|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ensembl\_id | hgnc\_id | hgnc\_symbol | nrank.conf.n1 | nrank.conf.5perc | nrank.conf.20perc |
| ENSG00000078399.14 | HGNC:5109 | HOXA9 | 1 | 1 | 1 |
| ENSG00000139117.12 | HGNC:23498 | CPNE8 | 1 | 1 | 0 |
| ENSG00000248334.5 | HGNC:32360 | WHAMMP2 | 1 | 1 | 0 |
| ENSG00000253293.4 | HGNC:5100 | HOXA10 | 1 | 0 | 0 |
| ENSG00000132122.10 | HGNC:18309 | SPATA6 | 1 | 0 | 0 |
| ENSG00000254369.5 | HGNC:43748 | HOXA-AS3 | 1 | 1 | 0 |
| ENSG00000106004.4 | HGNC:5106 | HOXA5 | 1 | 1 | 0 |
| ENSG00000105997.21 | HGNC:5104 | HOXA3 | 1 | 1 | 0 |
| ENSG00000276141.3 | HGNC:27892 | WHAMMP3 | 1 | 0 | 0 |
| ENSG00000143995.18 | HGNC:7000 | MEIS1 | 1 | 0 | 0 |
| ENSG00000010319.5 | HGNC:30400 | SEMA3G | 1 | 0 | 0 |
| ENSG00000106006.6 | HGNC:5107 | HOXA6 | 1 | 1 | 1 |
| ENSG00000230453.8 | HGNC:23644 | ANKRD18B | 1 | 1 | 0 |
| ENSG00000198929.11 | HGNC:16859 | NOS1AP | 1 | 0 | 0 |
| ENSG00000197576.12 | HGNC:5105 | HOXA4 | 1 | 0 | 0 |
| ENSG00000102362.14 | HGNC:15588 | SYTL4 | 1 | 0 | 0 |
| ENSG00000254006.4 |  |  | 1 | 0 | 0 |
| ENSG00000165092.11 | HGNC:402 | ALDH1A1 | 1 | 1 | 0 |
| ENSG00000153132.11 | HGNC:2060 | CLGN | 1 | 0 | 0 |
| ENSG00000170153.9 | HGNC:23138 | RNF150 | 1 | 0 | 0 |
| ENSG00000205213.12 | HGNC:13299 | LGR4 | 1 | 0 | 0 |
| ENSG00000198185.10 | HGNC:15806 | ZNF334 | 1 | 0 | 0 |
| ENSG00000130208.8 | HGNC:607 | APOC1 | 1 | 0 | 0 |
| ENSG00000232431.3 |  |  | 1 | 0 | 0 |
| ENSG00000261377.4 | HGNC:49873 | PDCD6IPP2 | 1 | 0 | 0 |
| ENSG00000239887.4 | HGNC:34351 | C1orf226 | 1 | 0 | 0 |
| ENSG00000184500.13 | HGNC:9456 | PROS1 | 1 | 1 | 0 |
| ENSG00000206120.10 | HGNC:25149 | EGFEM1P | 1 | 0 | 0 |
| ENSG00000047648.20 | HGNC:676 | ARHGAP6 | 1 | 0 | 0 |
| ENSG00000188626.6 | HGNC:44404 | GOLGA8M | 1 | 1 | 1 |
| ENSG00000133742.12 | HGNC:1368 | CA1 | 1 | 0 | 0 |
| ENSG00000102595.17 | HGNC:15664 | UGGT2 | 1 | 0 | 0 |
| ENSG00000154864.10 | HGNC:26270 | PIEZO2 | 1 | 0 | 0 |
| ENSG00000205978.5 | HGNC:20165 | NYNRIN | 1 | 0 | 0 |
| ENSG00000087495.15 | HGNC:15833 | PHACTR3 | 1 | 0 | 0 |
| ENSG00000203799.9 | HGNC:21565 | CCDC162P | 1 | 0 | 0 |
| ENSG00000173868.10 | HGNC:16815 | PHOSPHO1 | 1 | 0 | 0 |
| ENSG00000259207.6 | HGNC:6156 | ITGB3 | 1 | 1 | 1 |
| ENSG00000227502.2 | HGNC:50323 | LINC01268 | 1 | 0 | 0 |
| ENSG00000197301.6 |  |  | 1 | 0 | 0 |
| ENSG00000179542.14 | HGNC:23502 | SLITRK4 | 1 | 1 | 1 |
| ENSG00000275325.3 | HGNC:49872 | PDCD6IPP1 | 1 | 0 | 0 |
| ENSG00000130635.14 | HGNC:2209 | COL5A1 | 1 | 0 | 0 |
| ENSG00000166394.13 | HGNC:24376 | CYB5R2 | 1 | 0 | 0 |
| ENSG00000112077.14 | HGNC:10006 | RHAG | 1 | 0 | 0 |
| ENSG00000198963.9 | HGNC:10259 | RORB | 1 | 0 | 0 |
| ENSG00000081985.9 | HGNC:5972 | IL12RB2 | 1 | 0 | 0 |
| ENSG00000101333.15 | HGNC:9059 | PLCB4 | 1 | 1 | 1 |
| ENSG00000165949.11 | HGNC:5397 | IFI27 | 1 | 0 | 0 |
| ENSG00000125845.6 | HGNC:1069 | BMP2 | 1 | 0 | 0 |
| ENSG00000114405.9 | HGNC:25024 | C3orf14 | 1 | 0 | 0 |
| ENSG00000112414.13 | HGNC:13841 | ADGRG6 | 1 | 0 | 0 |
| ENSG00000198722.11 | HGNC:12566 | UNC13B | 1 | 1 | 1 |
| ENSG00000120279.6 | HGNC:23172 | MYCT1 | 1 | 1 | 0 |
| ENSG00000102996.4 | HGNC:7161 | MMP15 | 1 | 0 | 0 |
| ENSG00000181433.8 | HGNC:30369 | SAGE1 | 1 | 0 | 0 |
| ENSG00000243064.7 | HGNC:16022 | ABCC13 | 1 | 0 | 0 |
| ENSG00000187240.12 | HGNC:2962 | DYNC2H1 | 1 | 0 | 0 |
| ENSG00000124140.11 | HGNC:13818 | SLC12A5 | 1 | 0 | 0 |
| ENSG00000207205.1 | HGNC:48320 | RNVU1-15 | 1 | 0 | 0 |
| ENSG00000188580.12 | HGNC:16443 | NKAIN2 | 1 | 0 | 0 |
| ENSG00000271952.1 | HGNC:52779 | LINC01954 | 1 | 0 | 0 |
| ENSG00000120833.12 | HGNC:19382 | SOCS2 | 1 | 0 | 0 |
| ENSG00000118523.5 | HGNC:2500 | CTGF | 1 | 1 | 0 |
| ENSG00000128683.12 | HGNC:4092 | GAD1 | 1 | 0 | 0 |
| ENSG00000144893.11 | HGNC:16050 | MED12L | 1 | 0 | 0 |
| ENSG00000165300.7 | HGNC:20295 | SLITRK5 | 1 | 1 | 1 |
| ENSG00000149948.12 | HGNC:5009 | HMGA2 | 1 | 1 | 0 |
| ENSG00000130529.14 | HGNC:17993 | TRPM4 | 1 | 0 | 0 |
| ENSG00000180543.4 | HGNC:29367 | TSPYL5 | 1 | 0 | 0 |
| ENSG00000046889.17 | HGNC:22950 | PREX2 | 1 | 0 | 0 |
| ENSG00000159189.10 | HGNC:1245 | C1QC | 1 | 0 | 0 |
| ENSG00000120549.14 | HGNC:25428 | KIAA1217 | 1 | 0 | 0 |
| ENSG00000185630.17 | HGNC:8632 | PBX1 | 1 | 0 | 0 |
| ENSG00000256797.1 | HGNC:37646 | KLRF2 | 1 | 0 | 0 |
| ENSG00000158528.10 | HGNC:14946 | PPP1R9A | 1 | 0 | 0 |
| ENSG00000163737.3 | HGNC:8861 | PF4 | 1 | 0 | 0 |
| ENSG00000180071.17 | HGNC:23643 | ANKRD18A | 1 | 0 | 0 |
| ENSG00000187772.6 | HGNC:32207 | LIN28B | 1 | 0 | 0 |
| ENSG00000163331.9 | HGNC:21490 | DAPL1 | 1 | 0 | 0 |
| ENSG00000169439.10 | HGNC:10659 | SDC2 | 1 | 0 | 0 |
| ENSG00000104892.15 | HGNC:20717 | KLC3 | 1 | 0 | 0 |
| ENSG00000154783.9 | HGNC:19117 | FGD5 | 1 | 0 | 0 |
| ENSG00000178053.16 | HGNC:7125 | MLF1 | 1 | 0 | 0 |
| ENSG00000085276.16 | HGNC:3498 | MECOM | 1 | 1 | 0 |
| ENSG00000000971.14 | HGNC:4883 | CFH | 1 | 0 | 0 |
| ENSG00000147689.15 | HGNC:28210 | FAM83A | 1 | 0 | 0 |
| ENSG00000099284.12 | HGNC:14453 | H2AFY2 | 1 | 0 | 0 |
| ENSG00000188153.11 | HGNC:2207 | COL4A5 | 1 | 0 | 0 |
| ENSG00000046604.11 | HGNC:3049 | DSG2 | 1 | 0 | 0 |
| ENSG00000180537.11 | HGNC:28522 | RNF182 | 1 | 0 | 0 |
| ENSG00000096006.10 | HGNC:16904 | CRISP3 | 1 | 0 | 0 |
| ENSG00000168754.12 | HGNC:28036 | FAM178B | 1 | 0 | 0 |
| ENSG00000125869.8 | HGNC:16097 | LAMP5 | 1 | 1 | 0 |
| ENSG00000204682.5 | HGNC:31448 | CASC10 | 1 | 0 | 0 |
| ENSG00000244734.2 | HGNC:4827 | HBB | 1 | 0 | 0 |
| ENSG00000164659.13 | HGNC:21945 | KIAA1324L | 1 | 1 | 0 |
| ENSG00000213088.8 | HGNC:4035 | ACKR1 | 1 | 0 | 0 |
| ENSG00000242516.1 | HGNC:48710 | LINC00960 | 1 | 0 | 0 |
| ENSG00000153253.14 | HGNC:10590 | SCN3A | 1 | 0 | 0 |
| ENSG00000156535.12 | HGNC:21685 | CD109 | 1 | 0 | 0 |
| ENSG00000206177.5 | HGNC:4826 | HBM | 1 | 0 | 0 |
| ENSG00000246985.6 | HGNC:27054 | SOCS2-AS1 | 1 | 0 | 0 |
| ENSG00000175097.6 | HGNC:9832 | RAG2 | 1 | 0 | 0 |
| ENSG00000147180.15 | HGNC:13128 | ZNF711 | 1 | 0 | 0 |
| ENSG00000197992.5 | HGNC:26705 | CLEC9A | 1 | 0 | 0 |

**Table 2.** Recurrent consensus important gene features from label assignments of bootstrapping (N = 1,000 bootstraps) Boruta permutations with consensus importance (nrank). Columns 1-3 show gene info, and 4-6 show extent of recurrence where “nrank.conf.n1” is confirmed in >= 1 bootstrap, “nrank.conf.5perc” is confirmed in >= 5% (or N = 50) bootstraps, and “nrank.conf.20perc” is confirmed in >20% (or 200) bootstraps.