**Table S4 Sensitivity analysis of genetic correlation between proteins and COVID-19 susceptibility and severity**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Outcome** | **Biomarker** | **Method** | **N SNPs** | **OR** | **LCI** | **UCI** | **P value** |
| Severity (A2) |  |  |  |  |  |  |  |
|  | 2'-5'-oligoadenylate synthase 1 | IVW | 2 | 0.511 | 0.266 | 0.757 | 8.51E-08 |
|  | Alpha-N-acetylgalactosaminide alpha-2,6-sialyltransferase 2 | Wald ratio | 1 | 1.601 | 1.162 | 2.041 | 0.036 |
|  | AP-4 complex subunit mu-1 | Weighted median | 3 | 1.460 | 1.083 | 1.837 | 0.049 |
|  | Arylamine N-acetyltransferase 1 | Wald ratio | 1 | 0.397 | -0.280 | 1.074 | 0.007 |
|  | Aspartyl/asparaginyl beta-hydroxylase | Wald ratio | 1 | 1.716 | 1.366 | 2.066 | 0.002 |
|  | Bcl-2-like protein 1 | Wald ratio | 1 | 1.615 | 1.167 | 2.062 | 0.036 |
|  | Beta-1,3-galactosyl-O-glycosyl-glycoprotein beta-1,6-N-acetylglucosaminyltransferase 4 | Wald ratio | 1 | 1.629 | 1.173 | 2.084 | 0.036 |
|  | Beta-1,4-galactosyltransferase 2 | Wald ratio | 1 | 1.268 | 1.055 | 1.481 | 0.029 |
|  | Beta-microseminoprotein | Wald ratio | 1 | 1.237 | 1.087 | 1.387 | 0.005 |
|  | Carbonic anhydrase 4 | Wald ratio | 1 | 1.601 | 1.162 | 2.041 | 0.036 |
|  | Carboxypeptidase Z | Wald ratio | 1 | 0.712 | 0.375 | 1.049 | 0.048 |
|  | C-C motif chemokine 25 | Wald ratio | 1 | 1.982 | 1.435 | 2.530 | 0.014 |
|  | C-C motif chemokine 4 | Wald ratio | 1 | 2.445 | 1.922 | 2.969 | 0.001 |
|  | CD97 antigen | Wald ratio | 1 | 1.643 | 1.179 | 2.107 | 0.036 |
|  | Cellular retinoic acid-binding protein 1 | Wald ratio | 1 | 1.674 | 1.193 | 2.155 | 0.036 |
|  | Chromobox protein homolog 5 | Wald ratio | 1 | 1.643 | 1.179 | 2.107 | 0.036 |
|  | Complement C1q and tumor necrosis factor-related protein 9A | Wald ratio | 1 | 1.522 | 1.130 | 1.915 | 0.036 |
|  | Complement component C8 | Wald ratio | 1 | 1.658 | 1.186 | 2.131 | 0.036 |
|  | CXADR-like membrane protein | Wald ratio | 1 | 1.575 | 1.131 | 2.019 | 0.045 |
|  | Cyclic AMP-dependent transcription factor ATF-6 alpha | Wald ratio | 1 | 0.574 | 0.047 | 1.101 | 0.039 |
|  | Cyclic AMP-responsive element-binding protein 3-like protein 4 | IVW | 2 | 1.131 | 1.015 | 1.247 | 0.037 |
|  | Cyclin-dependent kinase 5:Cyclin-dependent kinase 5 activator 1 complex | Wald ratio | 1 | 1.543 | 1.138 | 1.948 | 0.036 |
|  | Cyclin-dependent kinase 8:Cyclin-C complex | Wald ratio | 1 | 1.708 | 1.208 | 2.208 | 0.036 |
|  | Cystatin-M | Wald ratio | 1 | 1.430 | 1.100 | 1.760 | 0.034 |
|  | Cytochrome c oxidase assembly factor 3 homolog, mitochondrial | Wald ratio | 1 | 1.674 | 1.193 | 2.155 | 0.036 |
|  | Cytochrome c oxidase subunit 4 isoform 2, mitochondrial | Wald ratio | 1 | 1.601 | 1.162 | 2.041 | 0.036 |
|  | Desmoglein-1 | Wald ratio | 1 | 1.601 | 1.162 | 2.041 | 0.036 |
|  | DNA repair protein RAD51 homolog 1 | Wald ratio | 1 | 1.708 | 1.208 | 2.208 | 0.036 |
|  | DNA-directed RNA polymerases I and III subunit RPAC1 | Wald ratio | 1 | 1.658 | 1.186 | 2.131 | 0.036 |
|  | Dynein light chain 2, cytoplasmic | Wald ratio | 1 | 2.456 | 1.735 | 3.177 | 0.015 |
|  | Epidermal growth factor | Wald ratio | 1 | 1.177 | 1.023 | 1.331 | 0.038 |
|  | Fibroblast growth factor 19 | Wald ratio | 1 | 1.473 | 1.124 | 1.823 | 0.030 |
|  | Fibroblast growth factor 7 | Wald ratio | 1 | 0.419 | -0.386 | 1.224 | 0.034 |
|  | Fibronectin type III domain-containing protein 5 | Wald ratio | 1 | 0.671 | 0.347 | 0.995 | 0.016 |
|  | Follistatin-related protein 1 | Wald ratio | 1 | 0.644 | 0.245 | 1.043 | 0.030 |
|  | Gastrin-releasing peptide | IVW | 2 | 0.803 | 0.585 | 1.021 | 0.049 |
|  | Golgi membrane protein 1 | Wald ratio | 1 | 1.295 | 1.062 | 1.528 | 0.030 |
|  | Hexokinase-1 | Wald ratio | 1 | 1.532 | 1.134 | 1.931 | 0.036 |
|  | Histone acetyltransferase KAT6A | Wald ratio | 1 | 1.554 | 1.142 | 1.965 | 0.036 |
|  | Insulin-like growth factor I | Wald ratio | 1 | 1.708 | 1.208 | 2.208 | 0.036 |
|  | Interleukin-10 receptor subunit beta | Wald ratio | 1 | 0.482 | 0.044 | 0.921 | 0.001 |
|  | Interleukin-27 subunit alpha | IVW | 2 | 1.170 | 1.035 | 1.305 | 0.022 |
|  | Interleukin-34 | Wald ratio | 1 | 1.601 | 1.162 | 2.041 | 0.036 |
|  | Interleukin-37 | Wald ratio | 1 | 1.691 | 1.200 | 2.181 | 0.036 |
|  | Kallikrein-12 | Wald ratio | 1 | 1.658 | 1.186 | 2.131 | 0.036 |
|  | Kallikrein-8 | Wald ratio | 1 | 0.791 | 0.579 | 1.003 | 0.030 |
|  | Kinesin-like protein KIF16B | Wald ratio | 1 | 1.674 | 1.193 | 2.155 | 0.036 |
|  | Kinetochore protein NDC80 homolog | Wald ratio | 1 | 1.559 | 1.223 | 1.895 | 0.010 |
|  | Kit ligand | Wald ratio | 1 | 1.667 | 1.325 | 2.010 | 0.003 |
|  | Lymphatic vessel endothelial hyaluronic acid receptor 1 | Wald ratio | 1 | 1.733 | 1.298 | 2.169 | 0.013 |
|  | Mast cell-expressed membrane protein 1 | Wald ratio | 1 | 1.543 | 1.138 | 1.948 | 0.036 |
|  | Mitochondrial ubiquitin ligase activator of NFKB 1 | Wald ratio | 1 | 1.307 | 1.055 | 1.560 | 0.037 |
|  | Muellerian-inhibiting factor | Wald ratio | 1 | 0.726 | 0.415 | 1.037 | 0.043 |
|  | N-acetylglucosamine-1-phosphotransferase subunit gamma | Wald ratio | 1 | 2.011 | 1.337 | 2.686 | 0.042 |
|  | Neurotrimin | Wald ratio | 1 | 0.748 | 0.5736 | 0.922 | 0.001 |
|  | NKG2D ligand 3 | Wald ratio | 1 | 1.613 | 1.180 | 2.046 | 0.031 |
|  | Noelin-2 | Wald ratio | 1 | 0.814 | 0.6442 | 0.9831 | 0.017 |
|  | Non-secretory ribonuclease | Wald ratio | 1 | 0.625 | 0.211 | 1.038 | 0.026 |
|  | Normal mucosa of esophagus-specific gene 1 protein | IVW | 2 | 0.812 | 0.605 | 1.018 | 0.048 |
|  | Obg-like ATPase 1 | IVW | 2 | 0.706 | 0.401 | 1.010 | 0.025 |
|  | Oncostatin-M | Wald ratio | 1 | 1.674 | 1.193 | 2.155 | 0.036 |
|  | Osteoclast-associated immunoglobulin-like receptor | Wald ratio | 1 | 0.388 | -0.363 | 1.138 | 0.013 |
|  | Out at first protein homolog | Wald ratio | 1 | 0.784 | 0.610 | 0.957 | 0.006 |
|  | Palmitoyl-protein thioesterase 1 | IVW | 2 | 0.836 | 0.690 | 0.982 | 0.016 |
|  | Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit gamma isoform | Wald ratio | 1 | 1.577 | 1.151 | 2.002 | 0.036 |
|  | Phosphatidylinositol 4-phosphate 3-kinase C2 domain-containing subunit alpha | Wald ratio | 1 | 1.708 | 1.208 | 2.208 | 0.036 |
|  | Poly(U)-specific endoribonuclease | Wald ratio | 1 | 0.497 | 0.064 | 0.930 | 0.002 |
|  | Prosaposin | Wald ratio | 1 | 1.150 | 1.032 | 1.269 | 0.020 |
|  | Prostate and testis expressed protein 4 | Wald ratio | 1 | 1.181 | 1.039 | 1.323 | 0.021 |
|  | Protein FAM3D | Wald ratio | 1 | 1.147 | 1.023 | 1.270 | 0.030 |
|  | Receptor-type tyrosine-protein kinase FLT3 | Wald ratio | 1 | 1.691 | 1.200 | 2.181 | 0.036 |
|  | Regulator of G-protein signaling 8 | Wald ratio | 1 | 1.601 | 1.162 | 2.041 | 0.036 |
|  | Retinoic acid receptor responder protein 2 | Wald ratio | 1 | 1.221 | 1.030 | 1.411 | 0.040 |
|  | RNA-binding protein 24 | Wald ratio | 1 | 1.691 | 1.200 | 2.181 | 0.036 |
|  | Sarcoplasmic/endoplasmic reticulum calcium ATPase 3 | Wald ratio | 1 | 0.600 | 0.257 | 0.942 | 0.003 |
|  | Stabilin-2 | Wald ratio | 1 | 1.589 | 1.156 | 2.021 | 0.036 |
|  | Sulfhydryl oxidase 1 | Wald ratio | 1 | 1.193 | 1.029 | 1.357 | 0.035 |
|  | Testis-expressed sequence 29 protein | Weighted median | 3 | 1.447 | 1.153 | 1.740 | 0.014 |
|  | Tissue factor | Wald ratio | 1 | 0.517 | 0.064 | 0.969 | 0.004 |
|  | Tropomyosin beta chain | Wald ratio | 1 | 1.589 | 1.156 | 2.021 | 0.036 |
|  | Tumor necrosis factor ligand superfamily member 8 | Wald ratio | 1 | 1.727 | 1.217 | 2.237 | 0.036 |
|  | Tumor necrosis factor receptor superfamily member 6 | Wald ratio | 1 | 1.443 | 1.225 | 1.660 | 0.001 |
|  | Tyrosine-protein kinase receptor TYRO3 | Wald ratio | 1 | 1.948 | 1.287 | 2.608 | 0.048 |
|  | Tyrosine-protein kinase ZAP-70 | Wald ratio | 1 | 1.554 | 1.142 | 1.965 | 0.036 |
|  | Tyrosine-protein phosphatase non-receptor type 1 | Wald ratio | 1 | 1.589 | 1.156 | 2.021 | 0.036 |
|  | Uncharacterized protein C10orf35 | Wald ratio | 1 | 1.589 | 1.156 | 2.021 | 0.036 |
|  | Uncharacterized protein C17orf78 | Wald ratio | 1 | 1.372 | 1.078 | 1.667 | 0.035 |
|  | Uroplakin-3b-like protein | Wald ratio | 1 | 1.691 | 1.2003 | 2.181 | 0.036 |
|  | Zinc finger protein 276 | Wald ratio | 1 | 1.629 | 1.173 | 2.084 | 0.036 |
|  | Zinc-alpha-2-glycoprotein | IVW | 2 | 1.474 | 1.125 | 1.824 | 0.030 |
| Severity (B1) | ADP-ribose pyrophosphatase, mitochondrial | Wald ratio | 1 | 0.601 | 0.206 | 1.000 | 0.011 |
|  | Alpha-(1,3)-fucosyltransferase 10 | Wald ratio | 1 | 0.782 | 0.541 | 1.020 | 0.045 |
|  | Beta-defensin 1 | IVW | 2 | 1.299 | 1.047 | 1.550 | 0.042 |
|  | Beta-mannosidase | IVW | 2 | 0.781 | 0.585 | 0.980 | 0.014 |
|  | Brother of CDO | Wald ratio | 1 | 0.506 | -0.120 | 1.130 | 0.033 |
|  | CD166 antigen | Wald ratio | 1 | 1.868 | 1.316 | 2.420 | 0.026 |
|  | Complement factor H-related protein 5 | Wald ratio | 1 | 0.754 | 0.475 | 1.030 | 0.047 |
|  | Delta-like protein 1 | Wald ratio | 1 | 1.971 | 1.398 | 2.540 | 0.02 |
|  | Ecto-ADP-ribosyltransferase 3 | Wald ratio | 1 | 0.593 | 0.100 | 1.09 | 0.038 |
|  | Endothelial monocyte-activating polypeptide 2 | Wald ratio | 1 | 0.618 | 0.173 | 1.060 | 0.034 |
|  | Glutaminyl-peptide cyclotransferase | Wald ratio | 1 | 0.654 | 0.248 | 1.060 | 0.04 |
|  | Heat shock protein beta-1 | Wald ratio | 1 | 1.619 | 1.304 | 1.930 | 0.003 |
|  | Interleukin-10 receptor subunit beta | Wald ratio | 1 | 0.33 | -0.440 | 1.100 | 0.005 |
|  | Kallikrein-6 | IVW | 2 | 0.725 | 0.418 | 1.030 | 0.04 |
|  | Kallikrein-7 | IVW | 2 | 0.683 | 0.333 | 1.030 | 0.033 |
|  | Kit ligand | Wald ratio | 1 | 2.145 | 1.581 | 2.710 | 0.008 |
|  | Leucine-rich repeats and immunoglobulin-like domains protein 3 | Wald ratio | 1 | 0.654 | 0.269 | 1.040 | 0.031 |
|  | Methyltransferase-like protein 24 | Wald ratio | 1 | 0.429 | -0.330 | 1.190 | 0.03 |
|  | Mitochondrial sodium/hydrogen exchanger 9B2 | Wald ratio | 1 | 1.986 | 1.486 | 2.490 | 0.007 |
|  | Myeloblastin | Wald ratio | 1 | 1.329 | 1.071 | 1.590 | 0.031 |
|  | Natriuretic peptides B | IVW | 2 | 0.654 | 0.260 | 1.050 | 0.034 |
|  | Neuferricin | Wald ratio | 1 | 2.196 | 1.579 | 2.810 | 0.012 |
|  | Neurotrimin | Wald ratio | 1 | 0.705 | 0.425 | 0.990 | 0.015 |
|  | Pancreatic hormone | Wald ratio | 1 | 2.146 | 1.571 | 2.720 | 0.009 |
|  | Pancreatic secretory trypsin inhibitor | Wald ratio | 1 | 1.786 | 1.290 | 2.280 | 0.022 |
|  | PH and SEC7 domain-containing protein 2 | Wald ratio | 1 | 1.279 | 1.035 | 1.520 | 0.048 |
|  | Plexin-B2 | Wald ratio | 1 | 0.804 | 0.594 | 1.010 | 0.041 |
|  | Potassium-transporting ATPase subunit beta | Wald ratio | 1 | 0.452 | -0.150 | 1.050 | 0.009 |
|  | Protein disulfide-isomerase A3 | Wald ratio | 1 | 2.801 | 2.047 | 3.560 | 0.007 |
|  | Ras-related protein Rab-6B | Wald ratio | 1 | 1.761 | 1.216 | 2.310 | 0.042 |
|  | Ribonuclease pancreatic | Wald ratio | 1 | 0.634 | 0.194 | 1.070 | 0.042 |
|  | Sarcoplasmic/endoplasmic reticulum calcium ATPase 3 | Wald ratio | 1 | 0.466 | -0.100 | 1.030 | 0.008 |
|  | Secreted frizzled-related protein 3 | IVW | 3 | 0.791 | 0.558 | 1.020 | 0.049 |
|  | Thioredoxin domain-containing protein 15 | Wald ratio | 1 | 1.796 | 1.297 | 2.290 | 0.021 |
|  | Tyrosine-protein phosphatase non-receptor type 4 | Wald ratio | 1 | 1.957 | 1.318 | 2.600 | 0.039 |
| Susceptibility (C1) | A disintegrin and metalloproteinase with thrombospondin motifs 6 | Wald ratio | *1* | *0.951* | *0.902* | *1.001* | *0.048* |
|  | ADP-ribosylation factor-like protein 1 | Wald ratio | 1 | 0.853 | 0.702 | 1.004 | 0.039 |
|  | alpha-Fetoprotein | Wald ratio | 1 | 0.777 | 0.586 | 0.967 | 0.009 |
|  | AP-4 complex subunit mu-1 | IVW | 3 | 0.892 | 0.794 | 0.989 | 0.021 |
|  | Binatriuretic peptides | Wald ratio | 1 | 0.814 | 0.62 | 1.007 | 0.037 |
|  | Cardiotrophin-1 | Wald ratio | 1 | 1.061 | 1.005 | 1.118 | 0.039 |
|  | Cathepsin F | Wald ratio | 1 | 1.212 | 1.03 | 1.393 | 0.039 |
|  | C-C motif chemokine 25 | Wald ratio | 1 | 1.311 | 1.124 | 1.497 | 0.004 |
|  | Complement C1q subcomponent subunit C | Wald ratio | 1 | 0.837 | 0.661 | 1.012 | 0.046 |
|  | Complement factor H-related protein 1 | Wald ratio | 1 | 1.037 | 1.003 | 1.072 | 0.038 |
|  | Cystatin-F | Wald ratio | 1 | 1.042 | 1.004 | 1.08 | 0.032 |
|  | Deoxycytidine kinase | Wald ratio | 1 | 1.166 | 1.02 | 1.313 | 0.039 |
|  | Enoyl-CoA delta isomerase 2 | Wald ratio | 1 | 1.337 | 1.07 | 1.604 | 0.033 |
|  | Estrogen sulfotransferase | Wald ratio | 1 | 0.888 | 0.774 | 1.001 | 0.039 |
|  | Extracellular tyrosine-protein kinase PKDCC | Wald ratio | 1 | 0.797 | 0.622 | 0.973 | 0.011 |
|  | Fibroblast growth factor 19 | Wald ratio | 1 | 1.311 | 1.141 | 1.48 | 0.002 |
|  | Galectin-4 | Wald ratio | 1 | 0.838 | 0.661 | 1.014 | 0.049 |
|  | Golgi membrane protein 1 | Wald ratio | 1 | 1.198 | 1.085 | 1.311 | 0.002 |
|  | Interferon gamma-induced protein 10 | Wald ratio | 1 | 1.378 | 1.123 | 1.634 | 0.014 |
|  | Interleukin-7 | Wald ratio | 1 | 0.825 | 0.678 | 0.972 | 0.01 |
|  | Killer cell immunoglobulin-like receptor 2DL5A | Wald ratio | 1 | 1.146 | 1.016 | 1.276 | 0.039 |
|  | Matrix metallopeptidase 8 | Wald ratio | 1 | 0.814 | 0.628 | 1.001 | 0.031 |
|  | Melanoma cell adhesion molecule | Wald ratio | 1 | 1.315 | 1.044 | 1.585 | 0.047 |
|  | NAD(P)H dehydrogenase [quinone] 1 | Wald ratio | 1 | 0.871 | 0.739 | 1.004 | 0.042 |
|  | NAD-dependent protein deacetylase sirtuin-2 | Weighted median | 3 | 0.909 | 0.832 | 0.985 | 0.014 |
|  | NAD-dependent protein deacetylase sirtuin-2 | IVW | 3 | 0.913 | 0.844 | 0.982 | 0.01 |
|  | Neurexin-3-beta | Wald ratio | 1 | 1.204 | 1.032 | 1.376 | 0.035 |
|  | neuronal pentraxin receptor | Wald ratio | 1 | 0.895 | 0.79 | 1 | 0.039 |
|  | OX-2 membrane glycoprotein | Wald ratio | 1 | 1.208 | 1.032 | 1.383 | 0.035 |
|  | PDZK1-interacting protein 1 | Wald ratio | 1 | 1.146 | 1.016 | 1.276 | 0.039 |
|  | Platelet-derived growth factor receptor alpha | Wald ratio | 1 | 1.067 | 1.002 | 1.131 | 0.049 |
|  | Pregnancy-specific beta-1-glycoprotein 4 | Wald ratio | 1 | 0.923 | 0.86 | 0.985 | 0.012 |
|  | Protein FAM177A1 | Wald ratio | 1 | 0.941 | 0.882 | 0.999 | 0.04 |
|  | Protein FAM3D | Wald ratio | 1 | 1.1 | 1.04 | 1.16 | 0.002 |
|  | Protein-tyrosine sulfotransferase 2 | IVW | 2 | 1.12 | 1.011 | 1.229 | 0.041 |
|  | Scavenger receptor class A member 5 | Wald ratio | 1 | 0.828 | 0.668 | 0.987 | 0.02 |
|  | Semaphorin-3G | Wald ratio | 1 | 0.779 | 0.63 | 0.927 | 9E-04 |
|  | Stromal interaction molecule 1 | Wald ratio | 1 | 1.201 | 1.027 | 1.376 | 0.039 |
|  | Tissue factor | Wald ratio | 1 | 0.75 | 0.527 | 0.972 | 0.011 |
|  | Tubulin-specific chaperone A | Wald ratio | 1 | 0.965 | 0.931 | 0.999 | 0.039 |
|  | Gamma-glutamyl hydrolase | IVW | 2 | 1.095 | 1.031 | 1.158 | 0.006 |
| Susceptibility (D1) | Activated Protein C | Wald ratio | 1 | 1.432 | 1.13 | 1.734 | 0.02 |
|  | Adhesion G-protein coupled receptor F1 | IVW | 2 | 1.135 | 1.035 | 1.236 | 0.013 |
|  | Agouti-signaling protein | Wald ratio | 1 | 1.118 | 1.023 | 1.212 | 0.021 |
|  | Aldehyde dehydrogenase, dimeric NADP-preferring | Wald ratio | 1 | 0.684 | 0.402 | 0.966 | 0.008 |
|  | Alpha-N-acetylgalactosaminide alpha-2,6-sialyltransferase 1 | IVW | 2 | 1.181 | 1.019 | 1.342 | 0.044 |
|  | Apolipoprotein A-V | Wald ratio | 1 | 1.239 | 1.03 | 1.448 | 0.045 |
|  | Arf-GAP with SH3 domain, ANK repeat and PH domain-containing protein 2 | IVW | 2 | 1.093 | 1.011 | 1.176 | 0.034 |
|  | Beta-microseminoprotein | Wald ratio | 1 | 0.913 | 0.824 | 1.003 | 0.047 |
|  | Cadherin-3 | Wald ratio | 1 | 1.195 | 1.021 | 1.369 | 0.045 |
|  | Cation-dependent mannose-6-phosphate receptor | Wald ratio | 1 | 1.262 | 1.035 | 1.49 | 0.045 |
|  | Complement component 1 Q subcomponent-binding protein, mitochondrial | Wald ratio | 1 | 1.37 | 1.063 | 1.678 | 0.045 |
|  | C-type mannose receptor 2 | Wald ratio | 1 | 0.697 | 0.363 | 1.03 | 0.034 |
|  | Cysteine-rich hydrophobic domain-containing protein 2 | IVW | 2 | 1.206 | 1.029 | 1.383 | 0.038 |
|  | Cytoskeleton-associated protein 2 | Wald ratio | 1 | 1.347 | 1.056 | 1.637 | 0.045 |
|  | DCN1-like protein 5 | Wald ratio | 1 | 1.239 | 1.03 | 1.448 | 0.045 |
|  | Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 1 | Wald ratio | 1 | 0.833 | 0.676 | 0.989 | 0.022 |
|  | Dual specificity protein kinase CLK2 | IVW | 2 | 1.123 | 1.008 | 1.238 | 0.049 |
|  | Dynactin-associated protein | IVW | 2 | 0.74 | 0.457 | 1.023 | 0.037 |
|  | EGF-like module-containing mucin-like hormone receptor-like 2 | Wald ratio | 1 | 0.735 | 0.497 | 0.973 | 0.011 |
|  | Ephrin-B1 | Wald ratio | 1 | 1.291 | 1.042 | 1.54 | 0.045 |
|  | ERO1-like protein alpha | IVW | 2 | 1.193 | 1.018 | 1.367 | 0.048 |
|  | Filamin-A | Wald ratio | 1 | 0.743 | 0.452 | 1.033 | 0.045 |
|  | Glycerol-3-phosphate dehydrogenase 1-like protein | IVW | 2 | 1.178 | 1.018 | 1.338 | 0.045 |
|  | Guanylate-binding protein 6 | IVW | 2 | 1.187 | 1.02 | 1.354 | 0.045 |
|  | Heterogeneous nuclear ribonucleoproteins C1/C2 | Wald ratio | 1 | 1.37 | 1.063 | 1.678 | 0.045 |
|  | Intercellular adhesion molecule 1 | IVW | 2 | 1.466 | 1.14 | 1.792 | 0.021 |
|  | Interleukin-10 receptor subunit beta | Wald ratio | 1 | 1.559 | 1.18 | 1.937 | 0.022 |
|  | Interleukin-6 | Wald ratio | 1 | 2.012 | 1.435 | 2.588 | 0.017 |
|  | Janus kinase and microtubule-interacting protein 3 | Wald ratio | 1 | 0.933 | 0.866 | 1 | 0.043 |
|  | Kv channel-interacting protein 1 | Wald ratio | 1 | 1.261 | 1.034 | 1.488 | 0.045 |
|  | Laminin subunit gamma-2 | Wald ratio | 1 | 0.889 | 0.778 | 1 | 0.037 |
|  | Leukemia inhibitory factor | Wald ratio | 1 | 0.766 | 0.505 | 1.027 | 0.045 |
|  | Limbic system-associated membrane protein | Wald ratio | 1 | 0.715 | 0.405 | 1.026 | 0.035 |
|  | Low affinity immunoglobulin gamma Fc region receptor II-a/b | Wald ratio | 1 | 0.916 | 0.863 | 0.969 | 0.001 |
|  | Low affinity immunoglobulin gamma Fc region receptor II-b | Wald ratio | 1 | 0.921 | 0.848 | 0.995 | 0.028 |
|  | Luteinizing hormone | Wald ratio | 1 | 1.159 | 1.015 | 1.303 | 0.044 |
|  | Lutropin subunit beta | Wald ratio | 1 | 1.21 | 1.044 | 1.377 | 0.024 |
|  | Mannosyl-oligosaccharide 1,2-alpha-mannosidase IC | Wald ratio | 1 | 1.378 | 1.061 | 1.694 | 0.047 |
|  | MICAL-like protein 2 | Wald ratio | 1 | 1.165 | 1.016 | 1.314 | 0.045 |
|  | Mitotic spindle assembly checkpoint protein MAD1 | Wald ratio | 1 | 1.345 | 1.055 | 1.635 | 0.045 |
|  | N-acetylglucosamine-1-phosphotransferase subunit gamma | Wald ratio | 1 | 0.673 | 0.358 | 0.988 | 0.014 |
|  | neuronal pentraxin receptor | Wald ratio | 1 | 0.825 | 0.635 | 1.014 | 0.046 |
|  | Oxysterols receptor LXR-beta | IVW | 2 | 1.154 | 1.017 | 1.29 | 0.04 |
|  | Protein FAM189A2 | IVW | 2 | 1.174 | 1.035 | 1.314 | 0.024 |
|  | Protein kinase C-binding protein NELL1 | IVW | 2 | 1.125 | 1.019 | 1.23 | 0.029 |
|  | Protocadherin beta-4 | IVW | 2 | 1.169 | 1.017 | 1.321 | 0.044 |
|  | Pyruvate kinase PKLR | Wald ratio | 1 | 0.743 | 0.452 | 1.033 | 0.045 |
|  | Ras-related protein Rab-35 | Wald ratio | 1 | 1.196 | 1.021 | 1.37 | 0.045 |
|  | Rho GTPase-activating protein 30 | IVW | 3 | 1.237 | 1.086 | 1.387 | 0.006 |
|  | RNA polymerase II elongation factor ELL | Wald ratio | 1 | 1.289 | 1.041 | 1.538 | 0.045 |
|  | Secreted frizzled-related protein 2 | Wald ratio | 1 | 1.326 | 1.051 | 1.601 | 0.045 |
|  | Serine/threonine-protein kinase 16 | Wald ratio | 1 | 1.37 | 1.063 | 1.678 | 0.045 |
|  | Signal peptide, CUB and EGF-like domain-containing protein 1 | Wald ratio | 1 | 0.721 | 0.443 | 1 | 0.021 |
|  | Single Ig IL-1-related receptor | Wald ratio | 1 | 0.935 | 0.869 | 1 | 0.043 |
|  | SLAM family member 7 | IVW | 2 | 1.139 | 1.015 | 1.264 | 0.04 |
|  | Stromelysin-2 | IVW | 2 | 1.217 | 1.037 | 1.397 | 0.032 |
|  | Transcription regulator protein BACH1 | Wald ratio | 1 | 1.261 | 1.034 | 1.488 | 0.045 |
|  | tRNA (guanine-N(7)-)-methyltransferase | IVW | 2 | 1.179 | 1.022 | 1.336 | 0.04 |
|  | Trypsin-2 | IVW | 2 | 1.251 | 1.05 | 1.451 | 0.029 |
|  | Tubulin polymerization-promoting protein family member 2 | Wald ratio | 1 | 1.343 | 1.08 | 1.607 | 0.028 |
|  | Tumor necrosis factor receptor superfamily member 16 | Weighted median | 3 | 0.834 | 0.659 | 1.009 | 0.042 |
|  | Tumor necrosis factor receptor superfamily member 16 | IVW | 3 | 0.838 | 0.677 | 0.999 | 0.032 |
|  | Tyrosine-protein kinase JAK2 | Weighted median | 4 | 1.112 | 1.006 | 1.217 | 0.049 |
|  | Vascular endothelial growth factor C | Wald ratio | 1 | 1.187 | 1.055 | 1.319 | 0.011 |
|  | VIP36-like protein | Wald ratio | 1 | 0.724 | 0.426 | 1.022 | 0.034 |
|  | Vitrin | Wald ratio | 1 | 1.262 | 1.047 | 1.478 | 0.034 |