH receptor A7 |
| GO | positive regulation of calcium ion transp | 1 | 12 | 0.435 | 2149 | coagulation factor II (thrombin) receptor |
| GO | positive regulation of caspase activity | 1 | 12 | 0.435 | 2149 | coagulation factor II (thrombin) receptor |
| GO | glutamate signaling pathway | 1 | 12 | 0.435 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | estradiol 17-beta-dehydrogenase activit | 1 | 12 | 0.435 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | protein methyltransferase activity | 1 | 12 | 0.435 | 3276 | protein arginine methyltransferase 1 |
| GO | cholesterol transporter activity | 1 | 12 | 0.435 | 348 | apolipoprotein E |
| GO | positive regulation of peptidyl-serine ph | 1 | 12 | 0.435 | 3589 | interleukin 11 |
| GO | negative regulation of macrophage deri | 1 | 12 | 0.435 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | arylsulfatase activity | 1 | 12 | 0.435 | 411 | arylsulfatase B |
| GO | response to pH | 1 | 12 | 0.435 | 411 | arylsulfatase B |
| GO | DNA unwinding involved in replication | 1 | 12 | 0.435 | 4171 | minichromosome maintenance complex component 2 |
| GO | positive regulation of blood pressure | 1 | 12 | 0.435 | 5021 | oxytocin receptor |
| GO | dorsal/ventral neural tube patterning | 1 | 12 | 0.435 | 5081 | paired box 7 |
| GO | cGMP binding | 1 | 12 | 0.435 | 50940 | phosphodiesterase 11A |
| GO | lysosphingolipid and lysophosphatidic a | 1 | 12 | 0.435 | 53637 | sphingosine-1-phosphate receptor 5 |
| GO | microvillus membrane | 1 | 12 | 0.435 | 5420 | podocalyxin-like |
| GO | protein serine/threonine phosphatase c | 1 | 12 | 0.435 | 5494 | protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A |
| GO | acrosome reaction | 1 | 12 | 0.435 | 55521 | tripartite motif-containing 36 |
| GO | immunological synapse | 1 | 12 | 0.435 | 5588 | protein kinase C, theta |
| GO | voltage-gated sodium channel complex | 1 | 12 | 0.435 | 6335 | sodium channel, voltage-gated, type IX, alpha subunit |
| GO | viral genome replication | 1 | 12 | 0.435 | 6347 | chemokine (C-C motif) ligand 2 |

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|----|---|----|-----|-------|---|
| GO | retinoic acid receptor signaling pathway | 1 | 12 | 0.435 | 6672 SP100 nuclear antigen |
| GO | response to copper ion | 1 | 12 | 0.435 | 7037 transferrin receptor (p90, CD71) |
| GO | positive regulation of cellular componer | 1 | 12 | 0.435 | 7046 transforming growth factor, beta receptor 1 |
| GO | positive regulation of survival gene proc | 1 | 12 | 0.435 | 7046 transforming growth factor, beta receptor 1 |
| GO | costamere | 1 | 12 | 0.435 | 7220 transient receptor potential cation channel, subfamily C, member 1 |
| GO | neuromuscular synaptic transmission | 1 | 12 | 0.435 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | endothelial cell migration | 1 | 12 | 0.435 | 7857 secretogranin II (chromogranin C) |
| GO | induction of positive chemotaxis | 1 | 12 | 0.435 | 7857 secretogranin II (chromogranin C) |
| GO | Golgi-associated vesicle | 1 | 12 | 0.435 | 79929 MAP6 domain containing 1 |
| GO | regulation of phosphorylation | 1 | 12 | 0.435 | 81706 protein phosphatase 1, regulatory (inhibitor) subunit 14C |
| GO | nBAF complex | 1 | 12 | 0.435 | 8193 D4, zinc and double PHD fingers family 1 |
| GO | histone acetylation | 1 | 12 | 0.435 | 8520 histone acetyltransferase 1 |
| GO | keratinocyte proliferation | 1 | 12 | 0.435 | 8626 tumor protein p63 |
| GO | anion transmembrane transporter activ | 1 | 12 | 0.435 | 9497 solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | Rac GTPase binding | 1 | 12 | 0.435 | 9732 dedicator of cytokinesis 4 |
| GO | calcium ion transport | 6 | 114 | 0.437 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | calcium ion transport | 6 | 114 | 0.437 | 309 annexin A6 |
| GO | calcium ion transport | 6 | 114 | 0.437 | 54822 transient receptor potential cation channel, subfamily M, member 7 |
| GO | calcium ion transport | 6 | 114 | 0.437 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | calcium ion transport | 6 | 114 | 0.437 | 7220 transient receptor potential cation channel, subfamily C, member 1 |
| GO | calcium ion transport | 6 | 114 | 0.437 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | peptide binding | 2 | 32 | 0.442 | 347733 tubulin, beta 2B |
| GO | peptide binding | 2 | 32 | 0.442 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | carbohydrate transport | 2 | 32 | 0.442 | 6518 solute carrier family 2 (facilitated glucose/fructose transporter), member 5 |
| GO | carbohydrate transport | 2 | 32 | 0.442 | 6527 solute carrier family 5 (low affinity glucose cotransporter), member 4 |
| GO | mitosis | 10 | 199 | 0.445 | 113130 cell division cycle associated 5 |
| GO | mitosis | 10 | 199 | 0.445 | 220134 spindle and kinetochore associated complex subunit 1 |
| GO | mitosis | 10 | 199 | 0.445 | 332 baculoviral IAP repeat-containing 5 |
| GO | mitosis | 10 | 199 | 0.445 | 347733 tubulin, beta 2B |
| GO | mitosis | 10 | 199 | 0.445 | 55165 centrosomal protein 55kDa |
| GO | mitosis | 10 | 199 | 0.445 | 64151 non-SMC condensin I complex, subunit G |
| GO | mitosis | 10 | 199 | 0.445 | 79187 fibronectin type III and SPRY domain containing 1 |
| GO | mitosis | 10 | 199 | 0.445 | 8091 high mobility group AT-hook 2 |
| GO | mitosis | 10 | 199 | 0.445 | 890 cyclin A2 |
| GO | mitosis | 10 | 199 | 0.445 | 93323 HAUS augmin-like complex, subunit 8 |
| GO | transcription from RNA polymerase II pr | 9 | 178 | 0.446 | 1045 caudal type homeobox 2 |

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|----|---|---|-----|-------|---|
| GO | transcription from RNA polymerase II pr | 9 | 178 | 0.446 | 11077 heat shock transcription factor 2 binding protein |
| GO | transcription from RNA polymerase II pr | 9 | 178 | 0.446 | 2305 forkhead box M1 |
| GO | transcription from RNA polymerase II pr | 9 | 178 | 0.446 | 2965 general transcription factor IIH, polypeptide 1, 62kDa |
| GO | transcription from RNA polymerase II pr | 9 | 178 | 0.446 | 409 arrestin, beta 2 |
| GO | transcription from RNA polymerase II pr | 9 | 178 | 0.446 | 4094 v-maf musculoaponeurotic fibrosarcoma oncogene homolog (avian) |
| GO | transcription from RNA polymerase II pr | 9 | 178 | 0.446 | 5440 polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |
| GO | transcription from RNA polymerase II pr | 9 | 178 | 0.446 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | transcription from RNA polymerase II pr | 9 | 178 | 0.446 | 9242 musculin (activated B-cell factor-1) |
| GO | ruffle | 3 | 53 | 0.449 | 5420 podocalyxin-like |
| GO | ruffle | 3 | 53 | 0.449 | 54822 transient receptor potential cation channel, subfamily M, member 7 |
| GO | ruffle | 3 | 53 | 0.449 | 9260 PDZ and LIM domain 7 (enigma) |
| GO | angiogenesis | 6 | 116 | 0.453 | 1282 collagen, type IV, alpha 1 |
| GO | angiogenesis | 6 | 116 | 0.453 | 182 jagged 1 (Alagille syndrome) |
| GO | angiogenesis | 6 | 116 | 0.453 | 2321 fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | angiogenesis | 6 | 116 | 0.453 | 5228 placental growth factor |
| GO | angiogenesis | 6 | 116 | 0.453 | 60675 prokineticin 2 |
| GO | angiogenesis | 6 | 116 | 0.453 | 7857 secretogranin II (chromogranin C) |
| GO | Rab GTPase binding | 2 | 33 | 0.457 | 1121 choroideremia (Rab escort protein 1) |
| GO | Rab GTPase binding | 2 | 33 | 0.457 | 54843 synaptotagmin-like 2 |
| GO | learning or memory | 2 | 33 | 0.457 | 29767 tropomodulin 2 (neuronal) |
| GO | learning or memory | 2 | 33 | 0.457 | 431707 LIM homeobox 8 |
| GO | positive regulation of actin filament pol | 1 | 13 | 0.461 | 10096 ARP3 actin-related protein 3 homolog (yeast) |
| GO | bone mineralization | 1 | 13 | 0.461 | 10457 glycoprotein (transmembrane) nmb |
| GO | transcription factor TFTC complex | 1 | 13 | 0.461 | 10474 transcriptional adaptor 3 |
| GO | spindle organization | 1 | 13 | 0.461 | 1164 CDC28 protein kinase regulatory subunit 2 |
| GO | extracellular matrix binding | 1 | 13 | 0.461 | 1301 collagen, type XI, alpha 1 |
| GO | autophagic vacuole membrane | 1 | 13 | 0.461 | 157753 transmembrane protein 74 |
| GO | myoblast differentiation | 1 | 13 | 0.461 | 182 jagged 1 (Alagille syndrome) |
| GO | T cell proliferation | 1 | 13 | 0.461 | 2281 FK506 binding protein 1B, 12.6 kDa |
| GO | induction of an organ | 1 | 13 | 0.461 | 3237 homeobox D11 |
| GO | lipid homeostasis | 1 | 13 | 0.461 | 348 apolipoprotein E |
| GO | two-component sensor activity | 1 | 13 | 0.461 | 3756 potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | calcium-activated potassium channel ac | 1 | 13 | 0.461 | 3778 potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | response to osmotic stress | 1 | 13 | 0.461 | 3778 potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | positive regulation of phosphoinositide | 1 | 13 | 0.461 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | camera-type eye morphogenesis | 1 | 13 | 0.461 | 4763 neurofibromin 1 |

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|----|---|----|-----|-------|--------|---|
| GO | positive regulation of hormone secretio | 1 | 13 | 0.461 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |
| GO | transcription from RNA polymerase III p | 1 | 13 | 0.461 | 5440 | polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |
| GO | steroid hormone receptor signaling patf | 1 | 13 | 0.461 | 5469 | mediator complex subunit 1 |
| GO | positive regulation of interleukin-2 bios | 1 | 13 | 0.461 | 5588 | protein kinase C, theta |
| GO | histone deacetylase activity | 1 | 13 | 0.461 | 6299 | sal-like 1 (Drosophila) |
| GO | response to bacterium | 1 | 13 | 0.461 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | syntaxin binding | 1 | 13 | 0.461 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | negative regulation of microtubule depc | 1 | 13 | 0.461 | 79929 | MAP6 domain containing 1 |
| GO | labyrinthine layer blood vessel developr | 1 | 13 | 0.461 | 80712 | ESX homeobox 1 |
| GO | low-density lipoprotein binding | 1 | 13 | 0.461 | 81035 | collectin sub-family member 12 |
| GO | transcription elongation factor complex | 1 | 13 | 0.461 | 8458 | transcription termination factor, RNA polymerase II |
| GO | insulin-like growth factor receptor bindi | 1 | 13 | 0.461 | 8835 | suppressor of cytokine signaling 2 |
| GO | muscle cell homeostasis | 1 | 13 | 0.461 | 9215 | like-glycosyltransferase |
| GO | glial cell differentiation | 1 | 13 | 0.461 | 92737 | delta/notch-like EGF repeat containing |
| GO | inorganic anion exchanger activity | 1 | 13 | 0.461 | 9497 | solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | cellular defense response | 3 | 54 | 0.461 | 51473 | doublecortin domain containing 2 |
| GO | cellular defense response | 3 | 54 | 0.461 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | cellular defense response | 3 | 54 | 0.461 | 8712 | P antigen family, member 1 (prostate associated) |
| GO | microtubule organizing center | 5 | 96 | 0.462 | 27241 | Bardet-Biedl syndrome 9 |
| GO | microtubule organizing center | 5 | 96 | 0.462 | 28984 | chromosome 13 open reading frame 15 |
| GO | microtubule organizing center | 5 | 96 | 0.462 | 6683 | spastin |
| GO | microtubule organizing center | 5 | 96 | 0.462 | 79187 | fibronectin type III and SPRY domain containing 1 |
| GO | microtubule organizing center | 5 | 96 | 0.462 | 93323 | HAUS augmin-like complex, subunit 8 |
| GO | defense response to bacterium | 4 | 75 | 0.462 | 245929 | defensin, beta 115 |
| GO | defense response to bacterium | 4 | 75 | 0.462 | 57817 | hepcidin antimicrobial peptide |
| GO | defense response to bacterium | 4 | 75 | 0.462 | 8349 | histone cluster 2, H2be |
| GO | defense response to bacterium | 4 | 75 | 0.462 | 8970 | histone cluster 1, H2bj |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 10202 | dehydrogenase/reductase (SDR family) member 2 |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 10395 | deleted in liver cancer 1 |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 10457 | glycoprotein (transmembrane) nmb |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 2149 | coagulation factor II (thrombin) receptor |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 2172 | fatty acid binding protein 6, ileal |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 27244 | sestrin 1 |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 3624 | inhibin, beta A |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |

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|----|---|----|-----|-------|--------|---|
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 5245 | prohibitin |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 54984 | PIN2-interacting protein 1 |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 5744 | parathyroid hormone-like hormone |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 6586 | slit homolog 3 (Drosophila) |
| GO | negative regulation of cell proliferation | 14 | 287 | 0.464 | 7490 | Wilms tumor 1 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 2149 | coagulation factor II (thrombin) receptor |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 2150 | coagulation factor II (thrombin) receptor-like 1 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 2151 | coagulation factor II (thrombin) receptor-like 2 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 222611 | G protein-coupled receptor 111 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 23432 | G protein-coupled receptor 161 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 2842 | G protein-coupled receptor 19 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 2845 | G protein-coupled receptor 22 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 2850 | G protein-coupled receptor 27 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 2863 | G protein-coupled receptor 39 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 4158 | melanocortin 2 receptor (adrenocorticotrophic hormone) |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 5021 | oxytocin receptor |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 5031 | pyrimidinergic receptor P2Y, G-protein coupled, 6 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 53637 | sphingosine-1-phosphate receptor 5 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 8325 | frizzled homolog 8 (Drosophila) |
| GO | G-protein coupled receptor activity | 17 | 352 | 0.47 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | lyase activity | 5 | 97 | 0.471 | 158 | adenylosuccinate lyase |
| GO | lyase activity | 5 | 97 | 0.471 | 2027 | enolase 3 (beta, muscle) |
| GO | lyase activity | 5 | 97 | 0.471 | 377677 | carbonic anhydrase XIII |
| GO | lyase activity | 5 | 97 | 0.471 | 4968 | 8-oxoguanine DNA glycosylase |
| GO | lyase activity | 5 | 97 | 0.471 | 7389 | uroporphyrinogen decarboxylase |
| GO | extrinsic to membrane | 2 | 34 | 0.473 | 2037 | erythrocyte membrane protein band 4.1-like 2 |
| GO | extrinsic to membrane | 2 | 34 | 0.473 | 23136 | erythrocyte membrane protein band 4.1-like 3 |
| GO | presynaptic membrane | 2 | 34 | 0.473 | 26059 | ELKS/RAB6-interacting/CAST family member 2 |
| GO | presynaptic membrane | 2 | 34 | 0.473 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | B cell differentiation | 2 | 34 | 0.473 | 3589 | interleukin 11 |
| GO | B cell differentiation | 2 | 34 | 0.473 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | acid-amino acid ligase activity | 2 | 34 | 0.473 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | acid-amino acid ligase activity | 2 | 34 | 0.473 | 51191 | hect domain and RLD 5 |
| GO | positive regulation of epithelial cell prol | 2 | 34 | 0.473 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |

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|----|--|---|----|-------|--------|--|
| GO | positive regulation of epithelial cell prol | 2 | 34 | 0.473 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | humoral immune response | 2 | 34 | 0.473 | 54210 | triggering receptor expressed on myeloid cells 1 |
| GO | humoral immune response | 2 | 34 | 0.473 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | cell-cell junction | 3 | 56 | 0.486 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | cell-cell junction | 3 | 56 | 0.486 | 23136 | erythrocyte membrane protein band 4.1-like 3 |
| GO | cell-cell junction | 3 | 56 | 0.486 | 23705 | cell adhesion molecule 1 |
| GO | proteasome complex | 3 | 56 | 0.486 | 10213 | proteasome (prosome, macropain) 26S subunit, non-ATPase, 14 |
| GO | proteasome complex | 3 | 56 | 0.486 | 5702 | proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | proteasome complex | 3 | 56 | 0.486 | 5717 | proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 |
| GO | condensed chromosome kinetochore | 3 | 56 | 0.486 | 54984 | PIN2-interacting protein 1 |
| GO | condensed chromosome kinetochore | 3 | 56 | 0.486 | 79172 | centromere protein O |
| GO | condensed chromosome kinetochore | 3 | 56 | 0.486 | 79682 | MLF1 interacting protein |
| GO | glutamine metabolic process | 1 | 14 | 0.486 | 1503 | CTP synthase |
| GO | nuclear heterochromatin | 1 | 14 | 0.486 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | protein export from nucleus | 1 | 14 | 0.486 | 1984 | eukaryotic translation initiation factor 5A |
| GO | neuroblast proliferation | 1 | 14 | 0.486 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | positive regulation of natural killer cell r | 1 | 14 | 0.486 | 23705 | cell adhesion molecule 1 |
| GO | hindbrain development | 1 | 14 | 0.486 | 2736 | GLI family zinc finger 2 |
| GO | tropomyosin binding | 1 | 14 | 0.486 | 29767 | tropomodulin 2 (neuronal) |
| GO | nitric oxide mediated signal transductio | 1 | 14 | 0.486 | 348 | apolipoprotein E |
| GO | regulation of neuronal synaptic plasticit | 1 | 14 | 0.486 | 348 | apolipoprotein E |
| GO | regulation of action potential | 1 | 14 | 0.486 | 3751 | potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | rhythmic process | 1 | 14 | 0.486 | 402055 | SRR1 domain containing |
| GO | sensory perception | 1 | 14 | 0.486 | 409 | arrestin, beta 2 |
| GO | positive regulation of protein catabolic p | 1 | 14 | 0.486 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | embryonic heart tube development | 1 | 14 | 0.486 | 5469 | mediator complex subunit 1 |
| GO | neurotransmitter:sodium symporter act | 1 | 14 | 0.486 | 55117 | solute carrier family 6 (neutral amino acid transporter), member 15 |
| GO | membrane protein ectodomain proteol | 1 | 14 | 0.486 | 5588 | protein kinase C, theta |
| GO | positive regulation of protein secretion | 1 | 14 | 0.486 | 5588 | protein kinase C, theta |
| GO | protein kinase C activity | 1 | 14 | 0.486 | 5588 | protein kinase C, theta |
| GO | regulation of vasoconstriction | 1 | 14 | 0.486 | 5588 | protein kinase C, theta |
| GO | NuRD complex | 1 | 14 | 0.486 | 6299 | sal-like 1 (Drosophila) |
| GO | chromosome organization | 1 | 14 | 0.486 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | response to ATP | 1 | 14 | 0.486 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | solute:hydrogen antiporter activity | 1 | 14 | 0.486 | 6549 | solute carrier family 9 (sodium/hydrogen exchanger), member 2 |
| GO | cellular response to starvation | 1 | 14 | 0.486 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |

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|----|--|----|------|-------|---|
| GO | eye development | 1 | 14 | 0.486 | 6657 SRY (sex determining region Y)-box 2 |
| GO | response to interferon-gamma | 1 | 14 | 0.486 | 6672 SP100 nuclear antigen |
| GO | pathway-restricted SMAD protein phosphatase | 1 | 14 | 0.486 | 7046 transforming growth factor, beta receptor 1 |
| GO | calmodulin-dependent protein kinase activity | 1 | 14 | 0.486 | 8536 calcium/calmodulin-dependent protein kinase I |
| GO | mitochondrion | 56 | 1193 | 0.487 | 10202 dehydrogenase/reductase (SDR family) member 2 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 11022 tudor and KH domain containing |
| GO | mitochondrion | 56 | 1193 | 0.487 | 11222 mitochondrial ribosomal protein L3 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 122786 FERM domain containing 6 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 132158 glycerate kinase |
| GO | mitochondrion | 56 | 1193 | 0.487 | 1543 cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 154791 chromosome 7 open reading frame 55 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 1716 deoxyguanosine kinase |
| GO | mitochondrion | 56 | 1193 | 0.487 | 1763 DNA replication helicase 2 homolog (yeast) |
| GO | mitochondrion | 56 | 1193 | 0.487 | 2232 ferredoxin reductase |
| GO | mitochondrion | 56 | 1193 | 0.487 | 2237 flap structure-specific endonuclease 1 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 22868 FAST kinase domains 2 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 23305 acyl-CoA synthetase long-chain family member 6 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 23590 prenyl (decaprenyl) diphosphate synthase, subunit 1 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 255027 MPV17 mitochondrial membrane protein-like |
| GO | mitochondrion | 56 | 1193 | 0.487 | 25884 chordin-like 2 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 25953 paroxysmal nonkinesigenic dyskinesia |
| GO | mitochondrion | 56 | 1193 | 0.487 | 26275 3-hydroxyisobutyryl-Coenzyme A hydrolase |
| GO | mitochondrion | 56 | 1193 | 0.487 | 2628 glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | mitochondrion | 56 | 1193 | 0.487 | 26519 translocase of inner mitochondrial membrane 10 homolog (yeast) |
| GO | mitochondrion | 56 | 1193 | 0.487 | 26521 translocase of inner mitochondrial membrane 8 homolog B (yeast) |
| GO | mitochondrion | 56 | 1193 | 0.487 | 2653 glycine cleavage system protein H (aminomethyl carrier) |
| GO | mitochondrion | 56 | 1193 | 0.487 | 27429 HtrA serine peptidase 2 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 284184 chromosome 17 open reading frame 89 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 28998 mitochondrial ribosomal protein L13 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 3028 hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 3336 heat shock 10kDa protein 1 (chaperonin 10) |
| GO | mitochondrion | 56 | 1193 | 0.487 | 411 arylsulfatase B |
| GO | mitochondrion | 56 | 1193 | 0.487 | 4709 NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 3, 12kDa |
| GO | mitochondrion | 56 | 1193 | 0.487 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | mitochondrion | 56 | 1193 | 0.487 | 4968 8-oxoguanine DNA glycosylase |
| GO | mitochondrion | 56 | 1193 | 0.487 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |

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|----|------------------------------------|----|------|-------|-------|---|
| GO | mitochondrion | 56 | 1193 | 0.487 | 51023 | mitochondrial ribosomal protein S18C |
| GO | mitochondrion | 56 | 1193 | 0.487 | 51218 | glutaredoxin 5 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 51499 | TP53 regulated inhibitor of apoptosis 1 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 516 | ATP synthase, H ⁺ transporting, mitochondrial F0 complex, subunit C1 (subunit c) |
| GO | mitochondrion | 56 | 1193 | 0.487 | 5245 | prohibitin |
| GO | mitochondrion | 56 | 1193 | 0.487 | 5303 | protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | mitochondrion | 56 | 1193 | 0.487 | 54534 | mitochondrial ribosomal protein L50 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 57144 | p21 protein (Cdc42/Rac)-activated kinase 7 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | mitochondrion | 56 | 1193 | 0.487 | 581 | BCL2-associated X protein |
| GO | mitochondrion | 56 | 1193 | 0.487 | 586 | branched chain aminotransferase 1, cytosolic |
| GO | mitochondrion | 56 | 1193 | 0.487 | 60386 | solute carrier family 25 (mitochondrial thiamine pyrophosphate carrier), member 1 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 60492 | coiled-coil domain containing 90B |
| GO | mitochondrion | 56 | 1193 | 0.487 | 65003 | mitochondrial ribosomal protein L11 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 65008 | mitochondrial ribosomal protein L1 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 65055 | receptor accessory protein 1 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 6586 | slit homolog 3 (Drosophila) |
| GO | mitochondrion | 56 | 1193 | 0.487 | 7037 | transferrin receptor (p90, CD71) |
| GO | mitochondrion | 56 | 1193 | 0.487 | 79071 | ELOVL family member 6, elongation of long chain fatty acids (FEN1/Elo2, SLC7A5) |
| GO | mitochondrion | 56 | 1193 | 0.487 | 79814 | agmatine ureohydrolase (agmatinase) |
| GO | mitochondrion | 56 | 1193 | 0.487 | 81892 | chromosome 14 open reading frame 156 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 8604 | solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 8659 | aldehyde dehydrogenase 4 family, member A1 |
| GO | mitochondrion | 56 | 1193 | 0.487 | 91942 | NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, assembly factor 2 |
| GO | acute-phase response | 2 | 35 | 0.488 | 12 | serpin peptidase inhibitor, clade A (alpha-1 antitrypsin), member 1 |
| GO | acute-phase response | 2 | 35 | 0.488 | 7037 | transferrin receptor (p90, CD71) |
| GO | embryonic limb morphogenesis | 2 | 35 | 0.488 | 3236 | homeobox D10 |
| GO | embryonic limb morphogenesis | 2 | 35 | 0.488 | 8626 | tumor protein p63 |
| GO | centriole | 2 | 35 | 0.488 | 332 | baculoviral IAP repeat-containing 5 |
| GO | centriole | 2 | 35 | 0.488 | 55165 | centrosomal protein 55kDa |
| GO | transcription corepressor activity | 7 | 142 | 0.491 | 1045 | caudal type homeobox 2 |
| GO | transcription corepressor activity | 7 | 142 | 0.491 | 11278 | Kruppel-like factor 12 |
| GO | transcription corepressor activity | 7 | 142 | 0.491 | 29842 | transcription factor CP2-like 1 |
| GO | transcription corepressor activity | 7 | 142 | 0.491 | 29995 | LIM and cysteine-rich domains 1 |
| GO | transcription corepressor activity | 7 | 142 | 0.491 | 5702 | proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | transcription corepressor activity | 7 | 142 | 0.491 | 6672 | SP100 nuclear antigen |

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|----|------------------------------------|----|------|-------|--------|---|
| GO | transcription corepressor activity | 7 | 142 | 0.491 | 9242 | musculin (activated B-cell factor-1) |
| GO | locomotory behavior | 3 | 57 | 0.497 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | locomotory behavior | 3 | 57 | 0.497 | 55084 | sine oculis binding protein homolog (Drosophila) |
| GO | locomotory behavior | 3 | 57 | 0.497 | 55283 | mucolipin 3 |
| GO | DNA binding | 65 | 1392 | 0.501 | 11169 | WD repeat and HMG-box DNA binding protein 1 |
| GO | DNA binding | 65 | 1392 | 0.501 | 11278 | Kruppel-like factor 12 |
| GO | DNA binding | 65 | 1392 | 0.501 | 12 | serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), me |
| GO | DNA binding | 65 | 1392 | 0.501 | 148213 | zinc finger protein 681 |
| GO | DNA binding | 65 | 1392 | 0.501 | 1643 | damage-specific DNA binding protein 2, 48kDa |
| GO | DNA binding | 65 | 1392 | 0.501 | 170082 | transcription elongation factor A (SII) N-terminal and central domain contai |
| GO | DNA binding | 65 | 1392 | 0.501 | 1763 | DNA replication helicase 2 homolog (yeast) |
| GO | DNA binding | 65 | 1392 | 0.501 | 1775 | deoxyribonuclease I-like 2 |
| GO | DNA binding | 65 | 1392 | 0.501 | 1787 | tRNA aspartic acid methyltransferase 1 |
| GO | DNA binding | 65 | 1392 | 0.501 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | DNA binding | 65 | 1392 | 0.501 | 201299 | RAD52 motif 1 |
| GO | DNA binding | 65 | 1392 | 0.501 | 219736 | storkhead box 1 |
| GO | DNA binding | 65 | 1392 | 0.501 | 2237 | flap structure-specific endonuclease 1 |
| GO | DNA binding | 65 | 1392 | 0.501 | 2305 | forkhead box M1 |
| GO | DNA binding | 65 | 1392 | 0.501 | 23594 | origin recognition complex, subunit 6 like (yeast) |
| GO | DNA binding | 65 | 1392 | 0.501 | 25885 | polymerase (RNA) I polypeptide A, 194kDa |
| GO | DNA binding | 65 | 1392 | 0.501 | 284443 | zinc finger protein 493 |
| GO | DNA binding | 65 | 1392 | 0.501 | 29893 | PSMC3 interacting protein |
| GO | DNA binding | 65 | 1392 | 0.501 | 344191 | even-skipped homeobox 2 |
| GO | DNA binding | 65 | 1392 | 0.501 | 3516 | recombination signal binding protein for immunoglobulin kappa J region |
| GO | DNA binding | 65 | 1392 | 0.501 | 387103 | centromere protein W |
| GO | DNA binding | 65 | 1392 | 0.501 | 389421 | lin-28 homolog B (C. elegans) |
| GO | DNA binding | 65 | 1392 | 0.501 | 406 | aryl hydrocarbon receptor nuclear translocator-like |
| GO | DNA binding | 65 | 1392 | 0.501 | 4171 | minichromosome maintenance complex component 2 |
| GO | DNA binding | 65 | 1392 | 0.501 | 4291 | myeloid leukemia factor 1 |
| GO | DNA binding | 65 | 1392 | 0.501 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | DNA binding | 65 | 1392 | 0.501 | 4603 | v-myb myeloblastosis viral oncogene homolog (avian)-like 1 |
| GO | DNA binding | 65 | 1392 | 0.501 | 5000 | origin recognition complex, subunit 4-like (yeast) |
| GO | DNA binding | 65 | 1392 | 0.501 | 50485 | SWI/SNF related, matrix associated, actin dependent regulator of chromati |
| GO | DNA binding | 65 | 1392 | 0.501 | 5303 | protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | DNA binding | 65 | 1392 | 0.501 | 5378 | PMS1 postmeiotic segregation increased 1 (S. cerevisiae) |
| GO | DNA binding | 65 | 1392 | 0.501 | 5440 | polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |

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|----|----------------------|----|------|-------|-------|---|
| GO | DNA binding | 65 | 1392 | 0.501 | 5469 | mediator complex subunit 1 |
| GO | DNA binding | 65 | 1392 | 0.501 | 54796 | basonuclin 2 |
| GO | DNA binding | 65 | 1392 | 0.501 | 55506 | H2A histone family, member Y2 |
| GO | DNA binding | 65 | 1392 | 0.501 | 5558 | primase, DNA, polypeptide 2 (58kDa) |
| GO | DNA binding | 65 | 1392 | 0.501 | 58499 | zinc finger protein 462 |
| GO | DNA binding | 65 | 1392 | 0.501 | 5889 | RAD51 homolog C (<i>S. cerevisiae</i>) |
| GO | DNA binding | 65 | 1392 | 0.501 | 59336 | PR domain containing 13 |
| GO | DNA binding | 65 | 1392 | 0.501 | 5965 | RecQ protein-like (DNA helicase Q1-like) |
| GO | DNA binding | 65 | 1392 | 0.501 | 6299 | sal-like 1 (<i>Drosophila</i>) |
| GO | DNA binding | 65 | 1392 | 0.501 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | DNA binding | 65 | 1392 | 0.501 | 6591 | snail homolog 2 (<i>Drosophila</i>) |
| GO | DNA binding | 65 | 1392 | 0.501 | 6615 | snail homolog 1 (<i>Drosophila</i>) |
| GO | DNA binding | 65 | 1392 | 0.501 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | DNA binding | 65 | 1392 | 0.501 | 6672 | SP100 nuclear antigen |
| GO | DNA binding | 65 | 1392 | 0.501 | 672 | breast cancer 1, early onset |
| GO | DNA binding | 65 | 1392 | 0.501 | 7021 | transcription factor AP-2 beta (activating enhancer binding protein 2 beta) |
| GO | DNA binding | 65 | 1392 | 0.501 | 7029 | transcription factor Dp-2 (E2F dimerization partner 2) |
| GO | DNA binding | 65 | 1392 | 0.501 | 7552 | zinc finger protein 711 |
| GO | DNA binding | 65 | 1392 | 0.501 | 79075 | defective in sister chromatid cohesion 1 homolog (<i>S. cerevisiae</i>) |
| GO | DNA binding | 65 | 1392 | 0.501 | 79698 | zinc finger, matrin type 4 |
| GO | DNA binding | 65 | 1392 | 0.501 | 8091 | high mobility group AT-hook 2 |
| GO | DNA binding | 65 | 1392 | 0.501 | 8348 | histone cluster 1, H2bo |
| GO | DNA binding | 65 | 1392 | 0.501 | 8349 | histone cluster 2, H2be |
| GO | DNA binding | 65 | 1392 | 0.501 | 84083 | zinc finger, RAN-binding domain containing 3 |
| GO | DNA binding | 65 | 1392 | 0.501 | 84172 | polymerase (RNA) I polypeptide B, 128kDa |
| GO | DNA binding | 65 | 1392 | 0.501 | 8458 | transcription termination factor, RNA polymerase II |
| GO | DNA binding | 65 | 1392 | 0.501 | 84622 | zinc finger protein 594 |
| GO | DNA binding | 65 | 1392 | 0.501 | 84878 | zinc finger and BTB domain containing 45 |
| GO | DNA binding | 65 | 1392 | 0.501 | 8626 | tumor protein p63 |
| GO | DNA binding | 65 | 1392 | 0.501 | 8970 | histone cluster 1, H2bj |
| GO | DNA binding | 65 | 1392 | 0.501 | 91442 | chromosome 19 open reading frame 40 |
| GO | DNA binding | 65 | 1392 | 0.501 | 91975 | zinc finger protein 300 |
| GO | DNA binding | 65 | 1392 | 0.501 | 93474 | zinc finger protein 670 |
| GO | postsynaptic density | 4 | 79 | 0.503 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | postsynaptic density | 4 | 79 | 0.503 | 3751 | potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | postsynaptic density | 4 | 79 | 0.503 | 8777 | multiple PDZ domain protein |

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|----|---|---|-----|-------|--------|--|
| GO | postsynaptic density | 4 | 79 | 0.503 | 9455 | homer homolog 2 (Drosophila) |
| GO | protein amino acid autophosphorylator | 4 | 79 | 0.503 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | protein amino acid autophosphorylator | 4 | 79 | 0.503 | 54822 | transient receptor potential cation channel, subfamily M, member 7 |
| GO | protein amino acid autophosphorylator | 4 | 79 | 0.503 | 7046 | transforming growth factor, beta receptor 1 |
| GO | protein amino acid autophosphorylator | 4 | 79 | 0.503 | 84206 | mex-3 homolog B (C. elegans) |
| GO | Rho protein signal transduction | 2 | 36 | 0.503 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | Rho protein signal transduction | 2 | 36 | 0.503 | 6242 | rhotekin |
| GO | autophagy | 2 | 36 | 0.503 | 157753 | transmembrane protein 74 |
| GO | autophagy | 2 | 36 | 0.503 | 411 | arylsulfatase B |
| GO | microtubule basal body | 2 | 36 | 0.503 | 57560 | intraflagellar transport 80 homolog (Chlamydomonas) |
| GO | microtubule basal body | 2 | 36 | 0.503 | 7840 | Alstrom syndrome 1 |
| GO | response to oxidative stress | 5 | 101 | 0.507 | 114757 | cytoglobin |
| GO | response to oxidative stress | 5 | 101 | 0.507 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | response to oxidative stress | 5 | 101 | 0.507 | 2628 | glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | response to oxidative stress | 5 | 101 | 0.507 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | response to oxidative stress | 5 | 101 | 0.507 | 7171 | tropomyosin 4 |
| GO | chloride channel activity | 3 | 58 | 0.509 | 200959 | gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | chloride channel activity | 3 | 58 | 0.509 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | chloride channel activity | 3 | 58 | 0.509 | 9635 | chloride channel accessory 2 |
| GO | oxidoreductase activity, acting on single | 3 | 58 | 0.509 | 283208 | prolyl 4-hydroxylase, alpha polypeptide III |
| GO | oxidoreductase activity, acting on single | 3 | 58 | 0.509 | 5264 | phytanoyl-CoA 2-hydroxylase |
| GO | oxidoreductase activity, acting on single | 3 | 58 | 0.509 | 57168 | aspartate beta-hydroxylase domain containing 2 |
| GO | cell development | 1 | 15 | 0.51 | 10052 | gap junction protein, gamma 1, 45kDa |
| GO | focal adhesion assembly | 1 | 15 | 0.51 | 10395 | deleted in liver cancer 1 |
| GO | polysome | 1 | 15 | 0.51 | 124540 | musashi homolog 2 (Drosophila) |
| GO | female gamete generation | 1 | 15 | 0.51 | 1730 | diaphanous homolog 2 (Drosophila) |
| GO | sulfate transport | 1 | 15 | 0.51 | 1836 | solute carrier family 26 (sulfate transporter), member 2 |
| GO | retinal ganglion cell axon guidance | 1 | 15 | 0.51 | 2045 | EPH receptor A7 |
| GO | homeostasis of number of cells within a | 1 | 15 | 0.51 | 2149 | coagulation factor II (thrombin) receptor |
| GO | positive regulation of cytokine secretior | 1 | 15 | 0.51 | 23705 | cell adhesion molecule 1 |
| GO | oxidoreductase activity, acting on paire | 1 | 15 | 0.51 | 283208 | prolyl 4-hydroxylase, alpha polypeptide III |
| GO | reverse cholesterol transport | 1 | 15 | 0.51 | 348 | apolipoprotein E |
| GO | ATPase binding | 1 | 15 | 0.51 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | actin filament bundle assembly | 1 | 15 | 0.51 | 3936 | lymphocyte cytosolic protein 1 (L-plastin) |
| GO | binding of sperm to zona pellucida | 1 | 15 | 0.51 | 53340 | sperm autoantigenic protein 17 |
| GO | leukocyte migration | 1 | 15 | 0.51 | 5420 | podocalyxin-like |

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|----|--|----|-----|-------|--|
| GO | protein deubiquitination | 1 | 15 | 0.51 | 57599 WD repeat domain 48 |
| GO | voltage-gated sodium channel activity | 1 | 15 | 0.51 | 6335 sodium channel, voltage-gated, type IX, alpha subunit |
| GO | cellular metabolic process | 1 | 15 | 0.51 | 641 Bloom syndrome, RecQ helicase-like |
| GO | cellular response to heat | 1 | 15 | 0.51 | 64131 xylosyltransferase I |
| GO | substrate-specific transmembrane trans | 1 | 15 | 0.51 | 6518 solute carrier family 2 (facilitated glucose/fructose transporter), member 5 |
| GO | hair follicle development | 1 | 15 | 0.51 | 6662 SRY (sex determining region Y)-box 9 |
| GO | chemoattractant activity | 1 | 15 | 0.51 | 7857 secretogranin II (chromogranin C) |
| GO | chondrocyte differentiation | 1 | 15 | 0.51 | 81029 wingless-type MMTV integration site family, member 5B |
| GO | regulation of mitotic cell cycle | 1 | 15 | 0.51 | 8872 cell division cycle 123 homolog (<i>S. cerevisiae</i>) |
| GO | myosin filament | 1 | 15 | 0.51 | 9172 myomesin (M-protein) 2, 165kDa |
| GO | GTPase binding | 1 | 15 | 0.51 | 9732 dedicator of cytokinesis 4 |
| GO | oxygen binding | 2 | 37 | 0.518 | 114757 cytoglobin |
| GO | oxygen binding | 2 | 37 | 0.518 | 1543 cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | protein catabolic process | 2 | 37 | 0.518 | 115290 F-box protein 17 |
| GO | protein catabolic process | 2 | 37 | 0.518 | 5702 proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | activation of adenylate cyclase activity t | 2 | 37 | 0.518 | 2774 guanine nucleotide binding protein (G protein), alpha activating activity pol |
| GO | activation of adenylate cyclase activity t | 2 | 37 | 0.518 | 5744 parathyroid hormone-like hormone |
| GO | protein serine/threonine phosphatase a | 2 | 37 | 0.518 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | protein serine/threonine phosphatase a | 2 | 37 | 0.518 | 5494 protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A |
| GO | NADH dehydrogenase (ubiquinone) acti | 2 | 37 | 0.518 | 4709 NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 3, 12kDa |
| GO | NADH dehydrogenase (ubiquinone) acti | 2 | 37 | 0.518 | 91942 NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, assembly factor 2 |
| GO | receptor binding | 10 | 211 | 0.52 | 1730 diaphanous homolog 2 (<i>Drosophila</i>) |
| GO | receptor binding | 10 | 211 | 0.52 | 2149 coagulation factor II (thrombin) receptor |
| GO | receptor binding | 10 | 211 | 0.52 | 2150 coagulation factor II (thrombin) receptor-like 1 |
| GO | receptor binding | 10 | 211 | 0.52 | 2281 FK506 binding protein 1B, 12.6 kDa |
| GO | receptor binding | 10 | 211 | 0.52 | 23705 cell adhesion molecule 1 |
| GO | receptor binding | 10 | 211 | 0.52 | 409 arrestin, beta 2 |
| GO | receptor binding | 10 | 211 | 0.52 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | receptor binding | 10 | 211 | 0.52 | 6347 chemokine (C-C motif) ligand 2 |
| GO | receptor binding | 10 | 211 | 0.52 | 81029 wingless-type MMTV integration site family, member 5B |
| GO | receptor binding | 10 | 211 | 0.52 | 9542 neuregulin 2 |
| GO | cell migration | 3 | 59 | 0.521 | 1000 cadherin 2, type 1, N-cadherin (neuronal) |
| GO | cell migration | 3 | 59 | 0.521 | 115908 collagen triple helix repeat containing 1 |
| GO | cell migration | 3 | 59 | 0.521 | 1289 collagen, type V, alpha 1 |
| GO | sarcolemma | 3 | 59 | 0.521 | 5588 protein kinase C, theta |
| GO | sarcolemma | 3 | 59 | 0.521 | 6442 sarcoglycan, alpha (50kDa dystrophin-associated glycoprotein) |

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|----|--|----|-----|-------|--------|---|
| GO | sarcolemma | 3 | 59 | 0.521 | 6444 | sarcoglycan, delta (35kDa dystrophin-associated glycoprotein) |
| GO | Golgi membrane | 16 | 343 | 0.529 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | Golgi membrane | 16 | 343 | 0.529 | 11226 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | Golgi membrane | 16 | 343 | 0.529 | 11227 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | Golgi membrane | 16 | 343 | 0.529 | 114805 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | Golgi membrane | 16 | 343 | 0.529 | 152007 | GLI pathogenesis-related 2 |
| GO | Golgi membrane | 16 | 343 | 0.529 | 27065 | DNA segment on chromosome 4 (unique) 234 expressed sequence |
| GO | Golgi membrane | 16 | 343 | 0.529 | 4893 | neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | Golgi membrane | 16 | 343 | 0.529 | 51062 | atlastin GTPase 1 |
| GO | Golgi membrane | 16 | 343 | 0.529 | 54756 | interleukin 17 receptor D |
| GO | Golgi membrane | 16 | 343 | 0.529 | 57574 | membrane-associated ring finger (C3HC4) 4 |
| GO | Golgi membrane | 16 | 343 | 0.529 | 64131 | xylosyltransferase I |
| GO | Golgi membrane | 16 | 343 | 0.529 | 79623 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | Golgi membrane | 16 | 343 | 0.529 | 81562 | lectin, mannose-binding 2-like |
| GO | Golgi membrane | 16 | 343 | 0.529 | 84752 | UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 9 |
| GO | Golgi membrane | 16 | 343 | 0.529 | 9215 | like-glycosyltransferase |
| GO | Golgi membrane | 16 | 343 | 0.529 | 9653 | heparan sulfate 2-O-sulfotransferase 1 |
| GO | histone acetyltransferase activity | 2 | 38 | 0.532 | 10474 | transcriptional adaptor 3 |
| GO | histone acetyltransferase activity | 2 | 38 | 0.532 | 8520 | histone acetyltransferase 1 |
| GO | positive regulation of gene expression | 2 | 38 | 0.532 | 10474 | transcriptional adaptor 3 |
| GO | positive regulation of gene expression | 2 | 38 | 0.532 | 6662 | SRY (sex determining region Y)-box 9 |
| GO | positive regulation of angiogenesis | 2 | 38 | 0.532 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | positive regulation of angiogenesis | 2 | 38 | 0.532 | 79805 | vasohibin 2 |
| GO | Cajal body | 2 | 38 | 0.532 | 55135 | WD repeat containing, antisense to TP53 |
| GO | Cajal body | 2 | 38 | 0.532 | 79833 | gem (nuclear organelle) associated protein 6 |
| GO | specific transcriptional repressor activit | 2 | 38 | 0.532 | 7490 | Wilms tumor 1 |
| GO | specific transcriptional repressor activit | 2 | 38 | 0.532 | 80712 | ESX homeobox 1 |
| GO | triglyceride lipase activity | 1 | 16 | 0.533 | 13 | arylacetamide deacetylase (esterase) |
| GO | intrinsic to endoplasmic reticulum mem | 1 | 16 | 0.533 | 2135 | exostoses (multiple)-like 2 |
| GO | positive regulation of vasoconstriction | 1 | 16 | 0.533 | 2149 | coagulation factor II (thrombin) receptor |
| GO | smoothened signaling pathway | 1 | 16 | 0.533 | 2736 | GLI family zinc finger 2 |
| GO | glutathione metabolic process | 1 | 16 | 0.533 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | hydrogen peroxide catabolic process | 1 | 16 | 0.533 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | positive regulation of mitotic cell cycle | 1 | 16 | 0.533 | 332 | baculoviral IAP repeat-containing 5 |
| GO | response to cocaine | 1 | 16 | 0.533 | 5021 | oxytocin receptor |
| GO | negative regulation of insulin secretion | 1 | 16 | 0.533 | 5140 | phosphodiesterase 3B, cGMP-inhibited |

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|----|---|---|----|-------|--------|---|
| GO | mitochondrial proton-transporting ATP | 1 | 16 | 0.533 | 516 | ATP synthase, H ⁺ transporting, mitochondrial F0 complex, subunit C1 (subu |
| GO | cAMP-dependent protein kinase regulat | 1 | 16 | 0.533 | 53340 | sperm autoantigenic protein 17 |
| GO | vitamin D receptor binding | 1 | 16 | 0.533 | 5469 | mediator complex subunit 1 |
| GO | phosphatidylinositol-3,4,5-trisphosphat | 1 | 16 | 0.533 | 55803 | ArfGAP with dual PH domains 2 |
| GO | response to cadmium ion | 1 | 16 | 0.533 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | response to nutrient levels | 1 | 16 | 0.533 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | translation regulator activity | 1 | 16 | 0.533 | 65003 | mitochondrial ribosomal protein L11 |
| GO | ion transmembrane transporter activity | 1 | 16 | 0.533 | 6580 | solute carrier family 22 (organic cation transporter), member 1 |
| GO | positive regulation of endothelial cell m | 1 | 16 | 0.533 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | cartilage condensation | 1 | 16 | 0.533 | 6662 | SRY (sex determining region Y)-box 9 |
| GO | receptor complex | 1 | 16 | 0.533 | 7046 | transforming growth factor, beta receptor 1 |
| GO | C-C chemokine receptor activity | 1 | 16 | 0.533 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | membrane depolarization | 1 | 16 | 0.533 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | protein secretion | 1 | 16 | 0.533 | 7857 | secretogranin II (chromogranin C) |
| GO | mannose binding | 1 | 16 | 0.533 | 81562 | lectin, mannose-binding 2-like |
| GO | response to light stimulus | 1 | 16 | 0.533 | 8533 | COP9 constitutive photomorphogenic homolog subunit 3 (Arabidopsis) |
| GO | beta-catenin binding | 2 | 39 | 0.546 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | beta-catenin binding | 2 | 39 | 0.546 | 6299 | sal-like 1 (Drosophila) |
| GO | G-protein signaling, coupled to cyclic nu | 2 | 39 | 0.546 | 4158 | melanocortin 2 receptor (adrenocorticotropic hormone) |
| GO | G-protein signaling, coupled to cyclic nu | 2 | 39 | 0.546 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | transcription cofactor activity | 2 | 39 | 0.546 | 5469 | mediator complex subunit 1 |
| GO | transcription cofactor activity | 2 | 39 | 0.546 | 7029 | transcription factor Dp-2 (E2F dimerization partner 2) |
| GO | microtubule cytoskeleton organization | 2 | 39 | 0.546 | 8409 | ubiquitously-expressed transcript |
| GO | microtubule cytoskeleton organization | 2 | 39 | 0.546 | 9053 | microtubule-associated protein 7 |
| GO | response to peptide hormone stimulus | 3 | 62 | 0.554 | 2628 | glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | response to peptide hormone stimulus | 3 | 62 | 0.554 | 5021 | oxytocin receptor |
| GO | response to peptide hormone stimulus | 3 | 62 | 0.554 | 8835 | suppressor of cytokine signaling 2 |
| GO | peroxidase activity | 1 | 17 | 0.555 | 114757 | cytoglobin |
| GO | glutathione transferase activity | 1 | 17 | 0.555 | 221357 | glutathione S-transferase alpha 5 |
| GO | sarcoplasmic reticulum membrane | 1 | 17 | 0.555 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | intracellular transport | 1 | 17 | 0.555 | 348 | apolipoprotein E |
| GO | embryonic pattern specification | 1 | 17 | 0.555 | 3975 | LIM homeobox 1 |
| GO | rough endoplasmic reticulum | 1 | 17 | 0.555 | 411 | arylsulfatase B |
| GO | regulation of angiogenesis | 1 | 17 | 0.555 | 4763 | neurofibromin 1 |
| GO | midbrain development | 1 | 17 | 0.555 | 5015 | orthodenticle homeobox 2 |
| GO | social behavior | 1 | 17 | 0.555 | 5021 | oxytocin receptor |

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|----|---|---|-----|-------|--------|--|
| GO | positive regulation of calcium-mediated | 1 | 17 | 0.555 | 5026 | purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | mitochondrial small ribosomal subunit | 1 | 17 | 0.555 | 51023 | mitochondrial ribosomal protein S18C |
| GO | 2 iron, 2 sulfur cluster binding | 1 | 17 | 0.555 | 51218 | glutaredoxin 5 |
| GO | histone deacetylation | 1 | 17 | 0.555 | 5245 | prohibitin |
| GO | embryonic hindlimb morphogenesis | 1 | 17 | 0.555 | 5469 | mediator complex subunit 1 |
| GO | mitochondrial ribosome | 1 | 17 | 0.555 | 65003 | mitochondrial ribosomal protein L11 |
| GO | regulation of pH | 1 | 17 | 0.555 | 6549 | solute carrier family 9 (sodium/hydrogen exchanger), member 2 |
| GO | small nuclear ribonucleoprotein comple | 1 | 17 | 0.555 | 6637 | small nuclear ribonucleoprotein polypeptide G |
| GO | epithelial to mesenchymal transition | 1 | 17 | 0.555 | 6662 | SRY (sex determining region Y)-box 9 |
| GO | actin filament capping | 1 | 17 | 0.555 | 6711 | spectrin, beta, non-erythrocytic 1 |
| GO | nuclear body | 1 | 17 | 0.555 | 79833 | gem (nuclear organelle) associated protein 6 |
| GO | cis-Golgi network | 1 | 17 | 0.555 | 79929 | MAP6 domain containing 1 |
| GO | spindle assembly | 1 | 17 | 0.555 | 93323 | HAUS augmin-like complex, subunit 8 |
| GO | carbohydrate biosynthetic process | 1 | 17 | 0.555 | 9653 | heparan sulfate 2-O-sulfotransferase 1 |
| GO | sodium ion transport | 6 | 129 | 0.557 | 201780 | solute carrier family 10 (sodium/bile acid cotransporter family), member 4 |
| GO | sodium ion transport | 6 | 129 | 0.557 | 6335 | sodium channel, voltage-gated, type IX, alpha subunit |
| GO | sodium ion transport | 6 | 129 | 0.557 | 6527 | solute carrier family 5 (low affinity glucose cotransporter), member 4 |
| GO | sodium ion transport | 6 | 129 | 0.557 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | sodium ion transport | 6 | 129 | 0.557 | 6549 | solute carrier family 9 (sodium/hydrogen exchanger), member 2 |
| GO | sodium ion transport | 6 | 129 | 0.557 | 9497 | solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | receptor-mediated endocytosis | 2 | 40 | 0.56 | 348 | apolipoprotein E |
| GO | receptor-mediated endocytosis | 2 | 40 | 0.56 | 9260 | PDZ and LIM domain 7 (enigma) |
| GO | cell redox homeostasis | 3 | 63 | 0.565 | 10190 | thioredoxin domain containing 9 |
| GO | cell redox homeostasis | 3 | 63 | 0.565 | 10539 | glutaredoxin 3 |
| GO | cell redox homeostasis | 3 | 63 | 0.565 | 51218 | glutaredoxin 5 |
| GO | glycolysis | 2 | 41 | 0.574 | 2027 | enolase 3 (beta, muscle) |
| GO | glycolysis | 2 | 41 | 0.574 | 669 | 2,3-bisphosphoglycerate mutase |
| GO | peroxisomal membrane | 2 | 41 | 0.574 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | peroxisomal membrane | 2 | 41 | 0.574 | 255027 | MPV17 mitochondrial membrane protein-like |
| GO | negative regulation of cell cycle | 2 | 41 | 0.574 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | negative regulation of cell cycle | 2 | 41 | 0.574 | 3624 | inhibin, beta A |
| GO | cholesterol homeostasis | 2 | 41 | 0.574 | 348 | apolipoprotein E |
| GO | cholesterol homeostasis | 2 | 41 | 0.574 | 7840 | Alstrom syndrome 1 |
| GO | neuron projection development | 2 | 41 | 0.574 | 3516 | recombination signal binding protein for immunoglobulin kappa J region |
| GO | neuron projection development | 2 | 41 | 0.574 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | ER to Golgi vesicle-mediated transport | 2 | 41 | 0.574 | 6683 | spastin |

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|----|--|---|----|-------|--------|---|
| GO | ER to Golgi vesicle-mediated transport | 2 | 41 | 0.574 | 81562 | lectin, mannose-binding 2-like |
| GO | ribosome binding | 1 | 18 | 0.575 | 1984 | eukaryotic translation initiation factor 5A |
| GO | lipoprotein metabolic process | 1 | 18 | 0.575 | 341 | apolipoprotein C-I |
| GO | MHC class I protein complex | 1 | 18 | 0.575 | 353091 | retinoic acid early transcript 1G |
| GO | regulation of insulin secretion | 1 | 18 | 0.575 | 3952 | leptin |
| GO | protein import into nucleus, translocati | 1 | 18 | 0.575 | 406 | aryl hydrocarbon receptor nuclear translocator-like |
| GO | protein ubiquitination involved in ubiqu | 1 | 18 | 0.575 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | endocrine pancreas development | 1 | 18 | 0.575 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | cellular process | 1 | 18 | 0.575 | 5184 | peptidase D |
| GO | embryonic placenta development | 1 | 18 | 0.575 | 5469 | mediator complex subunit 1 |
| GO | WW domain binding | 1 | 18 | 0.575 | 56937 | prostate transmembrane protein, androgen induced 1 |
| GO | phosphatidylinositol binding | 1 | 18 | 0.575 | 57590 | WD repeat and FYVE domain containing 1 |
| GO | transmembrane receptor protein tyrosin | 1 | 18 | 0.575 | 5795 | protein tyrosine phosphatase, receptor type, J |
| GO | DNA fragmentation involved in apoptot | 1 | 18 | 0.575 | 581 | BCL2-associated X protein |
| GO | inner ear development | 1 | 18 | 0.575 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | cortical cytoskeleton | 1 | 18 | 0.575 | 6711 | spectrin, beta, non-erythrocytic 1 |
| GO | peptidyl-threonine phosphorylation | 1 | 18 | 0.575 | 7046 | transforming growth factor, beta receptor 1 |
| GO | heme biosynthetic process | 1 | 18 | 0.575 | 7389 | uroporphyrinogen decarboxylase |
| GO | negative regulation of translation | 1 | 18 | 0.575 | 7490 | Wilms tumor 1 |
| GO | cornified envelope | 1 | 18 | 0.575 | 84518 | cornifelin |
| GO | establishment or maintenance of cell pc | 1 | 18 | 0.575 | 9053 | microtubule-associated protein 7 |
| GO | anion transport | 1 | 18 | 0.575 | 9497 | solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | transcription initiation from RNA polym | 3 | 64 | 0.576 | 2965 | general transcription factor IIH, polypeptide 1, 62kDa |
| GO | transcription initiation from RNA polym | 3 | 64 | 0.576 | 5440 | polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |
| GO | transcription initiation from RNA polym | 3 | 64 | 0.576 | 5469 | mediator complex subunit 1 |
| GO | patterning of blood vessels | 1 | 19 | 0.595 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | protein amino acid O-linked glycosylatic | 1 | 19 | 0.595 | 11226 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | cadherin binding | 1 | 19 | 0.595 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | negative regulation of cell differentiatio | 1 | 19 | 0.595 | 182 | jagged 1 (Alagille syndrome) |
| GO | leukotriene biosynthetic process | 1 | 19 | 0.595 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | RNA metabolic process | 1 | 19 | 0.595 | 26019 | UPF2 regulator of nonsense transcripts homolog (yeast) |
| GO | lipid transporter activity | 1 | 19 | 0.595 | 348 | apolipoprotein E |
| GO | phosphoprotein binding | 1 | 19 | 0.595 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | regulation of neuron differentiation | 1 | 19 | 0.595 | 53637 | sphingosine-1-phosphate receptor 5 |
| GO | insulin-like growth factor binding | 1 | 19 | 0.595 | 5654 | HtrA serine peptidase 1 |
| GO | neutrophil chemotaxis | 1 | 19 | 0.595 | 6347 | chemokine (C-C motif) ligand 2 |

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|----|---|-----|------|-------|---|
| GO | telomere maintenance | 1 | 19 | 0.595 | 641 Bloom syndrome, RecQ helicase-like |
| GO | T-tubule | 1 | 19 | 0.595 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | chemokine receptor activity | 1 | 19 | 0.595 | 729230 chemokine (C-C motif) receptor 2 |
| GO | regulation of signal transduction | 1 | 19 | 0.595 | 8835 suppressor of cytokine signaling 2 |
| GO | inner ear morphogenesis | 2 | 43 | 0.6 | 55084 sine oculis binding protein homolog (Drosophila) |
| GO | inner ear morphogenesis | 2 | 43 | 0.6 | 6657 SRY (sex determining region Y)-box 2 |
| GO | phosphotransferase activity, alcohol grc | 1 | 20 | 0.614 | 1716 deoxyguanosine kinase |
| GO | desmosome | 1 | 20 | 0.614 | 1830 desmoglein 3 (pemphigus vulgaris antigen) |
| GO | translation elongation factor activity | 1 | 20 | 0.614 | 1984 eukaryotic translation initiation factor 5A |
| GO | phosphorylation | 1 | 20 | 0.614 | 2045 EPH receptor A7 |
| GO | response to steroid hormone stimulus | 1 | 20 | 0.614 | 23305 acyl-CoA synthetase long-chain family member 6 |
| GO | proteasomal ubiquitin-dependent prote | 1 | 20 | 0.614 | 409 arrestin, beta 2 |
| GO | ubiquitin binding | 1 | 20 | 0.614 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | hydrogen ion transmembrane transport | 1 | 20 | 0.614 | 516 ATP synthase, H ⁺ transporting, mitochondrial F0 complex, subunit C1 (subu |
| GO | positive regulation of bone mineralizati | 1 | 20 | 0.614 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | response to radiation | 1 | 20 | 0.614 | 6591 snail homolog 2 (Drosophila) |
| GO | positive regulation of cell adhesion | 1 | 20 | 0.614 | 7168 tropomyosin 1 (alpha) |
| GO | clathrin adaptor complex | 1 | 20 | 0.614 | 8905 adaptor-related protein complex 1, sigma 2 subunit |
| GO | phosphate metabolic process | 1 | 20 | 0.614 | 97 acylphosphatase 1, erythrocyte (common) type |
| GO | aromatase activity | 1 | 21 | 0.632 | 1543 cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | translation factor activity, nucleic acid b | 1 | 21 | 0.632 | 1983 eukaryotic translation initiation factor 5 |
| GO | transferase activity, transferring hexosy | 1 | 21 | 0.632 | 2135 exostoses (multiple)-like 2 |
| GO | branching morphogenesis of a tube | 1 | 21 | 0.632 | 2736 GLI family zinc finger 2 |
| GO | regulation of multicellular organism gro | 1 | 21 | 0.632 | 27429 HtrA serine peptidase 2 |
| GO | negative regulation of caspase activity | 1 | 21 | 0.632 | 332 baculoviral IAP repeat-containing 5 |
| GO | gastrulation with mouth forming secon | 1 | 21 | 0.632 | 3975 LIM homeobox 1 |
| GO | positive regulation of inflammatory resp | 1 | 21 | 0.632 | 5054 serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | dephosphorylation | 1 | 21 | 0.632 | 5494 protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A |
| GO | negative regulation of BMP signaling pa | 1 | 21 | 0.632 | 5654 HtrA serine peptidase 1 |
| GO | defense response to virus | 1 | 21 | 0.632 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | release of cytochrome c from mitochon | 1 | 21 | 0.632 | 581 BCL2-associated X protein |
| GO | p53 binding | 1 | 21 | 0.632 | 641 Bloom syndrome, RecQ helicase-like |
| GO | negative regulation of gene-specific trar | 1 | 21 | 0.632 | 7490 Wilms tumor 1 |
| GO | positive regulation of mesenchymal cell | 1 | 21 | 0.632 | 8626 tumor protein p63 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 1000 cadherin 2, type 1, N-cadherin (neuronal) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 1E+08 transmembrane protein 194B |

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|----|----------------------|-----|------|-------|--|
| GO | integral to membrane | 177 | 3857 | 0.989 | 10052 gap junction protein, gamma 1, 45kDa |
| GO | integral to membrane | 177 | 3857 | 0.989 | 1008 cadherin 10, type 2 (T2-cadherin) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 10457 glycoprotein (transmembrane) nmb |
| GO | integral to membrane | 177 | 3857 | 0.989 | 1047 calmegin |
| GO | integral to membrane | 177 | 3857 | 0.989 | 10683 delta-like 3 (Drosophila) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 11010 GLI pathogenesis-related 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 11149 blood vessel epicardial substance |
| GO | integral to membrane | 177 | 3857 | 0.989 | 11226 UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | integral to membrane | 177 | 3857 | 0.989 | 11227 UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | integral to membrane | 177 | 3857 | 0.989 | 112616 CKLF-like MARVEL transmembrane domain containing 7 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 1136 cholinergic receptor, nicotinic, alpha 3 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 1138 cholinergic receptor, nicotinic, alpha 5 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 114805 UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | integral to membrane | 177 | 3857 | 0.989 | 119749 olfactory receptor, family 4, subfamily C, member 46 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 120114 FAT tumor suppressor homolog 3 (Drosophila) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 123920 CKLF-like MARVEL transmembrane domain containing 3 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 125962 olfactory receptor, family 7, subfamily G, member 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 127534 gap junction protein, beta 4, 30.3kDa |
| GO | integral to membrane | 177 | 3857 | 0.989 | 127670 transmembrane epididymal protein 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 128414 Na ⁺ /K ⁺ transporting ATPase interacting 4 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 13 arylacetamide deacetylase (esterase) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 130507 ubiquitin protein ligase E3 component n-recogin 3 (putative) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 131450 CD200 receptor 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 134145 family with sequence similarity 173, member B |
| GO | integral to membrane | 177 | 3857 | 0.989 | 134285 transmembrane protein 171 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 138255 chromosome 9 open reading frame 135 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 144448 tetraspanin 19 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 145173 beta 1,3-galactosyltransferase-like |
| GO | integral to membrane | 177 | 3857 | 0.989 | 147645 V-set and immunoglobulin domain containing 10 like |
| GO | integral to membrane | 177 | 3857 | 0.989 | 151188 ADP-ribosylation-like factor 6 interacting protein 6 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 151194 family with sequence similarity 119, member A |
| GO | integral to membrane | 177 | 3857 | 0.989 | 154215 Na ⁺ /K ⁺ transporting ATPase interacting 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 157753 transmembrane protein 74 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 162494 rhomboid, veinlet-like 3 (Drosophila) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 1733 deiodinase, iodothyronine, type I |
| GO | integral to membrane | 177 | 3857 | 0.989 | 1830 desmoglein 3 (pemphigus vulgaris antigen) |

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|----|----------------------|-----|------|-------|--------|--|
| GO | integral to membrane | 177 | 3857 | 0.989 | 200959 | gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 201780 | solute carrier family 10 (sodium/bile acid cotransporter family), member 4 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 205251 | non-protein coding RNA 116 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 2135 | exostoses (multiple)-like 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 221687 | ring finger protein 182 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 222611 | G protein-coupled receptor 111 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 22801 | integrin, alpha 11 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 23245 | astrotactin 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 23432 | G protein-coupled receptor 161 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 23562 | claudin 14 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 23705 | cell adhesion molecule 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | integral to membrane | 177 | 3857 | 0.989 | 253559 | cell adhesion molecule 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 255027 | MPV17 mitochondrial membrane protein-like |
| GO | integral to membrane | 177 | 3857 | 0.989 | 25758 | chromosome 11 open reading frame 41 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 25789 | transmembrane protein 59-like |
| GO | integral to membrane | 177 | 3857 | 0.989 | 25817 | family with sequence similarity 19 (chemokine (C-C motif)-like), member A' |
| GO | integral to membrane | 177 | 3857 | 0.989 | 26032 | sushi domain containing 5 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 26154 | ATP-binding cassette, sub-family A (ABC1), member 12 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 27065 | DNA segment on chromosome 4 (unique) 234 expressed sequence |
| GO | integral to membrane | 177 | 3857 | 0.989 | 27429 | HtrA serine peptidase 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 282770 | olfactory receptor, family 10, subfamily AG, member 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 283111 | olfactory receptor, family 51, subfamily V, member 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 284415 | V-set and transmembrane domain containing 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 284417 | transmembrane protein 150B |
| GO | integral to membrane | 177 | 3857 | 0.989 | 2850 | G protein-coupled receptor 27 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 285659 | olfactory receptor, family 2, subfamily V, member 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 285761 | discoidin, CUB and LCCL domain containing 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 286234 | chromosome 9 open reading frame 79 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | integral to membrane | 177 | 3857 | 0.989 | 29940 | dermatan sulfate epimerase |
| GO | integral to membrane | 177 | 3857 | 0.989 | 3037 | hyaluronan synthase 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 340273 | ATP-binding cassette, sub-family B (MDR/TAP), member 5 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 344805 | transmembrane protease, serine 7 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 344838 | progesterone and adipoQ receptor family member IX |

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|----|----------------------|-----|------|-------|--------|---|
| GO | integral to membrane | 177 | 3857 | 0.989 | 347902 | adhesion molecule with Ig-like domain 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 348938 | NIPA-like domain containing 4 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 353091 | retinoic acid early transcript 1G |
| GO | integral to membrane | 177 | 3857 | 0.989 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 3694 | integrin, beta 6 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 3754 | potassium voltage-gated channel, subfamily F, member 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 3756 | potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 3763 | potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | integral to membrane | 177 | 3857 | 0.989 | 387700 | solute carrier family 16, member 12 (monocarboxylic acid transporter 12) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 388394 | reprimin-like |
| GO | integral to membrane | 177 | 3857 | 0.989 | 390061 | olfactory receptor, family 51, subfamily Q, member 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 391114 | olfactory receptor, family 6, subfamily K, member 3 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 400451 | family with sequence similarity 174, member B |
| GO | integral to membrane | 177 | 3857 | 0.989 | 4709 | NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 3, 12kDa |
| GO | integral to membrane | 177 | 3857 | 0.989 | 479 | ATPase, H ⁺ /K ⁺ transporting, nongastric, alpha polypeptide |
| GO | integral to membrane | 177 | 3857 | 0.989 | 5101 | protocadherin 9 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 51062 | atlastin GTPase 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 51136 | ring finger protein, transmembrane 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 51308 | receptor accessory protein 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | integral to membrane | 177 | 3857 | 0.989 | 516 | ATP synthase, H ⁺ transporting, mitochondrial F0 complex, subunit C1 (subunit c) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 51768 | transmembrane 7 superfamily member 3 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 53637 | sphingosine-1-phosphate receptor 5 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 54210 | triggering receptor expressed on myeloid cells 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 54733 | solute carrier family 35, member F2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 54756 | interleukin 17 receptor D |
| GO | integral to membrane | 177 | 3857 | 0.989 | 54822 | transient receptor potential cation channel, subfamily M, member 7 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 55016 | membrane-associated ring finger (C3HC4) 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 55028 | chromosome 17 open reading frame 80 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 55117 | solute carrier family 6 (neutral amino acid transporter), member 15 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 55244 | solute carrier family 47, member 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 55283 | mucolipin 3 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 554279 | chromosome 1 open reading frame 98 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 56104 | protocadherin gamma subfamily B, 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 56126 | protocadherin beta 10 |

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|----|----------------------|-----|------|-------|--------|--|
| GO | integral to membrane | 177 | 3857 | 0.989 | 56133 | protocadherin beta 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 56241 | sushi domain containing 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 56479 | potassium voltage-gated channel, KQT-like subfamily, member 5 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 56937 | prostate transmembrane protein, androgen induced 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 57168 | aspartate beta-hydroxylase domain containing 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 57484 | ring finger protein 150 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 57574 | membrane-associated ring finger (C3HC4) 4 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 57575 | protocadherin 10 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 57650 | KIAA1524 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | integral to membrane | 177 | 3857 | 0.989 | 581 | BCL2-associated X protein |
| GO | integral to membrane | 177 | 3857 | 0.989 | 60386 | solute carrier family 25 (mitochondrial thiamine pyrophosphate carrier), m |
| GO | integral to membrane | 177 | 3857 | 0.989 | 60492 | coiled-coil domain containing 90B |
| GO | integral to membrane | 177 | 3857 | 0.989 | 6335 | sodium channel, voltage-gated, type IX, alpha subunit |
| GO | integral to membrane | 177 | 3857 | 0.989 | 64131 | xylosyltransferase I |
| GO | integral to membrane | 177 | 3857 | 0.989 | 64208 | popeye domain containing 3 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 64417 | chromosome 5 open reading frame 28 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 6442 | sarcoglycan, alpha (50kDa dystrophin-associated glycoprotein) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 6444 | sarcoglycan, delta (35kDa dystrophin-associated glycoprotein) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 64747 | major facilitator superfamily domain containing 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 65055 | receptor accessory protein 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 65062 | amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 4 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 6518 | solute carrier family 2 (facilitated glucose/fructose transporter), member 5 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 6527 | solute carrier family 5 (low affinity glucose cotransporter), member 4 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 6549 | solute carrier family 9 (sodium/hydrogen exchanger), member 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 66000 | transmembrane protein 108 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 6683 | spastin |
| GO | integral to membrane | 177 | 3857 | 0.989 | 6785 | elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like |
| GO | integral to membrane | 177 | 3857 | 0.989 | 6833 | ATP-binding cassette, sub-family C (CFTR/MRP), member 8 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 7046 | transforming growth factor, beta receptor 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 729025 | solute carrier family 15, member 5 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 7348 | uropod 1B |
| GO | integral to membrane | 177 | 3857 | 0.989 | 773 | calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | integral to membrane | 177 | 3857 | 0.989 | 79071 | ELOVL family member 6, elongation of long chain fatty acids (FEN1/Elo2, SL |
| GO | integral to membrane | 177 | 3857 | 0.989 | 79135 | apolipoprotein O |

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|----|-----------------------------|-----|------|-------|-------|---|
| GO | integral to membrane | 177 | 3857 | 0.989 | 79623 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | integral to membrane | 177 | 3857 | 0.989 | 79669 | chromosome 3 open reading frame 52 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 79993 | ELOVL family member 7, elongation of long chain fatty acids (yeast) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 80342 | TRAF3 interacting protein 3 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 81035 | collectin sub-family member 12 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 81562 | lectin, mannose-binding 2-like |
| GO | integral to membrane | 177 | 3857 | 0.989 | 8325 | frizzled homolog 8 (Drosophila) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 83700 | junctional adhesion molecule 3 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 83930 | STARD3 N-terminal like |
| GO | integral to membrane | 177 | 3857 | 0.989 | 84168 | anthrax toxin receptor 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 84189 | SLIT and NTRK-like family, member 6 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 84230 | leucine rich repeat containing 8 family, member C |
| GO | integral to membrane | 177 | 3857 | 0.989 | 84620 | ST6 beta-galactosamide alpha-2,6-sialyltransferase 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 84752 | UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 9 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 84769 | MPV17 mitochondrial membrane protein-like 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 84910 | transmembrane protein 87B |
| GO | integral to membrane | 177 | 3857 | 0.989 | 85027 | chromosome 5 open reading frame 62 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 85455 | dispatched homolog 2 (Drosophila) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 8604 | solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 8728 | ADAM metallopeptidase domain 19 (meltrin beta) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 8747 | ADAM metallopeptidase domain 21 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 8788 | delta-like 1 homolog (Drosophila) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 90701 | SEC11 homolog C (<i>S. cerevisiae</i>) |
| GO | integral to membrane | 177 | 3857 | 0.989 | 9076 | claudin 1 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 90871 | chromosome 9 open reading frame 123 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 91584 | plexin A4 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 9215 | like-glycosyltransferase |
| GO | integral to membrane | 177 | 3857 | 0.989 | 92737 | delta/notch-like EGF repeat containing |
| GO | integral to membrane | 177 | 3857 | 0.989 | 9497 | solute carrier family 4, sodium bicarbonate cotransporter, member 7 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 9542 | neuregulin 2 |
| GO | integral to membrane | 177 | 3857 | 0.989 | 9653 | heparan sulfate 2-O-sulfotransferase 1 |
| GO | protein kinase binding | 3 | 113 | 0.989 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | protein kinase binding | 3 | 113 | 0.989 | 3932 | lymphocyte-specific protein tyrosine kinase |
| GO | protein kinase binding | 3 | 113 | 0.989 | 7137 | troponin I type 3 (cardiac) |
| GO | protein phosphatase binding | 1 | 25 | 0.989 | 1000 | cadherin 2, type 1, N-cadherin (neuronal) |
| GO | membrane | 161 | 3643 | 0.989 | 10000 | v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) |

| | | | | | | |
|----|----------|-----|------|-------|--------|--|
| GO | membrane | 161 | 3643 | 0.989 | 1E+08 | transmembrane protein 194B |
| GO | membrane | 161 | 3643 | 0.989 | 10254 | signal transducing adaptor molecule (SH3 domain and ITAM motif) 2 |
| GO | membrane | 161 | 3643 | 0.989 | 10391 | coronin, actin binding protein, 2B |
| GO | membrane | 161 | 3643 | 0.989 | 10457 | glycoprotein (transmembrane) nmb |
| GO | membrane | 161 | 3643 | 0.989 | 1047 | calmegin |
| GO | membrane | 161 | 3643 | 0.989 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | membrane | 161 | 3643 | 0.989 | 10683 | delta-like 3 (Drosophila) |
| GO | membrane | 161 | 3643 | 0.989 | 11010 | GLI pathogenesis-related 1 |
| GO | membrane | 161 | 3643 | 0.989 | 11154 | adaptor-related protein complex 4, sigma 1 subunit |
| GO | membrane | 161 | 3643 | 0.989 | 11226 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | membrane | 161 | 3643 | 0.989 | 11227 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | membrane | 161 | 3643 | 0.989 | 11259 | filamin A interacting protein 1-like |
| GO | membrane | 161 | 3643 | 0.989 | 112616 | CKLF-like MARVEL transmembrane domain containing 7 |
| GO | membrane | 161 | 3643 | 0.989 | 114805 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | membrane | 161 | 3643 | 0.989 | 123920 | CKLF-like MARVEL transmembrane domain containing 3 |
| GO | membrane | 161 | 3643 | 0.989 | 127670 | transmembrane epididymal protein 1 |
| GO | membrane | 161 | 3643 | 0.989 | 13 | arylacetamide deacetylase (esterase) |
| GO | membrane | 161 | 3643 | 0.989 | 130507 | ubiquitin protein ligase E3 component n-recognin 3 (putative) |
| GO | membrane | 161 | 3643 | 0.989 | 132724 | transmembrane protease, serine 11B |
| GO | membrane | 161 | 3643 | 0.989 | 134145 | family with sequence similarity 173, member B |
| GO | membrane | 161 | 3643 | 0.989 | 134285 | transmembrane protein 171 |
| GO | membrane | 161 | 3643 | 0.989 | 1379 | complement component (3b/4b) receptor 1-like |
| GO | membrane | 161 | 3643 | 0.989 | 138255 | chromosome 9 open reading frame 135 |
| GO | membrane | 161 | 3643 | 0.989 | 144448 | tetraspanin 19 |
| GO | membrane | 161 | 3643 | 0.989 | 145173 | beta 1,3-galactosyltransferase-like |
| GO | membrane | 161 | 3643 | 0.989 | 147645 | V-set and immunoglobulin domain containing 10 like |
| GO | membrane | 161 | 3643 | 0.989 | 151188 | ADP-ribosylation-like factor 6 interacting protein 6 |
| GO | membrane | 161 | 3643 | 0.989 | 151194 | family with sequence similarity 119, member A |
| GO | membrane | 161 | 3643 | 0.989 | 152007 | GLI pathogenesis-related 2 |
| GO | membrane | 161 | 3643 | 0.989 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | membrane | 161 | 3643 | 0.989 | 157753 | transmembrane protein 74 |
| GO | membrane | 161 | 3643 | 0.989 | 162494 | rhomoid, veinlet-like 3 (Drosophila) |
| GO | membrane | 161 | 3643 | 0.989 | 166336 | prickle homolog 2 (Drosophila) |
| GO | membrane | 161 | 3643 | 0.989 | 182 | jagged 1 (Alagille syndrome) |
| GO | membrane | 161 | 3643 | 0.989 | 1836 | solute carrier family 26 (sulfate transporter), member 2 |
| GO | membrane | 161 | 3643 | 0.989 | 1984 | eukaryotic translation initiation factor 5A |

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|----|----------|-----|------|-------|--------|--|
| GO | membrane | 161 | 3643 | 0.989 | 201780 | solute carrier family 10 (sodium/bile acid cotransporter family), member 4 |
| GO | membrane | 161 | 3643 | 0.989 | 205251 | non-protein coding RNA 116 |
| GO | membrane | 161 | 3643 | 0.989 | 2135 | exostoses (multiple)-like 2 |
| GO | membrane | 161 | 3643 | 0.989 | 221687 | ring finger protein 182 |
| GO | membrane | 161 | 3643 | 0.989 | 22801 | integrin, alpha 11 |
| GO | membrane | 161 | 3643 | 0.989 | 23138 | Nedd4 binding protein 3 |
| GO | membrane | 161 | 3643 | 0.989 | 23245 | astrotactin 2 |
| GO | membrane | 161 | 3643 | 0.989 | 23768 | fibronectin leucine rich transmembrane protein 2 |
| GO | membrane | 161 | 3643 | 0.989 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | membrane | 161 | 3643 | 0.989 | 253559 | cell adhesion molecule 2 |
| GO | membrane | 161 | 3643 | 0.989 | 255027 | MPV17 mitochondrial membrane protein-like |
| GO | membrane | 161 | 3643 | 0.989 | 25758 | chromosome 11 open reading frame 41 |
| GO | membrane | 161 | 3643 | 0.989 | 25789 | transmembrane protein 59-like |
| GO | membrane | 161 | 3643 | 0.989 | 25817 | family with sequence similarity 19 (chemokine (C-C motif)-like), member A' |
| GO | membrane | 161 | 3643 | 0.989 | 25953 | paroxysmal nonkinesigenic dyskinesia |
| GO | membrane | 161 | 3643 | 0.989 | 26032 | sushi domain containing 5 |
| GO | membrane | 161 | 3643 | 0.989 | 26154 | ATP-binding cassette, sub-family A (ABC1), member 12 |
| GO | membrane | 161 | 3643 | 0.989 | 2628 | glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | membrane | 161 | 3643 | 0.989 | 26519 | translocase of inner mitochondrial membrane 10 homolog (yeast) |
| GO | membrane | 161 | 3643 | 0.989 | 26521 | translocase of inner mitochondrial membrane 8 homolog B (yeast) |
| GO | membrane | 161 | 3643 | 0.989 | 27065 | DNA segment on chromosome 4 (unique) 234 expressed sequence |
| GO | membrane | 161 | 3643 | 0.989 | 27429 | HtrA serine peptidase 2 |
| GO | membrane | 161 | 3643 | 0.989 | 27445 | piccolo (presynaptic cytomatrix protein) |
| GO | membrane | 161 | 3643 | 0.989 | 283455 | kinase suppressor of ras 2 |
| GO | membrane | 161 | 3643 | 0.989 | 283518 | potassium channel regulator |
| GO | membrane | 161 | 3643 | 0.989 | 284415 | V-set and transmembrane domain containing 1 |
| GO | membrane | 161 | 3643 | 0.989 | 284417 | transmembrane protein 150B |
| GO | membrane | 161 | 3643 | 0.989 | 285761 | discoidin, CUB and LCCL domain containing 1 |
| GO | membrane | 161 | 3643 | 0.989 | 286234 | chromosome 9 open reading frame 79 |
| GO | membrane | 161 | 3643 | 0.989 | 29842 | transcription factor CP2-like 1 |
| GO | membrane | 161 | 3643 | 0.989 | 29940 | dermatan sulfate epimerase |
| GO | membrane | 161 | 3643 | 0.989 | 3037 | hyaluronan synthase 2 |
| GO | membrane | 161 | 3643 | 0.989 | 339761 | cytochrome P450, family 27, subfamily C, polypeptide 1 |
| GO | membrane | 161 | 3643 | 0.989 | 344838 | progesterin and adipoQ receptor family member IX |
| GO | membrane | 161 | 3643 | 0.989 | 348938 | NIPA-like domain containing 4 |
| GO | membrane | 161 | 3643 | 0.989 | 3694 | integrin, beta 6 |

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|----|----------|-----|------|-------|--------|---|
| GO | membrane | 161 | 3643 | 0.989 | 3754 | potassium voltage-gated channel, subfamily F, member 1 |
| GO | membrane | 161 | 3643 | 0.989 | 3756 | potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | membrane | 161 | 3643 | 0.989 | 388394 | reprimin-like |
| GO | membrane | 161 | 3643 | 0.989 | 400451 | family with sequence similarity 174, member B |
| GO | membrane | 161 | 3643 | 0.989 | 4709 | NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 3, 12kDa |
| GO | membrane | 161 | 3643 | 0.989 | 479 | ATPase, H ⁺ /K ⁺ transporting, nongastric, alpha polypeptide |
| GO | membrane | 161 | 3643 | 0.989 | 4867 | nephronophthisis 1 (juvenile) |
| GO | membrane | 161 | 3643 | 0.989 | 4928 | nucleoporin 98kDa |
| GO | membrane | 161 | 3643 | 0.989 | 5026 | purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | membrane | 161 | 3643 | 0.989 | 51062 | atlastin GTPase 1 |
| GO | membrane | 161 | 3643 | 0.989 | 51136 | ring finger protein, transmembrane 1 |
| GO | membrane | 161 | 3643 | 0.989 | 51308 | receptor accessory protein 2 |
| GO | membrane | 161 | 3643 | 0.989 | 51382 | ATPase, H ⁺ transporting, lysosomal 34kDa, V1 subunit D |
| GO | membrane | 161 | 3643 | 0.989 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | membrane | 161 | 3643 | 0.989 | 516 | ATP synthase, H ⁺ transporting, mitochondrial F0 complex, subunit C1 (subunit c) |
| GO | membrane | 161 | 3643 | 0.989 | 5228 | placental growth factor |
| GO | membrane | 161 | 3643 | 0.989 | 5245 | prohibitin |
| GO | membrane | 161 | 3643 | 0.989 | 53340 | sperm autoantigenic protein 17 |
| GO | membrane | 161 | 3643 | 0.989 | 54733 | solute carrier family 35, member F2 |
| GO | membrane | 161 | 3643 | 0.989 | 55016 | membrane-associated ring finger (C3HC4) 1 |
| GO | membrane | 161 | 3643 | 0.989 | 55028 | chromosome 17 open reading frame 80 |
| GO | membrane | 161 | 3643 | 0.989 | 55207 | ADP-ribosylation factor-like 8B |
| GO | membrane | 161 | 3643 | 0.989 | 554279 | chromosome 1 open reading frame 98 |
| GO | membrane | 161 | 3643 | 0.989 | 558 | AXL receptor tyrosine kinase |
| GO | membrane | 161 | 3643 | 0.989 | 56241 | sushi domain containing 2 |
| GO | membrane | 161 | 3643 | 0.989 | 56479 | potassium voltage-gated channel, KQT-like subfamily, member 5 |
| GO | membrane | 161 | 3643 | 0.989 | 57099 | apoptosis, caspase activation inhibitor |
| GO | membrane | 161 | 3643 | 0.989 | 57168 | aspartate beta-hydroxylase domain containing 2 |
| GO | membrane | 161 | 3643 | 0.989 | 57484 | ring finger protein 150 |
| GO | membrane | 161 | 3643 | 0.989 | 5754 | PTK7 protein tyrosine kinase 7 |
| GO | membrane | 161 | 3643 | 0.989 | 57574 | membrane-associated ring finger (C3HC4) 4 |
| GO | membrane | 161 | 3643 | 0.989 | 57650 | KIAA1524 |
| GO | membrane | 161 | 3643 | 0.989 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | membrane | 161 | 3643 | 0.989 | 581 | BCL2-associated X protein |
| GO | membrane | 161 | 3643 | 0.989 | 590 | butyrylcholinesterase |
| GO | membrane | 161 | 3643 | 0.989 | 60386 | solute carrier family 25 (mitochondrial thiamine pyrophosphate carrier), member 1 |

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|----|----------|-----|------|-------|--------|--|
| GO | membrane | 161 | 3643 | 0.989 | 60492 | coiled-coil domain containing 90B |
| GO | membrane | 161 | 3643 | 0.989 | 6335 | sodium channel, voltage-gated, type IX, alpha subunit |
| GO | membrane | 161 | 3643 | 0.989 | 64131 | xylosyltransferase I |
| GO | membrane | 161 | 3643 | 0.989 | 64208 | popeye domain containing 3 |
| GO | membrane | 161 | 3643 | 0.989 | 64417 | chromosome 5 open reading frame 28 |
| GO | membrane | 161 | 3643 | 0.989 | 64747 | major facilitator superfamily domain containing 1 |
| GO | membrane | 161 | 3643 | 0.989 | 65055 | receptor accessory protein 1 |
| GO | membrane | 161 | 3643 | 0.989 | 65062 | amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 4 |
| GO | membrane | 161 | 3643 | 0.989 | 6527 | solute carrier family 5 (low affinity glucose cotransporter), member 4 |
| GO | membrane | 161 | 3643 | 0.989 | 6549 | solute carrier family 9 (sodium/hydrogen exchanger), member 2 |
| GO | membrane | 161 | 3643 | 0.989 | 66000 | transmembrane protein 108 |
| GO | membrane | 161 | 3643 | 0.989 | 6683 | spastin |
| GO | membrane | 161 | 3643 | 0.989 | 6785 | elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like |
| GO | membrane | 161 | 3643 | 0.989 | 6833 | ATP-binding cassette, sub-family C (CFTR/MRP), member 8 |
| GO | membrane | 161 | 3643 | 0.989 | 7037 | transferrin receptor (p90, CD71) |
| GO | membrane | 161 | 3643 | 0.989 | 729025 | solute carrier family 15, member 5 |
| GO | membrane | 161 | 3643 | 0.989 | 7341 | SMT3 suppressor of mif two 3 homolog 1 (<i>S. cerevisiae</i>) |
| GO | membrane | 161 | 3643 | 0.989 | 7348 | uropodin 1B |
| GO | membrane | 161 | 3643 | 0.989 | 79071 | ELOVL family member 6, elongation of long chain fatty acids (FEN1/Elo2, SL |
| GO | membrane | 161 | 3643 | 0.989 | 79135 | apolipoprotein O |
| GO | membrane | 161 | 3643 | 0.989 | 79623 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | membrane | 161 | 3643 | 0.989 | 79669 | chromosome 3 open reading frame 52 |
| GO | membrane | 161 | 3643 | 0.989 | 79993 | ELOVL family member 7, elongation of long chain fatty acids (yeast) |
| GO | membrane | 161 | 3643 | 0.989 | 80342 | TRAF3 interacting protein 3 |
| GO | membrane | 161 | 3643 | 0.989 | 81035 | collectin sub-family member 12 |
| GO | membrane | 161 | 3643 | 0.989 | 81562 | lectin, mannose-binding 2-like |
| GO | membrane | 161 | 3643 | 0.989 | 81706 | protein phosphatase 1, regulatory (inhibitor) subunit 14C |
| GO | membrane | 161 | 3643 | 0.989 | 8325 | frizzled homolog 8 (<i>Drosophila</i>) |
| GO | membrane | 161 | 3643 | 0.989 | 83930 | STARD3 N-terminal like |
| GO | membrane | 161 | 3643 | 0.989 | 84189 | SLIT and NTRK-like family, member 6 |
| GO | membrane | 161 | 3643 | 0.989 | 84230 | leucine rich repeat containing 8 family, member C |
| GO | membrane | 161 | 3643 | 0.989 | 84620 | ST6 beta-galactosamide alpha-2,6-sialyltransferase 2 |
| GO | membrane | 161 | 3643 | 0.989 | 84668 | family with sequence similarity 126, member A |
| GO | membrane | 161 | 3643 | 0.989 | 84752 | UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 9 |
| GO | membrane | 161 | 3643 | 0.989 | 84769 | MPV17 mitochondrial membrane protein-like 2 |
| GO | membrane | 161 | 3643 | 0.989 | 84910 | transmembrane protein 87B |

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|----|--|-----|------|-------|---|
| GO | membrane | 161 | 3643 | 0.989 | 85027 chromosome 5 open reading frame 62 |
| GO | membrane | 161 | 3643 | 0.989 | 85455 dispatched homolog 2 (Drosophila) |
| GO | membrane | 161 | 3643 | 0.989 | 8604 solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | membrane | 161 | 3643 | 0.989 | 8685 macrophage receptor with collagenous structure |
| GO | membrane | 161 | 3643 | 0.989 | 8728 ADAM metallopeptidase domain 19 (meltrin beta) |
| GO | membrane | 161 | 3643 | 0.989 | 8747 ADAM metallopeptidase domain 21 |
| GO | membrane | 161 | 3643 | 0.989 | 8788 delta-like 1 homolog (Drosophila) |
| GO | membrane | 161 | 3643 | 0.989 | 8905 adaptor-related protein complex 1, sigma 2 subunit |
| GO | membrane | 161 | 3643 | 0.989 | 90701 SEC11 homolog C (S. cerevisiae) |
| GO | membrane | 161 | 3643 | 0.989 | 90871 chromosome 9 open reading frame 123 |
| GO | membrane | 161 | 3643 | 0.989 | 91942 NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, assembly factor 2 |
| GO | membrane | 161 | 3643 | 0.989 | 9215 like-glycosyltransferase |
| GO | membrane | 161 | 3643 | 0.989 | 9420 cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | membrane | 161 | 3643 | 0.989 | 9482 syntaxin 8 |
| GO | membrane | 161 | 3643 | 0.989 | 9653 heparan sulfate 2-O-sulfotransferase 1 |
| GO | membrane | 161 | 3643 | 0.989 | 9732 dedicator of cytokinesis 4 |
| GO | protein kinase activity | 6 | 170 | 0.989 | 10000 v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) |
| GO | protein kinase activity | 6 | 170 | 0.989 | 22868 FAST kinase domains 2 |
| GO | protein kinase activity | 6 | 170 | 0.989 | 27330 ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | protein kinase activity | 6 | 170 | 0.989 | 2965 general transcription factor IIH, polypeptide 1, 62kDa |
| GO | protein kinase activity | 6 | 170 | 0.989 | 6347 chemokine (C-C motif) ligand 2 |
| GO | protein kinase activity | 6 | 170 | 0.989 | 7010 TEK tyrosine kinase, endothelial |
| GO | protein serine/threonine kinase activity | 12 | 335 | 0.989 | 10000 v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) |
| GO | protein serine/threonine kinase activity | 12 | 335 | 0.989 | 27330 ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | protein serine/threonine kinase activity | 12 | 335 | 0.989 | 283455 kinase suppressor of ras 2 |
| GO | protein serine/threonine kinase activity | 12 | 335 | 0.989 | 54822 transient receptor potential cation channel, subfamily M, member 7 |
| GO | protein serine/threonine kinase activity | 12 | 335 | 0.989 | 5588 protein kinase C, theta |
| GO | protein serine/threonine kinase activity | 12 | 335 | 0.989 | 57144 p21 protein (Cdc42/Rac)-activated kinase 7 |
| GO | protein serine/threonine kinase activity | 12 | 335 | 0.989 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | protein serine/threonine kinase activity | 12 | 335 | 0.989 | 7046 transforming growth factor, beta receptor 1 |
| GO | protein serine/threonine kinase activity | 12 | 335 | 0.989 | 8997 kalirin, RhoGEF kinase |
| GO | protein serine/threonine kinase activity | 12 | 335 | 0.989 | 9262 serine/threonine kinase 17b |
| GO | protein serine/threonine kinase activity | 12 | 335 | 0.989 | 9448 mitogen-activated protein kinase kinase kinase kinase 4 |
| GO | protein serine/threonine kinase activity | 12 | 335 | 0.989 | 9833 maternal embryonic leucine zipper kinase |
| GO | signal transduction | 78 | 1796 | 0.989 | 10000 v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) |
| GO | signal transduction | 78 | 1796 | 0.989 | 10293 TRAF interacting protein |

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|----|---------------------|----|------|-------|--------|---|
| GO | signal transduction | 78 | 1796 | 0.989 | 10395 | deleted in liver cancer 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | signal transduction | 78 | 1796 | 0.989 | 10788 | IQ motif containing GTPase activating protein 2 |
| GO | signal transduction | 78 | 1796 | 0.989 | 11142 | protein kinase (cAMP-dependent, catalytic) inhibitor gamma |
| GO | signal transduction | 78 | 1796 | 0.989 | 1123 | chimerin (chimaerin) 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | signal transduction | 78 | 1796 | 0.989 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | signal transduction | 78 | 1796 | 0.989 | 119749 | olfactory receptor, family 4, subfamily C, member 46 |
| GO | signal transduction | 78 | 1796 | 0.989 | 121268 | Ras homolog enriched in brain like 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 125962 | olfactory receptor, family 7, subfamily G, member 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 162494 | rhomboid, veinlet-like 3 (Drosophila) |
| GO | signal transduction | 78 | 1796 | 0.989 | 2149 | coagulation factor II (thrombin) receptor |
| GO | signal transduction | 78 | 1796 | 0.989 | 2150 | coagulation factor II (thrombin) receptor-like 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 2151 | coagulation factor II (thrombin) receptor-like 2 |
| GO | signal transduction | 78 | 1796 | 0.989 | 222611 | G protein-coupled receptor 111 |
| GO | signal transduction | 78 | 1796 | 0.989 | 23432 | G protein-coupled receptor 161 |
| GO | signal transduction | 78 | 1796 | 0.989 | 2533 | FYN binding protein (FYB-120/130) |
| GO | signal transduction | 78 | 1796 | 0.989 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | signal transduction | 78 | 1796 | 0.989 | 26207 | phosphatidylinositol transfer protein, cytoplasmic 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 26230 | T-cell lymphoma invasion and metastasis 2 |
| GO | signal transduction | 78 | 1796 | 0.989 | 27330 | ribosomal protein S6 kinase, 90kDa, polypeptide 6 |
| GO | signal transduction | 78 | 1796 | 0.989 | 2774 | guanine nucleotide binding protein (G protein), alpha activating activity pol |
| GO | signal transduction | 78 | 1796 | 0.989 | 2786 | guanine nucleotide binding protein (G protein), gamma 4 |
| GO | signal transduction | 78 | 1796 | 0.989 | 282770 | olfactory receptor, family 10, subfamily AG, member 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 283111 | olfactory receptor, family 51, subfamily V, member 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 2842 | G protein-coupled receptor 19 |
| GO | signal transduction | 78 | 1796 | 0.989 | 2845 | G protein-coupled receptor 22 |
| GO | signal transduction | 78 | 1796 | 0.989 | 2850 | G protein-coupled receptor 27 |
| GO | signal transduction | 78 | 1796 | 0.989 | 285659 | olfactory receptor, family 2, subfamily V, member 2 |
| GO | signal transduction | 78 | 1796 | 0.989 | 2863 | G protein-coupled receptor 39 |
| GO | signal transduction | 78 | 1796 | 0.989 | 287 | ankyrin 2, neuronal |
| GO | signal transduction | 78 | 1796 | 0.989 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | signal transduction | 78 | 1796 | 0.989 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | signal transduction | 78 | 1796 | 0.989 | 3756 | potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 390061 | olfactory receptor, family 51, subfamily Q, member 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 391114 | olfactory receptor, family 6, subfamily K, member 3 |

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|----|---------------------|----|------|-------|--|
| GO | signal transduction | 78 | 1796 | 0.989 | 3952 leptin |
| GO | signal transduction | 78 | 1796 | 0.989 | 406 aryl hydrocarbon receptor nuclear translocator-like |
| GO | signal transduction | 78 | 1796 | 0.989 | 4158 melanocortin 2 receptor (adrenocorticotrophic hormone) |
| GO | signal transduction | 78 | 1796 | 0.989 | 4651 myosin X |
| GO | signal transduction | 78 | 1796 | 0.989 | 4763 neurofibromin 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 4867 nephronophthisis 1 (juvenile) |
| GO | signal transduction | 78 | 1796 | 0.989 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | signal transduction | 78 | 1796 | 0.989 | 5021 oxytocin receptor |
| GO | signal transduction | 78 | 1796 | 0.989 | 5026 purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | signal transduction | 78 | 1796 | 0.989 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 5031 pyrimidinergic receptor P2Y, G-protein coupled, 6 |
| GO | signal transduction | 78 | 1796 | 0.989 | 50940 phosphodiesterase 11A |
| GO | signal transduction | 78 | 1796 | 0.989 | 5140 phosphodiesterase 3B, cGMP-inhibited |
| GO | signal transduction | 78 | 1796 | 0.989 | 5145 phosphodiesterase 6A, cGMP-specific, rod, alpha |
| GO | signal transduction | 78 | 1796 | 0.989 | 51676 ankyrin repeat and SOCS box-containing 2 |
| GO | signal transduction | 78 | 1796 | 0.989 | 5228 placental growth factor |
| GO | signal transduction | 78 | 1796 | 0.989 | 5245 prohibitin |
| GO | signal transduction | 78 | 1796 | 0.989 | 53340 sperm autoantigenic protein 17 |
| GO | signal transduction | 78 | 1796 | 0.989 | 53637 sphingosine-1-phosphate receptor 5 |
| GO | signal transduction | 78 | 1796 | 0.989 | 54331 guanine nucleotide binding protein (G protein), gamma 2 |
| GO | signal transduction | 78 | 1796 | 0.989 | 55789 DEP domain containing 1B |
| GO | signal transduction | 78 | 1796 | 0.989 | 558 AXL receptor tyrosine kinase |
| GO | signal transduction | 78 | 1796 | 0.989 | 5754 PTK7 protein tyrosine kinase 7 |
| GO | signal transduction | 78 | 1796 | 0.989 | 59345 guanine nucleotide binding protein (G protein), beta polypeptide 4 |
| GO | signal transduction | 78 | 1796 | 0.989 | 6242 rhotekin |
| GO | signal transduction | 78 | 1796 | 0.989 | 6251 Ras suppressor protein 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 6347 chemokine (C-C motif) ligand 2 |
| GO | signal transduction | 78 | 1796 | 0.989 | 6422 secreted frizzled-related protein 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 6695 sparco/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 7010 TEK tyrosine kinase, endothelial |
| GO | signal transduction | 78 | 1796 | 0.989 | 7046 transforming growth factor, beta receptor 1 |
| GO | signal transduction | 78 | 1796 | 0.989 | 729230 chemokine (C-C motif) receptor 2 |
| GO | signal transduction | 78 | 1796 | 0.989 | 7481 wingless-type MMTV integration site family, member 11 |
| GO | signal transduction | 78 | 1796 | 0.989 | 8325 frizzled homolog 8 (Drosophila) |
| GO | signal transduction | 78 | 1796 | 0.989 | 8533 COP9 constitutive photomorphogenic homolog subunit 3 (Arabidopsis) |
| GO | signal transduction | 78 | 1796 | 0.989 | 8536 calcium/calmodulin-dependent protein kinase I |

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| GO | signal transduction | 78 | 1796 | 0.989 | 8997 | kalirin, RhoGEF kinase |
| GO | signal transduction | 78 | 1796 | 0.989 | 91584 | plexin A4 |
| GO | signal transduction | 78 | 1796 | 0.989 | 9542 | neuregulin 2 |
| GO | signal transduction | 78 | 1796 | 0.989 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 1E+08 | forkhead box O6 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 1045 | caudal type homeobox 2 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 139324 | highly divergent homeobox |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 1746 | distal-less homeobox 2 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 2305 | forkhead box M1 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 3224 | homeobox C8 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 3236 | homeobox D10 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 3237 | homeobox D11 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 344191 | even-skipped homeobox 2 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 3756 | potassium voltage-gated channel, subfamily H (eag-related), member 1 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 389421 | lin-28 homolog B (C. elegans) |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 3975 | LIM homeobox 1 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 406 | aryl hydrocarbon receptor nuclear translocator-like |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 4094 | v-maf musculoaponeurotic fibrosarcoma oncogene homolog (avian) |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 431707 | LIM homeobox 8 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 4603 | v-myb myeloblastosis viral oncogene homolog (avian)-like 1 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 5015 | orthodenticle homeobox 2 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 5081 | paired box 7 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 54993 | zinc finger and SCAN domain containing 2 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 6474 | short stature homeobox 2 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 6659 | SRY (sex determining region Y)-box 4 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 7021 | transcription factor AP-2 beta (activating enhancer binding protein 2 beta) |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 7029 | transcription factor Dp-2 (E2F dimerization partner 2) |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 7490 | Wilms tumor 1 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 7711 | zinc finger protein 155 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 80712 | ESX homeobox 1 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 8091 | high mobility group AT-hook 2 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 91975 | zinc finger protein 300 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 93474 | zinc finger protein 670 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 9355 | LIM homeobox 2 |
| GO | regulation of transcription, DNA-depend | 32 | 1013 | 0.989 | 9839 | zinc finger E-box binding homeobox 2 |

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| GO | transcription factor activity | 39 | 922 | 0.989 | 1E+08 | forkhead box O6 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 1045 | caudal type homeobox 2 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 10474 | transcriptional adaptor 3 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 11278 | Kruppel-like factor 12 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 132625 | zinc finger protein 42 homolog (mouse) |
| GO | transcription factor activity | 39 | 922 | 0.989 | 139324 | highly divergent homeobox |
| GO | transcription factor activity | 39 | 922 | 0.989 | 1746 | distal-less homeobox 2 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 195828 | zinc finger protein 367 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 2305 | forkhead box M1 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 2736 | GLI family zinc finger 2 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 29128 | ubiquitin-like with PHD and ring finger domains 1 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 29842 | transcription factor CP2-like 1 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 3224 | homeobox C8 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 3236 | homeobox D10 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 3237 | homeobox D11 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 344191 | even-skipped homeobox 2 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 3516 | recombination signal binding protein for immunoglobulin kappa J region |
| GO | transcription factor activity | 39 | 922 | 0.989 | 3975 | LIM homeobox 1 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 406 | aryl hydrocarbon receptor nuclear translocator-like |
| GO | transcription factor activity | 39 | 922 | 0.989 | 4094 | v-maf musculoaponeurotic fibrosarcoma oncogene homolog (avian) |
| GO | transcription factor activity | 39 | 922 | 0.989 | 431707 | LIM homeobox 8 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 5015 | orthodenticle homeobox 2 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 5081 | paired box 7 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 54993 | zinc finger and SCAN domain containing 2 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 6299 | sal-like 1 (Drosophila) |
| GO | transcription factor activity | 39 | 922 | 0.989 | 6474 | short stature homeobox 2 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 6659 | SRY (sex determining region Y)-box 4 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 6662 | SRY (sex determining region Y)-box 9 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 6899 | T-box 1 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 7021 | transcription factor AP-2 beta (activating enhancer binding protein 2 beta) |
| GO | transcription factor activity | 39 | 922 | 0.989 | 7029 | transcription factor Dp-2 (E2F dimerization partner 2) |
| GO | transcription factor activity | 39 | 922 | 0.989 | 7490 | Wilms tumor 1 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 7711 | zinc finger protein 155 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 80712 | ESX homeobox 1 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 8626 | tumor protein p63 |

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| GO | transcription factor activity | 39 | 922 | 0.989 | 9242 | musculin (activated B-cell factor-1) |
| GO | transcription factor activity | 39 | 922 | 0.989 | 9355 | LIM homeobox 2 |
| GO | transcription factor activity | 39 | 922 | 0.989 | 9839 | zinc finger E-box binding homeobox 2 |
| GO | transport | 21 | 511 | 0.989 | 10052 | gap junction protein, gamma 1, 45kDa |
| GO | transport | 21 | 511 | 0.989 | 10189 | THO complex 4 |
| GO | transport | 21 | 511 | 0.989 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | transport | 21 | 511 | 0.989 | 114757 | cytoglobin |
| GO | transport | 21 | 511 | 0.989 | 116362 | retinol binding protein 7, cellular |
| GO | transport | 21 | 511 | 0.989 | 1622 | diazepam binding inhibitor (GABA receptor modulator, acyl-Coenzyme A bi |
| GO | transport | 21 | 511 | 0.989 | 1781 | dynein, cytoplasmic 1, intermediate chain 2 |
| GO | transport | 21 | 511 | 0.989 | 2171 | fatty acid binding protein 5 (psoriasis-associated) |
| GO | transport | 21 | 511 | 0.989 | 2172 | fatty acid binding protein 6, ileal |
| GO | transport | 21 | 511 | 0.989 | 2232 | ferredoxin reductase |
| GO | transport | 21 | 511 | 0.989 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | transport | 21 | 511 | 0.989 | 27445 | piccolo (presynaptic cytomatrix protein) |
| GO | transport | 21 | 511 | 0.989 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | transport | 21 | 511 | 0.989 | 4709 | NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 3, 12kDa |
| GO | transport | 21 | 511 | 0.989 | 4884 | neuronal pentraxin I |
| GO | transport | 21 | 511 | 0.989 | 5026 | purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | transport | 21 | 511 | 0.989 | 54733 | solute carrier family 35, member F2 |
| GO | transport | 21 | 511 | 0.989 | 5947 | retinol binding protein 1, cellular |
| GO | transport | 21 | 511 | 0.989 | 8563 | THO complex 5 |
| GO | transport | 21 | 511 | 0.989 | 9482 | syntaxin 8 |
| GO | transport | 21 | 511 | 0.989 | 9635 | chloride channel accessory 2 |
| GO | metabolic process | 20 | 455 | 0.989 | 10055 | SUMO1 activating enzyme subunit 1 |
| GO | metabolic process | 20 | 455 | 0.989 | 10893 | matrix metalloproteinase 24 (membrane-inserted) |
| GO | metabolic process | 20 | 455 | 0.989 | 13 | arylacetamide deacetylase (esterase) |
| GO | metabolic process | 20 | 455 | 0.989 | 2139 | eyes absent homolog 2 (Drosophila) |
| GO | metabolic process | 20 | 455 | 0.989 | 221357 | glutathione S-transferase alpha 5 |
| GO | metabolic process | 20 | 455 | 0.989 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | metabolic process | 20 | 455 | 0.989 | 26275 | 3-hydroxyisobutyryl-Coenzyme A hydrolase |
| GO | metabolic process | 20 | 455 | 0.989 | 3157 | 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) |
| GO | metabolic process | 20 | 455 | 0.989 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | metabolic process | 20 | 455 | 0.989 | 411 | arylsulfatase B |
| GO | metabolic process | 20 | 455 | 0.989 | 4312 | matrix metalloproteinase 1 (interstitial collagenase) |
| GO | metabolic process | 20 | 455 | 0.989 | 4318 | matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV c |

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| GO | metabolic process | 20 | 455 | 0.989 | 4319 | matrix metalloproteinase 10 (stromelysin 2) |
| GO | metabolic process | 20 | 455 | 0.989 | 479 | ATPase, H ⁺ /K ⁺ transporting, nongastric, alpha polypeptide |
| GO | metabolic process | 20 | 455 | 0.989 | 4968 | 8-oxoguanine DNA glycosylase |
| GO | metabolic process | 20 | 455 | 0.989 | 57103 | chromosome 12 open reading frame 5 |
| GO | metabolic process | 20 | 455 | 0.989 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | metabolic process | 20 | 455 | 0.989 | 586 | branched chain aminotransferase 1, cytosolic |
| GO | metabolic process | 20 | 455 | 0.989 | 6120 | ribulose-5-phosphate-3-epimerase |
| GO | metabolic process | 20 | 455 | 0.989 | 669 | 2,3-bisphosphoglycerate mutase |
| GO | protein modification process | 6 | 145 | 0.989 | 10055 | SUMO1 activating enzyme subunit 1 |
| GO | protein modification process | 6 | 145 | 0.989 | 25827 | F-box and leucine-rich repeat protein 2 |
| GO | protein modification process | 6 | 145 | 0.989 | 26263 | F-box protein 22 |
| GO | protein modification process | 6 | 145 | 0.989 | 4734 | neural precursor cell expressed, developmentally down-regulated 4 |
| GO | protein modification process | 6 | 145 | 0.989 | 5110 | protein-L-isoaspartate (D-aspartate) O-methyltransferase |
| GO | protein modification process | 6 | 145 | 0.989 | 51191 | hect domain and RLD 5 |
| GO | response to protein stimulus | 1 | 42 | 0.989 | 10096 | ARP3 actin-related protein 3 homolog (yeast) |
| GO | intracellular | 80 | 1794 | 0.989 | 10123 | ADP-ribosylation factor-like 4C |
| GO | intracellular | 80 | 1794 | 0.989 | 10395 | deleted in liver cancer 1 |
| GO | intracellular | 80 | 1794 | 0.989 | 10474 | transcriptional adaptor 3 |
| GO | intracellular | 80 | 1794 | 0.989 | 10612 | tripartite motif-containing 3 |
| GO | intracellular | 80 | 1794 | 0.989 | 10788 | IQ motif containing GTPase activating protein 2 |
| GO | intracellular | 80 | 1794 | 0.989 | 11164 | nudix (nucleoside diphosphate linked moiety X)-type motif 5 |
| GO | intracellular | 80 | 1794 | 0.989 | 11222 | mitochondrial ribosomal protein L3 |
| GO | intracellular | 80 | 1794 | 0.989 | 1123 | chimerin (chimaerin) 1 |
| GO | intracellular | 80 | 1794 | 0.989 | 11278 | Kruppel-like factor 12 |
| GO | intracellular | 80 | 1794 | 0.989 | 114088 | tripartite motif-containing 9 |
| GO | intracellular | 80 | 1794 | 0.989 | 12 | serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), me |
| GO | intracellular | 80 | 1794 | 0.989 | 121268 | Ras homolog enriched in brain like 1 |
| GO | intracellular | 80 | 1794 | 0.989 | 132625 | zinc finger protein 42 homolog (mouse) |
| GO | intracellular | 80 | 1794 | 0.989 | 148213 | zinc finger protein 681 |
| GO | intracellular | 80 | 1794 | 0.989 | 153478 | pleckstrin homology domain containing, family G (with RhoGef domain) me |
| GO | intracellular | 80 | 1794 | 0.989 | 195828 | zinc finger protein 367 |
| GO | intracellular | 80 | 1794 | 0.989 | 22891 | zinc finger protein 365 |
| GO | intracellular | 80 | 1794 | 0.989 | 22934 | ribose 5-phosphate isomerase A |
| GO | intracellular | 80 | 1794 | 0.989 | 25780 | RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | intracellular | 80 | 1794 | 0.989 | 26207 | phosphatidylinositol transfer protein, cytoplasmic 1 |
| GO | intracellular | 80 | 1794 | 0.989 | 26230 | T-cell lymphoma invasion and metastasis 2 |

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| GO | intracellular | 80 | 1794 | 0.989 | 27289 Rho family GTPase 1 |
| GO | intracellular | 80 | 1794 | 0.989 | 2736 GLI family zinc finger 2 |
| GO | intracellular | 80 | 1794 | 0.989 | 284443 zinc finger protein 493 |
| GO | intracellular | 80 | 1794 | 0.989 | 28998 mitochondrial ribosomal protein L13 |
| GO | intracellular | 80 | 1794 | 0.989 | 332 baculoviral IAP repeat-containing 5 |
| GO | intracellular | 80 | 1794 | 0.989 | 3557 interleukin 1 receptor antagonist |
| GO | intracellular | 80 | 1794 | 0.989 | 3975 LIM homeobox 1 |
| GO | intracellular | 80 | 1794 | 0.989 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | intracellular | 80 | 1794 | 0.989 | 4763 neurofibromin 1 |
| GO | intracellular | 80 | 1794 | 0.989 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | intracellular | 80 | 1794 | 0.989 | 51023 mitochondrial ribosomal protein S18C |
| GO | intracellular | 80 | 1794 | 0.989 | 51121 ribosomal protein L26-like 1 |
| GO | intracellular | 80 | 1794 | 0.989 | 51191 hect domain and RLD 5 |
| GO | intracellular | 80 | 1794 | 0.989 | 51256 TBC1 domain family, member 7 |
| GO | intracellular | 80 | 1794 | 0.989 | 54796 basонуclin 2 |
| GO | intracellular | 80 | 1794 | 0.989 | 54984 PIN2-interacting protein 1 |
| GO | intracellular | 80 | 1794 | 0.989 | 54993 zinc finger and SCAN domain containing 2 |
| GO | intracellular | 80 | 1794 | 0.989 | 55207 ADP-ribosylation factor-like 8B |
| GO | intracellular | 80 | 1794 | 0.989 | 55521 tripartite motif-containing 36 |
| GO | intracellular | 80 | 1794 | 0.989 | 55789 DEP domain containing 1B |
| GO | intracellular | 80 | 1794 | 0.989 | 5588 protein kinase C, theta |
| GO | intracellular | 80 | 1794 | 0.989 | 55916 nuclear transport factor 2-like export factor 2 |
| GO | intracellular | 80 | 1794 | 0.989 | 56655 polymerase (DNA-directed), epsilon 4 (p12 subunit) |
| GO | intracellular | 80 | 1794 | 0.989 | 57099 apoptosis, caspase activation inhibitor |
| GO | intracellular | 80 | 1794 | 0.989 | 57103 chromosome 12 open reading frame 5 |
| GO | intracellular | 80 | 1794 | 0.989 | 58499 zinc finger protein 462 |
| GO | intracellular | 80 | 1794 | 0.989 | 5924 Ras protein-specific guanine nucleotide-releasing factor 2 |
| GO | intracellular | 80 | 1794 | 0.989 | 59336 PR domain containing 13 |
| GO | intracellular | 80 | 1794 | 0.989 | 6133 ribosomal protein L9 |
| GO | intracellular | 80 | 1794 | 0.989 | 6154 ribosomal protein L26 |
| GO | intracellular | 80 | 1794 | 0.989 | 619279 zinc finger protein 704 |
| GO | intracellular | 80 | 1794 | 0.989 | 6242 rhotekin |
| GO | intracellular | 80 | 1794 | 0.989 | 6299 sal-like 1 (Drosophila) |
| GO | intracellular | 80 | 1794 | 0.989 | 641 Bloom syndrome, RecQ helicase-like |
| GO | intracellular | 80 | 1794 | 0.989 | 64393 zinc finger, matrin type 3 |
| GO | intracellular | 80 | 1794 | 0.989 | 64782 apoptosis enhancing nuclease |

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| GO | intracellular | 80 | 1794 | 0.989 | 65008 mitochondrial ribosomal protein L1 |
| GO | intracellular | 80 | 1794 | 0.989 | 6591 snail homolog 2 (Drosophila) |
| GO | intracellular | 80 | 1794 | 0.989 | 6615 snail homolog 1 (Drosophila) |
| GO | intracellular | 80 | 1794 | 0.989 | 672 breast cancer 1, early onset |
| GO | intracellular | 80 | 1794 | 0.989 | 7347 ubiquitin carboxyl-terminal esterase L3 (ubiquitin thiolesterase) |
| GO | intracellular | 80 | 1794 | 0.989 | 7490 Wilms tumor 1 |
| GO | intracellular | 80 | 1794 | 0.989 | 7552 zinc finger protein 711 |
| GO | intracellular | 80 | 1794 | 0.989 | 7711 zinc finger protein 155 |
| GO | intracellular | 80 | 1794 | 0.989 | 79187 fibronectin type III and SPRY domain containing 1 |
| GO | intracellular | 80 | 1794 | 0.989 | 79677 structural maintenance of chromosomes 6 |
| GO | intracellular | 80 | 1794 | 0.989 | 79698 zinc finger, matrin type 4 |
| GO | intracellular | 80 | 1794 | 0.989 | 81786 tripartite motif-containing 7 |
| GO | intracellular | 80 | 1794 | 0.989 | 84083 zinc finger, RAN-binding domain containing 3 |
| GO | intracellular | 80 | 1794 | 0.989 | 84622 zinc finger protein 594 |
| GO | intracellular | 80 | 1794 | 0.989 | 84878 zinc finger and BTB domain containing 45 |
| GO | intracellular | 80 | 1794 | 0.989 | 8997 kalirin, RhoGEF kinase |
| GO | intracellular | 80 | 1794 | 0.989 | 91584 plexin A4 |
| GO | intracellular | 80 | 1794 | 0.989 | 91975 zinc finger protein 300 |
| GO | intracellular | 80 | 1794 | 0.989 | 93474 zinc finger protein 670 |
| GO | intracellular | 80 | 1794 | 0.989 | 9535 glia maturation factor, gamma |
| GO | intracellular | 80 | 1794 | 0.989 | 9839 zinc finger E-box binding homeobox 2 |
| GO | intracellular | 80 | 1794 | 0.989 | 9882 TBC1 domain family, member 4 |
| GO | intracellular | 80 | 1794 | 0.989 | 9910 RAB GTPase activating protein 1-like |
| GO | small GTPase mediated signal transduct | 8 | 193 | 0.989 | 10123 ADP-ribosylation factor-like 4C |
| GO | small GTPase mediated signal transduct | 8 | 193 | 0.989 | 10890 RAB10, member RAS oncogene family |
| GO | small GTPase mediated signal transduct | 8 | 193 | 0.989 | 121268 Ras homolog enriched in brain like 1 |
| GO | small GTPase mediated signal transduct | 8 | 193 | 0.989 | 25780 RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | small GTPase mediated signal transduct | 8 | 193 | 0.989 | 27289 Rho family GTPase 1 |
| GO | small GTPase mediated signal transduct | 8 | 193 | 0.989 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | small GTPase mediated signal transduct | 8 | 193 | 0.989 | 55207 ADP-ribosylation factor-like 8B |
| GO | small GTPase mediated signal transduct | 8 | 193 | 0.989 | 83871 RAB34, member RAS oncogene family |
| GO | biological_process | 17 | 547 | 0.989 | 10190 thioredoxin domain containing 9 |
| GO | biological_process | 17 | 547 | 0.989 | 10777 cyclic AMP-regulated phosphoprotein, 21 kD |
| GO | biological_process | 17 | 547 | 0.989 | 11259 filamin A interacting protein 1-like |
| GO | biological_process | 17 | 547 | 0.989 | 23136 erythrocyte membrane protein band 4.1-like 3 |
| GO | biological_process | 17 | 547 | 0.989 | 23768 fibronectin leucine rich transmembrane protein 2 |

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|----|--|----|-----|-------|--------|--|
| GO | biological_process | 17 | 547 | 0.989 | 29893 | PSMC3 interacting protein |
| GO | biological_process | 17 | 547 | 0.989 | 344191 | even-skipped homeobox 2 |
| GO | biological_process | 17 | 547 | 0.989 | 4052 | latent transforming growth factor beta binding protein 1 |
| GO | biological_process | 17 | 547 | 0.989 | 51050 | peptidase inhibitor 15 |
| GO | biological_process | 17 | 547 | 0.989 | 54726 | OTU domain containing 4 |
| GO | biological_process | 17 | 547 | 0.989 | 54733 | solute carrier family 35, member F2 |
| GO | biological_process | 17 | 547 | 0.989 | 56651 | chromosome 18 open reading frame 2 |
| GO | biological_process | 17 | 547 | 0.989 | 57590 | WD repeat and FYVE domain containing 1 |
| GO | biological_process | 17 | 547 | 0.989 | 64208 | popeye domain containing 3 |
| GO | biological_process | 17 | 547 | 0.989 | 66000 | transmembrane protein 108 |
| GO | biological_process | 17 | 547 | 0.989 | 7840 | Alstrom syndrome 1 |
| GO | biological_process | 17 | 547 | 0.989 | 84668 | family with sequence similarity 126, member A |
| GO | RNA splicing, via transesterification reac | 1 | 25 | 0.989 | 10199 | M-phase phosphoprotein 10 (U3 small nucleolar ribonucleoprotein) |
| GO | binding | 16 | 500 | 0.989 | 10202 | dehydrogenase/reductase (SDR family) member 2 |
| GO | binding | 16 | 500 | 0.989 | 11077 | heat shock transcription factor 2 binding protein |
| GO | binding | 16 | 500 | 0.989 | 122786 | FERM domain containing 6 |
| GO | binding | 16 | 500 | 0.989 | 145864 | hyaluronan and proteoglycan link protein 3 |
| GO | binding | 16 | 500 | 0.989 | 22979 | EFR3 homolog B (<i>S. cerevisiae</i>) |
| GO | binding | 16 | 500 | 0.989 | 23171 | glycerol-3-phosphate dehydrogenase 1-like |
| GO | binding | 16 | 500 | 0.989 | 26032 | sushi domain containing 5 |
| GO | binding | 16 | 500 | 0.989 | 26115 | tetratricopeptide repeat, ankyrin repeat and coiled-coil containing 2 |
| GO | binding | 16 | 500 | 0.989 | 283208 | prolyl 4-hydroxylase, alpha polypeptide III |
| GO | binding | 16 | 500 | 0.989 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | binding | 16 | 500 | 0.989 | 3694 | integrin, beta 6 |
| GO | binding | 16 | 500 | 0.989 | 4052 | latent transforming growth factor beta binding protein 1 |
| GO | binding | 16 | 500 | 0.989 | 414149 | acyl-Coenzyme A binding domain containing 7 |
| GO | binding | 16 | 500 | 0.989 | 60386 | solute carrier family 25 (mitochondrial thiamine pyrophosphate carrier), m |
| GO | binding | 16 | 500 | 0.989 | 81035 | collectin sub-family member 12 |
| GO | binding | 16 | 500 | 0.989 | 9540 | tumor protein p53 inducible protein 3 |
| GO | nuclear envelope | 4 | 92 | 0.989 | 10202 | dehydrogenase/reductase (SDR family) member 2 |
| GO | nuclear envelope | 4 | 92 | 0.989 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | nuclear envelope | 4 | 92 | 0.989 | 4928 | nucleoporin 98kDa |
| GO | nuclear envelope | 4 | 92 | 0.989 | 9688 | nucleoporin 93kDa |
| GO | oxidation reduction | 18 | 515 | 0.989 | 10202 | dehydrogenase/reductase (SDR family) member 2 |
| GO | oxidation reduction | 18 | 515 | 0.989 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | oxidation reduction | 18 | 515 | 0.989 | 1733 | deiodinase, iodothyronine, type I |

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|----|-------------------------|----|-----|-------|--------|--|
| GO | oxidation reduction | 18 | 515 | 0.989 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | oxidation reduction | 18 | 515 | 0.989 | 2232 | ferredoxin reductase |
| GO | oxidation reduction | 18 | 515 | 0.989 | 23171 | glycerol-3-phosphate dehydrogenase 1-like |
| GO | oxidation reduction | 18 | 515 | 0.989 | 283208 | prolyl 4-hydroxylase, alpha polypeptide III |
| GO | oxidation reduction | 18 | 515 | 0.989 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | oxidation reduction | 18 | 515 | 0.989 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | oxidation reduction | 18 | 515 | 0.989 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | oxidation reduction | 18 | 515 | 0.989 | 339761 | cytochrome P450, family 27, subfamily C, polypeptide 1 |
| GO | oxidation reduction | 18 | 515 | 0.989 | 5264 | phytanoyl-CoA 2-hydroxylase |
| GO | oxidation reduction | 18 | 515 | 0.989 | 57168 | aspartate beta-hydroxylase domain containing 2 |
| GO | oxidation reduction | 18 | 515 | 0.989 | 6241 | ribonucleotide reductase M2 |
| GO | oxidation reduction | 18 | 515 | 0.989 | 8659 | aldehyde dehydrogenase 4 family, member A1 |
| GO | oxidation reduction | 18 | 515 | 0.989 | 91801 | alkB, alkylation repair homolog 8 (E. coli) |
| GO | oxidation reduction | 18 | 515 | 0.989 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | oxidation reduction | 18 | 515 | 0.989 | 9540 | tumor protein p53 inducible protein 3 |
| GO | oxidoreductase activity | 12 | 418 | 0.989 | 10202 | dehydrogenase/reductase (SDR family) member 2 |
| GO | oxidoreductase activity | 12 | 418 | 0.989 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | oxidoreductase activity | 12 | 418 | 0.989 | 220 | aldehyde dehydrogenase 1 family, member A3 |
| GO | oxidoreductase activity | 12 | 418 | 0.989 | 2232 | ferredoxin reductase |
| GO | oxidoreductase activity | 12 | 418 | 0.989 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | oxidoreductase activity | 12 | 418 | 0.989 | 3028 | hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | oxidoreductase activity | 12 | 418 | 0.989 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | oxidoreductase activity | 12 | 418 | 0.989 | 57168 | aspartate beta-hydroxylase domain containing 2 |
| GO | oxidoreductase activity | 12 | 418 | 0.989 | 6241 | ribonucleotide reductase M2 |
| GO | oxidoreductase activity | 12 | 418 | 0.989 | 8659 | aldehyde dehydrogenase 4 family, member A1 |
| GO | oxidoreductase activity | 12 | 418 | 0.989 | 91801 | alkB, alkylation repair homolog 8 (E. coli) |
| GO | oxidoreductase activity | 12 | 418 | 0.989 | 9540 | tumor protein p53 inducible protein 3 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 10212 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 39 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 10799 | ribonuclease P/MRP 40kDa subunit |
| GO | hydrolase activity | 39 | 917 | 0.989 | 11056 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 52 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 11164 | nudix (nucleoside diphosphate linked moiety X)-type motif 5 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 128853 | dual specificity phosphatase 15 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 134637 | adenosine deaminase, tRNA-specific 2, TAD2 homolog (S. cerevisiae) |
| GO | hydrolase activity | 39 | 917 | 0.989 | 135114 | histidine triad nucleotide binding protein 3 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 147699 | protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1N (putative) |
| GO | hydrolase activity | 39 | 917 | 0.989 | 1763 | DNA replication helicase 2 homolog (yeast) |

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|----|----------------------|----|-----|-------|--------|---|
| GO | hydrolase activity | 39 | 917 | 0.989 | 1775 | deoxyribonuclease I-like 2 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 2139 | eyes absent homolog 2 (Drosophila) |
| GO | hydrolase activity | 39 | 917 | 0.989 | 2237 | flap structure-specific endonuclease 1 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 25953 | paroxysmal nonkinesigenic dyskinesia |
| GO | hydrolase activity | 39 | 917 | 0.989 | 26275 | 3-hydroxyisobutyryl-Coenzyme A hydrolase |
| GO | hydrolase activity | 39 | 917 | 0.989 | 411 | arylsulfatase B |
| GO | hydrolase activity | 39 | 917 | 0.989 | 479 | ATPase, H+/K+ transporting, nongastric, alpha polypeptide |
| GO | hydrolase activity | 39 | 917 | 0.989 | 50485 | SWI/SNF related, matrix associated, actin dependent regulator of chromati |
| GO | hydrolase activity | 39 | 917 | 0.989 | 50940 | phosphodiesterase 11A |
| GO | hydrolase activity | 39 | 917 | 0.989 | 51062 | atlastin GTPase 1 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | hydrolase activity | 39 | 917 | 0.989 | 5145 | phosphodiesterase 6A, cGMP-specific, rod, alpha |
| GO | hydrolase activity | 39 | 917 | 0.989 | 53981 | cleavage and polyadenylation specific factor 2, 100kDa |
| GO | hydrolase activity | 39 | 917 | 0.989 | 5494 | protein phosphatase, Mg2+/Mn2+ dependent, 1A |
| GO | hydrolase activity | 39 | 917 | 0.989 | 5702 | proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 57103 | chromosome 12 open reading frame 5 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 5795 | protein tyrosine phosphatase, receptor type, J |
| GO | hydrolase activity | 39 | 917 | 0.989 | 590 | butyrylcholinesterase |
| GO | hydrolase activity | 39 | 917 | 0.989 | 5965 | RecQ protein-like (DNA helicase Q1-like) |
| GO | hydrolase activity | 39 | 917 | 0.989 | 641 | Bloom syndrome, RecQ helicase-like |
| GO | hydrolase activity | 39 | 917 | 0.989 | 64782 | apoptosis enhancing nuclease |
| GO | hydrolase activity | 39 | 917 | 0.989 | 64943 | 5'-nucleotidase domain containing 2 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 6683 | spastin |
| GO | hydrolase activity | 39 | 917 | 0.989 | 669 | 2,3-bisphosphoglycerate mutase |
| GO | hydrolase activity | 39 | 917 | 0.989 | 79814 | agmatine ureohydrolase (agmatinase) |
| GO | hydrolase activity | 39 | 917 | 0.989 | 84083 | zinc finger, RAN-binding domain containing 3 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 8458 | transcription termination factor, RNA polymerase II |
| GO | hydrolase activity | 39 | 917 | 0.989 | 89797 | neuron navigator 2 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 953 | ectonucleoside triphosphate diphosphohydrolase 1 |
| GO | hydrolase activity | 39 | 917 | 0.989 | 97 | acylphosphatase 1, erythrocyte (common) type |
| GO | nucleic acid binding | 9 | 254 | 0.989 | 10212 | DEAD (Asp-Glu-Ala-Asp) box polypeptide 39 |
| GO | nucleic acid binding | 9 | 254 | 0.989 | 10777 | cyclic AMP-regulated phosphoprotein, 21 kD |
| GO | nucleic acid binding | 9 | 254 | 0.989 | 348093 | RNA binding protein with multiple splicing 2 |
| GO | nucleic acid binding | 9 | 254 | 0.989 | 54984 | PIN2-interacting protein 1 |
| GO | nucleic acid binding | 9 | 254 | 0.989 | 55854 | zinc finger CCCH-type containing 15 |
| GO | nucleic acid binding | 9 | 254 | 0.989 | 64782 | apoptosis enhancing nuclease |

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|----|----------------------|-----|------|-------|--------|---|
| GO | nucleic acid binding | 9 | 254 | 0.989 | 79736 | chromosome 17 open reading frame 42 |
| GO | nucleic acid binding | 9 | 254 | 0.989 | 84319 | chromosome 3 open reading frame 26 |
| GO | nucleic acid binding | 9 | 254 | 0.989 | 93649 | myocardin |
| GO | metal ion binding | 116 | 2658 | 0.989 | 10213 | proteasome (prosome, macropain) 26S subunit, non-ATPase, 14 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 1026 | cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 10293 | TRAF interacting protein |
| GO | metal ion binding | 116 | 2658 | 0.989 | 10539 | glutaredoxin 3 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 10612 | tripartite motif-containing 3 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 1123 | chimerin (chimaerin) 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 11278 | Kruppel-like factor 12 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 114088 | tripartite motif-containing 9 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 114757 | cytoglobin |
| GO | metal ion binding | 116 | 2658 | 0.989 | 114804 | ring finger protein 157 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 126374 | Wilms tumor 1 interacting protein |
| GO | metal ion binding | 116 | 2658 | 0.989 | 130507 | ubiquitin protein ligase E3 component n-recognin 3 (putative) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 132625 | zinc finger protein 42 homolog (mouse) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 134637 | adenosine deaminase, tRNA-specific 2, TAD2 homolog (<i>S. cerevisiae</i>) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 148213 | zinc finger protein 681 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 157570 | establishment of cohesion 1 homolog 2 (<i>S. cerevisiae</i>) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 166336 | prickle homolog 2 (<i>Drosophila</i>) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | metal ion binding | 116 | 2658 | 0.989 | 195828 | zinc finger protein 367 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 2135 | exostoses (multiple)-like 2 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 221687 | ring finger protein 182 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 2273 | four and a half LIM domains 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 23590 | prenyl (decaprenyl) diphosphate synthase, subunit 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 2534 | FYN oncogene related to SRC, FGR, YES |
| GO | metal ion binding | 116 | 2658 | 0.989 | 25885 | polymerase (RNA) I polypeptide A, 194kDa |
| GO | metal ion binding | 116 | 2658 | 0.989 | 25953 | paroxysmal nonkinesigenic dyskinesia |
| GO | metal ion binding | 116 | 2658 | 0.989 | 2618 | phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide |
| GO | metal ion binding | 116 | 2658 | 0.989 | 26519 | translocase of inner mitochondrial membrane 10 homolog (yeast) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 26521 | translocase of inner mitochondrial membrane 8 homolog B (yeast) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 2736 | GLI family zinc finger 2 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 283208 | prolyl 4-hydroxylase, alpha polypeptide III |
| GO | metal ion binding | 116 | 2658 | 0.989 | 283455 | kinase suppressor of ras 2 |

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|----|-------------------|-----|------|-------|--------|--|
| GO | metal ion binding | 116 | 2658 | 0.989 | 284443 | zinc finger protein 493 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 286151 | F-box protein 43 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 2863 | G protein-coupled receptor 39 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 29128 | ubiquitin-like with PHD and ring finger domains 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 29922 | non-metastatic cells 7, protein expressed in (nucleoside-diphosphate kinase) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 29995 | LIM and cysteine-rich domains 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 332 | baculoviral IAP repeat-containing 5 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 339761 | cytochrome P450, family 27, subfamily C, polypeptide 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 3751 | potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 377677 | carbonic anhydrase XIII |
| GO | metal ion binding | 116 | 2658 | 0.989 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | metal ion binding | 116 | 2658 | 0.989 | 389421 | lin-28 homolog B (C. elegans) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 3975 | LIM homeobox 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 411 | arylsulfatase B |
| GO | metal ion binding | 116 | 2658 | 0.989 | 4171 | minichromosome maintenance complex component 2 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 431707 | LIM homeobox 8 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 4318 | matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 479 | ATPase, H+/K+ transporting, nongastric, alpha polypeptide |
| GO | metal ion binding | 116 | 2658 | 0.989 | 4884 | neuronal pentraxin I |
| GO | metal ion binding | 116 | 2658 | 0.989 | 50940 | phosphodiesterase 11A |
| GO | metal ion binding | 116 | 2658 | 0.989 | 51136 | ring finger protein, transmembrane 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 51218 | glutaredoxin 5 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | metal ion binding | 116 | 2658 | 0.989 | 5145 | phosphodiesterase 6A, cGMP-specific, rod, alpha |
| GO | metal ion binding | 116 | 2658 | 0.989 | 5184 | peptidase D |
| GO | metal ion binding | 116 | 2658 | 0.989 | 5264 | phytanoyl-CoA 2-hydroxylase |
| GO | metal ion binding | 116 | 2658 | 0.989 | 5440 | polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |
| GO | metal ion binding | 116 | 2658 | 0.989 | 54796 | basonuclin 2 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 54822 | transient receptor potential cation channel, subfamily M, member 7 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 54849 | differentially expressed in FDCP 8 homolog (mouse) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 54993 | zinc finger and SCAN domain containing 2 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 55016 | membrane-associated ring finger (C3HC4) 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 55084 | sine oculis binding protein homolog (Drosophila) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 55521 | tripartite motif-containing 36 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 5558 | primase, DNA, polypeptide 2 (58kDa) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 55803 | ArfGAP with dual PH domains 2 |

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|----|-------------------|-----|------|-------|--------|--|
| GO | metal ion binding | 116 | 2658 | 0.989 | 55854 | zinc finger CCCH-type containing 15 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 5588 | protein kinase C, theta |
| GO | metal ion binding | 116 | 2658 | 0.989 | 56852 | RAD18 homolog (<i>S. cerevisiae</i>) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 57484 | ring finger protein 150 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 57574 | membrane-associated ring finger (C3HC4) 4 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 57590 | WD repeat and FYVE domain containing 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 58499 | zinc finger protein 462 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 59336 | PR domain containing 13 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 619279 | zinc finger protein 704 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 6299 | sal-like 1 (<i>Drosophila</i>) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 64393 | zinc finger, matrin type 3 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 64943 | 5'-nucleotidase domain containing 2 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 6591 | snail homolog 2 (<i>Drosophila</i>) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 6615 | snail homolog 1 (<i>Drosophila</i>) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 672 | breast cancer 1, early onset |
| GO | metal ion binding | 116 | 2658 | 0.989 | 7046 | transforming growth factor, beta receptor 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 7078 | TIMP metalloproteinase inhibitor 3 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 7490 | Wilms tumor 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 7552 | zinc finger protein 711 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 767 | carbonic anhydrase VIII |
| GO | metal ion binding | 116 | 2658 | 0.989 | 7711 | zinc finger protein 155 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 79698 | zinc finger, matrin type 4 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 79710 | MORC family CW-type zinc finger 4 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 79814 | agmatine ureohydrolase (agmatinase) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 81035 | collectin sub-family member 12 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 81786 | tripartite motif-containing 7 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 8193 | D4, zinc and double PHD fingers family 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 84083 | zinc finger, RAN-binding domain containing 3 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 84101 | ubiquitin specific peptidase 44 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 84168 | anthrax toxin receptor 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 84172 | polymerase (RNA) I polypeptide B, 128kDa |
| GO | metal ion binding | 116 | 2658 | 0.989 | 84622 | zinc finger protein 594 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 84878 | zinc finger and BTB domain containing 45 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 8626 | tumor protein p63 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 8728 | ADAM metalloproteinase domain 19 (meltrin beta) |

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|----|---|-----|------|-------|---|
| GO | metal ion binding | 116 | 2658 | 0.989 | 8747 ADAM metallopeptidase domain 21 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 8997 kalirin, RhoGEF kinase |
| GO | metal ion binding | 116 | 2658 | 0.989 | 91801 alkB, alkylation repair homolog 8 (E. coli) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 91975 zinc finger protein 300 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 92312 mex-3 homolog A (C. elegans) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 9260 PDZ and LIM domain 7 (enigma) |
| GO | metal ion binding | 116 | 2658 | 0.989 | 93474 zinc finger protein 670 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 9355 LIM homeobox 2 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 9420 cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 9744 ArfGAP with coiled-coil, ankyrin repeat and PH domains 1 |
| GO | metal ion binding | 116 | 2658 | 0.989 | 9839 zinc finger E-box binding homeobox 2 |
| GO | metallopeptidase activity | 2 | 88 | 0.989 | 10213 proteasome (prosome, macropain) 26S subunit, non-ATPase, 14 |
| GO | metallopeptidase activity | 2 | 88 | 0.989 | 8747 ADAM metallopeptidase domain 21 |
| GO | early endosome membrane | 1 | 37 | 0.989 | 10254 signal transducing adaptor molecule (SH3 domain and ITAM motif) 2 |
| GO | endosome | 6 | 215 | 0.989 | 10254 signal transducing adaptor molecule (SH3 domain and ITAM motif) 2 |
| GO | endosome | 6 | 215 | 0.989 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | endosome | 6 | 215 | 0.989 | 55207 ADP-ribosylation factor-like 8B |
| GO | endosome | 6 | 215 | 0.989 | 6683 spastin |
| GO | endosome | 6 | 215 | 0.989 | 7037 transferrin receptor (p90, CD71) |
| GO | endosome | 6 | 215 | 0.989 | 83930 STARD3 N-terminal like |
| GO | intracellular protein transport | 7 | 174 | 0.989 | 10254 signal transducing adaptor molecule (SH3 domain and ITAM motif) 2 |
| GO | intracellular protein transport | 7 | 174 | 0.989 | 1121 choroideremia (Rab escort protein 1) |
| GO | intracellular protein transport | 7 | 174 | 0.989 | 2898 glutamate receptor, ionotropic, kainate 2 |
| GO | intracellular protein transport | 7 | 174 | 0.989 | 3836 karyopherin alpha 1 (importin alpha 5) |
| GO | intracellular protein transport | 7 | 174 | 0.989 | 3838 karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | intracellular protein transport | 7 | 174 | 0.989 | 54843 synaptotagmin-like 2 |
| GO | intracellular protein transport | 7 | 174 | 0.989 | 8905 adaptor-related protein complex 1, sigma 2 subunit |
| GO | positive regulation of anti-apoptosis | 1 | 32 | 0.989 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | positive regulation of B cell proliferati | 1 | 25 | 0.989 | 1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1) |
| GO | cell proliferation | 12 | 286 | 0.989 | 10293 TRAF interacting protein |
| GO | cell proliferation | 12 | 286 | 0.989 | 1164 CDC28 protein kinase regulatory subunit 2 |
| GO | cell proliferation | 12 | 286 | 0.989 | 1543 cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | cell proliferation | 12 | 286 | 0.989 | 1841 deoxythymidylate kinase (thymidylate kinase) |
| GO | cell proliferation | 12 | 286 | 0.989 | 2242 feline sarcoma oncogene |
| GO | cell proliferation | 12 | 286 | 0.989 | 2736 GLI family zinc finger 2 |
| GO | cell proliferation | 12 | 286 | 0.989 | 29128 ubiquitin-like with PHD and ring finger domains 1 |

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|----|---------------------------------|----|------|-------|--|
| GO | cell proliferation | 12 | 286 | 0.989 | 54331 guanine nucleotide binding protein (G protein), gamma 2 |
| GO | cell proliferation | 12 | 286 | 0.989 | 55759 WD repeat domain 12 |
| GO | cell proliferation | 12 | 286 | 0.989 | 586 branched chain aminotransferase 1, cytosolic |
| GO | cell proliferation | 12 | 286 | 0.989 | 60675 prokineticin 2 |
| GO | cell proliferation | 12 | 286 | 0.989 | 6695 sparco/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1 |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 10293 TRAF interacting protein |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 11226 UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 25780 RAS guanyl releasing protein 3 (calcium and DAG-regulated) |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 26019 UPF2 regulator of nonsense transcripts homolog (yeast) |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 26999 cytoplasmic FMR1 interacting protein 2 |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 309 annexin A6 |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 4830 non-metastatic cells 1, protein (NM23A) expressed in |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 51191 hect domain and RLD 5 |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 51499 TP53 regulated inhibitor of apoptosis 1 |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 6683 spastin |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 7037 transferrin receptor (p90, CD71) |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 8997 kalirin, RhoGEF kinase |
| GO | perinuclear region of cytoplasm | 14 | 309 | 0.989 | 9053 microtubule-associated protein 7 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 10293 TRAF interacting protein |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 10612 tripartite motif-containing 3 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 10893 matrix metalloproteinase 24 (membrane-inserted) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 11278 Kruppel-like factor 12 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 114088 tripartite motif-containing 9 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 114804 ring finger protein 157 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 126374 Wilms tumor 1 interacting protein |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 130507 ubiquitin protein ligase E3 component n-recognin 3 (putative) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 132625 zinc finger protein 42 homolog (mouse) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 134637 adenosine deaminase, tRNA-specific 2, TAD2 homolog (<i>S. cerevisiae</i>) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 148213 zinc finger protein 681 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 166336 prickle homolog 2 (<i>Drosophila</i>) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 1788 DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 195828 zinc finger protein 367 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 221687 ring finger protein 182 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 2273 four and a half LIM domains 1 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 22891 zinc finger protein 365 |

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|----|------------------|----|------|-------|--------|--|
| GO | zinc ion binding | 81 | 1867 | 0.989 | 25953 | paroxysmal nonkinesigenic dyskinesia |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 26519 | translocase of inner mitochondrial membrane 10 homolog (yeast) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 26521 | translocase of inner mitochondrial membrane 8 homolog B (yeast) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 2736 | GLI family zinc finger 2 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 27445 | piccolo (presynaptic cytomatrix protein) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 284443 | zinc finger protein 493 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 286151 | F-box protein 43 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 29128 | ubiquitin-like with PHD and ring finger domains 1 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 29995 | LIM and cysteine-rich domains 1 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 332 | baculoviral IAP repeat-containing 5 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 377677 | carbonic anhydrase XIII |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 389421 | lin-28 homolog B (C. elegans) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 3975 | LIM homeobox 1 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 4312 | matrix metalloproteinase 1 (interstitial collagenase) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 431707 | LIM homeobox 8 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 4318 | matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 4319 | matrix metalloproteinase 10 (stromelysin 2) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 51136 | ring finger protein, transmembrane 1 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 5440 | polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 54796 | basonuclin 2 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 54843 | synaptotagmin-like 2 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 54849 | differentially expressed in FDCP 8 homolog (mouse) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 54993 | zinc finger and SCAN domain containing 2 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 55016 | membrane-associated ring finger (C3HC4) 1 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 55521 | tripartite motif-containing 36 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 55803 | ArfGAP with dual PH domains 2 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 55854 | zinc finger CCCH-type containing 15 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 56852 | RAD18 homolog (S. cerevisiae) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 57484 | ring finger protein 150 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 57574 | membrane-associated ring finger (C3HC4) 4 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 57590 | WD repeat and FYVE domain containing 1 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 58499 | zinc finger protein 462 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 59336 | PR domain containing 13 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 619279 | zinc finger protein 704 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 6299 | sal-like 1 (Drosophila) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 64393 | zinc finger, matrin type 3 |

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|----|--|----|------|-------|---|
| GO | zinc ion binding | 81 | 1867 | 0.989 | 6591 snail homolog 2 (Drosophila) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 6615 snail homolog 1 (Drosophila) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 672 breast cancer 1, early onset |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 7490 Wilms tumor 1 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 7552 zinc finger protein 711 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 767 carbonic anhydrase VIII |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 7711 zinc finger protein 155 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 79698 zinc finger, matrin type 4 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 79710 MORC family CW-type zinc finger 4 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 81786 tripartite motif-containing 7 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 8193 D4, zinc and double PHD fingers family 1 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 84083 zinc finger, RAN-binding domain containing 3 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 84101 ubiquitin specific peptidase 44 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 84206 mex-3 homolog B (C. elegans) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 8458 transcription termination factor, RNA polymerase II |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 84622 zinc finger protein 594 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 84878 zinc finger and BTB domain containing 45 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 8626 tumor protein p63 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 8728 ADAM metallopeptidase domain 19 (meltrin beta) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 8747 ADAM metallopeptidase domain 21 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 91975 zinc finger protein 300 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 92312 mex-3 homolog A (C. elegans) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 9260 PDZ and LIM domain 7 (enigma) |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 93474 zinc finger protein 670 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 9355 LIM homeobox 2 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 9540 tumor protein p53 inducible protein 3 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 9744 ArfGAP with coiled-coil, ankyrin repeat and PH domains 1 |
| GO | zinc ion binding | 81 | 1867 | 0.989 | 9839 zinc finger E-box binding homeobox 2 |
| GO | activation of phospholipase C activity | 1 | 22 | 0.989 | 10395 deleted in liver cancer 1 |
| GO | focal adhesion | 3 | 86 | 0.989 | 10395 deleted in liver cancer 1 |
| GO | focal adhesion | 3 | 86 | 0.989 | 30011 SH3-domain kinase binding protein 1 |
| GO | focal adhesion | 3 | 86 | 0.989 | 9260 PDZ and LIM domain 7 (enigma) |
| GO | Rho GTPase activator activity | 1 | 22 | 0.989 | 10395 deleted in liver cancer 1 |
| GO | transcriptional repressor complex | 1 | 29 | 0.989 | 1045 caudal type homeobox 2 |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 1047 calmegin |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 13 arylacetamide deacetylase (esterase) |

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|----|--------------------------------|----|-----|-------|--------|--|
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 145173 | beta 1,3-galactosyltransferase-like |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 1733 | deiodinase, iodothyronine, type I |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 1984 | eukaryotic translation initiation factor 5A |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 27429 | HtrA serine peptidase 2 |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 51062 | atlastin GTPase 1 |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 581 | BCL2-associated X protein |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 5924 | Ras protein-specific guanine nucleotide-releasing factor 2 |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 64131 | xylosyltransferase I |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 6785 | elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 79071 | ELOVL family member 6, elongation of long chain fatty acids (FEN1/Elo2, SL |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 79669 | chromosome 3 open reading frame 52 |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 79993 | ELOVL family member 7, elongation of long chain fatty acids (yeast) |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 81562 | lectin, mannose-binding 2-like |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 84230 | leucine rich repeat containing 8 family, member C |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 90701 | SEC11 homolog C (S. cerevisiae) |
| GO | endoplasmic reticulum membrane | 21 | 518 | 0.989 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 1047 | calmegin |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 13 | arylacetamide deacetylase (esterase) |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 145173 | beta 1,3-galactosyltransferase-like |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 1733 | deiodinase, iodothyronine, type I |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 1984 | eukaryotic translation initiation factor 5A |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 2135 | exostoses (multiple)-like 2 |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 23562 | claudin 14 |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 27429 | HtrA serine peptidase 2 |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 283208 | prolyl 4-hydroxylase, alpha polypeptide III |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 29940 | dermatan sulfate epimerase |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 341 | apolipoprotein C-I |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 51062 | atlastin GTPase 1 |

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|----|------------------------------------|----|-----|-------|-------|--|
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 5110 | protein-L-isoaspartate (D-aspartate) O-methyltransferase |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 57333 | reticulocalbin 3, EF-hand calcium binding domain |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 581 | BCL2-associated X protein |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 590 | butyrylcholinesterase |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 5924 | Ras protein-specific guanine nucleotide-releasing factor 2 |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 64131 | xylosyltransferase I |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 6683 | spastin |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 6785 | elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 79071 | ELOVL family member 6, elongation of long chain fatty acids (FEN1/Elo2, SL |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 79669 | chromosome 3 open reading frame 52 |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 79993 | ELOVL family member 7, elongation of long chain fatty acids (yeast) |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 81562 | lectin, mannose-binding 2-like |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 84230 | leucine rich repeat containing 8 family, member C |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 90701 | SEC11 homolog C (<i>S. cerevisiae</i>) |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | endoplasmic reticulum | 34 | 880 | 0.989 | 9482 | syntaxin 8 |
| GO | histone H3 acetylation | 1 | 24 | 0.989 | 10474 | transcriptional adaptor 3 |
| GO | transcription coactivator activity | 7 | 192 | 0.989 | 10474 | transcriptional adaptor 3 |
| GO | transcription coactivator activity | 7 | 192 | 0.989 | 5469 | mediator complex subunit 1 |
| GO | transcription coactivator activity | 7 | 192 | 0.989 | 5702 | proteasome (prosome, macropain) 26S subunit, ATPase, 3 |
| GO | transcription coactivator activity | 7 | 192 | 0.989 | 6672 | SP100 nuclear antigen |
| GO | transcription coactivator activity | 7 | 192 | 0.989 | 672 | breast cancer 1, early onset |
| GO | transcription coactivator activity | 7 | 192 | 0.989 | 7021 | transcription factor AP-2 beta (activating enhancer binding protein 2 beta) |
| GO | transcription coactivator activity | 7 | 192 | 0.989 | 898 | cyclin E1 |
| GO | microsome | 10 | 219 | 0.989 | 10492 | synaptotagmin binding, cytoplasmic RNA interacting protein |
| GO | microsome | 10 | 219 | 0.989 | 13 | arylacetamide deacetylase (esterase) |
| GO | microsome | 10 | 219 | 0.989 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | microsome | 10 | 219 | 0.989 | 1733 | deiodinase, iodothyronine, type I |
| GO | microsome | 10 | 219 | 0.989 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | microsome | 10 | 219 | 0.989 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | microsome | 10 | 219 | 0.989 | 51062 | atlastin GTPase 1 |
| GO | microsome | 10 | 219 | 0.989 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | microsome | 10 | 219 | 0.989 | 90701 | SEC11 homolog C (<i>S. cerevisiae</i>) |
| GO | microsome | 10 | 219 | 0.989 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | blood vessel remodeling | 1 | 22 | 0.989 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|

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|----|---------------------|----|------|-------|--------|---|
| GO | extracellular space | 26 | 647 | 0.989 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | extracellular space | 26 | 647 | 0.989 | 112616 | CKLF-like MARVEL transmembrane domain containing 7 |
| GO | extracellular space | 26 | 647 | 0.989 | 123920 | CKLF-like MARVEL transmembrane domain containing 3 |
| GO | extracellular space | 26 | 647 | 0.989 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | extracellular space | 26 | 647 | 0.989 | 24147 | four jointed box 1 (Drosophila) |
| GO | extracellular space | 26 | 647 | 0.989 | 2878 | glutathione peroxidase 3 (plasma) |
| GO | extracellular space | 26 | 647 | 0.989 | 348 | apolipoprotein E |
| GO | extracellular space | 26 | 647 | 0.989 | 3557 | interleukin 1 receptor antagonist |
| GO | extracellular space | 26 | 647 | 0.989 | 3589 | interleukin 11 |
| GO | extracellular space | 26 | 647 | 0.989 | 3952 | leptin |
| GO | extracellular space | 26 | 647 | 0.989 | 4318 | matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV c |
| GO | extracellular space | 26 | 647 | 0.989 | 4319 | matrix metallopeptidase 10 (stromelysin 2) |
| GO | extracellular space | 26 | 647 | 0.989 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | extracellular space | 26 | 647 | 0.989 | 5125 | proprotein convertase subtilisin/kexin type 5 |
| GO | extracellular space | 26 | 647 | 0.989 | 5228 | placental growth factor |
| GO | extracellular space | 26 | 647 | 0.989 | 5654 | HtrA serine peptidase 1 |
| GO | extracellular space | 26 | 647 | 0.989 | 5744 | parathyroid hormone-like hormone |
| GO | extracellular space | 26 | 647 | 0.989 | 57642 | collagen, type XX, alpha 1 |
| GO | extracellular space | 26 | 647 | 0.989 | 590 | butyrylcholinesterase |
| GO | extracellular space | 26 | 647 | 0.989 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | extracellular space | 26 | 647 | 0.989 | 6422 | secreted frizzled-related protein 1 |
| GO | extracellular space | 26 | 647 | 0.989 | 6586 | slit homolog 3 (Drosophila) |
| GO | extracellular space | 26 | 647 | 0.989 | 7857 | secretogranin II (chromogranin C) |
| GO | extracellular space | 26 | 647 | 0.989 | 81029 | wingless-type MMTV integration site family, member 5B |
| GO | extracellular space | 26 | 647 | 0.989 | 8788 | delta-like 1 homolog (Drosophila) |
| GO | extracellular space | 26 | 647 | 0.989 | 9244 | cytokine receptor-like factor 1 |
| GO | immune response | 9 | 303 | 0.989 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|
| GO | immune response | 9 | 303 | 0.989 | 2533 | FYN binding protein (FYB-120/130) |
| GO | immune response | 9 | 303 | 0.989 | 353091 | retinoic acid early transcript 1G |
| GO | immune response | 9 | 303 | 0.989 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | immune response | 9 | 303 | 0.989 | 3557 | interleukin 1 receptor antagonist |
| GO | immune response | 9 | 303 | 0.989 | 56241 | sushi domain containing 2 |
| GO | immune response | 9 | 303 | 0.989 | 57817 | hepcidin antimicrobial peptide |
| GO | immune response | 9 | 303 | 0.989 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | immune response | 9 | 303 | 0.989 | 8482 | semaphorin 7A, GPI membrane anchor (John Milton Hagen blood group) |
| GO | receptor activity | 52 | 1148 | 0.989 | 10512 | sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (|

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|----|-------------------|----|------|-------|--------|--|
| GO | receptor activity | 52 | 1148 | 0.989 | 1136 | cholinergic receptor, nicotinic, alpha 3 |
| GO | receptor activity | 52 | 1148 | 0.989 | 1138 | cholinergic receptor, nicotinic, alpha 5 |
| GO | receptor activity | 52 | 1148 | 0.989 | 119749 | olfactory receptor, family 4, subfamily C, member 46 |
| GO | receptor activity | 52 | 1148 | 0.989 | 125962 | olfactory receptor, family 7, subfamily G, member 1 |
| GO | receptor activity | 52 | 1148 | 0.989 | 131450 | CD200 receptor 1 |
| GO | receptor activity | 52 | 1148 | 0.989 | 146760 | reticulon 4 receptor-like 1 |
| GO | receptor activity | 52 | 1148 | 0.989 | 2045 | EPH receptor A7 |
| GO | receptor activity | 52 | 1148 | 0.989 | 2149 | coagulation factor II (thrombin) receptor |
| GO | receptor activity | 52 | 1148 | 0.989 | 2150 | coagulation factor II (thrombin) receptor-like 1 |
| GO | receptor activity | 52 | 1148 | 0.989 | 2151 | coagulation factor II (thrombin) receptor-like 2 |
| GO | receptor activity | 52 | 1148 | 0.989 | 2264 | fibroblast growth factor receptor 4 |
| GO | receptor activity | 52 | 1148 | 0.989 | 22801 | integrin, alpha 11 |
| GO | receptor activity | 52 | 1148 | 0.989 | 2321 | fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular p |
| GO | receptor activity | 52 | 1148 | 0.989 | 23432 | G protein-coupled receptor 161 |
| GO | receptor activity | 52 | 1148 | 0.989 | 2558 | gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | receptor activity | 52 | 1148 | 0.989 | 282770 | olfactory receptor, family 10, subfamily AG, member 1 |
| GO | receptor activity | 52 | 1148 | 0.989 | 283111 | olfactory receptor, family 51, subfamily V, member 1 |
| GO | receptor activity | 52 | 1148 | 0.989 | 2842 | G protein-coupled receptor 19 |
| GO | receptor activity | 52 | 1148 | 0.989 | 2845 | G protein-coupled receptor 22 |
| GO | receptor activity | 52 | 1148 | 0.989 | 2850 | G protein-coupled receptor 27 |
| GO | receptor activity | 52 | 1148 | 0.989 | 285659 | olfactory receptor, family 2, subfamily V, member 2 |
| GO | receptor activity | 52 | 1148 | 0.989 | 2863 | G protein-coupled receptor 39 |
| GO | receptor activity | 52 | 1148 | 0.989 | 2898 | glutamate receptor, ionotropic, kainate 2 |
| GO | receptor activity | 52 | 1148 | 0.989 | 2906 | glutamate receptor, ionotropic, N-methyl D-aspartate 2D |
| GO | receptor activity | 52 | 1148 | 0.989 | 344838 | progesterin and adipoQ receptor family member IX |
| GO | receptor activity | 52 | 1148 | 0.989 | 348938 | NIPA-like domain containing 4 |
| GO | receptor activity | 52 | 1148 | 0.989 | 355 | Fas (TNF receptor superfamily, member 6) |
| GO | receptor activity | 52 | 1148 | 0.989 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | receptor activity | 52 | 1148 | 0.989 | 3694 | integrin, beta 6 |
| GO | receptor activity | 52 | 1148 | 0.989 | 390061 | olfactory receptor, family 51, subfamily Q, member 1 |
| GO | receptor activity | 52 | 1148 | 0.989 | 391114 | olfactory receptor, family 6, subfamily K, member 3 |
| GO | receptor activity | 52 | 1148 | 0.989 | 4158 | melanocortin 2 receptor (adrenocorticotrophic hormone) |
| GO | receptor activity | 52 | 1148 | 0.989 | 5021 | oxytocin receptor |
| GO | receptor activity | 52 | 1148 | 0.989 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |
| GO | receptor activity | 52 | 1148 | 0.989 | 5031 | pyrimidinergic receptor P2Y, G-protein coupled, 6 |
| GO | receptor activity | 52 | 1148 | 0.989 | 53637 | sphingosine-1-phosphate receptor 5 |

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|----|-------------------|----|------|-------|--|
| GO | receptor activity | 52 | 1148 | 0.989 | 54210 triggering receptor expressed on myeloid cells 1 |
| GO | receptor activity | 52 | 1148 | 0.989 | 5469 mediator complex subunit 1 |
| GO | receptor activity | 52 | 1148 | 0.989 | 54756 interleukin 17 receptor D |
| GO | receptor activity | 52 | 1148 | 0.989 | 558 AXL receptor tyrosine kinase |
| GO | receptor activity | 52 | 1148 | 0.989 | 5754 PTK7 protein tyrosine kinase 7 |
| GO | receptor activity | 52 | 1148 | 0.989 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | receptor activity | 52 | 1148 | 0.989 | 6833 ATP-binding cassette, sub-family C (CFTR/MRP), member 8 |
| GO | receptor activity | 52 | 1148 | 0.989 | 7010 TEK tyrosine kinase, endothelial |
| GO | receptor activity | 52 | 1148 | 0.989 | 7037 transferrin receptor (p90, CD71) |
| GO | receptor activity | 52 | 1148 | 0.989 | 7046 transforming growth factor, beta receptor 1 |
| GO | receptor activity | 52 | 1148 | 0.989 | 729230 chemokine (C-C motif) receptor 2 |
| GO | receptor activity | 52 | 1148 | 0.989 | 8482 semaphorin 7A, GPI membrane anchor (John Milton Hagen blood group) |
| GO | receptor activity | 52 | 1148 | 0.989 | 91584 plexin A4 |
| GO | receptor activity | 52 | 1148 | 0.989 | 9244 cytokine receptor-like factor 1 |
| GO | receptor activity | 52 | 1148 | 0.989 | 9568 gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | cell cortex | 2 | 75 | 0.989 | 10539 glutaredoxin 3 |
| GO | cell cortex | 2 | 75 | 0.989 | 4734 neural precursor cell expressed, developmentally down-regulated 4 |
| GO | Z disc | 2 | 46 | 0.989 | 10539 glutaredoxin 3 |
| GO | Z disc | 2 | 46 | 0.989 | 91624 nexilin (F actin binding protein) |
| GO | protein transport | 16 | 388 | 0.989 | 10612 tripartite motif-containing 3 |
| GO | protein transport | 16 | 388 | 0.989 | 10890 RAB10, member RAS oncogene family |
| GO | protein transport | 16 | 388 | 0.989 | 11154 adaptor-related protein complex 4, sigma 1 subunit |
| GO | protein transport | 16 | 388 | 0.989 | 1984 eukaryotic translation initiation factor 5A |
| GO | protein transport | 16 | 388 | 0.989 | 26519 translocase of inner mitochondrial membrane 10 homolog (yeast) |
| GO | protein transport | 16 | 388 | 0.989 | 26521 translocase of inner mitochondrial membrane 8 homolog B (yeast) |
| GO | protein transport | 16 | 388 | 0.989 | 29887 sorting nexin 10 |
| GO | protein transport | 16 | 388 | 0.989 | 409 arrestin, beta 2 |
| GO | protein transport | 16 | 388 | 0.989 | 4928 nucleoporin 98kDa |
| GO | protein transport | 16 | 388 | 0.989 | 55916 nuclear transport factor 2-like export factor 2 |
| GO | protein transport | 16 | 388 | 0.989 | 64393 zinc finger, matrin type 3 |
| GO | protein transport | 16 | 388 | 0.989 | 729025 solute carrier family 15, member 5 |
| GO | protein transport | 16 | 388 | 0.989 | 81562 lectin, mannose-binding 2-like |
| GO | protein transport | 16 | 388 | 0.989 | 83871 RAB34, member RAS oncogene family |
| GO | protein transport | 16 | 388 | 0.989 | 9688 nucleoporin 93kDa |
| GO | protein transport | 16 | 388 | 0.989 | 9744 ArfGAP with coiled-coil, ankyrin repeat and PH domains 1 |
| GO | response to virus | 3 | 105 | 0.989 | 10622 polymerase (RNA) III (DNA directed) polypeptide G (32kD) |

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|----|-----------------------------|----|-----|-------|--------|--|
| GO | response to virus | 3 | 105 | 0.989 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | response to virus | 3 | 105 | 0.989 | 59 | actin, alpha 2, smooth muscle, aorta |
| GO | regulation of transcription | 37 | 956 | 0.989 | 10656 | KH domain containing, RNA binding, signal transduction associated 3 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 1161 | excision repair cross-complementing rodent repair deficiency, complement |
| GO | regulation of transcription | 37 | 956 | 0.989 | 116931 | mediator complex subunit 12-like |
| GO | regulation of transcription | 37 | 956 | 0.989 | 126374 | Wilms tumor 1 interacting protein |
| GO | regulation of transcription | 37 | 956 | 0.989 | 132625 | zinc finger protein 42 homolog (mouse) |
| GO | regulation of transcription | 37 | 956 | 0.989 | 148213 | zinc finger protein 681 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 195828 | zinc finger protein 367 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 2139 | eyes absent homolog 2 (Drosophila) |
| GO | regulation of transcription | 37 | 956 | 0.989 | 284443 | zinc finger protein 493 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 29128 | ubiquitin-like with PHD and ring finger domains 1 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 2965 | general transcription factor IIH, polypeptide 1, 62kDa |
| GO | regulation of transcription | 37 | 956 | 0.989 | 29842 | transcription factor CP2-like 1 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 29995 | LIM and cysteine-rich domains 1 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 401265 | kelch-like 31 (Drosophila) |
| GO | regulation of transcription | 37 | 956 | 0.989 | 4171 | minichromosome maintenance complex component 2 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 4287 | ataxin 3 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 51003 | mediator complex subunit 31 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 51460 | Scm-like with four mbt domains 1 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 5245 | prohibitin |
| GO | regulation of transcription | 37 | 956 | 0.989 | 5469 | mediator complex subunit 1 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 54796 | basonuclin 2 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 58499 | zinc finger protein 462 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 59336 | PR domain containing 13 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 6299 | sal-like 1 (Drosophila) |
| GO | regulation of transcription | 37 | 956 | 0.989 | 6591 | snail homolog 2 (Drosophila) |
| GO | regulation of transcription | 37 | 956 | 0.989 | 7046 | transforming growth factor, beta receptor 1 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 7552 | zinc finger protein 711 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 79682 | MLF1 interacting protein |
| GO | regulation of transcription | 37 | 956 | 0.989 | 81606 | limb bud and heart development homolog (mouse) |
| GO | regulation of transcription | 37 | 956 | 0.989 | 81892 | chromosome 14 open reading frame 156 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 8193 | D4, zinc and double PHD fingers family 1 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 83879 | cell division cycle associated 7 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 8458 | transcription termination factor, RNA polymerase II |
| GO | regulation of transcription | 37 | 956 | 0.989 | 84622 | zinc finger protein 594 |

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|----|---|----|-----|-------|--------|---|
| GO | regulation of transcription | 37 | 956 | 0.989 | 84878 | zinc finger and BTB domain containing 45 |
| GO | regulation of transcription | 37 | 956 | 0.989 | 9242 | musculin (activated B-cell factor-1) |
| GO | regulation of transcription | 37 | 956 | 0.989 | 93649 | myocardin |
| GO | SH3 domain binding | 4 | 97 | 0.989 | 10656 | KH domain containing, RNA binding, signal transduction associated 3 |
| GO | SH3 domain binding | 4 | 97 | 0.989 | 30011 | SH3-domain kinase binding protein 1 |
| GO | SH3 domain binding | 4 | 97 | 0.989 | 8728 | ADAM metallopeptidase domain 19 (meltrin beta) |
| GO | SH3 domain binding | 4 | 97 | 0.989 | 9732 | dedicator of cytokinesis 4 |
| GO | brush border membrane | 1 | 26 | 0.989 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 119749 | olfactory receptor, family 4, subfamily C, member 46 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 125962 | olfactory receptor, family 7, subfamily G, member 1 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 2150 | coagulation factor II (thrombin) receptor-like 1 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 2151 | coagulation factor II (thrombin) receptor-like 2 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 222611 | G protein-coupled receptor 111 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 23432 | G protein-coupled receptor 161 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 2774 | guanine nucleotide binding protein (G protein), alpha activating activity pol |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 282770 | olfactory receptor, family 10, subfamily AG, member 1 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 283111 | olfactory receptor, family 51, subfamily V, member 1 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 2842 | G protein-coupled receptor 19 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 2845 | G protein-coupled receptor 22 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 2850 | G protein-coupled receptor 27 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 285659 | olfactory receptor, family 2, subfamily V, member 2 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 2863 | G protein-coupled receptor 39 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 348 | apolipoprotein E |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 390061 | olfactory receptor, family 51, subfamily Q, member 1 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 391114 | olfactory receptor, family 6, subfamily K, member 3 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 4158 | melanocortin 2 receptor (adrenocorticotrophic hormone) |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 5021 | oxytocin receptor |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 53637 | sphingosine-1-phosphate receptor 5 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 54331 | guanine nucleotide binding protein (G protein), gamma 2 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 60675 | prokineticin 2 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 8325 | frizzled homolog 8 (Drosophila) |
| GO | G-protein coupled receptor protein sign | 27 | 725 | 0.989 | 9568 | gamma-aminobutyric acid (GABA) B receptor, 2 |
| GO | in utero embryonic development | 6 | 136 | 0.989 | 10672 | guanine nucleotide binding protein (G protein), alpha 13 |

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|----|--------------------------------|----|-----|-------|--------|---|
| GO | in utero embryonic development | 6 | 136 | 0.989 | 2736 | GLI family zinc finger 2 |
| GO | in utero embryonic development | 6 | 136 | 0.989 | 3276 | protein arginine methyltransferase 1 |
| GO | in utero embryonic development | 6 | 136 | 0.989 | 4436 | mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) |
| GO | in utero embryonic development | 6 | 136 | 0.989 | 7046 | transforming growth factor, beta receptor 1 |
| GO | in utero embryonic development | 6 | 136 | 0.989 | 8533 | COP9 constitutive photomorphogenic homolog subunit 3 (Arabidopsis) |
| GO | molecular_function | 19 | 577 | 0.989 | 10761 | placenta-specific 1 |
| GO | molecular_function | 19 | 577 | 0.989 | 10777 | cyclic AMP-regulated phosphoprotein, 21 kD |
| GO | molecular_function | 19 | 577 | 0.989 | 10962 | myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophi |
| GO | molecular_function | 19 | 577 | 0.989 | 11249 | neurexophilin 2 |
| GO | molecular_function | 19 | 577 | 0.989 | 11259 | filamin A interacting protein 1-like |
| GO | molecular_function | 19 | 577 | 0.989 | 1290 | collagen, type V, alpha 2 |
| GO | molecular_function | 19 | 577 | 0.989 | 132851 | spermatogenesis associated 4 |
| GO | molecular_function | 19 | 577 | 0.989 | 2273 | four and a half LIM domains 1 |
| GO | molecular_function | 19 | 577 | 0.989 | 266727 | MAM domain containing glycosylphosphatidylinositol anchor 1 |
| GO | molecular_function | 19 | 577 | 0.989 | 27241 | Bardet-Biedl syndrome 9 |
| GO | molecular_function | 19 | 577 | 0.989 | 54726 | OTU domain containing 4 |
| GO | molecular_function | 19 | 577 | 0.989 | 54733 | solute carrier family 35, member F2 |
| GO | molecular_function | 19 | 577 | 0.989 | 56651 | chromosome 18 open reading frame 2 |
| GO | molecular_function | 19 | 577 | 0.989 | 64208 | popeye domain containing 3 |
| GO | molecular_function | 19 | 577 | 0.989 | 66000 | transmembrane protein 108 |
| GO | molecular_function | 19 | 577 | 0.989 | 7840 | Alstrom syndrome 1 |
| GO | molecular_function | 19 | 577 | 0.989 | 8788 | delta-like 1 homolog (Drosophila) |
| GO | molecular_function | 19 | 577 | 0.989 | 93323 | HAUS augmin-like complex, subunit 8 |
| GO | molecular_function | 19 | 577 | 0.989 | 9805 | secernin 1 |
| GO | response to unfolded protein | 2 | 49 | 0.989 | 10808 | heat shock 105kDa/110kDa protein 1 |
| GO | response to unfolded protein | 2 | 49 | 0.989 | 3336 | heat shock 10kDa protein 1 (chaperonin 10) |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 10890 | RAB10, member RAS oncogene family |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 11154 | adaptor-related protein complex 4, sigma 1 subunit |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 11226 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 11227 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 114805 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 152007 | GLI pathogenesis-related 2 |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 1730 | diaphanous homolog 2 (Drosophila) |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 2149 | coagulation factor II (thrombin) receptor |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 2150 | coagulation factor II (thrombin) receptor-like 1 |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 23057 | nicotinamide nucleotide adenylyltransferase 2 |

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|----|-----------------|----|-----|-------|---|
| GO | Golgi apparatus | 34 | 784 | 0.989 | 27065 DNA segment on chromosome 4 (unique) 234 expressed sequence |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 29940 dermatan sulfate epimerase |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 348 apolipoprotein E |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 3763 potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 3932 lymphocyte-specific protein tyrosine kinase |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 411 arylsulfatase B |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 51062 atlastin GTPase 1 |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 5140 phosphodiesterase 3B, cGMP-inhibited |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 54331 guanine nucleotide binding protein (G protein), gamma 2 |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 54756 interleukin 17 receptor D |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 57574 membrane-associated ring finger (C3HC4) 4 |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 64131 xylosyltransferase I |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 79623 UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 79929 MAP6 domain containing 1 |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 81562 lectin, mannose-binding 2-like |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 83871 RAB34, member RAS oncogene family |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 84620 ST6 beta-galactosamide alpha-2,6-sialyltransferase 2 |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 84752 UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 9 |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 8905 adaptor-related protein complex 1, sigma 2 subunit |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 9215 like-glycosyltransferase |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 9653 heparan sulfate 2-O-sulfotransferase 1 |
| GO | Golgi apparatus | 34 | 784 | 0.989 | 9910 RAB GTPase activating protein 1-like |
| GO | proteolysis | 18 | 423 | 0.989 | 10893 matrix metallopeptidase 24 (membrane-inserted) |
| GO | proteolysis | 18 | 423 | 0.989 | 132724 transmembrane protease, serine 11B |
| GO | proteolysis | 18 | 423 | 0.989 | 25827 F-box and leucine-rich repeat protein 2 |
| GO | proteolysis | 18 | 423 | 0.989 | 27429 HtrA serine peptidase 2 |
| GO | proteolysis | 18 | 423 | 0.989 | 344805 transmembrane protease, serine 7 |
| GO | proteolysis | 18 | 423 | 0.989 | 4312 matrix metallopeptidase 1 (interstitial collagenase) |
| GO | proteolysis | 18 | 423 | 0.989 | 4318 matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV c |
| GO | proteolysis | 18 | 423 | 0.989 | 4319 matrix metallopeptidase 10 (stromelysin 2) |
| GO | proteolysis | 18 | 423 | 0.989 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | proteolysis | 18 | 423 | 0.989 | 5184 peptidase D |
| GO | proteolysis | 18 | 423 | 0.989 | 5624 protein C (inactivator of coagulation factors Va and VIIIa) |
| GO | proteolysis | 18 | 423 | 0.989 | 5654 HtrA serine peptidase 1 |

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|----|--------------------------------|----|-----|-------|--------|--|
| GO | proteolysis | 18 | 423 | 0.989 | 7037 | transferrin receptor (p90, CD71) |
| GO | proteolysis | 18 | 423 | 0.989 | 7113 | transmembrane protease, serine 2 |
| GO | proteolysis | 18 | 423 | 0.989 | 8728 | ADAM metallopeptidase domain 19 (meltrin beta) |
| GO | proteolysis | 18 | 423 | 0.989 | 8747 | ADAM metallopeptidase domain 21 |
| GO | proteolysis | 18 | 423 | 0.989 | 90701 | SEC11 homolog C (<i>S. cerevisiae</i>) |
| GO | proteolysis | 18 | 423 | 0.989 | 9805 | secernin 1 |
| GO | vesicle-mediated transport | 3 | 165 | 0.989 | 11149 | blood vessel epicardial substance |
| GO | vesicle-mediated transport | 3 | 165 | 0.989 | 54843 | synaptotagmin-like 2 |
| GO | vesicle-mediated transport | 3 | 165 | 0.989 | 8997 | kalirin, RhoGEF kinase |
| GO | response to stimulus | 14 | 477 | 0.989 | 1121 | choroideremia (Rab escort protein 1) |
| GO | response to stimulus | 14 | 477 | 0.989 | 119749 | olfactory receptor, family 4, subfamily C, member 46 |
| GO | response to stimulus | 14 | 477 | 0.989 | 125962 | olfactory receptor, family 7, subfamily G, member 1 |
| GO | response to stimulus | 14 | 477 | 0.989 | 27241 | Bardet-Biedl syndrome 9 |
| GO | response to stimulus | 14 | 477 | 0.989 | 282770 | olfactory receptor, family 10, subfamily AG, member 1 |
| GO | response to stimulus | 14 | 477 | 0.989 | 283111 | olfactory receptor, family 51, subfamily V, member 1 |
| GO | response to stimulus | 14 | 477 | 0.989 | 285659 | olfactory receptor, family 2, subfamily V, member 2 |
| GO | response to stimulus | 14 | 477 | 0.989 | 390061 | olfactory receptor, family 51, subfamily Q, member 1 |
| GO | response to stimulus | 14 | 477 | 0.989 | 391114 | olfactory receptor, family 6, subfamily K, member 3 |
| GO | response to stimulus | 14 | 477 | 0.989 | 5145 | phosphodiesterase 6A, cGMP-specific, rod, alpha |
| GO | response to stimulus | 14 | 477 | 0.989 | 5264 | phytanoyl-CoA 2-hydroxylase |
| GO | response to stimulus | 14 | 477 | 0.989 | 6785 | elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like |
| GO | response to stimulus | 14 | 477 | 0.989 | 7078 | TIMP metallopeptidase inhibitor 3 |
| GO | response to stimulus | 14 | 477 | 0.989 | 7840 | Alstrom syndrome 1 |
| GO | sugar binding | 6 | 161 | 0.989 | 11226 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | sugar binding | 6 | 161 | 0.989 | 11227 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | sugar binding | 6 | 161 | 0.989 | 114805 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | sugar binding | 6 | 161 | 0.989 | 79623 | UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltr |
| GO | sugar binding | 6 | 161 | 0.989 | 81035 | collectin sub-family member 12 |
| GO | sugar binding | 6 | 161 | 0.989 | 81562 | lectin, mannose-binding 2-like |
| GO | SH3/SH2 adaptor activity | 2 | 50 | 0.989 | 1123 | chimerin (chimaerin) 1 |
| GO | SH3/SH2 adaptor activity | 2 | 50 | 0.989 | 8835 | suppressor of cytokine signaling 2 |
| GO | neuropeptide signaling pathway | 3 | 85 | 0.989 | 11249 | neurexophilin 2 |
| GO | neuropeptide signaling pathway | 3 | 85 | 0.989 | 222611 | G protein-coupled receptor 111 |
| GO | neuropeptide signaling pathway | 3 | 85 | 0.989 | 60675 | prokineticin 2 |
| GO | chemotaxis | 5 | 117 | 0.989 | 112616 | CKLF-like MARVEL transmembrane domain containing 7 |
| GO | chemotaxis | 5 | 117 | 0.989 | 123920 | CKLF-like MARVEL transmembrane domain containing 3 |

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|----|-----------------------------|---|-----|-------|--------|---|
| GO | chemotaxis | 5 | 117 | 0.989 | 60675 | prokineticin 2 |
| GO | chemotaxis | 5 | 117 | 0.989 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | chemotaxis | 5 | 117 | 0.989 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | cytokine activity | 6 | 143 | 0.989 | 112616 | CKLF-like MARVEL transmembrane domain containing 7 |
| GO | cytokine activity | 6 | 143 | 0.989 | 123920 | CKLF-like MARVEL transmembrane domain containing 3 |
| GO | cytokine activity | 6 | 143 | 0.989 | 3557 | interleukin 1 receptor antagonist |
| GO | cytokine activity | 6 | 143 | 0.989 | 3589 | interleukin 11 |
| GO | cytokine activity | 6 | 143 | 0.989 | 3624 | inhibin, beta A |
| GO | cytokine activity | 6 | 143 | 0.989 | 7857 | secretogranin II (chromogranin C) |
| GO | heme binding | 4 | 110 | 0.989 | 114757 | cytoglobin |
| GO | heme binding | 4 | 110 | 0.989 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | heme binding | 4 | 110 | 0.989 | 339761 | cytochrome P450, family 27, subfamily C, polypeptide 1 |
| GO | heme binding | 4 | 110 | 0.989 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | anchored to membrane | 2 | 109 | 0.989 | 116372 | LY6/PLAUR domain containing 1 |
| GO | anchored to membrane | 2 | 109 | 0.989 | 8482 | semaphorin 7A, GPI membrane anchor (John Milton Hagen blood group) |
| GO | olfactory receptor activity | 7 | 290 | 0.989 | 119749 | olfactory receptor, family 4, subfamily C, member 46 |
| GO | olfactory receptor activity | 7 | 290 | 0.989 | 125962 | olfactory receptor, family 7, subfamily G, member 1 |
| GO | olfactory receptor activity | 7 | 290 | 0.989 | 282770 | olfactory receptor, family 10, subfamily AG, member 1 |
| GO | olfactory receptor activity | 7 | 290 | 0.989 | 283111 | olfactory receptor, family 51, subfamily V, member 1 |
| GO | olfactory receptor activity | 7 | 290 | 0.989 | 285659 | olfactory receptor, family 2, subfamily V, member 2 |
| GO | olfactory receptor activity | 7 | 290 | 0.989 | 390061 | olfactory receptor, family 51, subfamily Q, member 1 |
| GO | olfactory receptor activity | 7 | 290 | 0.989 | 391114 | olfactory receptor, family 6, subfamily K, member 3 |
| GO | sensory perception of smell | 8 | 305 | 0.989 | 119749 | olfactory receptor, family 4, subfamily C, member 46 |
| GO | sensory perception of smell | 8 | 305 | 0.989 | 125962 | olfactory receptor, family 7, subfamily G, member 1 |
| GO | sensory perception of smell | 8 | 305 | 0.989 | 130507 | ubiquitin protein ligase E3 component n-recognin 3 (putative) |
| GO | sensory perception of smell | 8 | 305 | 0.989 | 282770 | olfactory receptor, family 10, subfamily AG, member 1 |
| GO | sensory perception of smell | 8 | 305 | 0.989 | 283111 | olfactory receptor, family 51, subfamily V, member 1 |
| GO | sensory perception of smell | 8 | 305 | 0.989 | 285659 | olfactory receptor, family 2, subfamily V, member 2 |
| GO | sensory perception of smell | 8 | 305 | 0.989 | 390061 | olfactory receptor, family 51, subfamily Q, member 1 |
| GO | sensory perception of smell | 8 | 305 | 0.989 | 391114 | olfactory receptor, family 6, subfamily K, member 3 |
| GO | inflammatory response | 8 | 222 | 0.989 | 12 | serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), me |
| GO | inflammatory response | 8 | 222 | 0.989 | 2149 | coagulation factor II (thrombin) receptor |
| GO | inflammatory response | 8 | 222 | 0.989 | 3557 | interleukin 1 receptor antagonist |
| GO | inflammatory response | 8 | 222 | 0.989 | 3694 | integrin, beta 6 |
| GO | inflammatory response | 8 | 222 | 0.989 | 60675 | prokineticin 2 |
| GO | inflammatory response | 8 | 222 | 0.989 | 6347 | chemokine (C-C motif) ligand 2 |

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|----|--|---|-----|-------|--------|---|
| GO | inflammatory response | 8 | 222 | 0.989 | 729230 | chemokine (C-C motif) receptor 2 |
| GO | inflammatory response | 8 | 222 | 0.989 | 7857 | secretogranin II (chromogranin C) |
| GO | serine-type endopeptidase inhibitor act | 2 | 90 | 0.989 | 12 | serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), me |
| GO | serine-type endopeptidase inhibitor act | 2 | 90 | 0.989 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | positive regulation of NF-kappaB transci | 1 | 47 | 0.989 | 121268 | Ras homolog enriched in brain like 1 |
| GO | protein amino acid dephosphorylation | 3 | 120 | 0.989 | 128853 | dual specificity phosphatase 15 |
| GO | protein amino acid dephosphorylation | 3 | 120 | 0.989 | 5494 | protein phosphatase, Mg2+/Mn2+ dependent, 1A |
| GO | protein amino acid dephosphorylation | 3 | 120 | 0.989 | 5795 | protein tyrosine phosphatase, receptor type, J |
| GO | protein tyrosine phosphatase activity | 2 | 82 | 0.989 | 128853 | dual specificity phosphatase 15 |
| GO | protein tyrosine phosphatase activity | 2 | 82 | 0.989 | 2139 | eyes absent homolog 2 (Drosophila) |
| GO | protein tyrosine/serine/threonine phos | 1 | 30 | 0.989 | 128853 | dual specificity phosphatase 15 |
| GO | catalytic activity | 5 | 114 | 0.989 | 13 | arylacetamide deacetylase (esterase) |
| GO | catalytic activity | 5 | 114 | 0.989 | 3248 | hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | catalytic activity | 5 | 114 | 0.989 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | catalytic activity | 5 | 114 | 0.989 | 5264 | phytanoyl-CoA 2-hydroxylase |
| GO | catalytic activity | 5 | 114 | 0.989 | 590 | butyrylcholinesterase |
| GO | carbohydrate metabolic process | 8 | 198 | 0.989 | 145173 | beta 1,3-galactosyltransferase-like |
| GO | carbohydrate metabolic process | 8 | 198 | 0.989 | 23171 | glycerol-3-phosphate dehydrogenase 1-like |
| GO | carbohydrate metabolic process | 8 | 198 | 0.989 | 283209 | phosphoglucomutase 2-like 1 |
| GO | carbohydrate metabolic process | 8 | 198 | 0.989 | 6120 | ribulose-5-phosphate-3-epimerase |
| GO | carbohydrate metabolic process | 8 | 198 | 0.989 | 64080 | ribokinase |
| GO | carbohydrate metabolic process | 8 | 198 | 0.989 | 6518 | solute carrier family 2 (facilitated glucose/fructose transporter), member 5 |
| GO | carbohydrate metabolic process | 8 | 198 | 0.989 | 669 | 2,3-bisphosphoglycerate mutase |
| GO | carbohydrate metabolic process | 8 | 198 | 0.989 | 6833 | ATP-binding cassette, sub-family C (CFTR/MRP), member 8 |
| GO | external side of plasma membrane | 5 | 121 | 0.989 | 146760 | reticulon 4 receptor-like 1 |
| GO | external side of plasma membrane | 5 | 121 | 0.989 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | external side of plasma membrane | 5 | 121 | 0.989 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alph |
| GO | external side of plasma membrane | 5 | 121 | 0.989 | 4897 | neuronal cell adhesion molecule |
| GO | external side of plasma membrane | 5 | 121 | 0.989 | 8788 | delta-like 1 homolog (Drosophila) |
| GO | phosphoprotein phosphatase activity | 1 | 36 | 0.989 | 147699 | protein phosphatase, Mg2+/Mn2+ dependent, 1N (putative) |
| GO | structural constituent of cytoskeleton | 3 | 73 | 0.989 | 1496 | catenin (cadherin-associated protein), alpha 2 |
| GO | structural constituent of cytoskeleton | 3 | 73 | 0.989 | 6711 | spectrin, beta, non-erythrocytic 1 |
| GO | structural constituent of cytoskeleton | 3 | 73 | 0.989 | 7168 | tropomyosin 1 (alpha) |
| GO | enzyme binding | 5 | 114 | 0.989 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | enzyme binding | 5 | 114 | 0.989 | 241 | arachidonate 5-lipoxygenase-activating protein |
| GO | enzyme binding | 5 | 114 | 0.989 | 332 | baculoviral IAP repeat-containing 5 |

| | | | | | | |
|----|--------------------------------------|---|-----|-------|--------|---|
| GO | enzyme binding | 5 | 114 | 0.989 | 590 | butyrylcholinesterase |
| GO | enzyme binding | 5 | 114 | 0.989 | 672 | breast cancer 1, early onset |
| GO | response to lipopolysaccharide | 3 | 105 | 0.989 | 1543 | cytochrome P450, family 1, subfamily A, polypeptide 1 |
| GO | response to lipopolysaccharide | 3 | 105 | 0.989 | 2149 | coagulation factor II (thrombin) receptor |
| GO | response to lipopolysaccharide | 3 | 105 | 0.989 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | acyltransferase activity | 3 | 133 | 0.989 | 157570 | establishment of cohesion 1 homolog 2 (<i>S. cerevisiae</i>) |
| GO | acyltransferase activity | 3 | 133 | 0.989 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | acyltransferase activity | 3 | 133 | 0.989 | 8520 | histone acetyltransferase 1 |
| GO | cytoplasmic vesicle | 9 | 229 | 0.989 | 157753 | transmembrane protein 74 |
| GO | cytoplasmic vesicle | 9 | 229 | 0.989 | 23138 | Nedd4 binding protein 3 |
| GO | cytoplasmic vesicle | 9 | 229 | 0.989 | 30011 | SH3-domain kinase binding protein 1 |
| GO | cytoplasmic vesicle | 9 | 229 | 0.989 | 409 | arrestin, beta 2 |
| GO | cytoplasmic vesicle | 9 | 229 | 0.989 | 4884 | neuronal pentraxin I |
| GO | cytoplasmic vesicle | 9 | 229 | 0.989 | 528 | ATPase, H+ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | cytoplasmic vesicle | 9 | 229 | 0.989 | 55016 | membrane-associated ring finger (C3HC4) 1 |
| GO | cytoplasmic vesicle | 9 | 229 | 0.989 | 55521 | tripartite motif-containing 36 |
| GO | cytoplasmic vesicle | 9 | 229 | 0.989 | 8905 | adaptor-related protein complex 1, sigma 2 subunit |
| GO | lysosomal membrane | 2 | 83 | 0.989 | 157753 | transmembrane protein 74 |
| GO | lysosomal membrane | 2 | 83 | 0.989 | 55207 | ADP-ribosylation factor-like 8B |
| GO | intracellular membrane-bounded organ | 2 | 127 | 0.989 | 1730 | diaphanous homolog 2 (<i>Drosophila</i>) |
| GO | intracellular membrane-bounded organ | 2 | 127 | 0.989 | 25758 | chromosome 11 open reading frame 41 |
| GO | microtubule motor activity | 3 | 76 | 0.989 | 1781 | dynein, cytoplasmic 1, intermediate chain 2 |
| GO | microtubule motor activity | 3 | 76 | 0.989 | 3797 | kinesin family member 3C |
| GO | microtubule motor activity | 3 | 76 | 0.989 | 3800 | kinesin family member 5C |
| GO | chromatin modification | 5 | 204 | 0.989 | 1788 | DNA (cytosine-5-)-methyltransferase 3 alpha |
| GO | chromatin modification | 5 | 204 | 0.989 | 2139 | eyes absent homolog 2 (<i>Drosophila</i>) |
| GO | chromatin modification | 5 | 204 | 0.989 | 50485 | SWI/SNF related, matrix associated, actin dependent regulator of chromati |
| GO | chromatin modification | 5 | 204 | 0.989 | 55506 | H2A histone family, member Y2 |
| GO | chromatin modification | 5 | 204 | 0.989 | 8520 | histone acetyltransferase 1 |
| GO | growth factor activity | 7 | 152 | 0.989 | 182 | jagged 1 (Alagille syndrome) |
| GO | growth factor activity | 7 | 152 | 0.989 | 3589 | interleukin 11 |
| GO | growth factor activity | 7 | 152 | 0.989 | 3624 | inhibin, beta A |
| GO | growth factor activity | 7 | 152 | 0.989 | 3952 | leptin |
| GO | growth factor activity | 7 | 152 | 0.989 | 5228 | placental growth factor |
| GO | growth factor activity | 7 | 152 | 0.989 | 9535 | glia maturation factor, gamma |
| GO | growth factor activity | 7 | 152 | 0.989 | 9542 | neuregulin 2 |

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|----|---|----|-----|-------|---|
| GO | keratinocyte differentiation | 1 | 29 | 0.989 | 182 jagged 1 (Alagille syndrome) |
| GO | membrane fraction | 15 | 472 | 0.989 | 1836 solute carrier family 26 (sulfate transporter), member 2 |
| GO | membrane fraction | 15 | 472 | 0.989 | 2027 enolase 3 (beta, muscle) |
| GO | membrane fraction | 15 | 472 | 0.989 | 25789 transmembrane protein 59-like |
| GO | membrane fraction | 15 | 472 | 0.989 | 2736 GLI family zinc finger 2 |
| GO | membrane fraction | 15 | 472 | 0.989 | 2898 glutamate receptor, ionotropic, kainate 2 |
| GO | membrane fraction | 15 | 472 | 0.989 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | membrane fraction | 15 | 472 | 0.989 | 5341 pleckstrin |
| GO | membrane fraction | 15 | 472 | 0.989 | 54843 synaptotagmin-like 2 |
| GO | membrane fraction | 15 | 472 | 0.989 | 5494 protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A |
| GO | membrane fraction | 15 | 472 | 0.989 | 5588 protein kinase C, theta |
| GO | membrane fraction | 15 | 472 | 0.989 | 57099 apoptosis, caspase activation inhibitor |
| GO | membrane fraction | 15 | 472 | 0.989 | 590 butyrylcholinesterase |
| GO | membrane fraction | 15 | 472 | 0.989 | 6546 solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | membrane fraction | 15 | 472 | 0.989 | 6580 solute carrier family 22 (organic cation transporter), member 1 |
| GO | membrane fraction | 15 | 472 | 0.989 | 6586 slit homolog 3 (Drosophila) |
| GO | regulation of translational initiation | 1 | 24 | 0.989 | 1983 eukaryotic translation initiation factor 5 |
| GO | translation initiation factor activity | 1 | 49 | 0.989 | 1983 eukaryotic translation initiation factor 5 |
| GO | translational initiation | 1 | 36 | 0.989 | 1983 eukaryotic translation initiation factor 5 |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 1984 eukaryotic translation initiation factor 5A |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 2149 coagulation factor II (thrombin) receptor |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 2264 fibroblast growth factor receptor 4 |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 2305 forkhead box M1 |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 2321 fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular r |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 2736 GLI family zinc finger 2 |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 3589 interleukin 11 |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 4893 neuroblastoma RAS viral (v-ras) oncogene homolog |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 5228 placental growth factor |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 5744 parathyroid hormone-like hormone |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 6659 SRY (sex determining region Y)-box 4 |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 7046 transforming growth factor, beta receptor 1 |
| GO | positive regulation of cell proliferation | 13 | 290 | 0.989 | 8872 cell division cycle 123 homolog (S. cerevisiae) |
| GO | protein N-terminus binding | 2 | 72 | 0.989 | 1984 eukaryotic translation initiation factor 5A |
| GO | protein N-terminus binding | 2 | 72 | 0.989 | 241 arachidonate 5-lipoxygenase-activating protein |
| GO | chloride channel complex | 2 | 54 | 0.989 | 200959 gamma-aminobutyric acid (GABA) receptor, rho 3 |
| GO | chloride channel complex | 2 | 54 | 0.989 | 2558 gamma-aminobutyric acid (GABA) A receptor, alpha 5 |

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|----|--|---|-----|-------|--------|---|
| GO | activation of protein kinase C activity by | 1 | 34 | 0.989 | 2149 | coagulation factor II (thrombin) receptor |
| GO | anatomical structure morphogenesis | 4 | 101 | 0.989 | 2149 | coagulation factor II (thrombin) receptor |
| GO | anatomical structure morphogenesis | 4 | 101 | 0.989 | 5081 | paired box 7 |
| GO | anatomical structure morphogenesis | 4 | 101 | 0.989 | 6422 | secreted frizzled-related protein 1 |
| GO | anatomical structure morphogenesis | 4 | 101 | 0.989 | 7481 | wingless-type MMTV integration site family, member 11 |
| GO | positive regulation of I-kappaB kinase/N | 2 | 109 | 0.989 | 2149 | coagulation factor II (thrombin) receptor |
| GO | positive regulation of I-kappaB kinase/N | 2 | 109 | 0.989 | 5494 | protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A |
| GO | blood coagulation | 3 | 71 | 0.989 | 2151 | coagulation factor II (thrombin) receptor-like 2 |
| GO | blood coagulation | 3 | 71 | 0.989 | 5028 | purinergic receptor P2Y, G-protein coupled, 1 |
| GO | blood coagulation | 3 | 71 | 0.989 | 953 | ectonucleoside triphosphate diphosphohydrolase 1 |
| GO | phosphoinositide phospholipase C activ | 1 | 26 | 0.989 | 2151 | coagulation factor II (thrombin) receptor-like 2 |
| GO | epidermis development | 3 | 75 | 0.989 | 2171 | fatty acid binding protein 5 (psoriasis-associated) |
| GO | epidermis development | 3 | 75 | 0.989 | 3918 | laminin, gamma 2 |
| GO | epidermis development | 3 | 75 | 0.989 | 5744 | parathyroid hormone-like hormone |
| GO | electron transport chain | 2 | 86 | 0.989 | 2232 | ferredoxin reductase |
| GO | electron transport chain | 2 | 86 | 0.989 | 4709 | NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 3, 12kDa |
| GO | generation of precursor metabolites an | 1 | 55 | 0.989 | 2232 | ferredoxin reductase |
| GO | mitochondrial matrix | 5 | 147 | 0.989 | 2232 | ferredoxin reductase |
| GO | mitochondrial matrix | 5 | 147 | 0.989 | 26275 | 3-hydroxyisobutyryl-Coenzyme A hydrolase |
| GO | mitochondrial matrix | 5 | 147 | 0.989 | 3336 | heat shock 10kDa protein 1 (chaperonin 10) |
| GO | mitochondrial matrix | 5 | 147 | 0.989 | 5303 | protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) |
| GO | mitochondrial matrix | 5 | 147 | 0.989 | 8659 | aldehyde dehydrogenase 4 family, member A1 |
| GO | fibroblast growth factor receptor signali | 1 | 33 | 0.989 | 2264 | fibroblast growth factor receptor 4 |
| GO | cell-matrix adhesion | 3 | 68 | 0.989 | 22801 | integrin, alpha 11 |
| GO | cell-matrix adhesion | 3 | 68 | 0.989 | 3685 | integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) |
| GO | cell-matrix adhesion | 3 | 68 | 0.989 | 3694 | integrin, beta 6 |
| GO | insulin secretion | 1 | 23 | 0.989 | 2281 | FK506 binding protein 1B, 12.6 kDa |
| GO | mitochondrial outer membrane | 3 | 81 | 0.989 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | mitochondrial outer membrane | 3 | 81 | 0.989 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | mitochondrial outer membrane | 3 | 81 | 0.989 | 581 | BCL2-associated X protein |
| GO | peroxisome | 4 | 92 | 0.989 | 23305 | acyl-CoA synthetase long-chain family member 6 |
| GO | peroxisome | 4 | 92 | 0.989 | 255027 | MPV17 mitochondrial membrane protein-like |
| GO | peroxisome | 4 | 92 | 0.989 | 26061 | 2-hydroxyacyl-CoA lyase 1 |
| GO | peroxisome | 4 | 92 | 0.989 | 5264 | phytanoyl-CoA 2-hydroxylase |
| GO | synaptic vesicle | 2 | 46 | 0.989 | 23705 | cell adhesion molecule 1 |
| GO | synaptic vesicle | 2 | 46 | 0.989 | 27445 | piccolo (presynaptic cytomatrix protein) |

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|----|--|---|-----|-------|--|
| GO | cell surface receptor linked signaling pathway | 7 | 161 | 0.989 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | cell surface receptor linked signaling pathway | 7 | 161 | 0.989 | 3276 protein arginine methyltransferase 1 |
| GO | cell surface receptor linked signaling pathway | 7 | 161 | 0.989 | 3624 inhibin, beta A |
| GO | cell surface receptor linked signaling pathway | 7 | 161 | 0.989 | 5021 oxytocin receptor |
| GO | cell surface receptor linked signaling pathway | 7 | 161 | 0.989 | 5028 purinergic receptor P2Y, G-protein coupled, 1 |
| GO | cell surface receptor linked signaling pathway | 7 | 161 | 0.989 | 6347 chemokine (C-C motif) ligand 2 |
| GO | cell surface receptor linked signaling pathway | 7 | 161 | 0.989 | 8685 macrophage receptor with collagenous structure |
| GO | feeding behavior | 1 | 25 | 0.989 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | T cell receptor signaling pathway | 1 | 22 | 0.989 | 2534 FYN oncogene related to SRC, FGR, YES |
| GO | chloride transport | 2 | 50 | 0.989 | 2558 gamma-aminobutyric acid (GABA) A receptor, alpha 5 |
| GO | chloride transport | 2 | 50 | 0.989 | 9635 chloride channel accessory 2 |
| GO | nuclear-transcribed mRNA catabolic process | 1 | 28 | 0.989 | 26019 UPF2 regulator of nonsense transcripts homolog (yeast) |
| GO | guanyl-nucleotide exchange factor activity | 4 | 120 | 0.989 | 26230 T-cell lymphoma invasion and metastasis 2 |
| GO | guanyl-nucleotide exchange factor activity | 4 | 120 | 0.989 | 5924 Ras protein-specific guanine nucleotide-releasing factor 2 |
| GO | guanyl-nucleotide exchange factor activity | 4 | 120 | 0.989 | 8997 kalirin, RhoGEF kinase |
| GO | guanyl-nucleotide exchange factor activity | 4 | 120 | 0.989 | 9732 dedicator of cytokinesis 4 |
| GO | mitochondrial inner membrane | 7 | 231 | 0.989 | 2628 glycine amidinotransferase (L-arginine:glycine amidinotransferase) |
| GO | mitochondrial inner membrane | 7 | 231 | 0.989 | 4709 NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 3, 12kDa |
| GO | mitochondrial inner membrane | 7 | 231 | 0.989 | 516 ATP synthase, H+ transporting, mitochondrial F0 complex, subunit C1 (subunit c) |
| GO | mitochondrial inner membrane | 7 | 231 | 0.989 | 5245 prohibitin |
| GO | mitochondrial inner membrane | 7 | 231 | 0.989 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | mitochondrial inner membrane | 7 | 231 | 0.989 | 60386 solute carrier family 25 (mitochondrial thiamine pyrophosphate carrier), member 12 |
| GO | mitochondrial inner membrane | 7 | 231 | 0.989 | 8604 solute carrier family 25 (mitochondrial carrier, Aralar), member 12 |
| GO | microtubule cytoskeleton | 2 | 53 | 0.989 | 26586 cytoskeleton associated protein 2 |
| GO | microtubule cytoskeleton | 2 | 53 | 0.989 | 6683 spastin |
| GO | cilium | 2 | 90 | 0.989 | 27241 Bardet-Biedl syndrome 9 |
| GO | cilium | 2 | 90 | 0.989 | 7840 Alstrom syndrome 1 |
| GO | actin filament organization | 1 | 28 | 0.989 | 27289 Rho family GTPase 1 |
| GO | lung development | 2 | 60 | 0.989 | 2736 GLI family zinc finger 2 |
| GO | lung development | 2 | 60 | 0.989 | 7046 transforming growth factor, beta receptor 1 |
| GO | mammary gland development | 1 | 25 | 0.989 | 2736 GLI family zinc finger 2 |
| GO | promoter binding | 4 | 101 | 0.989 | 2736 GLI family zinc finger 2 |
| GO | promoter binding | 4 | 101 | 0.989 | 6657 SRY (sex determining region Y)-box 2 |
| GO | promoter binding | 4 | 101 | 0.989 | 6662 SRY (sex determining region Y)-box 9 |
| GO | promoter binding | 4 | 101 | 0.989 | 7490 Wilms tumor 1 |
| GO | transcription activator activity | 9 | 227 | 0.989 | 2736 GLI family zinc finger 2 |

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|----|--|---|-----|-------|--|
| GO | transcription activator activity | 9 | 227 | 0.989 | 4603 v-myb myeloblastosis viral oncogene homolog (avian)-like 1 |
| GO | transcription activator activity | 9 | 227 | 0.989 | 5245 prohibitin |
| GO | transcription activator activity | 9 | 227 | 0.989 | 5469 mediator complex subunit 1 |
| GO | transcription activator activity | 9 | 227 | 0.989 | 6299 sal-like 1 (Drosophila) |
| GO | transcription activator activity | 9 | 227 | 0.989 | 6662 SRY (sex determining region Y)-box 9 |
| GO | transcription activator activity | 9 | 227 | 0.989 | 672 breast cancer 1, early onset |
| GO | transcription activator activity | 9 | 227 | 0.989 | 7490 Wilms tumor 1 |
| GO | transcription activator activity | 9 | 227 | 0.989 | 8626 tumor protein p63 |
| GO | mitochondrial membrane | 2 | 51 | 0.989 | 27429 HtrA serine peptidase 2 |
| GO | mitochondrial membrane | 2 | 51 | 0.989 | 65055 receptor accessory protein 1 |
| GO | mitochondrion organization | 1 | 25 | 0.989 | 27429 HtrA serine peptidase 2 |
| GO | response to stress | 4 | 112 | 0.989 | 27429 HtrA serine peptidase 2 |
| GO | response to stress | 4 | 112 | 0.989 | 65009 NDRG family member 4 |
| GO | response to stress | 4 | 112 | 0.989 | 94241 tumor protein p53 inducible nuclear protein 1 |
| GO | response to stress | 4 | 112 | 0.989 | 9448 mitogen-activated protein kinase kinase kinase kinase 4 |
| GO | inhibition of adenylate cyclase activity b | 1 | 30 | 0.989 | 2774 guanine nucleotide binding protein (G protein), alpha activating activity pol |
| GO | endoplasmic reticulum lumen | 3 | 68 | 0.989 | 283208 prolyl 4-hydroxylase, alpha polypeptide III |
| GO | endoplasmic reticulum lumen | 3 | 68 | 0.989 | 57333 reticulocalbin 3, EF-hand calcium binding domain |
| GO | endoplasmic reticulum lumen | 3 | 68 | 0.989 | 590 butyrylcholinesterase |
| GO | iron ion binding | 1 | 65 | 0.989 | 283208 prolyl 4-hydroxylase, alpha polypeptide III |
| GO | transcription factor binding | 4 | 170 | 0.989 | 2878 glutathione peroxidase 3 (plasma) |
| GO | transcription factor binding | 4 | 170 | 0.989 | 6672 SP100 nuclear antigen |
| GO | transcription factor binding | 4 | 170 | 0.989 | 7029 transcription factor Dp-2 (E2F dimerization partner 2) |
| GO | transcription factor binding | 4 | 170 | 0.989 | 93649 myocardin |
| GO | general RNA polymerase II transcription | 1 | 22 | 0.989 | 2965 general transcription factor IIH, polypeptide 1, 62kDa |
| GO | RNA elongation from RNA polymerase II | 2 | 47 | 0.989 | 2965 general transcription factor IIH, polypeptide 1, 62kDa |
| GO | RNA elongation from RNA polymerase II | 2 | 47 | 0.989 | 5440 polymerase (RNA) II (DNA directed) polypeptide K, 7.0kDa |
| GO | cell morphogenesis | 1 | 30 | 0.989 | 29842 transcription factor CP2-like 1 |
| GO | phosphoinositide binding | 1 | 56 | 0.989 | 29887 sorting nexin 10 |
| GO | cell-cell signaling | 8 | 238 | 0.989 | 30011 SH3-domain kinase binding protein 1 |
| GO | cell-cell signaling | 8 | 238 | 0.989 | 3589 interleukin 11 |
| GO | cell-cell signaling | 8 | 238 | 0.989 | 3624 inhibin, beta A |
| GO | cell-cell signaling | 8 | 238 | 0.989 | 5125 proprotein convertase subtilisin/kexin type 5 |
| GO | cell-cell signaling | 8 | 238 | 0.989 | 5228 placental growth factor |
| GO | cell-cell signaling | 8 | 238 | 0.989 | 5744 parathyroid hormone-like hormone |
| GO | cell-cell signaling | 8 | 238 | 0.989 | 5795 protein tyrosine phosphatase, receptor type, J |

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|----|--|---|-----|-------|---|
| GO | cell-cell signaling | 8 | 238 | 0.989 | 7010 TEK tyrosine kinase, endothelial |
| GO | steroid binding | 1 | 23 | 0.989 | 3028 hydroxysteroid (17-beta) dehydrogenase 10 |
| GO | cholesterol biosynthetic process | 1 | 25 | 0.989 | 3157 3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) |
| GO | transcription repressor activity | 5 | 173 | 0.989 | 3224 homeobox C8 |
| GO | transcription repressor activity | 5 | 173 | 0.989 | 5245 prohibitin |
| GO | transcription repressor activity | 5 | 173 | 0.989 | 6299 sal-like 1 (Drosophila) |
| GO | transcription repressor activity | 5 | 173 | 0.989 | 7490 Wilms tumor 1 |
| GO | transcription repressor activity | 5 | 173 | 0.989 | 8626 tumor protein p63 |
| GO | embryonic skeletal system morphogene | 1 | 36 | 0.989 | 3236 homeobox D10 |
| GO | fatty acid metabolic process | 2 | 75 | 0.989 | 3248 hydroxyprostaglandin dehydrogenase 15-(NAD) |
| GO | fatty acid metabolic process | 2 | 75 | 0.989 | 57678 glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | cysteine-type endopeptidase inhibitor a | 1 | 22 | 0.989 | 332 baculoviral IAP repeat-containing 5 |
| GO | monooxygenase activity | 2 | 52 | 0.989 | 339761 cytochrome P450, family 27, subfamily C, polypeptide 1 |
| GO | monooxygenase activity | 2 | 52 | 0.989 | 9420 cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | late endosome | 1 | 43 | 0.989 | 348 apolipoprotein E |
| GO | negative regulation of inflammatory res | 1 | 24 | 0.989 | 348 apolipoprotein E |
| GO | phospholipid binding | 2 | 49 | 0.989 | 348 apolipoprotein E |
| GO | phospholipid binding | 2 | 49 | 0.989 | 83851 synaptotagmin XVI |
| GO | negative regulation of transcription, DN | 3 | 91 | 0.989 | 3516 recombination signal binding protein for immunoglobulin kappa J region |
| GO | negative regulation of transcription, DN | 3 | 91 | 0.989 | 6662 SRY (sex determining region Y)-box 9 |
| GO | negative regulation of transcription, DN | 3 | 91 | 0.989 | 8626 tumor protein p63 |
| GO | antigen processing and presentation | 1 | 28 | 0.989 | 353091 retinoic acid early transcript 1G |
| GO | activation of pro-apoptotic gene produc | 1 | 22 | 0.989 | 355 Fas (TNF receptor superfamily, member 6) |
| GO | transmembrane receptor activity | 5 | 108 | 0.989 | 355 Fas (TNF receptor superfamily, member 6) |
| GO | transmembrane receptor activity | 5 | 108 | 0.989 | 5026 purinergic receptor P2X, ligand-gated ion channel, 5 |
| GO | transmembrane receptor activity | 5 | 108 | 0.989 | 84168 anthrax toxin receptor 1 |
| GO | transmembrane receptor activity | 5 | 108 | 0.989 | 8685 macrophage receptor with collagenous structure |
| GO | transmembrane receptor activity | 5 | 108 | 0.989 | 92737 delta/notch-like EGF repeat containing |
| GO | positive regulation of peptidyl-tyrosine | 1 | 42 | 0.989 | 3589 interleukin 11 |
| GO | defense response | 2 | 63 | 0.989 | 3624 inhibin, beta A |
| GO | defense response | 2 | 63 | 0.989 | 81035 collectin sub-family member 12 |
| GO | erythrocyte differentiation | 1 | 23 | 0.989 | 3624 inhibin, beta A |
| GO | ovarian follicle development | 1 | 36 | 0.989 | 3624 inhibin, beta A |
| GO | cell surface | 4 | 214 | 0.989 | 3751 potassium voltage-gated channel, Shal-related subfamily, member 2 |
| GO | cell surface | 4 | 214 | 0.989 | 3763 potassium inwardly-rectifying channel, subfamily J, member 6 |
| GO | cell surface | 4 | 214 | 0.989 | 659 bone morphogenetic protein receptor, type II (serine/threonine kinase) |

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|----|---|---|-----|-------|--------|---|
| GO | cell surface | 4 | 214 | 0.989 | 7010 | TEK tyrosine kinase, endothelial |
| GO | potassium channel activity | 1 | 33 | 0.989 | 3754 | potassium voltage-gated channel, subfamily F, member 1 |
| GO | cell maturation | 1 | 23 | 0.989 | 3778 | potassium large conductance calcium-activated channel, subfamily M, alpha |
| GO | histone deacetylase binding | 1 | 39 | 0.989 | 3838 | karyopherin alpha 2 (RAG cohort 1, importin alpha 1) |
| GO | intermediate filament | 2 | 80 | 0.989 | 3883 | keratin 33A |
| GO | intermediate filament | 2 | 80 | 0.989 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | keratin filament | 1 | 64 | 0.989 | 3887 | keratin 81 |
| GO | gene silencing by RNA | 1 | 30 | 0.989 | 389421 | lin-28 homolog B (C. elegans) |
| GO | post-translational protein modification | 1 | 27 | 0.989 | 389898 | ubiquitin-conjugating enzyme E2N-like |
| GO | response to insulin stimulus | 2 | 51 | 0.989 | 3952 | leptin |
| GO | response to insulin stimulus | 2 | 51 | 0.989 | 5588 | protein kinase C, theta |
| GO | transcription factor complex | 3 | 140 | 0.989 | 406 | aryl hydrocarbon receptor nuclear translocator-like |
| GO | transcription factor complex | 3 | 140 | 0.989 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | transcription factor complex | 3 | 140 | 0.989 | 7029 | transcription factor Dp-2 (E2F dimerization partner 2) |
| GO | negative regulation of NF-kappaB trans | 1 | 22 | 0.989 | 409 | arrestin, beta 2 |
| GO | lysosome organization | 1 | 22 | 0.989 | 411 | arylsulfatase B |
| GO | lysosome | 2 | 144 | 0.989 | 411 | arylsulfatase B |
| GO | lysosome | 2 | 144 | 0.989 | 57599 | WD repeat domain 48 |
| GO | mitochondrial electron transport, NADH | 1 | 36 | 0.989 | 4709 | NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 3, 12kDa |
| GO | mitochondrial respiratory chain comple | 1 | 39 | 0.989 | 4709 | NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 3, 12kDa |
| GO | respiratory chain | 1 | 42 | 0.989 | 4709 | NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 3, 12kDa |
| GO | peripheral nervous system developmen | 1 | 24 | 0.989 | 4763 | neurofibromin 1 |
| GO | pigmentation | 1 | 22 | 0.989 | 4763 | neurofibromin 1 |
| GO | wound healing | 2 | 49 | 0.989 | 4763 | neurofibromin 1 |
| GO | wound healing | 2 | 49 | 0.989 | 7168 | tropomyosin 1 (alpha) |
| GO | ATP biosynthetic process | 1 | 53 | 0.989 | 479 | ATPase, H+/K+ transporting, nongastric, alpha polypeptide |
| GO | hydrolase activity, acting on acid anhydi | 2 | 47 | 0.989 | 479 | ATPase, H+/K+ transporting, nongastric, alpha polypeptide |
| GO | hydrolase activity, acting on acid anhydi | 2 | 47 | 0.989 | 528 | ATPase, H+ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | centrosome | 4 | 117 | 0.989 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | centrosome | 4 | 117 | 0.989 | 7840 | Alstrom syndrome 1 |
| GO | centrosome | 4 | 117 | 0.989 | 8409 | ubiquitously-expressed transcript |
| GO | centrosome | 4 | 117 | 0.989 | 898 | cyclin E1 |
| GO | response to cAMP | 2 | 46 | 0.989 | 4830 | non-metastatic cells 1, protein (NM23A) expressed in |
| GO | response to cAMP | 2 | 46 | 0.989 | 9420 | cytochrome P450, family 7, subfamily B, polypeptide 1 |
| GO | excretion | 1 | 35 | 0.989 | 4867 | nephronophthisis 1 (juvenile) |
| GO | transport vesicle | 1 | 39 | 0.989 | 4884 | neuronal pentraxin I |

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|----|---|---|-----|-------|-------|---|
| GO | kinetochore | 2 | 49 | 0.989 | 4928 | nucleoporin 98kDa |
| GO | kinetochore | 2 | 49 | 0.989 | 54984 | PIN2-interacting protein 1 |
| GO | hydrolase activity, acting on glycosyl bo | 1 | 44 | 0.989 | 4968 | 8-oxoguanine DNA glycosylase |
| GO | peptide hormone binding | 1 | 22 | 0.989 | 5021 | oxytocin receptor |
| GO | protease binding | 1 | 23 | 0.989 | 5054 | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor t |
| GO | translational elongation | 4 | 87 | 0.989 | 51121 | ribosomal protein L26-like 1 |
| GO | translational elongation | 4 | 87 | 0.989 | 6133 | ribosomal protein L9 |
| GO | translational elongation | 4 | 87 | 0.989 | 6154 | ribosomal protein L26 |
| GO | translational elongation | 4 | 87 | 0.989 | 6204 | ribosomal protein S10 |
| GO | secretory granule | 1 | 51 | 0.989 | 5125 | proprotein convertase subtilisin/kexin type 5 |
| GO | Wnt receptor signaling pathway | 3 | 90 | 0.989 | 51339 | dapper, antagonist of beta-catenin, homolog 1 (Xenopus laevis) |
| GO | Wnt receptor signaling pathway | 3 | 90 | 0.989 | 5494 | protein phosphatase, Mg2+/Mn2+ dependent, 1A |
| GO | Wnt receptor signaling pathway | 3 | 90 | 0.989 | 81029 | wingless-type MMTV integration site family, member 5B |
| GO | drug binding | 1 | 44 | 0.989 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | insoluble fraction | 1 | 39 | 0.989 | 5140 | phosphodiesterase 3B, cGMP-inhibited |
| GO | aminopeptidase activity | 1 | 28 | 0.989 | 5184 | peptidase D |
| GO | cellular amino acid metabolic process | 1 | 36 | 0.989 | 5184 | peptidase D |
| GO | metallocarboxypeptidase activity | 1 | 25 | 0.989 | 5184 | peptidase D |
| GO | positive regulation of cell division | 1 | 37 | 0.989 | 5228 | placental growth factor |
| GO | negative regulation of transcription | 6 | 148 | 0.989 | 5245 | prohibitin |
| GO | negative regulation of transcription | 6 | 148 | 0.989 | 6672 | SP100 nuclear antigen |
| GO | negative regulation of transcription | 6 | 148 | 0.989 | 672 | breast cancer 1, early onset |
| GO | negative regulation of transcription | 6 | 148 | 0.989 | 7341 | SMT3 suppressor of mif two 3 homolog 1 (S. cerevisiae) |
| GO | negative regulation of transcription | 6 | 148 | 0.989 | 7490 | Wilms tumor 1 |
| GO | negative regulation of transcription | 6 | 148 | 0.989 | 9839 | zinc finger E-box binding homeobox 2 |
| GO | apical part of cell | 1 | 42 | 0.989 | 528 | ATPase, H+ transporting, lysosomal 42kDa, V1 subunit C1 |
| GO | cell projection organization | 1 | 28 | 0.989 | 5341 | pleckstrin |
| GO | calcium channel activity | 2 | 44 | 0.989 | 54822 | transient receptor potential cation channel, subfamily M, member 7 |
| GO | calcium channel activity | 2 | 44 | 0.989 | 7220 | transient receptor potential cation channel, subfamily C, member 1 |
| GO | exocytosis | 2 | 47 | 0.989 | 54843 | synaptotagmin-like 2 |
| GO | exocytosis | 2 | 47 | 0.989 | 9805 | secernin 1 |
| GO | amino acid transmembrane transporter | 1 | 26 | 0.989 | 55117 | solute carrier family 6 (neutral amino acid transporter), member 15 |
| GO | amino acid transport | 1 | 46 | 0.989 | 55117 | solute carrier family 6 (neutral amino acid transporter), member 15 |
| GO | neurotransmitter transport | 1 | 40 | 0.989 | 55117 | solute carrier family 6 (neutral amino acid transporter), member 15 |
| GO | GDP binding | 1 | 26 | 0.989 | 55207 | ADP-ribosylation factor-like 8B |
| GO | late endosome membrane | 2 | 51 | 0.989 | 55207 | ADP-ribosylation factor-like 8B |

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|----|--|---|----|-------|-------|--|
| GO | late endosome membrane | 2 | 51 | 0.989 | 83930 | STARD3 N-terminal like |
| GO | acrosomal vesicle | 1 | 33 | 0.989 | 55521 | tripartite motif-containing 36 |
| GO | phagocytosis | 1 | 27 | 0.989 | 55531 | ELMO/CED-12 domain containing 1 |
| GO | 4 iron, 4 sulfur cluster binding | 1 | 25 | 0.989 | 5558 | primase, DNA, polypeptide 2 (58kDa) |
| GO | positive regulation of T cell proliferati | 1 | 27 | 0.989 | 5588 | protein kinase C, theta |
| GO | response to heat | 2 | 47 | 0.989 | 5588 | protein kinase C, theta |
| GO | response to heat | 2 | 47 | 0.989 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | negative regulation of transforming gro | 1 | 28 | 0.989 | 5654 | HtrA serine peptidase 1 |
| GO | endomembrane system | 2 | 77 | 0.989 | 57099 | apoptosis, caspase activation inhibitor |
| GO | endomembrane system | 2 | 77 | 0.989 | 9732 | dedicator of cytokinesis 4 |
| GO | integral to endoplasmic reticulum mem | 2 | 46 | 0.989 | 57168 | aspartate beta-hydroxylase domain containing 2 |
| GO | integral to endoplasmic reticulum mem | 2 | 46 | 0.989 | 79071 | ELOVL family member 6, elongation of long chain fatty acids (FEN1/Elo2, SL |
| GO | cilium axoneme | 1 | 26 | 0.989 | 57560 | intraflagellar transport 80 homolog (Chlamydomonas) |
| GO | positive regulation of multicellular orga | 1 | 23 | 0.989 | 57678 | glycerol-3-phosphate acyltransferase, mitochondrial |
| GO | reciprocal meiotic recombination | 1 | 22 | 0.989 | 5889 | RAD51 homolog C (<i>S. cerevisiae</i>) |
| GO | regulation of blood pressure | 1 | 49 | 0.989 | 59 | actin, alpha 2, smooth muscle, aorta |
| GO | activation of MAPK activity | 1 | 53 | 0.989 | 60675 | prokineticin 2 |
| GO | rRNA binding | 1 | 23 | 0.989 | 6133 | ribosomal protein L9 |
| GO | cytosolic large ribosomal subunit | 1 | 33 | 0.989 | 6154 | ribosomal protein L26 |
| GO | cytosolic small ribosomal subunit | 1 | 34 | 0.989 | 6204 | ribosomal protein S10 |
| GO | chemokine activity | 1 | 42 | 0.989 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | response to gamma radiation | 1 | 24 | 0.989 | 6347 | chemokine (C-C motif) ligand 2 |
| GO | response to interleukin-1 | 1 | 24 | 0.989 | 64131 | xylosyltransferase I |
| GO | regulation of growth | 2 | 51 | 0.989 | 64393 | zinc finger, matrin type 3 |
| GO | regulation of growth | 2 | 51 | 0.989 | 8091 | high mobility group AT-hook 2 |
| GO | glucose transport | 1 | 22 | 0.989 | 6518 | solute carrier family 2 (facilitated glucose/fructose transporter), member 5 |
| GO | heat shock protein binding | 1 | 62 | 0.989 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | response to hydrogen peroxide | 1 | 40 | 0.989 | 6546 | solute carrier family 8 (sodium/calcium exchanger), member 1 |
| GO | cation transport | 1 | 65 | 0.989 | 6549 | solute carrier family 9 (sodium/hydrogen exchanger), member 2 |
| GO | protein localization | 1 | 54 | 0.989 | 6549 | solute carrier family 9 (sodium/hydrogen exchanger), member 2 |
| GO | negative regulation of gene expression | 1 | 23 | 0.989 | 6586 | slit homolog 3 (<i>Drosophila</i>) |
| GO | BMP signaling pathway | 1 | 43 | 0.989 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | mesoderm formation | 1 | 22 | 0.989 | 659 | bone morphogenetic protein receptor, type II (serine/threonine kinase) |
| GO | negative regulation of epithelial cell pro | 1 | 26 | 0.989 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | negative regulation of neuron differenti | 1 | 27 | 0.989 | 6657 | SRY (sex determining region Y)-box 2 |
| GO | protein stabilization | 1 | 31 | 0.989 | 6659 | SRY (sex determining region Y)-box 4 |

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|----|---|---|-----|-------|--|
| GO | protein dimerization activity | 2 | 84 | 0.989 | 666 BCL2-related ovarian killer |
| GO | protein dimerization activity | 2 | 84 | 0.989 | 7021 transcription factor AP-2 beta (activating enhancer binding protein 2 beta) |
| GO | specific RNA polymerase II transcription | 1 | 33 | 0.989 | 6662 SRY (sex determining region Y)-box 9 |
| GO | positive regulation of transcription fact | 1 | 25 | 0.989 | 6672 SP100 nuclear antigen |
| GO | respiratory gaseous exchange | 1 | 29 | 0.989 | 669 2,3-bisphosphoglycerate mutase |
| GO | positive regulation of gene-specific tran | 2 | 92 | 0.989 | 672 breast cancer 1, early onset |
| GO | positive regulation of gene-specific tran | 2 | 92 | 0.989 | 93649 myocardin |
| GO | positive regulation of protein ubiquitina | 1 | 25 | 0.989 | 672 breast cancer 1, early onset |
| GO | mRNA binding | 1 | 41 | 0.989 | 6741 Sjogren syndrome antigen B (autoantigen La) |
| GO | tRNA binding | 1 | 24 | 0.989 | 6741 Sjogren syndrome antigen B (autoantigen La) |
| GO | palate development | 1 | 34 | 0.989 | 7046 transforming growth factor, beta receptor 1 |
| GO | peptidyl-serine phosphorylation | 1 | 26 | 0.989 | 7046 transforming growth factor, beta receptor 1 |
| GO | positive regulation of cell growth | 1 | 34 | 0.989 | 7046 transforming growth factor, beta receptor 1 |
| GO | platelet alpha granule lumen | 1 | 34 | 0.989 | 7058 thrombospondin 2 |
| GO | enzyme inhibitor activity | 1 | 27 | 0.989 | 7078 TIMP metalloproteinase inhibitor 3 |
| GO | response to hormone stimulus | 1 | 44 | 0.989 | 7078 TIMP metalloproteinase inhibitor 3 |
| GO | calcium-dependent protein binding | 1 | 31 | 0.989 | 7137 troponin I type 3 (cardiac) |
| GO | regulation of heart contraction | 1 | 32 | 0.989 | 7168 tropomyosin 1 (alpha) |
| GO | ubiquitin-specific protease activity | 1 | 28 | 0.989 | 7353 ubiquitin fusion degradation 1 like (yeast) |
| GO | positive regulation of gene-specific tran | 1 | 39 | 0.989 | 7490 Wilms tumor 1 |
| GO | transcription regulator activity | 1 | 102 | 0.989 | 7552 zinc finger protein 711 |
| GO | voltage-gated calcium channel activity | 1 | 23 | 0.989 | 773 calcium channel, voltage-dependent, P/Q type, alpha 1A subunit |
| GO | calcium-mediated signaling | 1 | 33 | 0.989 | 7840 Alstrom syndrome 1 |
| GO | cilium assembly | 1 | 24 | 0.989 | 7840 Alstrom syndrome 1 |
| GO | spermatid development | 1 | 32 | 0.989 | 7840 Alstrom syndrome 1 |
| GO | regulation of cell cycle | 1 | 42 | 0.989 | 80712 ESX homeobox 1 |
| GO | innate immune response | 2 | 109 | 0.989 | 81035 collectin sub-family member 12 |
| GO | innate immune response | 2 | 109 | 0.989 | 8685 macrophage receptor with collagenous structure |
| GO | Golgi cisterna membrane | 1 | 63 | 0.989 | 84620 ST6 beta-galactosamide alpha-2,6-sialyltransferase 2 |
| GO | integral to Golgi membrane | 2 | 45 | 0.989 | 84620 ST6 beta-galactosamide alpha-2,6-sialyltransferase 2 |
| GO | integral to Golgi membrane | 2 | 45 | 0.989 | 9215 like-glycosyltransferase |
| GO | protein amino acid glycosylation | 3 | 65 | 0.989 | 84620 ST6 beta-galactosamide alpha-2,6-sialyltransferase 2 |
| GO | protein amino acid glycosylation | 3 | 65 | 0.989 | 84752 UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 9 |
| GO | protein amino acid glycosylation | 3 | 65 | 0.989 | 9215 like-glycosyltransferase |
| GO | galactosyltransferase activity | 1 | 23 | 0.989 | 84752 UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 9 |
| GO | cellular membrane organization | 1 | 53 | 0.989 | 8905 adaptor-related protein complex 1, sigma 2 subunit |

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|----|---------------------------------------|---|----|-------|------|---|
| GO | post-Golgi vesicle-mediated transport | 1 | 37 | 0.989 | 8905 | adaptor-related protein complex 1, sigma 2 subunit |
| GO | microtubule associated complex | 1 | 25 | 0.989 | 9053 | microtubule-associated protein 7 |
| GO | myelination | 1 | 29 | 0.989 | 9076 | claudin 1 |
| GO | small GTPase regulator activity | 1 | 28 | 0.989 | 9448 | mitogen-activated protein kinase kinase kinase kinase 4 |
| GO | sulfotransferase activity | 1 | 34 | 0.989 | 9653 | heparan sulfate 2-O-sulfotransferase 1 |

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synthetase, phosphoribosylaminoimidazole synthetase

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ransferase 6 (GalNAc-T6)

ransferase 5 (GalNAc-T5)

ransferase 13 (GalNAc-T13)

ransferase 14 (GalNAc-T14)

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ransferase 13 (GalNAc-T13)

ransferase 14 (GalNAc-T14)

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ransferase 5 (GalNAc-T5)

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ransferase 5 (GalNAc-T5)
ransferase 13 (GalNAc-T13)

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ransferase 6 (GalNAc-T6)

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ransferase 6 (GalNAc-T6)

ransferase 5 (GalNAc-T5)

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ransferase 6 (GalNAc-T6)

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ransferase 5 (GalNAc-T5)
ransferase 13 (GalNAc-T13)

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ransferase 6 (GalNAc-T6)
ransferase 5 (GalNAc-T5)
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ransferase 14 (GalNAc-T14)

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