

# RNA-seq transcriptomics data

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## Introduction of dataset

The ‘data\_GC’ dataset is used for RNA-seq transcriptomics data, sourced from the publicly accessible database GEO PRJNA152559, GSE35809. It includes genome-wide mRNA expression profiles of 70 primary gastric tumors from an Australian patient cohort, categorized into metabolic (15 samples), invasive (26 samples), and proliferative subtypes (29 samples). We used proliferative gastric cancer samples as the experimental group and the other two groups of samples as the control group to demonstrate the process of genetic difference analysis.

```
load("Rmarkdown_gastric_cancer.RData")
head(data_GC,3)
```

|    |           |          |           |          |          |          |          |          |
|----|-----------|----------|-----------|----------|----------|----------|----------|----------|
| ## | Group     | DDR1     | RFC2      | HSPA6    | PAX8     | GUCA1A   | UBA7     |          |
| ## | GSM875412 | treat    | 10.265559 | 6.778214 | 5.709621 | 7.692304 | 3.573511 | 8.007544 |
| ## | GSM875413 | control  | 8.246568  | 7.202250 | 8.056962 | 7.423879 | 3.449364 | 8.339671 |
| ## | GSM875414 | control  | 10.021337 | 6.380789 | 6.747597 | 7.190476 | 3.454146 | 6.690907 |
| ## | THRA      | PTPN21   | CCL5      | CYP2E1   | EPHB3    | ESRRA    | CYP2A6   |          |
| ## | GSM875412 | 5.644135 | 4.922533  | 7.001334 | 4.141798 | 5.779844 | 8.124896 | 4.618330 |
| ## | GSM875413 | 5.405351 | 4.748878  | 6.280270 | 4.420998 | 6.921506 | 7.289521 | 4.866613 |
| ## | GSM875414 | 5.547255 | 6.051281  | 7.072543 | 4.528619 | 7.718827 | 7.067068 | 4.969867 |
| ## | SCARB1    | TTL12    | WFDC2     | MAPK1    | ADAM32   | SPATA17  | PRR22    |          |
| ## | GSM875412 | 7.008876 | 8.000842  | 4.635419 | 6.291676 | 3.346867 | 3.973362 | 5.081465 |
| ## | GSM875413 | 7.252370 | 7.604952  | 4.832582 | 4.460261 | 3.745117 | 3.724630 | 5.353195 |
| ## | GSM875414 | 6.689953 | 7.716860  | 5.181049 | 5.018759 | 3.678185 | 4.140075 | 5.579901 |
| ## | PXK       | VPS18    | MSANTD3   | SLC46A1  | TIMD4    | SLC39A5  | ATP6V1E2 |          |
| ## | GSM875412 | 6.397584 | 4.988932  | 7.413647 | 4.942791 | 3.743864 | 7.353273 | 5.432421 |
| ## | GSM875413 | 6.003717 | 4.955347  | 6.579375 | 5.884283 | 3.737644 | 6.683125 | 5.009710 |
| ## | GSM875414 | 6.128245 | 4.980204  | 7.238742 | 5.094184 | 3.772576 | 7.901207 | 4.980951 |
| ## | AFG3L1P   | CILP2    | PIGX      | TMEM196  | SLC39A13 | BEST4    | AK9      |          |
| ## | GSM875412 | 6.640232 | 3.911792  | 6.019333 | 4.193237 | 6.590854 | 3.686188 | 4.623814 |
| ## | GSM875413 | 6.991027 | 4.039410  | 6.012415 | 4.411709 | 7.292185 | 3.842466 | 5.013475 |
| ## | GSM875414 | 6.365564 | 4.912561  | 6.497221 | 4.197752 | 7.648402 | 4.132011 | 3.785787 |
| ## | CORO6     | TMEM106A | ALG10     | TTC39C   | NEXN     | C15orf40 | RAX2     |          |
| ## | GSM875412 | 4.687701 | 4.179368  | 3.485120 | 5.011868 | 6.320970 | 6.639993 | 5.774910 |
| ## | GSM875413 | 4.660922 | 4.967508  | 3.445906 | 4.871705 | 8.319155 | 6.709824 | 5.847387 |
| ## | GSM875414 | 4.708840 | 4.679419  | 3.457138 | 5.186796 | 5.124242 | 6.135246 | 6.052782 |
| ## | MFAP3     | EYA3     | GIMAP1    | KLK8     | CCDC65   | PABIR3   | CFAP53   |          |
| ## | GSM875412 | 5.731742 | 4.261433  | 5.607184 | 4.937815 | 3.207567 | 3.333519 | 3.338842 |
| ## | GSM875413 | 4.107552 | 3.954011  | 5.680051 | 4.152675 | 3.490761 | 3.494985 | 3.422262 |
| ## | GSM875414 | 5.281489 | 4.647076  | 6.054780 | 4.887338 | 3.621561 | 3.320530 | 3.572045 |
| ## | ARMCX4    | RBBP6    | CENPBD1P  | TRIOBP   | CATSPER1 | HOXD4    | GSC      |          |

|    |           |           |           |          |          |          |          |             |
|----|-----------|-----------|-----------|----------|----------|----------|----------|-------------|
| ## | GSM875412 | 4.184900  | 6.201412  | 4.415755 | 6.454082 | 4.785651 | 4.183681 | 3.964281    |
| ## | GSM875413 | 6.455093  | 5.285727  | 5.321407 | 6.754528 | 5.252398 | 4.270826 | 4.385719    |
| ## | GSM875414 | 3.821213  | 4.805634  | 5.233504 | 6.557828 | 5.082781 | 5.017298 | 4.840789    |
| ## |           | SP7       | PDE7A     | CNOT7    | CRYZL1   | PRSS33   | CBARP    | MCMDC2      |
| ## | GSM875412 | 3.945937  | 5.755729  | 4.575711 | 7.568130 | 5.183996 | 4.415403 | 3.338072    |
| ## | GSM875413 | 4.004660  | 4.977420  | 4.900954 | 7.233369 | 5.087330 | 4.733940 | 3.423133    |
| ## | GSM875414 | 4.091892  | 4.607859  | 3.895734 | 6.818267 | 5.980844 | 5.986288 | 3.551606    |
| ## |           | TIRAP     | LEAP2     | MSI2     | SCIN     | CTCFL    | C4orf33  | ZNF333      |
| ## | GSM875412 | 5.702697  | 5.641907  | 4.884120 | 4.567648 | 3.282582 | 7.467267 | 3.866304    |
| ## | GSM875413 | 4.757359  | 5.654832  | 4.959404 | 4.538920 | 3.710226 | 5.932064 | 4.424293    |
| ## | GSM875414 | 5.034770  | 5.297459  | 6.206536 | 4.429793 | 3.857637 | 6.682475 | 3.999860    |
| ## |           | TVP23C    | RDH10     | SRSF12   | GARIN4   | GAPT     | SCUBE1   | ERICH5      |
| ## | GSM875412 | 5.704054  | 5.521055  | 3.286102 | 6.434414 | 3.624835 | 5.189870 | 3.993056    |
| ## | GSM875413 | 5.933776  | 4.496064  | 3.435412 | 6.684141 | 3.863800 | 6.718883 | 3.866030    |
| ## | GSM875414 | 5.883465  | 7.189083  | 3.306974 | 8.457256 | 3.276414 | 6.131684 | 5.933261    |
| ## |           | CCDC185   | ENTHD1    | TSSK3    | WFDC6    | CLEC12A  | BRF1     | TMEM266     |
| ## | GSM875412 | 3.989432  | 3.395095  | 6.337713 | 4.126484 | 3.993056 | 4.277329 | 3.998362    |
| ## | GSM875413 | 4.507341  | 3.121358  | 6.439311 | 4.233037 | 3.793315 | 4.025629 | 3.813496    |
| ## | GSM875414 | 4.855814  | 3.171486  | 6.925401 | 4.743154 | 4.078683 | 4.656325 | 3.913308    |
| ## |           | CALML6    | NLRP5     | ODF4     | CLEC4F   | WFDC9    | NEDD1    | TTL10       |
| ## | GSM875412 | 3.704829  | 4.354821  | 3.302764 | 4.783888 | 3.968087 | 5.789768 | 4.403852    |
| ## | GSM875413 | 3.953211  | 4.724109  | 3.339936 | 4.937235 | 4.084018 | 5.931794 | 4.480008    |
| ## | GSM875414 | 4.051056  | 4.851061  | 3.478550 | 4.757055 | 5.039555 | 5.588776 | 4.864849    |
| ## |           | CALR3     | ZNF22-AS1 | ETV3     | KLHL10   | TM2D3    | ZNF485   | WDR17       |
| ## | GSM875412 | 3.569084  | 4.548790  | 6.860136 | 3.486124 | 8.951469 | 3.775607 | 3.222732    |
| ## | GSM875413 | 3.624492  | 5.000771  | 4.790071 | 3.433298 | 8.882814 | 3.452417 | 3.268856    |
| ## | GSM875414 | 4.258220  | 5.572275  | 5.371823 | 3.734897 | 8.062308 | 3.441889 | 3.435637    |
| ## |           | MFS6L     | CDH23     | ANKAR    | MEGF11   | GPR182   | ESX1     | FAM167A-AS1 |
| ## | GSM875412 | 4.691984  | 3.804433  | 3.357101 | 3.357101 | 3.738184 | 3.404726 | 3.832392    |
| ## | GSM875413 | 4.476611  | 3.836550  | 3.410409 | 3.334338 | 4.076568 | 3.521433 | 3.569028    |
| ## | GSM875414 | 4.847262  | 4.251568  | 3.444632 | 3.659064 | 4.146509 | 3.209329 | 3.572470    |
| ## |           | DNAJC5G   | WDR88     | PRUNE2   | MBD3L2   | ADAMTSL1 | MBD3L1   | TENT5D      |
| ## | GSM875412 | 4.445663  | 3.463585  | 4.440779 | 4.597046 | 3.573208 | 3.479559 | 3.463124    |
| ## | GSM875413 | 4.661874  | 3.673894  | 3.823441 | 4.957773 | 3.597434 | 3.512014 | 3.272870    |
| ## | GSM875414 | 4.917406  | 3.449163  | 3.635469 | 4.553199 | 3.546649 | 3.669541 | 3.472625    |
| ## |           | SERPINB11 | LINC00161 | DSCR10   | ABHD11   | ACAP2    | GAMT     | PLCD3       |
| ## | GSM875412 | 3.616790  | 3.128404  | 6.035550 | 4.862923 | 6.708334 | 6.475984 | 5.718214    |
| ## | GSM875413 | 3.698759  | 3.265199  | 5.823974 | 4.320624 | 4.813556 | 6.700719 | 5.589934    |
| ## | GSM875414 | 3.885171  | 3.883644  | 6.417991 | 4.238725 | 5.481952 | 6.817905 | 7.703559    |
| ## |           | IRF6      | PTPRC     | MAN1A2   | RAPH1    | SMCR8    | LACTB    | BNC1        |
| ## | GSM875412 | 7.553222  | 3.341267  | 5.035584 | 6.953359 | 4.975835 | 5.629096 | 3.051676    |
| ## | GSM875413 | 3.531456  | 3.032951  | 3.742865 | 4.862014 | 5.610342 | 4.212273 | 3.287013    |
| ## | GSM875414 | 8.444895  | 3.161737  | 4.471132 | 6.237456 | 5.461863 | 4.990557 | 3.211013    |
| ## |           | MPP4      | AFG1L     | IDI2     | CYP11B1  | TAF8     | COBL     | SLAMF6      |
| ## | GSM875412 | 3.186496  | 3.696113  | 4.484455 | 4.245564 | 4.015881 | 6.485095 | 5.498987    |
| ## | GSM875413 | 3.174528  | 3.583656  | 4.675944 | 4.456739 | 4.156627 | 4.144782 | 5.300160    |
| ## | GSM875414 | 3.336649  | 3.688374  | 5.079674 | 4.300143 | 5.003889 | 6.354385 | 5.704296    |
| ## |           | ZSCAN20   | GPBAR1    | RHBDL2   | FRAS1    | BRSK1    | CRB2     | KCNE4       |
| ## | GSM875412 | 4.197683  | 5.604737  | 7.346235 | 4.785651 | 6.582857 | 3.584436 | 4.976967    |
| ## | GSM875413 | 4.247739  | 7.633722  | 3.858144 | 4.943050 | 6.154794 | 3.922981 | 5.176967    |
| ## | GSM875414 | 4.254015  | 5.929583  | 3.572248 | 5.218047 | 6.497802 | 3.998583 | 4.492575    |
| ## |           | CD300LG   | SLC34A3   | CPA6     | WBP2NL   | HIPK1    | MTBP     | ACVR1C      |
| ## | GSM875412 | 3.715823  | 7.229229  | 3.148903 | 3.231215 | 3.570586 | 4.919288 | 6.639526    |
| ## | GSM875413 | 3.520496  | 7.185507  | 5.440754 | 3.460289 | 3.451269 | 4.209683 | 4.676475    |

|    |           |          |            |          |           |           |          |           |
|----|-----------|----------|------------|----------|-----------|-----------|----------|-----------|
| ## | GSM875414 | 3.560349 | 7.854096   | 3.412046 | 3.617522  | 3.885543  | 4.073686 | 4.592971  |
| ## |           | TMEM74   | TIGD4      | ART5     | GARIN6    | LINC01547 | NLRP11   | ATP6V1C2  |
| ## | GSM875412 | 3.446720 | 3.096334   | 5.559576 | 3.992285  | 5.914087  | 3.509576 | 7.678984  |
| ## | GSM875413 | 3.541592 | 3.329837   | 5.626619 | 3.905472  | 5.969165  | 3.734087 | 3.401745  |
| ## | GSM875414 | 3.372274 | 3.504946   | 6.092572 | 5.336517  | 5.954826  | 3.990298 | 3.630988  |
| ## |           | CLDN19   | VTI1A      | KIF6     | IQCD      | TAGAP     | STON2    | SERPINA12 |
| ## | GSM875412 | 4.883870 | 5.914608   | 3.676248 | 4.376149  | 5.749593  | 4.137531 | 4.001208  |
| ## | GSM875413 | 4.985265 | 4.934580   | 3.689267 | 4.480239  | 5.217041  | 4.034410 | 4.185034  |
| ## | GSM875414 | 5.146689 | 5.913483   | 4.096237 | 4.889397  | 5.717207  | 4.648177 | 4.295125  |
| ## |           | LETM2    | BSND       | CLEC4C   | NLRC4     | PRSS36    | ZDHHC15  | RAI1      |
| ## | GSM875412 | 3.725818 | 3.818136   | 3.282322 | 4.929336  | 5.519026  | 3.392426 | 5.880075  |
| ## | GSM875413 | 3.955667 | 4.021710   | 3.451733 | 4.742381  | 5.719975  | 3.558893 | 6.355684  |
| ## | GSM875414 | 4.146153 | 4.217268   | 4.005510 | 4.744753  | 6.116072  | 3.425594 | 6.479135  |
| ## |           | CDK15    | ZNF570     | NUDT9P1  | BTBD16    | RTP3      | TSPEAR   | MIPOL1    |
| ## | GSM875412 | 3.822214 | 3.849576   | 3.500953 | 6.877556  | 4.092467  | 4.260591 | 3.164794  |
| ## | GSM875413 | 4.316437 | 3.836648   | 3.831203 | 3.587939  | 4.190299  | 4.264261 | 3.092764  |
| ## | GSM875414 | 4.656422 | 4.226948   | 3.623652 | 3.856511  | 4.615493  | 4.198869 | 3.178093  |
| ## |           | C6orf141 | ALMS1P1    | MYO3B    | ADAM21    | TRIML2    | ABCC13   | IL12RB1   |
| ## | GSM875412 | 5.678835 | 4.005697   | 3.481098 | 3.762576  | 4.345123  | 3.484382 | 5.875862  |
| ## | GSM875413 | 5.229300 | 4.140953   | 3.266101 | 3.954207  | 4.824098  | 3.598960 | 5.311263  |
| ## | GSM875414 | 7.321061 | 4.334600   | 3.485681 | 3.924219  | 4.946263  | 4.571707 | 5.755050  |
| ## |           | GTF2A1L  | TRPV3      | CNBD1    | ABCC12    | MMP21     | TMEM190  | GAS2L2    |
| ## | GSM875412 | 3.196310 | 4.857259   | 3.361429 | 3.410094  | 3.143567  | 4.813921 | 5.870717  |
| ## | GSM875413 | 3.171202 | 5.157673   | 3.386611 | 3.469533  | 3.257978  | 4.756058 | 6.422731  |
| ## | GSM875414 | 3.258223 | 5.507044   | 3.483473 | 3.516657  | 3.275460  | 5.356701 | 6.604027  |
| ## |           | KCNG4    | PXT1       | CACNG5   | LINC00308 | WFDC11    | JAK1     | CDC42SE2  |
| ## | GSM875412 | 4.029202 | 3.722097   | 4.547186 | 4.059111  | 4.488855  | 9.575125 | 7.892211  |
| ## | GSM875413 | 4.399683 | 3.377978   | 4.719293 | 4.051687  | 4.382629  | 8.806279 | 5.798677  |
| ## | GSM875414 | 4.646677 | 3.447623   | 5.331478 | 4.147734  | 4.810813  | 9.259824 | 6.212670  |
| ## |           | ACACB    | COP1       | STX6     | ANLN      | SPRR4     | HSH2D    | TRNT1     |
| ## | GSM875412 | 7.273503 | 8.712598   | 7.734142 | 7.623441  | 6.109267  | 5.771440 | 7.227517  |
| ## | GSM875413 | 8.631147 | 7.509305   | 6.840439 | 4.526389  | 6.162508  | 4.741045 | 6.103706  |
| ## | GSM875414 | 7.807450 | 7.692201   | 7.492841 | 6.727543  | 5.722323  | 6.071299 | 5.885864  |
| ## |           | TMEM163  | ARHGAP5    | HERPUD2  | JMJD6     | SRCAP     | MAP3K6   | ARSG      |
| ## | GSM875412 | 6.741345 | 7.819427   | 9.156611 | 3.942540  | 4.949188  | 4.805546 | 4.229022  |
| ## | GSM875413 | 5.035681 | 4.529755   | 9.221134 | 3.564128  | 5.367841  | 5.199636 | 4.405968  |
| ## | GSM875414 | 5.263697 | 6.967408   | 9.049634 | 3.864412  | 5.732511  | 5.536743 | 4.506366  |
| ## |           | ZNF101   | PTPN11     | KLHDC7B  | ZNF626    | PHC3      | IL11RA   | TNFRSF10A |
| ## | GSM875412 | 5.424033 | 3.978135   | 4.921794 | 4.593485  | 4.774549  | 4.921794 | 6.366054  |
| ## | GSM875413 | 4.899149 | 3.714725   | 5.482045 | 4.834715  | 4.130425  | 5.221183 | 5.829263  |
| ## | GSM875414 | 5.425765 | 3.832332   | 5.435411 | 4.163867  | 5.261017  | 6.017319 | 6.313150  |
| ## |           | HPS4     | UHMK1      | TXNDC2   | NAV3      | C5orf22   | PCDHGB7  | ERC1      |
| ## | GSM875412 | 6.020678 | 6.817406   | 4.750648 | 4.287976  | 8.381211  | 2.991220 | 6.270478  |
| ## | GSM875413 | 6.291316 | 4.677215   | 4.877877 | 8.686925  | 5.425603  | 3.012994 | 5.654815  |
| ## | GSM875414 | 6.372939 | 6.614632   | 5.199180 | 3.662738  | 6.819862  | 3.039373 | 5.718742  |
| ## |           | FLCN     | JMJD1C-AS1 | LRRC7    | SH2D3C    | PPP1R3B   | SLC9A7   | IGSF3     |
| ## | GSM875412 | 6.355263 | 4.914130   | 3.272822 | 4.724453  | 3.949034  | 4.854765 | 4.212258  |
| ## | GSM875413 | 6.192807 | 4.521645   | 3.332096 | 4.597008  | 3.828945  | 5.159968 | 4.033310  |
| ## | GSM875414 | 5.632438 | 4.861244   | 3.523301 | 5.424987  | 4.119330  | 6.130526 | 4.339449  |
| ## |           | RFX6     | DIRC1      | DNAJB7   | UCN3      | DIP2A     | USP28    | KNL1      |
| ## | GSM875412 | 4.195143 | 3.104991   | 3.240576 | 4.567506  | 5.627615  | 6.134378 | 4.671285  |
| ## | GSM875413 | 3.811325 | 3.234812   | 3.244286 | 5.430348  | 5.363467  | 5.300995 | 3.615955  |
| ## | GSM875414 | 3.820166 | 3.310232   | 3.493699 | 5.745027  | 6.264953  | 5.356188 | 4.378111  |
| ## |           | SENP8    | GRHL1      | CNBD2    | CASKIN1   | CACNA2D4  | ARL11    | SLC2A13   |

|    |           |          |          |          |           |           |           |           |
|----|-----------|----------|----------|----------|-----------|-----------|-----------|-----------|
| ## | GSM875412 | 3.914982 | 6.077998 | 4.481544 | 5.125073  | 4.444250  | 3.735098  | 3.621499  |
| ## | GSM875413 | 4.057966 | 4.294915 | 4.424462 | 4.964171  | 4.381463  | 3.528884  | 3.381849  |
| ## | GSM875414 | 4.194892 | 5.254636 | 5.232949 | 5.409547  | 4.337955  | 3.650380  | 3.464035  |
| ## |           | NIPA1    | TUBA3FP  | CARD16   | DUSP19    | CYB5D1    | NMNAT2    | SLC4A1    |
| ## | GSM875412 | 4.481067 | 5.106637 | 8.419141 | 3.439706  | 6.445193  | 4.721711  | 3.700080  |
| ## | GSM875413 | 3.890335 | 5.792637 | 7.188898 | 3.685541  | 6.600511  | 4.486506  | 3.714192  |
| ## | GSM875414 | 5.252957 | 5.719058 | 6.766147 | 3.138978  | 6.039011  | 4.675794  | 4.025575  |
| ## |           | CREG2    | RXFP1    | SPEF2    | DTD1      | GOLM2     | FGF1      | ARPP21    |
| ## | GSM875412 | 3.599590 | 3.503495 | 5.159075 | 4.206245  | 4.757792  | 3.594490  | 3.251896  |
| ## | GSM875413 | 3.524303 | 3.385242 | 5.955978 | 4.683949  | 5.248965  | 8.535386  | 3.204616  |
| ## | GSM875414 | 3.605311 | 3.584315 | 5.308706 | 4.253661  | 4.612714  | 3.556360  | 3.256002  |
| ## |           | RHOXF1   | ADAMTS17 | SNHG7    | DHH       | ABRA      | KLHDC1    | RICTOR    |
| ## | GSM875412 | 4.396500 | 4.125717 | 5.288233 | 3.707610  | 3.541536  | 5.422236  | 7.160032  |
| ## | GSM875413 | 4.987995 | 4.504599 | 4.913223 | 4.020308  | 3.810296  | 7.564439  | 3.537902  |
| ## | GSM875414 | 4.860939 | 4.797596 | 5.726815 | 4.106981  | 4.064243  | 4.574976  | 3.470294  |
| ## |           | PCDHGA4  | NETO1    | WWP2     | ST7L      | C2orf15   | KCNH8     | MCF2L     |
| ## | GSM875412 | 4.349397 | 3.799722 | 4.449768 | 3.958275  | 3.790362  | 4.690217  | 3.601374  |
| ## | GSM875413 | 4.996806 | 3.650522 | 5.906977 | 3.765760  | 3.492510  | 3.570116  | 3.518932  |
| ## | GSM875414 | 4.470390 | 3.866030 | 4.731037 | 3.779612  | 3.685018  | 4.182569  | 3.502857  |
| ## |           | SLC06A1  | PP2D1    | KLC3     | CIB3      | CADM2     | DOCK8-AS1 | HDAC9     |
| ## | GSM875412 | 3.606886 | 3.410443 | 7.048890 | 3.655004  | 3.543877  | 4.107202  | 3.435570  |
| ## | GSM875413 | 3.708766 | 3.332435 | 7.546379 | 3.472686  | 3.606462  | 4.010496  | 4.382116  |
| ## | GSM875414 | 3.916249 | 3.444003 | 7.537805 | 3.907166  | 3.623911  | 4.073890  | 3.766607  |
| ## |           | SLC16A11 | TMEM67   | HS6ST2   | CAMKK1    | ZNF625    | ZNF563    | LIN9      |
| ## | GSM875412 | 5.937660 | 3.110354 | 3.267460 | 6.015502  | 3.710613  | 3.991436  | 3.616745  |
| ## | GSM875413 | 6.534475 | 3.361070 | 3.292342 | 5.748884  | 4.139416  | 4.153713  | 3.804532  |
| ## | GSM875414 | 6.674654 | 3.346449 | 3.373443 | 6.011896  | 4.481662  | 3.829865  | 4.129545  |
| ## |           | CLEC4D   | SLC25A27 | GPRC6A   | RAET1E    | SLC44A5   | ZNF417    | ZNF781    |
| ## | GSM875412 | 3.735661 | 4.423514 | 4.399244 | 3.603254  | 3.882960  | 3.418782  | 3.537428  |
| ## | GSM875413 | 4.008472 | 6.011212 | 4.385086 | 3.561014  | 3.734087  | 3.294945  | 3.786299  |
| ## | GSM875414 | 4.177705 | 4.444685 | 4.481675 | 3.891116  | 3.979051  | 3.191166  | 3.928106  |
| ## |           | HELB     | SEC62    | TRDN     | SOCS4     | LINC02904 | ZNF547    | SIM1      |
| ## | GSM875412 | 3.811964 | 5.325438 | 3.260768 | 4.112769  | 3.876267  | 3.366860  | 3.749522  |
| ## | GSM875413 | 4.230338 | 5.697504 | 3.233445 | 3.387576  | 3.663109  | 3.572498  | 3.721219  |
| ## | GSM875414 | 4.750730 | 4.705773 | 3.207300 | 3.954581  | 3.873639  | 3.154565  | 3.788641  |
| ## |           | PROM2    | TLR4     | TSNARE1  | CAPN13    | STMN1     | SIGLEC10  | RFX4      |
| ## | GSM875412 | 9.295367 | 6.102974 | 4.278008 | 3.903110  | 3.510607  | 4.006590  | 3.407284  |
| ## | GSM875413 | 5.757560 | 5.401905 | 4.447517 | 4.473185  | 3.648451  | 4.158432  | 3.521714  |
| ## | GSM875414 | 6.269186 | 5.226223 | 5.211047 | 4.743154  | 3.842452  | 5.221036  | 4.024634  |
| ## |           | WFIKK1   | SENP1    | KLF14    | NXNL2     | BRS3      | TMX3      | ZNF396    |
| ## | GSM875412 | 5.507222 | 5.417593 | 4.473560 | 3.349055  | 3.380382  | 3.673198  | 3.803300  |
| ## | GSM875413 | 5.718863 | 5.131479 | 4.640400 | 3.140742  | 3.720331  | 3.403409  | 3.761071  |
| ## | GSM875414 | 6.357640 | 5.471462 | 5.060488 | 3.349230  | 4.107906  | 3.331169  | 3.453055  |
| ## |           | SLC26A7  | SNX18    | FBX039   | B3GNT6    | DENND1B   | ZNF619    | CILK1     |
| ## | GSM875412 | 3.255701 | 4.059177 | 4.101107 | 4.676474  | 3.876609  | 5.277920  | 3.045665  |
| ## | GSM875413 | 3.109083 | 4.116621 | 4.082382 | 4.943099  | 3.526093  | 5.487240  | 3.019032  |
| ## | GSM875414 | 3.333077 | 4.249780 | 4.057987 | 5.770664  | 3.651549  | 5.249813  | 3.032069  |
| ## |           | GARIN2   | BCL2L14  | HS6ST3   | SLC26A1   | CLDN15    | RAB42     | PTCHD1    |
| ## | GSM875412 | 3.672553 | 3.402982 | 3.818288 | 3.653481  | 7.339015  | 6.247046  | 3.785312  |
| ## | GSM875413 | 3.686528 | 3.486563 | 4.144197 | 4.076489  | 5.499547  | 5.227790  | 3.674688  |
| ## | GSM875414 | 3.704819 | 3.740556 | 4.368240 | 4.578736  | 5.189179  | 5.925229  | 3.557015  |
| ## |           | M1AP     | ZSCAN4   | VWA5B1   | LINC00311 | HTR6      | MAGEB6    | RUSC1-AS1 |
| ## | GSM875412 | 3.502885 | 3.338144 | 3.792449 | 3.747667  | 3.885345  | 3.073804  | 4.879655  |
| ## | GSM875413 | 3.627683 | 3.367208 | 4.261741 | 4.161407  | 4.108218  | 3.071835  | 4.462489  |

```

## GSM875414 3.750788 3.495402 5.377813 4.406017 4.384198 3.033908 4.945934
## CACNG6 LMNTD1 CIRBP-AS1 AXDND1 ASMTL-AS1 CD200R1 LINC00334
## GSM875412 6.192641 4.858297 5.344013 8.133851 4.586707 3.425448 3.649051
## GSM875413 6.341317 4.885136 5.172372 3.904095 5.348569 3.419637 3.526945
## GSM875414 6.156492 5.022510 5.696905 3.915820 6.523130 3.969120 3.441266
## ATOH7 SEC16B AMER1 NKX6-3 TBATA EXOC3L2 CABP4
## GSM875412 3.148903 7.010714 4.295070 4.925076 4.620940 7.208654 3.928167
## GSM875413 3.280405 4.203577 4.143111 5.456298 4.652834 7.499202 4.187252
## GSM875414 3.249295 4.307941 4.149241 5.675512 5.066001 7.884072 4.889703
## TNFRSF13C CAMK2N2 ANKRD30BP2 KCNG3 LINC01312 FOXP2 B4GALNT2
## GSM875412 5.559994 4.391207 3.652042 3.894628 3.251434 4.144573 3.858016
## GSM875413 5.514605 4.932817 3.557676 3.467629 3.335067 6.235137 4.101130
## GSM875414 6.005613 4.963706 3.610911 3.324753 3.132269 4.732559 4.438762
## FMR1NB GCSAML SIGLEC11 IL23R MAGEB18 CD276 IFNL2
## GSM875412 3.148080 3.437737 3.580069 3.157006 3.152143 5.072056 3.964919
## GSM875413 3.405694 3.556083 3.587939 3.594308 2.993231 5.003102 4.093058
## GSM875414 3.310478 3.925636 3.629103 3.743708 3.106011 5.733207 4.404092
## IFNL1 C4orf36 FIGNL1 RIMS1 PITPNM2 PCDH10 TAB3
## GSM875412 4.089516 3.817136 6.189417 3.148903 4.095021 3.934397 4.173320
## GSM875413 4.546857 3.614694 5.158022 3.361043 3.908857 4.105607 3.533540
## GSM875414 5.416431 4.218760 5.643118 3.274152 4.131482 3.724913 3.725485
## GRK7 MMEL1 PDE8A NLRP6 AKNAD1 RTL3 ATRIP
## GSM875412 3.438181 6.363001 6.704343 3.895913 3.233616 5.168437 4.909547
## GSM875413 3.596229 6.350943 6.499665 4.044052 3.564061 5.102050 5.273720
## GSM875414 3.316726 6.986888 6.881982 4.459376 3.223408 5.053458 5.142299
## ZIC5 ANGPT1 TEDDM1 TRIM67-AS1 GABRG1 PANX2 ZNF114
## GSM875412 4.429234 3.134310 3.321262 4.304172 3.237944 7.495819 3.596448
## GSM875413 4.030357 3.143959 3.414078 4.679392 3.351906 7.751662 3.551631
## GSM875414 4.762810 3.122009 3.450128 5.001804 3.288009 8.524110 3.723894
## CCDC27 CFAP161 RBMY2FP NEUROD2 LINC02899 LINC00208 DNAH6
## GSM875412 4.404313 3.245196 3.463071 4.705121 3.568778 4.021677 3.744179
## GSM875413 4.546124 3.464521 3.313161 4.631028 3.462237 4.180235 3.528712
## GSM875414 4.771101 3.267331 3.315702 4.491805 4.057560 4.576293 3.809542
## LRRC15 CFAP46 B3GNT7 CBL2 ZMYM6 SGCZ LINC02551
## GSM875412 4.300121 4.814442 4.464585 4.026635 4.386200 3.426533 2.989421
## GSM875413 4.455204 4.732765 4.385168 3.895716 3.702422 3.862989 3.199179
## GSM875414 4.563727 4.942617 4.743127 4.356541 4.345466 3.892696 3.275366
## WNT9B DNAJB13 CNPY3 SCAMP1 LINC00471 HAS3 FGF4
## GSM875412 4.208409 4.525614 7.384448 8.044031 3.300157 4.351182 4.198681
## GSM875413 4.496841 4.770325 7.134990 7.120671 3.426460 4.023968 3.932568
## GSM875414 4.649864 4.775424 7.401162 7.484529 3.176136 4.222384 4.226684
## SLC30A8 LOC439933 C11orf65 GARIN5B OR5P2 DYDC1 IL27
## GSM875412 4.081005 3.145145 3.310767 3.620155 3.677619 3.247707 5.480428
## GSM875413 4.042396 3.049471 3.401619 3.567312 3.606723 3.290279 5.954365
## GSM875414 4.313112 3.000506 3.641319 4.087785 3.454571 3.603777 6.246132
## IQCF1 DEFB125 WFDC10B PKHD1 PKD1L1 ADGRG4 TENM1
## GSM875412 4.623116 3.534013 3.485944 3.812971 3.801458 3.589620 3.621407
## GSM875413 4.549506 3.417104 3.449832 3.776206 3.742595 3.767905 3.949334
## GSM875414 4.856662 4.095314 3.702408 3.716591 4.476037 3.844173 3.946317
## REXO1L1P CNTNAP5 RECQL4 ADGRF3 TMC2 SMCR5 BICD2
## GSM875412 3.585174 3.584046 6.529365 4.514870 5.363904 3.832426 4.494868
## GSM875413 4.018020 3.899327 6.302687 4.406772 5.475760 4.045178 4.744295
## GSM875414 4.005973 3.574421 6.711878 4.682113 5.464270 4.732499 4.773187
## ZIM3 NOX5 DAOA-AS1 ADGRG6 KLHL4 GPR156 SUOX

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## GSM875412 3.197946 4.051181 3.251434 3.580069 4.246256 3.765816 4.879912  
 ## GSM875413 3.239416 4.124902 3.214125 3.736946 4.325692 3.870856 6.196502  
 ## GSM875414 3.234304 4.146107 3.141131 3.788817 4.270628 4.022344 5.163510  
 ## ADGRF4 IL31RA SYTL5 SDCCAG8 ADGRF2 SYN2 ASB10  
 ## GSM875412 4.541482 3.858425 3.744384 4.412343 3.454753 3.528356 6.140987  
 ## GSM875413 3.707366 4.026031 3.704921 4.586342 3.445906 4.096582 6.278328  
 ## GSM875414 4.420059 4.102499 3.767103 4.755786 3.397836 4.522530 6.174353  
 ## HTR3C NFKBID CD300LF GJA10 WNT9A GAL3ST2 PIP4K2B  
 ## GSM875412 4.081005 4.507128 6.325298 4.310758 4.114034 5.490456 5.322795  
 ## GSM875413 4.471545 5.517280 5.980329 4.086368 4.077682 5.419203 5.652452  
 ## GSM875414 5.021157 5.455407 7.443067 4.392036 4.238725 5.826462 5.767312  
 ## ODF3 WFDC13 CCDC197 SLFN5 SERPINB12 GIPC3 PGLYRP3  
 ## GSM875412 3.921447 3.503583 3.974181 4.876007 4.340927 4.178796 3.409474  
 ## GSM875413 4.412499 3.369862 4.084160 4.301241 4.192964 4.255661 3.695406  
 ## GSM875414 4.820717 3.576513 4.601714 4.297860 4.493804 4.926179 3.942062  
 ## PSKH2 OR6W1P MOGAT1 GPR78 H1-8 TAAR9 GNRHR2  
 ## GSM875412 4.119899 4.206839 4.551552 4.612334 4.659507 3.852889 3.933804  
 ## GSM875413 4.332438 4.086645 4.073532 4.892035 5.183838 3.785205 3.901205  
 ## GSM875414 4.439537 4.509333 4.566503 5.738468 5.388342 3.971791 3.932764  
 ## MYOZ3 BNIPL ASB11 OFCC1 SDR9C7 OR5P3 TRIM40  
 ## GSM875412 3.724489 3.861621 3.706025 3.188528 3.502980 3.760280 3.683383  
 ## GSM875413 4.473325 4.002332 3.949776 3.115184 3.773623 3.708940 3.999157  
 ## GSM875414 4.848303 3.785681 4.417776 3.145237 3.960268 3.672232 5.000945  
 ## CSN1S2AP WFDC12 CRYGN STARD6 C11orf40 ZBTB7C-AS2 BCL2L11  
 ## GSM875412 3.437130 5.803414 4.478110 3.352911 3.381406 3.708215 5.741171  
 ## GSM875413 3.298789 5.554966 4.588564 3.478487 3.438796 3.872460 5.491120  
 ## GSM875414 3.466418 5.631536 4.874491 3.396010 3.473450 3.932759 5.987672  
 ## DEFB119 TAC4 TIGD1 ALKBH5 CCDC69 NFX1 DSG2  
 ## GSM875412 3.599807 4.366838 5.728698 7.368263 4.530069 7.600990 10.673419  
 ## GSM875413 3.540310 4.435891 5.073043 8.159242 8.348427 7.476035 4.111391  
 ## GSM875414 4.076155 5.421578 6.188026 7.244917 4.840232 7.720106 8.040639  
 ## C5orf24 KBTBD6 CDK8 PTK6 NKD1 STK38 THEM4  
 ## GSM875412 5.344013 4.742666 7.757269 7.713788 5.881848 8.192958 7.568457  
 ## GSM875413 3.833456 4.866745 6.808467 6.277375 6.322278 6.197706 6.799931  
 ## GSM875414 4.171716 5.031373 7.043635 7.812653 7.096997 8.005665 6.376918  
 ## CLSPN RBAK WDR62 SLC39A12 RNF168 SVEP1 LOC652276  
 ## GSM875412 3.697800 4.521218 3.726737 3.114896 3.460208 3.392075 5.676344  
 ## GSM875413 3.303607 3.492203 4.166855 3.288049 3.606764 3.294292 6.158825  
 ## GSM875414 3.495268 3.593084 5.147209 3.169653 3.698076 3.521362 6.989239  
 ## GATA4 TC2N C9orf72 KCTD18 KLF11 ANKLE1 PLXNA3  
 ## GSM875412 6.442080 7.390214 5.889724 5.660789 4.027481 3.766620 4.817360  
 ## GSM875413 4.673162 4.976192 5.168700 5.427216 4.152160 3.917460 5.191637  
 ## GSM875414 5.343301 9.270028 4.588977 5.600275 5.468365 4.288202 6.203159  
 ## PELO LACC1 TAPT1-AS1 TEX55 RANBP3L SNX13 KDM1B  
 ## GSM875412 3.439694 5.294243 4.733361 3.466211 3.385985 6.291485 3.938013  
 ## GSM875413 3.844201 3.905356 7.075884 3.596250 3.095669 5.937167 3.142366  
 ## GSM875414 4.105783 4.692941 5.501949 3.807625 3.309523 5.117488 3.777978  
 ## ATP6VOD2 LHX4 CEP19 DNAH11 PROSER3 ADPRHL1 SYNRG  
 ## GSM875412 3.816446 4.921794 5.042389 4.883992 5.293851 4.709217 4.832310  
 ## GSM875413 3.479189 4.783675 5.698983 6.241212 5.429720 5.417929 5.406193  
 ## GSM875414 4.050277 5.171772 5.662097 5.408845 6.075348 4.973501 5.026886  
 ## CDH24 SEPSECS GRIK5 LRRN4 ZNF777 JPH2 PDE5A  
 ## GSM875412 4.970547 5.176472 4.319760 4.415994 6.381812 5.443984 5.022494  
 ## GSM875413 4.927932 3.683646 4.406366 4.774153 6.537886 5.869689 4.011849

|    |           |           |          |          |            |          |          |             |
|----|-----------|-----------|----------|----------|------------|----------|----------|-------------|
| ## | GSM875414 | 5.434589  | 4.253401 | 4.302289 | 4.913775   | 6.363466 | 5.861820 | 4.576135    |
| ## |           | SH2D1B    | SSTR3    | ADAMTS19 | DDX31      | UMODL1   | RASEF    | PARD3B      |
| ## | GSM875412 | 3.662464  | 5.952686 | 3.883519 | 4.641017   | 3.184173 | 9.745302 | 4.545516    |
| ## | GSM875413 | 3.637663  | 6.112373 | 3.742625 | 4.461819   | 3.120533 | 8.131001 | 4.498291    |
| ## | GSM875414 | 3.731717  | 6.378416 | 4.518616 | 4.475636   | 3.349446 | 9.276478 | 4.736847    |
| ## |           | DST       | ZNF441   | NEGR1    | FCRL3      | DCAF4L2  | STOX1    | CRMA        |
| ## | GSM875412 | 3.444199  | 3.487954 | 3.831339 | 4.202832   | 3.375354 | 3.687945 | 4.552455    |
| ## | GSM875413 | 3.434546  | 3.429002 | 3.945735 | 4.149229   | 3.305066 | 3.820916 | 4.851088    |
| ## | GSM875414 | 3.341913  | 3.292680 | 4.076097 | 4.466754   | 3.260929 | 3.613344 | 4.907393    |
| ## |           | ARL10     | RNFT2    | ANKFN1   | KRT78      | CCDC7    | ZNF41    | ZNF512      |
| ## | GSM875412 | 4.881750  | 4.183613 | 3.922721 | 4.483122   | 3.280965 | 3.893852 | 7.494382    |
| ## | GSM875413 | 4.888286  | 4.319045 | 3.588902 | 4.455989   | 3.394028 | 4.090287 | 8.037112    |
| ## | GSM875414 | 5.520019  | 4.683280 | 3.929841 | 4.439567   | 3.320909 | 4.500971 | 6.938334    |
| ## |           | AMMECR1   | FAM117B  | ZNF583   | OXER1      | LUZP1    | ZNF75D   | LINC00052   |
| ## | GSM875412 | 4.492559  | 4.808752 | 4.645671 | 7.447770   | 4.034384 | 5.110912 | 3.928162    |
| ## | GSM875413 | 3.866030  | 3.621637 | 4.695589 | 7.570972   | 3.588339 | 5.988433 | 3.890837    |
| ## | GSM875414 | 4.412177  | 4.208633 | 4.572817 | 8.082293   | 3.483262 | 5.323994 | 4.123869    |
| ## |           | BRWD1     | CCDC89   | ZNF572   | RMDN2      | ADAMTS18 | PCDHAC1  | HIPK4       |
| ## | GSM875412 | 5.198255  | 3.198444 | 3.695107 | 4.239893   | 4.054220 | 4.301832 | 6.317646    |
| ## | GSM875413 | 4.693142  | 4.186642 | 3.967246 | 4.391957   | 4.258416 | 4.485203 | 6.278093    |
| ## | GSM875414 | 5.377339  | 3.361160 | 4.063374 | 4.474920   | 5.101613 | 4.359141 | 6.674511    |
| ## |           | FAM124A   | NKAIN3   | ITIH5    | FANCB      | POMK     | ZNF709   | CCDC57      |
| ## | GSM875412 | 4.926495  | 3.698776 | 5.271290 | 3.542558   | 5.086525 | 3.259572 | 5.364998    |
| ## | GSM875413 | 5.062000  | 3.638460 | 6.042425 | 3.433806   | 4.640064 | 3.555466 | 5.510123    |
| ## | GSM875414 | 5.333582  | 3.861483 | 4.970535 | 3.527691   | 4.952268 | 3.274669 | 6.175126    |
| ## |           | SMC1B     | BRWD3    | ASB16    | MAGEE2     | ERVV-1   | GAL3ST3  | FLJ30679    |
| ## | GSM875412 | 3.808255  | 5.638548 | 5.949987 | 3.355649   | 3.585833 | 4.918826 | 4.327680    |
| ## | GSM875413 | 3.725614  | 4.827801 | 6.107088 | 3.797738   | 3.620153 | 5.073452 | 4.415134    |
| ## | GSM875414 | 4.287562  | 4.889745 | 6.361945 | 3.411203   | 3.973299 | 5.324542 | 4.868163    |
| ## |           | C2CD6     | UTS2R    | USH1G    | SYN1       | SLC23A3  | CNOT6L   | RHBDL3      |
| ## | GSM875412 | 3.195224  | 6.952759 | 5.929905 | 5.840806   | 3.753765 | 3.107535 | 4.012346    |
| ## | GSM875413 | 3.160975  | 6.993145 | 6.185061 | 6.790641   | 3.786299 | 3.263503 | 4.017954    |
| ## | GSM875414 | 3.155333  | 6.954748 | 6.894850 | 7.587076   | 3.956890 | 3.327088 | 4.347462    |
| ## |           | ZNF718    | DIP2B    | SLC36A1  | SNRNP48    | ANKRD52  | ZNF560   | RTTN        |
| ## | GSM875412 | 3.453914  | 3.718739 | 4.862460 | 6.971544   | 4.301008 | 3.175540 | 3.300879    |
| ## | GSM875413 | 3.789954  | 3.425117 | 5.277203 | 5.530115   | 5.205528 | 3.212338 | 3.092483    |
| ## | GSM875414 | 4.022894  | 3.496357 | 5.598311 | 5.973451   | 3.646156 | 3.077796 | 3.230241    |
| ## |           | BTNL9     | PUS10    | PLCXD2   | UMODL1-AS1 | LMLN     | RAD9B    | ZNF555      |
| ## | GSM875412 | 5.963780  | 5.007706 | 4.606784 | 3.769532   | 3.910573 | 3.506772 | 5.552946    |
| ## | GSM875413 | 5.510604  | 4.981111 | 4.895000 | 3.968977   | 3.958828 | 3.482569 | 5.041046    |
| ## | GSM875414 | 5.604027  | 5.438157 | 4.653382 | 4.388619   | 4.435815 | 3.446723 | 5.272270    |
| ## |           | NYAP1     | RSKR     | MRGPRX3  | ABCA13     | ADGRG7   | CSF3R    | CD300LD-AS1 |
| ## | GSM875412 | 4.045743  | 6.840660 | 3.617420 | 3.189754   | 9.118252 | 6.675314 | 3.242830    |
| ## | GSM875413 | 4.236234  | 4.981373 | 3.841779 | 3.143314   | 4.060516 | 7.552592 | 3.134219    |
| ## | GSM875414 | 4.347384  | 4.563603 | 3.683112 | 3.221155   | 4.313836 | 6.946417 | 3.343730    |
| ## |           | DUSP5P1   | DGKH     | TMEM182  | C16orf46   | LSM14B   | CASP8    | PLB1        |
| ## | GSM875412 | 3.295407  | 4.924129 | 3.554520 | 4.271111   | 4.538872 | 4.238021 | 3.413635    |
| ## | GSM875413 | 3.160956  | 3.740290 | 3.331759 | 4.463759   | 4.513035 | 3.985259 | 3.622152    |
| ## | GSM875414 | 3.376309  | 3.754326 | 3.497005 | 4.699256   | 5.745761 | 4.473026 | 4.033565    |
| ## |           | LINC02910 | SLC5A3   | KIF19    | SLFNL1     | GPR82    | RIBC1    | OXGR1       |
| ## | GSM875412 | 3.215764  | 4.257936 | 3.658653 | 3.591041   | 4.010029 | 3.818201 | 3.543042    |
| ## | GSM875413 | 3.019814  | 4.077997 | 3.709633 | 3.530688   | 3.793673 | 4.668958 | 3.651032    |
| ## | GSM875414 | 3.052124  | 4.373499 | 4.223900 | 3.547200   | 3.872547 | 4.201695 | 3.661643    |
| ## |           | CDC14C    | SULT1C4  | TEAD1    | CATSPER2   | POU5F2   | RXFP2    | BEND7       |

|    |            |              |             |           |           |           |          |          |
|----|------------|--------------|-------------|-----------|-----------|-----------|----------|----------|
| ## | GSM875412  | 3.229400     | 3.993056    | 4.254541  | 4.466889  | 3.775313  | 3.420888 | 3.928970 |
| ## | GSM875413  | 3.172095     | 4.533539    | 3.492203  | 4.752850  | 3.871378  | 3.516402 | 3.760565 |
| ## | GSM875414  | 3.106843     | 3.681703    | 3.792707  | 4.300925  | 3.994019  | 3.328803 | 4.113906 |
| ## | SLC18A2    | SSMEM1       | MAB21L3     | BASP1-AS1 | MIER3     | SDE2      | UROC1    |          |
| ## | GSM875412  | 4.621846     | 3.361546    | 3.217134  | 3.467879  | 4.864475  | 5.830306 | 3.863001 |
| ## | GSM875413  | 4.254344     | 3.330348    | 3.167800  | 3.709633  | 3.698495  | 4.419286 | 3.859529 |
| ## | GSM875414  | 4.849715     | 3.559641    | 3.368463  | 4.424006  | 4.083323  | 6.424134 | 3.894923 |
| ## | PCDH15     | TNRC6A       | ARID2       | AMER3     | OTUD7A    | ERVW-1    | FGF13    |          |
| ## | GSM875412  | 3.164455     | 3.902526    | 6.498699  | 4.106254  | 4.142265  | 3.928267 | 3.438659 |
| ## | GSM875413  | 3.186501     | 3.704646    | 7.273015  | 4.589158  | 4.349349  | 3.953700 | 3.629150 |
| ## | GSM875414  | 3.157704     | 4.036301    | 5.171345  | 4.696200  | 4.164148  | 4.156746 | 3.426637 |
| ## | FBXL18     | LINC01600    | PNPLA1      | DEPDC4    | COX6B2    | NIBAN3    | EPHA10   |          |
| ## | GSM875412  | 6.794206     | 3.948977    | 3.850519  | 3.783213  | 5.653454  | 4.442792 | 3.920210 |
| ## | GSM875413  | 7.439245     | 4.296024    | 3.855872  | 3.587939  | 5.833571  | 4.681543 | 3.973771 |
| ## | GSM875414  | 7.666907     | 4.165697    | 3.996786  | 3.676612  | 6.290616  | 4.515252 | 3.705039 |
| ## | WDR64      | BTBD9        | HEATR9      | PARP15    | ARHGAP42  | LINC01101 | MFSD2A   |          |
| ## | GSM875412  | 3.795656     | 4.451178    | 3.311163  | 3.541536  | 3.302099  | 4.829833 | 4.475449 |
| ## | GSM875413  | 3.767412     | 4.043260    | 3.580955  | 3.148967  | 3.221079  | 5.046272 | 4.325203 |
| ## | GSM875414  | 3.850720     | 4.418764    | 3.601824  | 3.156358  | 3.587939  | 6.212824 | 4.277852 |
| ## | ATM        | CALHM4       | NPHP3       | ATG9B     | CXorf58   | TFAP2B    | CCDC13   |          |
| ## | GSM875412  | 4.585657     | 3.671745    | 4.313589  | 3.934046  | 3.393017  | 3.446912 | 5.948221 |
| ## | GSM875413  | 4.607001     | 3.709633    | 3.940936  | 4.475080  | 3.551567  | 3.793505 | 6.120821 |
| ## | GSM875414  | 4.486929     | 4.221715    | 4.814048  | 5.037185  | 3.477169  | 4.258457 | 7.674902 |
| ## | LINC02210  | MRGPRX1      | HFE         | RLN3      | CSMD1     | ADAMTS20  | SALL3    |          |
| ## | GSM875412  | 6.037971     | 3.397206    | 3.840551  | 4.186504  | 3.701899  | 3.371649 | 3.722289 |
| ## | GSM875413  | 6.387625     | 3.336002    | 3.565444  | 4.620973  | 3.953913  | 3.871161 | 3.942752 |
| ## | GSM875414  | 6.903582     | 3.376788    | 3.534124  | 4.544648  | 4.572353  | 3.688881 | 4.067223 |
| ## | AGBL4      | LCAL1        | SLC17A8     | LINC02873 | SATB2-AS1 | RBFOX1    | SLFN13   |          |
| ## | GSM875412  | 4.456453     | 3.978133    | 3.134094  | 3.772210  | 3.376256  | 4.306557 | 4.180527 |
| ## | GSM875413  | 4.715132     | 4.217874    | 3.113530  | 3.785773  | 3.329915  | 4.623459 | 3.713975 |
| ## | GSM875414  | 4.674571     | 4.501072    | 3.166442  | 3.910104  | 3.350950  | 5.301929 | 4.445966 |
| ## | C12orf40   | CFAP57       | C5orf64     | ADAMTS15  | LY86-AS1  | EDARADD   | CCDC171  |          |
| ## | GSM875412  | 3.564304     | 4.545915    | 3.473605  | 4.556043  | 3.697660  | 4.020832 | 3.171630 |
| ## | GSM875413  | 3.994995     | 4.538369    | 3.838754  | 4.949463  | 3.442606  | 4.062119 | 3.243226 |
| ## | GSM875414  | 4.370053     | 4.541706    | 3.762062  | 5.264239  | 3.482750  | 4.258457 | 3.455918 |
| ## | CYP4Z2P    | C18orf15     | MUC19       | KLHDC7A   | NDUFV1-DT | AQP4-AS1  | CNTNAP4  |          |
| ## | GSM875412  | 3.608514     | 4.034384    | 3.545864  | 4.236765  | 5.956775  | 3.120066 | 3.075239 |
| ## | GSM875413  | 3.326054     | 4.417764    | 4.245636  | 5.062966  | 5.807148  | 3.131025 | 3.046694 |
| ## | GSM875414  | 3.503119     | 4.662929    | 3.936730  | 4.893375  | 5.789461  | 3.239064 | 3.146738 |
| ## | FER1L6-AS1 | C1orf127     | CCDC162P    | AGBL1     | LINC02880 | LINC00304 | TERB1    |          |
| ## | GSM875412  | 3.840908     | 6.221856    | 3.770632  | 4.183128  | 3.467966  | 4.030877 | 3.677014 |
| ## | GSM875413  | 3.837954     | 6.160505    | 3.320575  | 4.062360  | 5.784831  | 4.029621 | 3.981837 |
| ## | GSM875414  | 4.077457     | 6.823504    | 3.477915  | 4.100399  | 3.540740  | 4.736146 | 4.665217 |
| ## | MYO1H      | ASB14        | RPTN        | LINC00269 | VSTM4     | CCDC150   | STPG4    |          |
| ## | GSM875412  | 3.892168     | 4.331069    | 3.457509  | 4.886796  | 4.171639  | 4.147595 | 4.239009 |
| ## | GSM875413  | 3.836483     | 4.158323    | 3.685541  | 5.223101  | 4.069688  | 3.920626 | 4.319389 |
| ## | GSM875414  | 4.144946     | 4.239702    | 3.611832  | 5.543537  | 4.395928  | 3.934176 | 4.632940 |
| ## | FAM9B      | FLJ40288     | CES5A       | CFAP47    | DCAF8L2   | DNAH17    | SLC35G3  |          |
| ## | GSM875412  | 3.379040     | 5.880512    | 3.587523  | 4.456804  | 3.631826  | 3.916466 | 3.446072 |
| ## | GSM875413  | 3.342729     | 5.826386    | 3.714123  | 4.272173  | 3.536177  | 4.019797 | 3.363745 |
| ## | GSM875414  | 3.357069     | 6.270520    | 3.707622  | 4.530104  | 3.589146  | 4.078383 | 3.638036 |
| ## | LINC01931  | LOC100288966 | KIRREL3-AS3 | TMEM145   | C15orf32  | TSGA10IP  |          |          |
| ## | GSM875412  | 3.737739     | 3.117696    | 3.832520  | 3.818108  | 3.308707  | 5.092247 |          |
| ## | GSM875413  | 3.734087     | 3.288906    | 3.891061  | 4.224395  | 3.413372  | 5.387580 |          |



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## GSM875414 3.786854 3.956427 3.758323 4.302882 3.618164 5.274186
## LINC00477 CCDC140 C17orf78 TEK5 KSR2 PAX1 TDH
## GSM875412 3.369535 3.989662 3.624768 4.714678 4.241966 3.993056 3.701753
## GSM875413 3.310008 4.264957 3.832175 4.604210 4.259109 4.374780 4.083017
## GSM875414 3.200081 5.442697 3.664213 4.948412 4.713089 4.872741 4.005511
## LINC00615 SERPINA9 FBXL21P PALM2AKAP2 MRGPRX4 A2ML1 CPO
## GSM875412 3.347794 6.219507 3.616286 3.754181 3.823883 4.024862 4.178251
## GSM875413 3.125067 6.354727 4.140755 4.025362 3.837649 4.166045 4.294371
## GSM875414 3.372035 6.495810 4.250727 4.688659 4.032565 4.186956 4.704001
## GPR6 MDS2 CNOT9 GJD3 HOXC12 VNN3P COPS9
## GSM875412 4.423663 3.509280 7.524382 4.600850 3.897247 3.477047 3.792511
## GSM875413 4.350098 3.521556 6.436439 4.645228 4.206670 3.507195 3.905273
## GSM875414 4.496801 3.552928 6.723276 4.883289 5.646755 3.632132 3.802815
## FERD3L LINC00314 NLRP14 DGKB NLRP13 NLRP8 NLRP9
## GSM875412 3.813515 3.115928 4.459173 3.364356 4.551045 4.813698 4.207415
## GSM875413 4.618894 3.347571 4.463626 3.605855 4.667516 4.655181 4.197199
## GSM875414 5.383411 3.521646 4.539622 3.483677 5.520334 5.138145 4.820135
## TAF5 TAS1R2 PCSK6 ZNF341 JPH1 NLRP10 RANGAP1
## GSM875412 5.422236 3.593654 4.071778 5.032780 3.984514 3.648953 7.699757
## GSM875413 5.109669 3.503633 4.233037 5.501949 4.041488 3.559699 7.151855
## GSM875414 5.806442 3.713109 4.440301 5.865158 4.087633 3.581602 7.760406
## MBNL2 KRT73 COX1 KRT74 SLC29A2 LMX1A CCDC125
## GSM875412 4.659977 3.816418 14.01685 4.295819 6.015862 3.778179 5.336770
## GSM875413 3.898705 3.967558 14.09245 4.576167 5.006438 3.875529 5.271466
## GSM875414 3.928016 4.335449 13.98808 5.480062 5.827939 4.311946 4.488363
## GPR101 ILDR1 RBM26 VN1R2 VN1R5 ND2 TAAR8
## GSM875412 4.709063 4.708691 3.635186 3.635892 3.764892 13.94651 4.290379
## GSM875413 4.449390 4.766555 3.406113 3.740981 3.635960 13.66702 4.204270
## GSM875414 4.403182 5.087825 3.336395 3.841067 3.986952 13.30990 4.299845
## TAS2R39 TAS2R38 TAS2R40 TAS2R41 TMEM171 VN1R4 TAS2R50
## GSM875412 3.760021 3.798042 3.255692 3.948498 5.102295 3.700990 3.597650
## GSM875413 3.770579 4.009826 3.173305 4.034872 3.964294 3.635036 3.409726
## GSM875414 3.606321 4.170730 3.366214 4.129184 4.655456 3.826853 3.434179
## CD8B MACROD2 DDAH1 PIANP ATP6 H1-6 COX2
## GSM875412 4.438506 4.059211 6.263401 4.998837 14.43361 4.205243 14.25928
## GSM875413 4.624694 4.064155 4.565739 5.380686 14.15048 3.895716 14.10001
## GSM875414 5.536272 4.142524 7.312948 5.418504 13.92720 4.235811 13.72228
## CYGB EFNA2 IFNE ND6 SREK1IP1 THRSP DIPK2B
## GSM875412 6.087646 3.929158 3.888996 8.425173 7.296268 5.513082 4.678716
## GSM875413 6.095457 4.090391 3.539395 7.164364 7.889114 5.625688 5.049710
## GSM875414 7.126826 4.255429 3.676049 7.535542 7.227281 6.441099 5.540662
## FBXL19-AS1 POLE4 PDZK1IP1 BCRP3 TAL2 INSL3 SYCP3
## GSM875412 4.359244 7.691267 10.714314 4.502661 4.125728 4.621587 3.057244
## GSM875413 4.521687 7.597343 5.119623 4.689536 4.514436 4.504599 3.262329
## GSM875414 4.975035 6.663913 8.595150 5.170782 4.522922 4.892746 3.047219
## TMIE MUCL1 ATL2 LINC00189 KLHL35 ZNF354B FOXC1
## GSM875412 4.492098 4.517647 6.789286 3.336426 5.051842 4.727952 5.736493
## GSM875413 4.672296 4.358577 4.368525 3.858338 4.959903 5.145565 4.327975
## GSM875414 4.787554 4.540004 4.429159 3.523043 7.556731 4.431439 4.844375
## TRIM42 FSIP1 FAM98B EFCAB13 GARIN3 CABCO01 SLC9B1
## GSM875412 3.251434 3.316501 3.008437 3.993056 4.248692 3.304604 4.305521
## GSM875413 3.417959 3.918076 3.154900 3.959019 4.549196 3.824488 4.623974
## GSM875414 3.552030 3.727803 3.032426 4.756543 4.603012 3.696962 4.418668
## WEE2-AS1 DYNLT5 TMC05A PPARGC1B XKR6 TSGA13 C9orf163

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## GSM875412 3.929830 3.796312 3.236405 6.071154 4.254827 3.997749 5.881593
## GSM875413 4.260754 4.017747 3.057005 5.529920 5.147879 4.790101 5.784811
## GSM875414 4.164780 3.827087 3.072991 4.665616 4.632525 5.439481 6.051172
##          SYNE3  CCDC141      HDX      CDYL2  C18orf54      SYT14    CDC20B
## GSM875412 4.500383 3.254780 3.340277 5.547251 3.206590 3.338921 3.538587
## GSM875413 4.241022 3.335762 3.678925 5.440126 3.327362 3.125375 3.615841
## GSM875414 4.643424 3.284690 3.304656 5.658590 3.288904 3.263664 3.592927
##          TECTB   VWA3A  LINC00896    HUS1B      NPB    CCDC34    LRCH3
## GSM875412 5.468546 5.908376 4.310524 4.514385 6.627891 3.560176 5.711541
## GSM875413 5.644603 6.244166 4.595714 4.645120 6.550026 3.605417 5.144873
## GSM875414 6.059600 6.923770 4.953490 5.089816 7.081721 3.369314 5.232194
##          INTS4     ENAH    STK35    LRRIQ3    KLC4    TIPRL    ITGB1
## GSM875412 3.908114 4.486059 4.073393 3.401466 4.087642 7.641181 11.06065
## GSM875413 3.642997 3.786299 3.714516 3.726416 3.956128 6.496371 10.22002
## GSM875414 3.813158 3.918604 4.126501 3.346759 4.116774 6.001518 10.19283
##          VKORC1L1    PRF1    FBXL14    PPIL6      SP1  C18orf25    METTL6
## GSM875412 5.587561 6.076561 3.618176 3.931583 6.677882 4.447540 4.608278
## GSM875413 3.768124 5.391448 3.985525 4.115980 4.410046 4.317009 4.253875
## GSM875414 3.708845 6.421447 3.412068 3.738048 6.591706 4.234770 4.793401
##          SG01  B3GALNT2      CBR4  PIK3C2A    NLRX1    ZNF569    CCSAP
## GSM875412 4.812581 5.192878 7.782037 8.309597 5.532192 3.611598 3.536739
## GSM875413 4.202363 3.564061 6.083376 5.394720 5.421578 4.680733 3.179846
## GSM875414 4.104526 3.914366 6.250175 7.913930 5.740562 3.590753 3.260194
##          DUSP18    ZNF697    ZNF791    CHRM3    HTRA4  LINC00525  PRPF38A
## GSM875412 6.809014 4.857633 8.198208 7.119122 4.861455 3.664270 8.455637
## GSM875413 6.652338 4.766472 8.906650 5.226557 4.047832 3.327302 7.856768
## GSM875414 6.765455 5.819000 8.032854 6.026528 4.529213 3.538095 8.695846
##          FAM218A    RHEBL1    KCTD7    ZNF548    AMER2    RNF152    ADGRG3
## GSM875412 3.378289 5.610531 5.592365 7.634671 4.382486 3.306106 3.930096
## GSM875413 3.748515 5.733227 6.281567 7.847674 4.965718 3.345206 4.357131
## GSM875414 3.788893 6.028248 5.405034 7.919761 5.187072 3.332726 4.159057
##          ZNF644    TBC1D32  B4GALNT3  LRRC43    CEP89      AK7    ZFC3H1
## GSM875412 6.405089 3.882314 5.709253 6.789016 4.597046 4.273760 3.522614
## GSM875413 4.488550 3.587939 4.871873 6.508158 5.935750 4.307951 3.159785
## GSM875414 5.629050 3.387713 5.259348 7.141440 5.422660 4.713398 3.540588
##          IRAK2    ICMT-DT  METTL21A  OTOGL  MGC16025  FAM76B    SPATA25
## GSM875412 3.242956 3.654585 5.142124 3.537826 3.580925 5.801486 4.676494
## GSM875413 3.387904 4.199745 5.420474 3.612063 3.799232 4.209184 5.260204
## GSM875414 3.314526 4.521536 5.064412 3.279624 3.678132 3.995999 6.231282
##          NXNL1    GLIS3-AS1  IQCG      MCM9    PRR14L    AJUBA    KLHL32
## GSM875412 5.859469 3.982565 3.873864 3.439592 4.165938 5.309488 3.135727
## GSM875413 6.039827 4.639779 4.028566 3.560288 4.352296 5.514812 3.075176
## GSM875414 6.425818 4.580287 4.213284 3.496357 4.565226 8.042400 3.088756
##          DCBLD1    SLAMF9      GK5  GOLGA4-AS1  UBE2U  METTL27  LINC00638
## GSM875412 6.746791 4.232402 3.840911 4.584699 3.289202 5.555835 4.796780
## GSM875413 5.014633 3.940785 3.582492 4.816264 3.218076 5.682551 4.891696
## GSM875414 6.923912 4.228706 3.833225 4.568724 3.334287 5.746404 5.589719
##          ZC3HAV1L  RASGEF1B  KCNJ5-AS1  C21orf58  BLTP1    STOML3    SILC1
## GSM875412 3.233454 3.694646 3.817252 4.165262 3.122704 3.649457 3.917085
## GSM875413 3.041708 3.767041 4.324278 4.119492 3.166782 3.631734 3.818218
## GSM875414 2.968561 3.746982 4.346323 4.434293 2.986187 3.594406 3.907335
##          FBXL13    FAM227B    DTD2      SOX3    SPATA32  C3orf49  NKX2-3
## GSM875412 3.864650 3.301075 4.362421 4.081005 6.832223 3.716083 3.418205
## GSM875413 3.619257 3.436846 4.012017 4.757673 6.843514 3.902384 3.624276

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## GSM875414 3.746800 3.520495 4.126973 4.951362 7.320873 4.241198 4.096301
##          TMEM252    CIP2A FAM222A-AS1    TLE6    TCEANC    HECTD4    RTP1
## GSM875412 4.346435 3.482929    3.533146 4.521459 4.011882 3.967959 3.281474
## GSM875413 4.382688 3.237851    3.706776 5.276355 5.584102 3.881498 3.383553
## GSM875414 5.353522 3.126428    4.472903 5.218015 4.081416 4.081416 3.483897
##          PRR35     NXPE1 CYP1B1-AS1 APOBEC3D LINC00315    COL6A5    PGAM5
## GSM875412 6.075996 4.466286    3.484865 4.921794 6.325713 3.409364 4.320904
## GSM875413 6.201558 4.133064    4.233037 4.896169 6.264350 3.220039 4.416035
## GSM875414 6.674807 4.361512    3.585984 5.328501 6.138322 3.376154 4.359175
##          C4orf45    CCDC149    BEND2 C10orf67    CBY2    CCDC26 B3GALT5-AS1
## GSM875412 3.573562 5.671832 3.513273 5.659347 4.409065 3.328784    3.833647
## GSM875413 3.836648 5.713070 3.419241 5.740470 5.191637 3.219092    3.850182
## GSM875414 4.025211 5.879630 3.566000 5.744454 5.115445 3.268601    3.876838
##          SPIC     VPS13B    P2RY10    IGSF22    ZBTB3    TPH1    DCST1
## GSM875412 3.528972 4.975265 5.482864 5.579224 5.412673 4.000377 4.725674
## GSM875413 3.327844 3.722419 4.437362 5.176940 5.991328 3.692799 4.953066
## GSM875414 3.327570 4.265007 5.489949 6.339896 4.957281 4.134119 5.321116
##          TCP11L2    WDFY4    GPR26 KIAA0825    SESN3 CSNK1G2-AS1    NATD1
## GSM875412 3.625389 4.561338 3.122997 3.011150 3.415946    5.150249 5.103250
## GSM875413 3.730738 4.538851 3.401043 3.044395 3.265988    5.306393 5.373546
## GSM875414 3.830934 4.612337 4.000705 2.999597 3.359439    5.474068 5.738441
##          KLHL34    ZSCAN10    SAMD3    GOT1L1 LINC02870    RBM48 LINC00504
## GSM875412 3.233647 4.240694 3.389837 3.613197 4.874631 3.593865    3.356965
## GSM875413 3.240152 4.547959 3.333499 3.601369 5.209596 3.836648    3.487044
## GSM875414 3.634518 5.110088 3.629392 3.588374 6.539637 3.836472    4.255321
##          ZNF99     CFAP65 SIGLECL1 LDHAL6A MRGPRX2    NTN5    KLF17
## GSM875412 3.043969 3.218632 3.587982 4.389714 4.038330 5.184195 4.253997
## GSM875413 3.268206 3.181838 3.619889 4.140799 3.775367 5.575537 4.083844
## GSM875414 2.995751 3.136542 3.763682 4.008817 3.941010 5.516412 4.505072
##          CCDC105    CCDC122 C11orf42 DKFZp434L192    ZNF486    FGD2    EXD1
## GSM875412 4.996455 3.822214 4.377819    3.251362 4.096454 8.609330 3.482328
## GSM875413 5.082784 3.307261 4.678040    3.692830 4.086645 8.464290 3.352942
## GSM875414 5.736546 3.376154 5.007669    3.606614 4.528582 8.600874 3.383636
##          SLF2     NBPF4    ZNF663P LINC00955 LOC162137 C10orf126    PIKFYVE
## GSM875412 6.110616 4.069216 3.431191    3.423580 4.171126    3.076669 4.560774
## GSM875413 6.424300 3.924631 3.634806    3.597036 4.145644    3.107621 4.320496
## GSM875414 5.827939 4.319372 4.125876    3.257231 4.468202    3.369530 4.392378
##          LINC00479 LINC02907    SHOC1 SLC22A24    FM09P C7orf33    ELMOD2
## GSM875412 4.661086 4.638241 3.282375 3.881926 3.467543 3.935585 6.285788
## GSM875413 4.966463 4.480675 3.280548 3.659767 3.650503 3.936257 5.345639
## GSM875414 5.656922 4.521896 3.386307 3.866030 3.979653 3.945210 6.209617
##          ACER1     TAAR1    OSTCP1 LINC00305 BFSP2-AS1    STK32A    LRRC28
## GSM875412 4.016116 3.239602 3.438825    3.209621 3.445676 3.414222 4.554387
## GSM875413 4.504599 3.201896 3.443681    3.384150 3.392387 3.781713 3.922551
## GSM875414 5.009710 3.238350 3.626633    3.463580 3.513574 3.885795 4.334390
##          GATD1-DT    MIA2     GPHB5     DCD    EXOSC6    IQSEC3    ZDHHC19
## GSM875412 4.956786 3.648706 4.542393 4.161605 5.314468 3.980498 4.710795
## GSM875413 5.254961 3.403112 4.597156 4.139702 5.476127 3.805097 4.678156
## GSM875414 5.473716 4.398286 4.992023 5.100888 7.011382 3.913669 4.844334
##          ALG14     PPP1R21 TMEM237    ZNF564    B3GALT6    SNX21    RHOB
## GSM875412 7.716233 8.075414 6.153272 5.969404 7.949036 5.574591 7.324860
## GSM875413 7.713646 8.526029 5.802047 6.441799 8.711896 8.049955 5.738425
## GSM875414 6.359942 7.391716 5.748952 6.185002 8.552500 5.358024 7.563132
##          ADAT3      CEL    CASTOR3P    SPINK6 C22orf39    DPCD    CYP39A1

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## GSM875412 4.903753 8.253048 5.952863 3.957522 7.266030 6.559821 5.003501
## GSM875413 5.072114 4.192950 5.395080 3.911740 7.519529 7.541923 6.453030
## GSM875414 5.539063 4.761405 4.293302 4.226960 6.430927 7.469419 5.502074
##          BORCS8   ZNF121   RAB7B   DTYMK   MAPKAPK5-AS1   BRICD5   VSIG10
## GSM875412 6.923606 8.667453 5.623175 5.081149   7.715696 5.104213 6.225202
## GSM875413 7.360286 7.930839 5.449683 4.956831   8.072077 5.782878 5.022041
## GSM875414 8.075958 7.961469 5.916446 5.409026   6.707156 5.362096 4.885312
##          NBR2     MED25     NT5E   ASPHD1   TRIM37   ARHGEF28   LLGL2
## GSM875412 6.032677 8.207356 6.051443 7.727988 4.264662 6.386991 8.137901
## GSM875413 5.419308 7.214220 6.947726 5.862676 4.042061 5.556556 5.568850
## GSM875414 5.986069 8.553044 4.396624 7.337655 4.033602 7.154557 7.909190
##          OSMR     NDST1     RSP02     CHD2     USB1     GPNMB     CEP57L1
## GSM875412 9.991288 5.838650 4.081005 6.141787 5.567760 6.286316 4.052779
## GSM875413 4.674655 6.319993 5.331318 5.057643 6.731809 3.333203 3.945735
## GSM875414 4.859344 5.996346 3.373416 5.249635 6.585629 4.909532 3.719497
##          BICD1     ZNF12     MYO10     SLC4A4     SKIC3     ARSB     FRMD4A
## GSM875412 4.897274 8.219982 5.509813 3.890088 5.698698 3.969358 4.374635
## GSM875413 3.897455 9.165087 4.199270 3.600430 4.090622 4.460816 4.807752
## GSM875414 3.982201 7.692652 7.063799 4.411591 4.417776 4.577479 5.115847
##          ZBTB24   LARP1B   DGLUCY   TMEM239   MRAP     ZNF24     TXNDC9
## GSM875412 4.412032 5.113751 6.828759 3.982342 4.304768 4.604318 4.422302
## GSM875413 3.445906 4.756858 6.921753 4.623379 4.329390 4.255308 3.997794
## GSM875414 4.027246 4.995299 7.498043 5.318775 4.630981 4.334464 4.311603
##          DCAF8   SMPDL3B   CNOT1   SPTLC1   ASH1L-AS1   SETMAR     XG
## GSM875412 5.021441 6.990082 6.750550 4.337661   7.374979 4.613048 3.378770
## GSM875413 3.866213 6.877380 4.940051 4.666172   5.182950 4.248227 3.469767
## GSM875414 5.080596 6.653320 5.480957 4.354927   5.984790 4.739488 3.381122
##          ZHX1-C8orf76   MVB12B   KICS2     EPHA8     DEUP1     TLCD5     TMEM53
## GSM875412   5.207575 4.562318 5.702735 5.155099 3.215341 4.419151 6.805656
## GSM875413   4.975530 4.876498 6.265579 5.630435 3.313007 4.961515 6.343028
## GSM875414   4.586525 4.761771 4.719055 5.455894 3.236223 4.372461 6.384084
##          DNAJA3   GALNT18   NOL9     DDX51   TUBGCP3   SNAPC5     ENTPD5
## GSM875412 9.368903 6.810423 6.942131 5.082772 4.184875 7.715551 4.278273
## GSM875413 8.924387 6.832224 6.158825 6.914515 3.928755 8.703809 4.822001
## GSM875414 9.559383 6.942044 6.614329 4.903427 3.991252 7.458119 5.309485
##          RBM33   MIR31HG   SPIN3     TMTC4   TMEM185A   NBEAL1     CDCP1
## GSM875412 4.803663 6.004442 3.812516 5.449543 6.723831 8.757440 5.185402
## GSM875413 4.483444 4.209193 3.952871 4.319810 7.332717 5.088948 4.640489
## GSM875414 5.019546 4.675439 3.562235 5.918316 6.621545 7.615016 5.152645
##          ULK2     SLC4A8     SSH2     C5orf58   PARP11     CCDC60     HSD17B12
## GSM875412 4.597046 4.114656 4.413578 4.118841 4.164049 6.019081 3.493657
## GSM875413 5.041210 4.320282 3.824920 4.234422 4.994506 6.682352 3.445986
## GSM875414 4.432575 4.239713 4.132379 4.622428 4.502637 6.951095 3.724930
##          NLGN4Y   MSRB3     ADIG     CCSER2     RUFY2     DNAI4     SUGT1P3
## GSM875412 3.437580 7.062401 5.350218 3.470225 3.261117 3.470823 3.090209
## GSM875413 3.545464 7.496667 5.489633 3.096849 3.219987 3.836874 3.072499
## GSM875414 3.525880 7.391716 5.702526 3.174063 3.316987 3.376312 2.977587
##          CFAP91   SLC33A1   CLDND1     OGDH     PHF21A     GDAP2     MCPH1
## GSM875412 3.704917 7.675501 8.865313 6.290580 5.825535 8.722340 4.906851
## GSM875413 4.390032 5.946375 8.654963 5.516573 6.837847 6.935055 5.359199
## GSM875414 3.770474 8.295891 8.527807 6.051307 5.959500 9.295176 4.352148
##          WFDC8   ZMYND11   ZNF446   TWIST2   FAM53B     GOLGA7     SH3KBP1
## GSM875412 3.429574 3.880752 6.058814 3.759086 3.189820 9.407200 9.830557
## GSM875413 3.580120 3.781969 6.479854 3.830493 3.423133 9.775366 7.855076

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## GSM875414 3.519991 3.925974 6.040523 4.942464 3.776812 8.429750 7.661864
##          MBLAC1      ZMYM3  CD300LB  C3orf33  DMAC2L  HYCC2  SNX32
## GSM875412 5.003178 5.401705 5.666898 3.505433 6.370488 7.242645 3.806189
## GSM875413 6.278019 5.778645 6.059348 3.686799 6.120728 5.732737 4.062588
## GSM875414 6.201262 5.002432 6.198126 3.366720 6.192998 8.511364 4.549223
##          LOC554206  POU2AF2  PLEKHS1  TRMT44  MANEA  LOC107986876  C5orf46
## GSM875412 3.662838 5.479292 4.970189 5.382398 4.843225      3.752929 4.494973
## GSM875413 3.698975 5.606345 3.498809 5.296456 4.156969      4.308318 4.756858
## GSM875414 4.141385 6.652585 4.634334 5.915304 5.198926      4.175274 5.834648
##          IZUM01      SH3YL1  PTPRO  GRIK1-AS1  ICA1L  TMLHE  MEI1
## GSM875412 3.588437 5.586042 3.409232 4.111984 4.034384 4.219381 5.939052
## GSM875413 3.549782 5.770566 3.487205 4.343656 4.168099 4.659517 5.424309
## GSM875414 4.043452 5.673628 3.378119 4.388105 4.201570 4.027384 6.779374
##          ZCCHC13      KCNS2  ARHGEF10  VPS50  LINC01869  LINC02712  BAALC-AS2
## GSM875412 4.061284 5.121016 5.204199 3.434086 6.065638 3.638478 4.827416
## GSM875413 4.130527 5.293177 6.355684 3.208332 6.440853 3.993242 5.015856
## GSM875414 5.328966 6.149401 5.326312 3.426722 6.893989 4.023230 5.163074
##          CREBRF  C1QTNF9  KATNAL2  CTNNA3  PTGR3  ITGAL  COCH
## GSM875412 6.273538 3.483523 3.865965 3.269073 6.856298 5.811075 10.221526
## GSM875413 6.435761 3.249863 4.986388 3.561861 6.157971 5.262918 8.141276
## GSM875414 5.907688 3.267038 4.145875 3.904456 6.649431 6.161113 9.972607
##          C1orf210  ZNF638  TRIM73  HP1BP3  CERS3  PCNX2  DNAJC5B
## GSM875412 6.130438 6.070013 7.095968 6.779120 3.137151 4.351953 4.993168
## GSM875413 4.589055 5.121514 6.183519 6.077202 3.253488 5.041046 4.862605
## GSM875414 5.468826 5.698188 4.845688 6.525753 3.465544 4.516149 5.194323
##          GPSM1      FRYL  KLHL29  CKAP2  MORN1  CENPL  ERAP2
## GSM875412 5.459899 6.783763 3.864650 4.551568 3.907685 4.814623 3.247574
## GSM875413 6.062997 5.398954 3.889018 3.265985 4.007471 4.152583 3.155925
## GSM875414 6.269845 5.703190 3.898427 3.400226 4.100285 4.317630 3.054503
##          SSH1      SART3  FANCM  TRMT2B  C9orf43  NOCT  HAVCR2
## GSM875412 4.390999 3.691197 3.822430 4.801573 3.854066 3.764843 5.726472
## GSM875413 4.267723 3.535250 3.427985 4.959206 3.816188 3.529062 5.248965
## GSM875414 4.218702 3.753228 3.609269 4.865945 3.999474 4.263297 5.455111
##          FLJ25758  TRIM4  FHIP2A  BLTP3B  TTBK2  CYP19A1  WDR49
## GSM875412 5.167685 5.726327 3.480264 3.433370 3.288766 3.025965 3.107845
## GSM875413 4.981181 5.009710 3.766923 3.483375 3.798706 3.320167 3.179728
## GSM875414 5.301417 6.989465 3.608405 3.457041 4.875471 3.428391 3.158360
##          NPAS4      SVOPL  LHFPL3-AS1  HNMT  LIF-AS2  ITPKB  GABRA2
## GSM875412 3.664434 3.676361 3.085871 4.281456 4.413203 3.757810 3.166052
## GSM875413 3.727942 3.358988 3.329133 4.168453 4.479676 4.958807 4.741715
## GSM875414 3.717499 3.679248 3.444505 4.130379 4.750197 3.624385 3.229018
##          EIF4G3  SUPT6H  RNF170  PGLS  TRMT61A  RPS6KA5  NFS1
## GSM875412 4.138361 4.043990 4.834512 4.699179 5.885022 3.030366 5.685741
## GSM875413 3.389767 3.513371 4.609347 4.739230 5.821760 2.993642 5.878006
## GSM875414 3.356073 3.877272 4.757066 4.927003 5.829231 3.263760 6.195089
##          HDAC4  DYNC2LI1  DOCK2  CANT1  STXBP4  LRRC18  SLC04A1-AS1
## GSM875412 4.474561 3.507070 3.699224 8.004968 3.163455 4.013850 6.113794
## GSM875413 4.407601 3.187995 3.917161 5.567049 3.169632 4.394561 5.492061
## GSM875414 5.171960 3.097882 4.416226 9.562507 3.314929 4.278096 7.205790
##          DNAJA4  CYTH4  FARP2  COG3  DRAXIN  HELQ  STAP1
## GSM875412 4.513120 4.300491 4.083728 6.894219 3.501054 4.274343 4.079318
## GSM875413 4.162324 4.433436 4.006059 3.878449 3.505716 4.555156 4.133729
## GSM875414 3.921020 4.438587 4.842950 6.248211 3.956857 4.250275 4.428858
##          GIN1      GNB5  CDKN2AIPNL  ATP23  DENND4A  SIAE  GINS4

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|    |           |           |          |           |           |          |          |          |
|----|-----------|-----------|----------|-----------|-----------|----------|----------|----------|
| ## | GSM875412 | 5.374095  | 5.098497 | 4.346767  | 3.893504  | 7.523211 | 2.951572 | 4.808178 |
| ## | GSM875413 | 6.441019  | 5.213902 | 4.444584  | 3.852384  | 7.056302 | 3.010321 | 3.937223 |
| ## | GSM875414 | 4.950723  | 5.368497 | 4.303179  | 4.158133  | 7.061635 | 3.012842 | 4.014593 |
| ## | FCHSD2    | BTG4      | PPP2R5C  | CALHM1    | NT5C1B    | PKD1L2   | NR1H4    |          |
| ## | GSM875412 | 4.361486  | 3.084693 | 3.466804  | 4.038222  | 3.154250 | 3.948977 | 3.532490 |
| ## | GSM875413 | 4.158668  | 2.973775 | 3.345377  | 4.268618  | 3.187742 | 4.151418 | 6.240470 |
| ## | GSM875414 | 4.134924  | 3.050327 | 3.435840  | 4.159101  | 3.300563 | 4.554369 | 3.719753 |
| ## | HACD1     | PDE1C     | TP73     | NEK11     | LINC00656 | TRAM2    | PADI2    |          |
| ## | GSM875412 | 4.782441  | 3.551615 | 4.767275  | 4.387495  | 3.734285 | 5.390476 | 3.525846 |
| ## | GSM875413 | 4.947682  | 3.634584 | 5.392530  | 4.030032  | 4.058675 | 4.688061 | 3.421340 |
| ## | GSM875414 | 4.786001  | 3.800972 | 6.505873  | 4.558815  | 4.259795 | 5.803408 | 3.411348 |
| ## | CST9      | VPS29     | ACTR2    | AZIN2     | NELL1     | UEVLD    | LYG2     |          |
| ## | GSM875412 | 4.582759  | 6.028852 | 10.187145 | 5.214620  | 3.505859 | 4.948485 | 4.126572 |
| ## | GSM875413 | 4.862818  | 5.891852 | 7.000641  | 5.131461  | 3.845279 | 4.574376 | 4.012158 |
| ## | GSM875414 | 5.466543  | 5.999679 | 9.368841  | 4.994449  | 4.656742 | 4.706090 | 4.096465 |
| ## | DYNLT2    | CLEC7A    | TK1      | RCC1L     | CTNNB1    | OSGIN2   | TAF5L    |          |
| ## | GSM875412 | 5.229187  | 6.070013 | 9.952336  | 3.457108  | 7.693117 | 7.451938 | 5.975120 |
| ## | GSM875413 | 5.623060  | 5.614493 | 8.413843  | 3.675629  | 7.474937 | 8.091630 | 5.566631 |
| ## | GSM875414 | 6.214872  | 5.628139 | 8.824831  | 3.685131  | 6.063479 | 6.964212 | 5.391954 |
| ## | APH1A     | SPOCK3    | GGNBP2   | ATF3      | FBX07     | FIP1L1   | NLGN2    |          |
| ## | GSM875412 | 7.675143  | 3.186887 | 4.297715  | 6.546215  | 9.439232 | 4.660649 | 5.863441 |
| ## | GSM875413 | 5.009710  | 3.365228 | 4.106064  | 4.815334  | 9.195686 | 3.907875 | 5.775510 |
| ## | GSM875414 | 7.889323  | 3.984102 | 4.083267  | 5.708076  | 9.455285 | 4.669164 | 6.219820 |
| ## | DMWD      | ZNF146    | REG4     | KIAA1217  | KIAA0513  | WAPL     | BEST1    |          |
| ## | GSM875412 | 6.450959  | 7.736345 | 7.349628  | 6.387843  | 3.622396 | 7.798132 | 6.699718 |
| ## | GSM875413 | 6.767024  | 6.304549 | 4.482904  | 4.497415  | 3.493661 | 6.669054 | 7.264116 |
| ## | GSM875414 | 6.930922  | 8.168717 | 13.107153 | 5.879630  | 4.617934 | 7.788986 | 7.331578 |
| ## | SLC35F6   | ZNF85     | JPX      | DNAJC14   | HILPDA    | HNRNPLL  | LINS1    |          |
| ## | GSM875412 | 6.445440  | 4.500383 | 5.215647  | 6.499140  | 9.478952 | 4.234859 | 7.456688 |
| ## | GSM875413 | 6.750700  | 5.416351 | 5.142306  | 6.646090  | 6.767893 | 3.530678 | 5.756818 |
| ## | GSM875414 | 6.553504  | 4.413404 | 5.728462  | 6.570918  | 6.938384 | 3.909944 | 4.891395 |
| ## | CFHR3     | ST8SIA4   | DNAJB9   | CRTAP     | METTL26   | FBF1     | ZBTB44   |          |
| ## | GSM875412 | 3.486867  | 3.325716 | 7.868710  | 7.709201  | 7.765741 | 6.001886 | 3.946050 |
| ## | GSM875413 | 3.566966  | 3.042490 | 8.264715  | 8.151408  | 6.852906 | 5.833080 | 3.579009 |
| ## | GSM875414 | 3.853908  | 3.113609 | 7.425836  | 7.172882  | 7.411743 | 6.059339 | 3.598821 |
| ## | ANKRD13C  | PHF20L1   | SRGAP1   | MOXD1     | C19orf47  | ZNF808   | HEATR3   |          |
| ## | GSM875412 | 7.033094  | 5.705749 | 4.560961  | 7.386068  | 4.906682 | 4.412308 | 4.831345 |
| ## | GSM875413 | 6.011563  | 5.196421 | 5.460851  | 8.035202  | 5.061907 | 4.167952 | 4.117902 |
| ## | GSM875414 | 6.899215  | 5.295819 | 5.547485  | 6.700896  | 5.476271 | 5.442697 | 5.862032 |
| ## | CARD8     | ARMC10    | EPB41    | SAR1B     | TMEM37    | GFOD1    | ATF6B    |          |
| ## | GSM875412 | 6.388445  | 8.381461 | 5.832107  | 7.766895  | 6.936809 | 3.477259 | 4.111264 |
| ## | GSM875413 | 6.753577  | 9.346843 | 5.110592  | 8.057850  | 6.098053 | 6.394917 | 4.173682 |
| ## | GSM875414 | 7.075630  | 7.264236 | 6.565101  | 8.578686  | 7.346009 | 3.748815 | 4.273445 |
| ## | CEP70     | SERPINC1  | THADA    | MTHFSD    | RAD51B    | PPA2     | RGS7     |          |
| ## | GSM875412 | 4.436829  | 3.360463 | 3.373834  | 3.705405  | 3.929548 | 4.190906 | 3.428725 |
| ## | GSM875413 | 4.230497  | 3.589050 | 3.101473  | 3.716091  | 3.795745 | 3.996846 | 3.553707 |
| ## | GSM875414 | 4.219353  | 3.756346 | 3.123330  | 4.057890  | 4.693721 | 5.328852 | 3.828226 |
| ## | TSC22D4   | OSCAR     | NAALAD2  | PIK3AP1   | MINDY3    | GHITM    | WWC1     |          |
| ## | GSM875412 | 4.856743  | 4.172821 | 3.017261  | 6.060691  | 6.102205 | 9.322038 | 4.548790 |
| ## | GSM875413 | 7.889114  | 4.216937 | 3.248152  | 4.294422  | 5.991009 | 8.919641 | 4.889269 |
| ## | GSM875414 | 5.394516  | 4.487348 | 3.037992  | 6.899173  | 6.104680 | 9.443267 | 5.576264 |
| ## | ACSM5     | LINC00537 | GSTCD    | CD80      | CNNM2     | OLFM3    | VSTM2A   |          |
| ## | GSM875412 | 3.438292  | 6.067247 | 5.398454  | 5.019516  | 4.265103 | 3.527109 | 3.510435 |
| ## | GSM875413 | 3.611232  | 6.355327 | 4.927851  | 4.506652  | 3.657861 | 3.434867 | 3.601121 |

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## GSM875414 3.350320 7.594195 6.596506 4.733626 4.807499 3.437845 3.417379
##          TTC12          C2          DPYD TMEM126B          RHOF          DNAH14          GPRIN2
## GSM875412 5.365715 4.038672 4.247993 4.344514 5.258813 3.197496 4.612768
## GSM875413 5.258761 3.931439 3.820570 3.611768 5.201227 3.216803 4.396594
## GSM875414 5.427336 3.967974 3.818747 4.126128 5.419828 3.281348 4.626754
##          SLC25A48          SPAG9          MBP APOBEC4          FAM13C          WDR20          CFAP97
## GSM875412 4.875781 6.070973 8.471127 3.676655 5.202744 3.215326 3.150319
## GSM875413 5.046526 5.111256 6.569320 3.519212 6.510335 3.385946 3.087917
## GSM875414 5.242820 7.037269 7.709579 3.541073 4.501412 3.212240 3.339828
##          YIF1B          SETD6          ATP11B          DCAF5          GPR62          PGM5          SPPL3
## GSM875412 6.421433 7.032470 6.674638 3.338704 4.867834 3.265034 4.949031
## GSM875413 6.100956 6.806680 6.433892 3.356832 5.174531 3.304223 5.281867
## GSM875414 7.956376 7.408228 7.079917 3.476649 5.874223 3.199078 5.069808
##          KCTD17          DYNLRB1          CELF2          APBB1IP          SUV39H2          CYB5R3          BPNT1
## GSM875412 4.955183 3.724069 4.906441 3.873380 7.475443 8.618104 6.795229
## GSM875413 4.679455 3.470450 4.511432 3.623954 6.369653 8.821234 5.224538
## GSM875414 5.158147 3.634518 4.834780 4.013268 6.999772 9.473054 6.753788
##          ETV4          PSMD10          ZNF70          MYO18B          ETFBKMT          DRC3          RHOBTB2
## GSM875412 6.690492 9.044400 5.466837 3.887787 3.948977 3.954486 4.937570
## GSM875413 5.965657 9.865216 5.314675 4.020537 5.171306 3.963493 7.884089
## GSM875414 6.829543 8.824867 5.530009 4.486677 3.830838 4.020045 5.319076
##          TTC30B          LENG9          PCAT4          SLC1A6          ARHGAP27          SYMPK          LIG3
## GSM875412 4.691497 4.619933 4.446609 3.505433 3.580069 7.936401 6.553648
## GSM875413 3.616099 5.065879 4.007753 3.379465 3.611799 8.018346 6.976098
## GSM875414 4.414200 5.508185 3.857355 3.209929 4.293226 8.466798 6.118311
##          LMNA          NKAIN2          RBM8A          MBTPS2          CEP120          CNKSR2          TGOLN2
## GSM875412 9.724211 3.557269 6.675635 3.391782 5.038305 3.549510 7.096933
## GSM875413 9.940778 3.381803 5.527302 3.356180 5.140631 3.564061 4.490143
## GSM875414 9.206103 3.622960 6.933440 3.431661 5.018328 3.562926 5.130504
##          LIPT2-AS1          ANKMY1          RUBCN          PTBP2          SERPINB8          AGFG2          MBLAC2
## GSM875412 5.603342 4.041561 3.656080 5.681473 4.596653 4.661548 3.362806
## GSM875413 5.720487 4.364284 3.755569 5.903468 4.856523 7.112387 3.230440
## GSM875414 4.213341 4.777671 4.083843 4.917171 4.813871 4.970222 3.058890
##          DGKE          SIRPB1          BCL6B          ASCC1          ZNF57          EPHA7          MYT1L
## GSM875412 3.786307 3.530403 5.190351 7.607707 6.471236 3.587821 3.509072
## GSM875413 3.632804 3.526824 5.109833 7.379015 4.368708 4.029151 3.329061
## GSM875414 3.631755 3.606767 5.379255 8.215845 6.663562 3.762314 3.426553
##          PDS5B          NPAS3          CBFA2T2          ZFYVE16          TET3          RNF32          RGS11
## GSM875412 3.135728 4.740228 7.203860 6.320816 5.631663 4.363757 3.595824
## GSM875413 3.144958 4.929167 6.705789 7.875814 5.242237 3.998707 3.549953
## GSM875414 3.243906 5.566681 6.398897 6.093434 5.455483 4.142698 3.882669
##          OSBPL1A          DUOXA1          MAST4          RPRML          CFAP61          NEK4          CNST
## GSM875412 4.087003 4.374217 4.670020 4.194153 4.403527 4.069291 5.080904
## GSM875413 3.989486 4.157039 4.477767 4.349814 4.654245 4.090653 4.253589
## GSM875414 4.287924 4.298311 4.812976 4.167180 5.019852 4.704131 4.813399
##          SEPTIN4          NUMA1          NAIF1          ZNF586          ZNF594-DT          METTL8          FAM151A
## GSM875412 4.363673 5.514002 3.868143 3.338964 4.250043 6.688393 3.849425
## GSM875413 4.278929 3.324310 4.142036 3.410954 4.229237 6.386407 4.043453
## GSM875414 4.749008 3.424818 4.002112 3.345843 4.633628 7.040096 5.135979
##          GGA1          SRRM2          TTC26          SYCE1          SRGN          CMTM4          HNRNPDL
## GSM875412 5.974582 5.822032 3.569468 3.447844 5.376820 6.028181 10.087423
## GSM875413 4.674372 5.572548 3.696754 3.866030 4.615912 4.947682 8.703181
## GSM875414 5.077895 6.193448 3.894731 3.838421 5.474494 5.603979 9.334272
##          LAPTM4B          CCDC187          CEMIP          STAU2          NLGN4X          TACC1          PACSIN2

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## GSM875412 10.337124 4.640556 4.973288 3.578821 4.020271 5.985760 7.619667
## GSM875413 8.960313 5.658352 5.495168 3.510646 4.331645 7.518360 6.709639
## GSM875414 8.383374 5.212757 5.789860 3.532694 4.558282 6.241394 7.525445
## SLC23A2 CCNY TYMS ADAMTS9 L3MBTL4 CDH7 TBC1D16
## GSM875412 3.722358 3.745403 7.664419 4.699049 3.698776 2.974544 5.073050
## GSM875413 3.577293 4.414596 7.236073 4.519454 3.647855 3.115184 5.481994
## GSM875414 3.779596 4.290682 8.269832 5.341914 3.609834 3.146326 5.262737
## NALCN ATP8B3 SCARA5 OR2L13 SPATA6L KCNMB1 CALHM3
## GSM875412 3.816368 3.560832 4.500383 3.258621 3.789054 3.948977 4.253171
## GSM875413 3.893759 3.702002 5.020093 3.231344 4.143111 4.142327 4.150023
## GSM875414 4.098847 3.748139 5.000979 3.259066 4.965744 4.038305 4.126973
## GLYATL2 RELL1 LINC00593 PDE4D NDUFA10 TAF2 TRPM3
## GSM875412 4.039572 4.193481 3.656776 3.877976 3.909256 7.077403 3.602920
## GSM875413 3.810671 4.009765 3.445906 3.675668 3.885841 6.790807 3.536701
## GSM875414 3.948045 4.153770 3.458908 3.940679 4.475714 7.381810 3.639044
## SLC6A11 RABGAP1L ZNF655 SLC9A1 MCTP1 LINC02363 TRIM7
## GSM875412 3.300260 3.541536 5.424593 3.813979 4.076856 4.130548 4.030371
## GSM875413 3.239761 3.670303 4.352296 3.672194 4.329641 4.099723 4.189385
## GSM875414 3.184087 3.359892 4.254537 3.951772 4.147325 4.238360 4.460582
## ARHGAP29 FBN2 IPP PMS1 RALGPS1 SEPTIN2 CLCNKB
## GSM875412 3.735505 3.646032 3.679246 3.767322 4.172962 9.757638 5.143844
## GSM875413 3.640068 3.378925 3.420850 3.467624 4.289458 8.340212 5.579563
## GSM875414 4.038549 3.459728 3.592068 3.440967 5.255514 8.990701 5.583693
## MTUS2 INPP5A CD99L2 SRCIN1 DNAAF5 WWC2 UBE2DNL
## GSM875412 3.525997 6.319433 4.278977 4.931904 5.898730 6.505162 3.800010
## GSM875413 3.734087 7.131414 4.912899 5.168116 5.923523 6.060610 3.793894
## GSM875414 4.693964 6.531644 4.883433 5.263783 6.174851 6.384134 4.314863
## LINC00301 MAD2L1 ZNF785 WFIKN2 RIOX2 ZFP42 PHLDB2
## GSM875412 3.298806 8.07636 4.385327 4.269204 5.421880 3.458180 3.168218
## GSM875413 3.102241 5.86127 4.131073 4.555186 4.916604 3.537160 3.066001
## GSM875414 3.131132 8.00104 3.786418 4.719341 5.131600 3.418023 3.163659
## PHTF2 MGC32805 KLHL30-AS1 ARHGEF2 CNTN1 CCDC82 CASS4
## GSM875412 5.827075 3.570177 4.739816 4.346015 3.595619 3.513095 3.444903
## GSM875413 6.061815 3.288649 5.110795 4.516111 4.742198 3.198523 3.547246
## GSM875414 5.928445 3.396568 5.392494 4.498798 3.470332 3.290902 3.527409
## STKLD1 PDE8B KANSL1L UBE3C FBLIM1 DPP6 SYT16
## GSM875412 3.744047 3.489981 4.231266 3.233553 6.073616 4.243160 3.248770
## GSM875413 3.940834 3.973771 3.915390 3.081373 5.474408 4.102813 3.114877
## GSM875414 3.970025 3.988703 4.453321 3.110129 7.233970 4.130034 3.153837
## SNED1 RAB39A FNDC9 TRIM72 FBX08 SPIRE1 ACP1
## GSM875412 4.713503 3.648396 3.478558 4.416952 6.786948 6.614141 4.192011
## GSM875413 4.694937 3.936455 3.655961 4.557434 7.806064 6.598293 3.820066
## GSM875414 5.335801 4.622655 3.925030 4.738311 8.503715 4.872694 4.165444
## LOC389199 PLA2G4C CLDN20 UBE20 ASTN2 DZANK1 ITGA11
## GSM875412 4.422980 3.748402 3.620923 5.677549 3.402051 3.758487 5.967737
## GSM875413 4.563182 3.939786 4.181926 5.780446 3.205026 3.805663 6.420562
## GSM875414 5.495823 3.909055 3.462633 5.817252 3.231025 4.186910 6.559354
## AGLB3 ZBED1 ZNF585A ADCY7 PDGFRA STEAP3 MCTP2
## GSM875412 3.082286 5.647544 4.052290 5.622255 3.525932 5.570325 4.603468
## GSM875413 3.202193 4.583449 4.780658 5.536047 3.784290 3.711929 3.824464
## GSM875414 3.310589 4.792743 3.922648 5.684270 3.892218 4.628872 3.606414
## RASSF5 B3GNT5 USP36 CIDECP1 MTHFD2L SLC12A1 CCDC158
## GSM875412 5.566407 7.761225 3.821113 4.209276 3.943449 5.031039 3.517772
## GSM875413 5.978475 4.728003 3.760057 4.240876 3.885759 5.177822 3.299170

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|    |           |          |           |          |           |          |            |          |
|----|-----------|----------|-----------|----------|-----------|----------|------------|----------|
| ## | GSM875414 | 5.689105 | 6.295006  | 3.765501 | 3.866559  | 3.609296 | 5.914678   | 3.383032 |
| ## | ATP6V1B1  | TOR1A    | VWA5B2    | CFAP92   | CYP2U1    | PRKN     | ELMO2      |          |
| ## | GSM875412 | 4.518502 | 4.001826  | 4.089246 | 4.955353  | 3.942789 | 3.392540   | 4.769222 |
| ## | GSM875413 | 4.748300 | 4.173227  | 4.143005 | 5.037017  | 3.722634 | 3.691749   | 4.670951 |
| ## | GSM875414 | 5.485065 | 4.194346  | 4.562023 | 4.848389  | 3.971111 | 3.753481   | 4.399528 |
| ## | PTPN7     | CMAHP    | DOK5      | SDC3     | TMEM135   | PRR16    | PCNP       |          |
| ## | GSM875412 | 4.580884 | 3.263583  | 4.807777 | 4.906519  | 3.127888 | 5.398603   | 9.960274 |
| ## | GSM875413 | 4.686916 | 3.148536  | 4.687786 | 5.136584  | 3.252761 | 8.564564   | 9.207247 |
| ## | GSM875414 | 5.086174 | 3.423777  | 4.903734 | 6.163743  | 3.313833 | 5.671514   | 9.812874 |
| ## | WDR37     | HMGCLL1  | CSPP1     | MITF     | CAMKMT    | S100Z    | ABCD3      |          |
| ## | GSM875412 | 4.572729 | 3.807131  | 4.915265 | 3.053775  | 3.514056 | 3.977230   | 8.151109 |
| ## | GSM875413 | 4.460943 | 4.781282  | 4.293842 | 3.370318  | 3.263722 | 3.812088   | 4.671747 |
| ## | GSM875414 | 4.940652 | 4.860239  | 4.582874 | 3.545348  | 3.427194 | 4.245768   | 5.784915 |
| ## | MYRF-AS1  | ERCC8    | PRIM2     | MLXIP    | EMSLR     | TIA1     | LINC01580  |          |
| ## | GSM875412 | 5.326424 | 3.387788  | 3.034262 | 3.964535  | 3.249119 | 3.987068   | 4.208719 |
| ## | GSM875413 | 5.363846 | 3.273266  | 3.089185 | 4.040212  | 3.489427 | 3.235669   | 4.262786 |
| ## | GSM875414 | 5.781848 | 3.462133  | 3.089851 | 4.745336  | 4.126394 | 3.166126   | 4.392344 |
| ## | MS4A3     | PCBD2    | FCER1G    | FRMD8    | MPHOSPH6  | HYDIN    | IHO1       |          |
| ## | GSM875412 | 3.632988 | 5.592758  | 7.933020 | 5.370479  | 3.697210 | 3.548927   | 3.960098 |
| ## | GSM875413 | 3.510183 | 5.469177  | 7.587302 | 4.912899  | 3.771563 | 3.467554   | 4.243928 |
| ## | GSM875414 | 3.675198 | 6.204827  | 8.137569 | 5.039176  | 3.814129 | 3.921999   | 4.437354 |
| ## | PRKD3     | ABCC11   | ESYT3     | PLA2G4D  | PDE12     | JRK      | ABCC4      |          |
| ## | GSM875412 | 3.397874 | 4.564326  | 3.501191 | 4.083105  | 6.287960 | 4.147319   | 4.665747 |
| ## | GSM875413 | 3.279922 | 4.448375  | 3.511676 | 4.106561  | 4.756858 | 4.048800   | 5.665626 |
| ## | GSM875414 | 3.195112 | 4.590047  | 3.594781 | 4.041434  | 6.859161 | 4.511004   | 5.029230 |
| ## | CFAP69    | SCEL     | ZNF678    | ANKS6    | LINC00598 | SIK3     | FUT8       |          |
| ## | GSM875412 | 6.594589 | 2.958849  | 3.421957 | 5.033670  | 3.948977 | 3.492557   | 6.771462 |
| ## | GSM875413 | 6.284652 | 2.994067  | 3.010771 | 4.161922  | 3.738326 | 3.363206   | 6.923629 |
| ## | GSM875414 | 5.646880 | 2.916459  | 3.153579 | 5.561606  | 3.976586 | 3.610886   | 7.228304 |
| ## | CYP4A11   | ZSWIM2   | PSIP1     | RCBTB1   | EXOC3L1   | ACOT11   | FAM230I    |          |
| ## | GSM875412 | 3.418824 | 3.188984  | 3.868394 | 3.86318   | 5.484709 | 5.994545   | 3.918358 |
| ## | GSM875413 | 3.552701 | 3.350545  | 3.951795 | 3.75230   | 5.514077 | 5.775052   | 4.482805 |
| ## | GSM875414 | 4.409234 | 3.456749  | 3.491443 | 3.99133   | 5.912117 | 7.561034   | 4.657506 |
| ## | KLHL14    | VIL1     | LINC01234 | ACAT1    | ACAN      | NLRP12   | TSPEAR-AS2 |          |
| ## | GSM875412 | 3.192830 | 5.814169  | 3.622504 | 3.545821  | 3.842444 | 4.121150   | 5.696892 |
| ## | GSM875413 | 3.404674 | 4.989455  | 3.611673 | 3.527159  | 4.202363 | 4.278376   | 5.955960 |
| ## | GSM875414 | 3.530023 | 6.885314  | 3.840532 | 3.450847  | 4.515140 | 5.028324   | 6.419279 |
| ## | ZNF641    | CCDC190  | FGFR4     | FILIP1L  | PDILT     | ZBTB26   | ACY3       |          |
| ## | GSM875412 | 4.926565 | 3.411918  | 4.470382 | 3.453130  | 4.139121 | 5.293120   | 5.449851 |
| ## | GSM875413 | 5.167163 | 3.534784  | 4.814798 | 3.616054  | 4.183259 | 4.079574   | 5.455088 |
| ## | GSM875414 | 5.629351 | 3.661616  | 4.872812 | 3.662533  | 4.518558 | 5.084142   | 5.890020 |
| ## | LINC00051 | LKAAEAR1 | DLGAP2    | EQTN     | LINC00317 | HLA-DOB  | SNX19      |          |
| ## | GSM875412 | 3.614146 | 5.304046  | 4.010386 | 3.185973  | 4.265103 | 4.578380   | 4.951948 |
| ## | GSM875413 | 3.458970 | 5.525801  | 4.248567 | 3.199254  | 4.040142 | 4.701676   | 3.836648 |
| ## | GSM875414 | 3.483155 | 5.632656  | 4.232352 | 3.133307  | 4.287637 | 5.088440   | 4.829412 |
| ## | GOLGA3    | SLC9C2   | AREL1     | RASGRF1  | RAG1      | PTGS2    | LOC403312  |          |
| ## | GSM875412 | 4.489330 | 3.272307  | 4.510369 | 4.485834  | 3.394813 | 4.024122   | 3.284442 |
| ## | GSM875413 | 4.173577 | 3.399303  | 4.499908 | 4.897950  | 3.264024 | 5.217905   | 3.221129 |
| ## | GSM875414 | 4.557784 | 3.340000  | 4.644990 | 5.700692  | 3.265430 | 4.732905   | 3.387229 |
| ## | RBL1      | CFAP251  | SYNJ2     | ZNF398   | IL16      | OR2C3    | CDHR1      |          |
| ## | GSM875412 | 4.142911 | 3.849505  | 4.932059 | 5.098944  | 5.130567 | 3.279641   | 3.693076 |
| ## | GSM875413 | 4.436299 | 3.710014  | 4.433370 | 5.529586  | 5.390761 | 3.318204   | 3.776862 |
| ## | GSM875414 | 4.561892 | 3.957618  | 4.357497 | 5.397794  | 5.669540 | 3.275525   | 3.766042 |
| ## | ARHGAP20  | SCARF1   | RGS12     | ADAM22   | TMEM26    | P4HA2    | BRD3       |          |

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## GSM875412 4.622678 4.936906 3.915582 3.267796 3.183787 3.925248 3.875373
## GSM875413 4.383477 5.694127 4.078878 3.180492 3.393098 4.115374 4.396305
## GSM875414 4.942499 6.185734 3.829288 3.131960 3.200028 4.393242 4.551488
##          CLRN1      IDH1 EPB41L4A LINC00612      NAGA      TRPV5      LHFPL5
## GSM875412 3.140507 11.371651 3.465983 3.541536 8.871097 4.155755 3.623684
## GSM875413 3.053692 7.642429 3.452753 3.548978 7.981439 4.188006 3.760057
## GSM875414 3.366446 11.777177 3.221339 4.131303 8.053622 4.140909 4.061396
##          KLHL40      CENPI C10orf53      SYT9      AVL9      CCNG2      NDUFS4
## GSM875412 3.997932 3.281698 4.325225 3.865676 3.287549 4.595732 3.902902
## GSM875413 4.248427 3.316041 4.527275 4.728361 3.202193 4.863550 4.627097
## GSM875414 5.038900 3.208760 4.763594 5.315828 3.240159 4.716963 3.589030
##          LPGAT1      IKZF2      GTPBP3      USP6      WNK1      TLL1      KCNH5
## GSM875412 7.790782 4.429454 4.026958 5.685170 3.677958 3.439050 3.767267
## GSM875413 5.176880 4.648603 4.144701 5.713546 3.411408 3.234376 3.880047
## GSM875414 7.222141 4.846065 4.676513 6.033501 3.605784 3.209968 4.400104
##          ARHGAP25      ZNF843 RPL13AP17 LINC01657      STAT5B      PPM1F      VASH2
## GSM875412 4.280063 5.282766 5.832318 3.535290 6.125776 3.597681 4.081539
## GSM875413 3.790929 5.469492 5.870349 3.570597 5.505278 3.941379 3.640022
## GSM875414 4.005833 5.777727 6.200608 3.522775 6.136659 4.108959 4.518360
##          LINC01558      STPG2      PTGFR      CACNB2      APLF      FGF7      MIER1
## GSM875412 3.779635 4.171639 3.661011 3.628990 3.935401 3.150863 6.114032
## GSM875413 3.279146 4.112898 3.518818 5.221483 3.897523 3.096299 5.168712
## GSM875414 3.481155 4.030706 3.785214 4.362363 4.163877 3.094245 5.462916
##          CTDSPL2      UVSSA      SLC10A7      KLHL3      CCDC181 ATP6V0A2      SLC11A1
## GSM875412 5.644250 4.735093 3.883120 3.552499 3.102157 3.757016 3.878854
## GSM875413 3.674473 4.305173 3.837446 3.676912 3.376853 3.637791 3.756137
## GSM875414 4.293173 4.950353 3.923641 3.846201 3.166291 3.598590 4.039035
##          ENTPD3      CD96      ADGRA3      ST6GAL2 LINC01126      PAXBP1      MOCS1
## GSM875412 3.561898 3.511873 3.531158 3.250977 4.262235 6.020567 3.634862
## GSM875413 3.615742 3.423133 3.258457 3.374782 4.348841 5.158018 3.538981
## GSM875414 3.559938 3.472543 3.518608 3.464702 4.396359 5.742736 3.415223
##          PER3      FAM9A      FGD6      OTUD7B      BCL2L2      ATF2      FCHO2
## GSM875412 3.681797 3.514283 4.245113 4.815055 5.053761 3.551983 4.821424
## GSM875413 3.509713 3.595650 3.779079 4.977420 5.118610 3.265199 4.565649
## GSM875414 4.182992 3.732577 3.901850 5.884608 5.465158 3.410410 4.676510
##          QKI      MLLT6      PRR5-ARHGAP8      KIF26B      PGPEP1      NAMPT      CALN1
## GSM875412 5.828908 4.416162 4.017413 4.301901 4.618754 8.411144 4.322363
## GSM875413 6.524074 4.923967 3.847771 4.569977 4.724460 6.681946 4.849816
## GSM875414 5.825658 4.823397 4.455710 4.912986 5.014937 7.322637 5.129862
##          ST3GAL3      STX19      PBLD      PRKAA1 IGHV7-81 LOC100132686      TERF2
## GSM875412 3.462244 4.574388 6.160804 4.952933 3.501476 4.081005 3.406668
## GSM875413 3.744088 3.525606 4.832174 3.181414 3.296970 4.073299 3.396498
## GSM875414 4.134160 4.356862 6.835683 3.356821 3.489054 4.546758 3.223431
##          LINC00508 MTUS2-AS1      TAT      FHL5      ZNF277      FBX036 LINC00421
## GSM875412 3.664356 4.554066 3.674512 4.061082 3.600077 3.580069 4.269178
## GSM875413 3.709633 4.490758 3.461165 3.951200 3.702738 3.472935 4.524745
## GSM875414 3.470505 4.632940 3.435102 4.024234 3.238868 3.691424 4.865382
##          GOSR1      RMND1      RPRD1A      SLC44A4 USP6NL-AS1      DTWD1      OR8B8
## GSM875412 6.272800 7.161055 6.691222 9.191820 4.079139 3.656080 4.400329
## GSM875413 3.338933 5.450496 4.578000 4.573213 4.426803 3.900242 4.446867
## GSM875414 3.399621 5.503064 5.032629 9.484370 4.997041 3.874110 4.657745
##          HRH3      TBX2-AS1      UBE2W      RGR      AKR1E2 CCDC148-AS1      C1orf43
## GSM875412 5.053761 4.715457 3.442043 4.471722 3.812722 3.486911 5.212072
## GSM875413 5.183605 6.144102 3.545300 4.485262 3.716911 3.549035 4.272962

```

|    |           |           |          |          |           |           |           |           |
|----|-----------|-----------|----------|----------|-----------|-----------|-----------|-----------|
| ## | GSM875414 | 5.237792  | 4.424587 | 3.963519 | 4.583453  | 4.555727  | 3.698076  | 4.777822  |
| ## |           | C1S       | KCNIP2   | RHOJ     | IQCF3     | PGC       | PTH2      | GNG12     |
| ## | GSM875412 | 9.472257  | 3.593810 | 5.345705 | 3.713034  | 10.900728 | 6.275479  | 6.870497  |
| ## | GSM875413 | 10.256208 | 4.003862 | 5.231455 | 3.977561  | 8.195461  | 6.942888  | 4.822001  |
| ## | GSM875414 | 8.426059  | 5.052446 | 5.274186 | 4.209335  | 8.039624  | 6.805016  | 6.335442  |
| ## |           | RBIS      | RP1L1    | SCN1A    | RAPGEF6   | WNK3      | CPEB3     | OTOF      |
| ## | GSM875412 | 6.898374  | 4.256399 | 3.519047 | 4.015219  | 4.171639  | 4.100279  | 4.522191  |
| ## | GSM875413 | 6.739634  | 4.049712 | 3.467554 | 4.455204  | 4.245868  | 4.427633  | 4.762499  |
| ## | GSM875414 | 6.155653  | 4.216540 | 3.633966 | 3.750473  | 4.228812  | 3.832304  | 4.802774  |
| ## |           | COL25A1   | PPIP5K1  | EVC2     | MAP3K20   | MAGI1     | ASXL2     | GRID1     |
| ## | GSM875412 | 3.291346  | 6.295514 | 4.146780 | 6.269965  | 4.902143  | 5.525457  | 4.604824  |
| ## | GSM875413 | 3.199042  | 6.443485 | 4.403152 | 7.396990  | 4.386315  | 4.501185  | 4.832976  |
| ## | GSM875414 | 3.197540  | 6.195927 | 5.411998 | 5.816306  | 4.961577  | 5.669124  | 4.839636  |
| ## |           | ANO1      | WFS1     | TERT     | GALNTL6   | SELENOI   | KLHL6     | SLC4A5    |
| ## | GSM875412 | 8.592909  | 6.372119 | 4.408560 | 3.829487  | 7.287479  | 3.971775  | 4.116651  |
| ## | GSM875413 | 10.732731 | 6.929989 | 4.303604 | 3.734087  | 4.250661  | 3.687037  | 4.462974  |
| ## | GSM875414 | 8.785688  | 6.682341 | 4.409103 | 3.885381  | 7.171271  | 3.878817  | 4.196532  |
| ## |           | CKAP5     | ARMC8    | ALS2     | CDKL1     | STRIP2    | VWA3B     | MED12L    |
| ## | GSM875412 | 9.442739  | 5.049878 | 3.779596 | 3.698776  | 4.738284  | 3.616956  | 3.899734  |
| ## | GSM875413 | 8.169064  | 4.231836 | 3.501042 | 3.841612  | 3.820562  | 3.655819  | 3.945735  |
| ## | GSM875414 | 8.588726  | 4.546042 | 3.622960 | 3.973775  | 3.556052  | 4.130512  | 4.144946  |
| ## |           | FOXJ2     | ECE2     | TTF2     | CARD14    | PAK6      | MCF2      | WDR19     |
| ## | GSM875412 | 3.558335  | 4.821848 | 3.635395 | 4.289748  | 5.356940  | 3.200581  | 3.409793  |
| ## | GSM875413 | 3.706304  | 4.954830 | 3.195667 | 4.655620  | 4.823589  | 4.095686  | 3.497161  |
| ## | GSM875414 | 3.672232  | 5.561833 | 3.292992 | 5.214118  | 5.380724  | 3.283194  | 3.555036  |
| ## |           | MAK       | KCNH7    | POLK     | HIF3A     | STAB1     | LINC02961 | ABCB9     |
| ## | GSM875412 | 3.505433  | 3.478832 | 4.000202 | 3.413882  | 4.385766  | 3.845931  | 5.263391  |
| ## | GSM875413 | 3.467554  | 3.541906 | 3.665372 | 5.557754  | 3.911338  | 3.690246  | 6.051024  |
| ## | GSM875414 | 3.527580  | 4.238725 | 3.374999 | 3.749742  | 4.288377  | 3.766226  | 6.178387  |
| ## |           | PTK7      | ZNF26    | ADAM9    | GCLC      | TPH2      | SLC30A5   | ITGA9     |
| ## | GSM875412 | 3.536124  | 5.261359 | 8.262313 | 5.237740  | 3.429574  | 7.612800  | 3.618724  |
| ## | GSM875413 | 3.380135  | 6.545805 | 7.243237 | 3.997115  | 3.264837  | 7.386201  | 4.122918  |
| ## | GSM875414 | 3.714075  | 5.253204 | 7.792391 | 3.818111  | 3.284989  | 7.289198  | 4.946746  |
| ## |           | ZNF317    | AQP10    | RAP1A    | UNC5C     | MEGF10    | SLC38A4   | PDXDC1    |
| ## | GSM875412 | 5.813267  | 4.080326 | 3.802014 | 3.240773  | 5.422019  | 3.186819  | 4.832310  |
| ## | GSM875413 | 4.870819  | 4.104942 | 4.253687 | 3.243465  | 5.742415  | 3.506648  | 4.463023  |
| ## | GSM875414 | 5.635407  | 4.307896 | 4.656786 | 3.291729  | 5.849537  | 3.414005  | 6.131777  |
| ## |           | TFAP2E    | ITGB2    | PPHLN1   | LRP1      | ETS1      | SCML4     | DDX53     |
| ## | GSM875412 | 5.692343  | 7.943578 | 4.402098 | 3.848766  | 7.665602  | 3.413077  | 3.427096  |
| ## | GSM875413 | 5.161878  | 7.808885 | 4.329262 | 4.410745  | 6.254599  | 3.473717  | 3.328174  |
| ## | GSM875414 | 5.697400  | 8.248451 | 5.206705 | 4.817804  | 7.326910  | 3.664676  | 3.540249  |
| ## |           | ENTPD4    | PIGQ     | DNAJC11  | LINC00663 | C11orf58  | ZNF479    | BAGE      |
| ## | GSM875412 | 5.413479  | 5.762223 | 7.675501 | 3.899519  | 3.226733  | 3.244738  | 3.861882  |
| ## | GSM875413 | 5.810492  | 5.986878 | 6.892077 | 5.866214  | 3.171462  | 3.119283  | 3.467554  |
| ## | GSM875414 | 5.609268  | 5.738862 | 7.736918 | 5.204904  | 3.289786  | 3.297636  | 3.661918  |
| ## |           | CAMTA1    | ABCB5    | TTL      | GRIK2     | OR4D2     | DBF4B     | SHISAL2A  |
| ## | GSM875412 | 5.278581  | 4.295586 | 5.349322 | 3.186727  | 3.975575  | 5.227546  | 4.002135  |
| ## | GSM875413 | 6.369979  | 4.601218 | 5.320122 | 3.191886  | 4.258442  | 5.158473  | 4.249501  |
| ## | GSM875414 | 5.147814  | 4.829412 | 5.752887 | 3.170906  | 4.272973  | 5.714380  | 5.259126  |
| ## |           | ADAMTS4   | POF1B    | LARP4    | B4GALNT1  | UBA1      | SNX25     | NOP9      |
| ## | GSM875412 | 4.731436  | 5.236915 | 5.853070 | 4.281530  | 4.295700  | 5.366916  | 4.588918  |
| ## | GSM875413 | 4.684133  | 3.095754 | 4.940399 | 3.946443  | 4.380828  | 5.183677  | 4.761834  |
| ## | GSM875414 | 5.091867  | 3.449829 | 5.913097 | 3.909536  | 4.339059  | 5.853086  | 6.320682  |
| ## |           | CARF      | PIGK     | AKAP12   | EZHIP     | MYO1D     | DUSP16    | LOC645261 |

|    |           |          |          |          |           |           |          |           |
|----|-----------|----------|----------|----------|-----------|-----------|----------|-----------|
| ## | GSM875412 | 3.957671 | 3.125463 | 3.466804 | 3.605641  | 3.487658  | 7.077520 | 3.267872  |
| ## | GSM875413 | 3.549614 | 3.220358 | 3.866030 | 3.902844  | 3.487946  | 6.871370 | 3.360398  |
| ## | GSM875414 | 3.429842 | 3.222767 | 3.973771 | 4.317192  | 3.664451  | 6.896947 | 3.346317  |
| ## |           | SOHLH2   | CDH19    | FGD3     | CCNL1     | ALOX15B   | TAS1R1   | ASAH1     |
| ## | GSM875412 | 3.849745 | 3.268738 | 4.203167 | 10.058058 | 3.869679  | 3.511883 | 9.935592  |
| ## | GSM875413 | 4.235364 | 3.360645 | 4.109113 | 9.350957  | 3.951448  | 3.667075 | 9.977396  |
| ## | GSM875414 | 3.995688 | 3.514577 | 4.854014 | 10.118011 | 4.244284  | 3.997491 | 9.847498  |
| ## |           | KLF7     | AP1S3    | OTUD5    | SYNCRIP   | TSTD2     | SLC39A14 | AFF4      |
| ## | GSM875412 | 5.416528 | 3.572181 | 6.427893 | 7.914008  | 3.911119  | 3.590953 | 3.159273  |
| ## | GSM875413 | 5.656707 | 3.408871 | 6.912105 | 6.308690  | 3.511726  | 3.377978 | 3.249275  |
| ## | GSM875414 | 4.995044 | 3.732466 | 7.385502 | 6.751486  | 3.771954  | 3.249236 | 3.042163  |
| ## |           | EARS2    | GTF3C3   | UBA6     | CCDC172   | PPP1R12B  | CA8      | TRAPPC10  |
| ## | GSM875412 | 4.691308 | 4.564245 | 3.638137 | 4.070580  | 3.234631  | 3.500495 | 6.174271  |
| ## | GSM875413 | 4.516454 | 4.278129 | 3.205508 | 3.969082  | 3.043847  | 3.340271 | 5.173860  |
| ## | GSM875414 | 4.485149 | 3.982779 | 3.258010 | 4.206317  | 3.180126  | 3.682040 | 5.270740  |
| ## |           | ADGRG5   | AP5M1    | NAA16    | LITAF     | BRINP1    | SLC39A6  | TXNL4A    |
| ## | GSM875412 | 5.459899 | 4.230036 | 5.919106 | 3.582624  | 3.529874  | 7.319569 | 5.373596  |
| ## | GSM875413 | 5.707358 | 3.635152 | 4.230800 | 3.487500  | 3.644914  | 8.642365 | 6.725882  |
| ## | GSM875414 | 5.843599 | 3.778987 | 5.446607 | 3.405692  | 3.842443  | 6.164560 | 4.928140  |
| ## |           | PPP1R1C  | CHD6     | IFIH1    | MCOLN2    | CELF1     | NRP2     | CLASP2    |
| ## | GSM875412 | 3.698776 | 4.168879 | 4.566257 | 4.613607  | 8.149704  | 4.832310 | 7.116782  |
| ## | GSM875413 | 3.791229 | 4.020901 | 3.577520 | 3.623491  | 5.976644  | 6.226443 | 6.044162  |
| ## | GSM875414 | 3.641767 | 4.528510 | 3.681085 | 4.145103  | 7.211440  | 4.619048 | 5.747504  |
| ## |           | FMN2     | SORBS2   | TTLL3    | IREB2     | LINC02875 | FAM153B  | PRR5L     |
| ## | GSM875412 | 3.329536 | 3.371326 | 5.030571 | 3.579415  | 6.089605  | 3.374706 | 5.741171  |
| ## | GSM875413 | 3.542642 | 3.659714 | 4.968227 | 3.459844  | 6.237566  | 3.347018 | 5.279786  |
| ## | GSM875414 | 3.340842 | 4.416013 | 5.102614 | 3.628780  | 6.665353  | 3.464060 | 5.243997  |
| ## |           | ACTR3B   | PDZD3    | SHFL     | BEST3     | CWC27     | CYP4B1   | IFNLR1    |
| ## | GSM875412 | 6.596216 | 5.224050 | 5.899066 | 3.479334  | 7.599141  | 4.875180 | 5.589468  |
| ## | GSM875413 | 6.959483 | 4.948947 | 6.237505 | 3.376474  | 8.765810  | 4.693623 | 5.950674  |
| ## | GSM875414 | 6.567471 | 5.823060 | 6.301931 | 3.564168  | 7.094125  | 5.918437 | 6.137970  |
| ## |           | SLC2A4RG | RSRC1    | NPSA     | TMCC2     | TYR       | SLC25A41 | ZNF215    |
| ## | GSM875412 | 4.916659 | 7.000663 | 3.472192 | 4.462585  | 3.048151  | 4.758965 | 3.163819  |
| ## | GSM875413 | 6.891598 | 5.561382 | 3.595442 | 4.567094  | 2.913686  | 4.853096 | 3.172425  |
| ## | GSM875414 | 6.365391 | 7.190053 | 3.726361 | 4.619126  | 2.994864  | 5.341223 | 3.294994  |
| ## |           | PIAS2    | ENTREP3  | GABRG3   | PTCH1     | FYC01     | SEPTIN6  | COL9A1    |
| ## | GSM875412 | 3.119427 | 3.655729 | 3.186787 | 4.899111  | 6.315638  | 5.440082 | 3.319508  |
| ## | GSM875413 | 3.188844 | 3.851647 | 3.298079 | 6.016112  | 6.442501  | 5.875291 | 3.137110  |
| ## | GSM875414 | 3.257074 | 4.427813 | 3.369191 | 3.788316  | 6.712994  | 5.478223 | 3.181663  |
| ## |           | RNH1     | QRFPR    | BPIFB6   | ANTXR2    | SDS       | TGFB3    | AFAP1L1   |
| ## | GSM875412 | 4.516001 | 3.588006 | 3.914175 | 6.662299  | 4.833532  | 4.085365 | 4.644190  |
| ## | GSM875413 | 4.455817 | 3.392675 | 3.840780 | 6.730190  | 4.648213  | 4.100795 | 5.002095  |
| ## | GSM875414 | 4.793490 | 3.414105 | 3.775914 | 6.269853  | 5.326141  | 4.987343 | 5.430244  |
| ## |           | CLCC1    | KLK2     | POFUT2   | ZACN      | SERPINB5  | SLC22A7  | BPIFA4P   |
| ## | GSM875412 | 7.652548 | 3.836504 | 5.702732 | 4.941335  | 4.122573  | 4.876007 | 4.312220  |
| ## | GSM875413 | 7.475212 | 4.194898 | 5.946051 | 5.210348  | 3.522410  | 5.083299 | 4.332495  |
| ## | GSM875414 | 7.803525 | 4.257618 | 6.654161 | 5.251196  | 4.309508  | 5.284644 | 4.438361  |
| ## |           | BBS9     | TNK2     | USP25    | UGGT2     | ZCCHC7    | CFI      | TAPBP     |
| ## | GSM875412 | 3.891403 | 3.916507 | 3.253151 | 3.259733  | 5.255512  | 9.451413 | 7.224726  |
| ## | GSM875413 | 3.592381 | 4.057966 | 3.265199 | 3.310284  | 3.902055  | 3.822548 | 6.374205  |
| ## | GSM875414 | 3.742465 | 4.823012 | 3.295174 | 3.368121  | 6.042675  | 4.757832 | 7.224428  |
| ## |           | LMOD3    | GUSBP2   | IMMP2L   | CA6       | KDELRL1   | PTPRM    | LINC00824 |
| ## | GSM875412 | 3.364729 | 3.961590 | 5.099772 | 3.143216  | 10.22036  | 7.352508 | 3.792041  |
| ## | GSM875413 | 3.684960 | 3.617726 | 3.919763 | 3.342459  | 10.58950  | 9.579016 | 4.357282  |

|    |           |          |          |           |          |           |           |           |
|----|-----------|----------|----------|-----------|----------|-----------|-----------|-----------|
| ## | GSM875414 | 3.818035 | 3.726968 | 3.721195  | 3.363277 | 10.91709  | 7.147990  | 4.055190  |
| ## |           | TP63     | PDZRN3   | GATA1     | PIF1     | MBNL1     | SCRN3     | APOL4     |
| ## | GSM875412 | 3.580069 | 4.219239 | 5.553148  | 3.486049 | 7.065071  | 3.862864  | 6.551187  |
| ## | GSM875413 | 3.609104 | 4.287408 | 5.698187  | 3.465913 | 4.884929  | 3.701194  | 5.853956  |
| ## | GSM875414 | 3.913821 | 4.761791 | 6.122524  | 4.057253 | 7.285658  | 4.073686  | 5.072704  |
| ## |           | ELAVL3   | GDPD1    | CAPRIN2   | ZMAT3    | AGK       | MBD1      | G6PC1     |
| ## | GSM875412 | 3.493888 | 3.637260 | 5.543403  | 4.857106 | 3.291114  | 5.108627  | 3.714327  |
| ## | GSM875413 | 3.921613 | 3.351572 | 5.685930  | 6.742219 | 3.095551  | 5.248535  | 4.142307  |
| ## | GSM875414 | 4.421788 | 5.385246 | 5.499302  | 5.349111 | 3.130130  | 6.073784  | 4.210149  |
| ## |           | ZAP70    | SUGT1P1  | SAE1      | PTGIR    | SLAMF1    | RAB34     | PIK3IP1   |
| ## | GSM875412 | 5.775794 | 4.228739 | 8.776887  | 6.452350 | 3.936713  | 7.676355  | 4.723343  |
| ## | GSM875413 | 5.591129 | 4.448151 | 8.885279  | 7.577741 | 3.984185  | 5.882355  | 4.012183  |
| ## | GSM875414 | 6.254592 | 4.742063 | 9.344810  | 7.098205 | 4.277541  | 6.961452  | 4.186945  |
| ## |           | LILRA5   | SAMSN1   | RBM14     | DAOA     | KLHL17    | OR10A5    | OR10A4    |
| ## | GSM875412 | 4.145176 | 6.876337 | 4.951755  | 3.693256 | 5.247182  | 3.914043  | 4.147903  |
| ## | GSM875413 | 4.126421 | 6.142323 | 4.261380  | 3.855759 | 5.568660  | 3.944309  | 3.800626  |
| ## | GSM875414 | 4.321087 | 6.536441 | 6.008540  | 4.000272 | 5.827939  | 3.917177  | 4.110642  |
| ## |           | TREML1   | OR8D1    | PTPRS     | KRTAP2-3 | BLID      | GSX1      | SMC1A     |
| ## | GSM875412 | 4.439970 | 3.970533 | 3.915755  | 3.508943 | 3.625373  | 3.690826  | 3.922631  |
| ## | GSM875413 | 5.040140 | 4.108247 | 3.877755  | 3.446306 | 3.810733  | 4.295558  | 3.588826  |
| ## | GSM875414 | 5.258173 | 4.085257 | 3.978775  | 3.627030 | 3.620973  | 4.145850  | 3.848630  |
| ## |           | RTN4IP1  | SMOX     | OTUB2     | H6PD     | SLA2      | KCNIP3    | KLK4      |
| ## | GSM875412 | 6.594589 | 5.197011 | 4.989179  | 4.371376 | 5.024549  | 4.813505  | 6.563938  |
| ## | GSM875413 | 6.001261 | 5.615164 | 4.935710  | 3.900197 | 4.938103  | 4.968673  | 6.884848  |
| ## | GSM875414 | 6.313539 | 6.045675 | 5.168978  | 4.217294 | 5.416025  | 5.029794  | 6.697384  |
| ## |           | CMTM3    | PNKD     | CXADR     | TAGLN    | RGS5      | MS4A4A    | CD209     |
| ## | GSM875412 | 4.278806 | 4.376943 | 6.290641  | 11.08548 | 9.407605  | 7.389560  | 3.695076  |
| ## | GSM875413 | 5.049134 | 4.937748 | 3.288649  | 10.17335 | 11.986454 | 6.305969  | 4.055960  |
| ## | GSM875414 | 6.248334 | 5.050787 | 6.307328  | 10.75015 | 10.673591 | 7.400847  | 5.108184  |
| ## |           | CFL1     | BAP1     | AGTRAP    | CMTM1    | ERVH-6    | LYZ       | CD79B     |
| ## | GSM875412 | 11.70719 | 6.039253 | 7.311363  | 4.225690 | 5.402852  | 8.894384  | 4.386873  |
| ## | GSM875413 | 10.69575 | 7.243590 | 7.128522  | 4.629557 | 5.702555  | 6.980523  | 4.756794  |
| ## | GSM875414 | 12.73143 | 5.795801 | 7.436403  | 4.681629 | 6.236671  | 12.175012 | 5.402511  |
| ## |           | SF1      | GEMIN7   | STH       | ATN1     | LLCFC1    | CDKN3     | RBM15     |
| ## | GSM875412 | 3.745279 | 7.101097 | 4.876007  | 5.708222 | 3.815539  | 7.513084  | 8.370814  |
| ## | GSM875413 | 3.720732 | 6.836802 | 4.963892  | 6.110060 | 3.922523  | 5.102254  | 7.226930  |
| ## | GSM875414 | 4.007231 | 8.333758 | 5.555233  | 6.892347 | 3.972017  | 6.839321  | 7.823774  |
| ## |           | MRTFA    | TIMM10   | GNG4      | GNG2     | CDC25A    | BPIFC     | ZAR1      |
| ## | GSM875412 | 5.518728 | 8.850674 | 3.611595  | 3.680896 | 4.395765  | 3.835484  | 3.215326  |
| ## | GSM875413 | 6.278194 | 9.842909 | 3.842834  | 3.811067 | 3.347109  | 3.893451  | 3.396775  |
| ## | GSM875414 | 7.358117 | 9.845540 | 4.709918  | 4.111323 | 3.441538  | 4.364743  | 3.618615  |
| ## |           | POSTN    | CD79A    | RHEB      | SLC66A1  | IRAK1     | XRN1      | LINC00520 |
| ## | GSM875412 | 3.460161 | 6.134221 | 9.216461  | 5.808013 | 6.047281  | 6.653394  | 7.664419  |
| ## | GSM875413 | 3.435897 | 6.167915 | 10.140838 | 5.784056 | 5.642889  | 3.911689  | 8.018486  |
| ## | GSM875414 | 3.741778 | 7.051301 | 9.084500  | 6.029780 | 7.312161  | 4.177023  | 8.820400  |
| ## |           | JHY      | TRIB3    | PHF23     | CCDC116  | ZFP82     | ARPC5     | FCRL5     |
| ## | GSM875412 | 3.554799 | 4.529843 | 6.476567  | 4.700639 | 4.423840  | 9.872563  | 3.944499  |
| ## | GSM875413 | 3.472195 | 5.543729 | 6.683708  | 5.305554 | 6.218225  | 7.347822  | 3.831826  |
| ## | GSM875414 | 3.795830 | 5.113883 | 6.561791  | 6.017034 | 5.200561  | 9.334772  | 4.063215  |
| ## |           | ZNF385B  | NKAPD1   | MAP3K19   | MOG      | EXD2      | CRISPLD2  | ARHGDI    |
| ## | GSM875412 | 3.670416 | 6.794221 | 3.429207  | 4.174381 | 4.908276  | 5.299277  | 6.594589  |
| ## | GSM875413 | 3.318796 | 6.668698 | 3.774873  | 3.744402 | 5.043630  | 5.268875  | 6.544919  |
| ## | GSM875414 | 3.807120 | 5.902038 | 4.058933  | 3.992825 | 5.258674  | 5.694471  | 6.358460  |
| ## |           | RHOA     | L3MBTL2  | THSD4     | SAMD14   | MKS1      | AKT1S1    | PACS2     |

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## GSM875412 11.40911 6.839948 3.268498 4.646447 5.822906 4.409268 8.514009
## GSM875413 10.04875 7.026291 3.255222 6.631811 5.920527 4.352296 8.363742
## GSM875414 11.04208 6.142690 3.119843 5.212500 6.443441 5.124964 8.885612
##          BIRC5      ESYT2      LRRC41      KLF6      IRGQ      UCHL1      POLR2B
## GSM875412 6.063531 7.010310 7.248118 10.41804 7.389443 4.136768 4.210204
## GSM875413 4.762373 3.907711 7.264138 10.02556 8.174543 4.190169 3.977205
## GSM875414 5.049036 4.566163 6.999193 11.42514 7.162826 4.137832 3.709052
##          LINC02877      CYTH2      HNRNPM      MIR23AHG      RBM18      SELENOW      PSMB8-AS1
## GSM875412 3.339796 7.039604 6.671095 8.982608 6.512395 10.78654 7.222920
## GSM875413 3.376120 6.196764 6.942031 8.374955 7.112008 11.76628 5.618603
## GSM875414 3.519199 7.436054 7.070245 8.496901 5.743031 10.79643 5.557264
##          AKR1C1      THUMP3-AS1      MICALL2      PDHA1      TOLLIP-DT      HEXD      LINC02941
## GSM875412 4.186994 7.829153 4.986336 9.907002 4.171639 6.843100 3.499158
## GSM875413 4.090184 5.865994 3.799411 9.398659 4.503870 6.879879 3.496447
## GSM875414 4.378301 5.881033 3.983987 8.381502 5.353224 7.370513 3.777094
##          RNF207      TTC28-AS1      GLIDR      RPS24      ERVFRD-1      LZTS2      PSMD6
## GSM875412 7.766866 4.795203 4.765938 8.771174 3.930505 6.497351 3.903802
## GSM875413 7.044514 5.754767 4.930589 7.709941 3.796097 7.620332 3.492203
## GSM875414 5.683960 5.993960 4.952476 8.014224 3.975047 6.785435 3.304891
##          PDSS2      UBR5-DT      CUTALP      WWP1-AS1      MTSS2      DNM2      ADAM15
## GSM875412 7.098062 5.166523 4.853421 4.278752 3.978840 6.180116 8.163868
## GSM875413 5.141488 4.936573 4.268629 3.342192 4.614083 5.308271 7.175844
## GSM875414 5.603979 4.469361 5.288383 3.501287 3.992465 6.228798 8.086311
##          ANKRD36C      DCTN5      ARMCX5      FRY      TCAIM      AGAP2-AS1      FAM120A
## GSM875412 5.142124 5.601948 4.610799 4.366842 6.581940 5.410478 4.261706
## GSM875413 4.516736 6.289872 6.350406 4.655093 3.866030 5.474507 4.073481
## GSM875414 4.770558 4.157257 5.416665 3.835445 5.302512 6.948478 3.809566
##          PTC2      ST7-AS1      GON4L      EXD3      RPUSD3      CBX3      MIR1915HG
## GSM875412 6.329344 4.052261 7.235680 4.297680 7.199278 6.979894 6.625094
## GSM875413 6.975248 4.605659 5.920799 4.430453 8.153621 4.853418 6.459964
## GSM875414 5.233643 4.081358 5.917042 4.704916 7.349208 4.786013 6.986636
##          TS2A10      KIAA2013      HUNK      VIM      PRKCA-AS1      MIR205HG      CD55
## GSM875412 4.225536 6.497531 4.965871 5.261102 3.141456 3.881878 12.249301
## GSM875413 4.116606 7.018693 5.743887 5.087949 3.144402 4.080162 7.292945
## GSM875414 4.200923 7.185171 5.436572 5.025724 2.992812 3.941234 10.715064
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## GSM875412 5.056308 3.675570 6.702595 5.339233 8.560585 4.461127 4.691497
## GSM875413 5.178382 3.847963 6.336355 5.557382 4.607308 5.372088 5.021829
## GSM875414 5.312768 3.884247 5.035688 5.625282 6.256032 4.259233 4.978366
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## GSM875412 3.541536 3.738184 8.836521 3.756061 4.309110 4.434430 8.709485
## GSM875413 3.755785 3.584378 6.537702 3.763931 5.892272 4.570753 5.299241
## GSM875414 4.161356 3.540588 4.352110 3.729416 5.582180 5.059677 8.712473
##          IGFBP5      ATP5PD      BTBD7      MAPK8IP2      LOC101928817      CSNK1A1      PEX13
## GSM875412 4.582899 5.974882 6.347061 6.088843 4.256424 7.280235 5.005195
## GSM875413 4.320206 5.946365 7.316603 6.461032 4.127042 6.720639 3.651786
## GSM875414 4.871904 5.915304 6.709439 6.885383 4.186476 6.237643 5.193222
##          MESP2      NBEAL2      GPR180      EME2      EOLA1-DT      SMTN      LINC01138
## GSM875412 5.446812 5.079478 3.938166 5.908441 3.471333 5.131298 6.250063
## GSM875413 6.140831 4.862013 3.764358 6.391470 4.552418 6.245256 6.650816
## GSM875414 6.363496 5.419840 3.784664 6.866898 3.181153 5.411168 5.782567
##          MTMR11      ZNF207      HHIP      GPR173      LINC01089      MIR124-1HG      MAGEE1
## GSM875412 7.965975 8.800780 3.704173 4.023690 6.746014 5.266670 4.330561
## GSM875413 8.446226 7.785084 5.275687 4.650090 7.316456 5.243591 7.050404

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## GSM875414 8.980566 8.309916 4.091101 4.490761 6.922214 5.087865 4.506059
## MAGOH-DT RTN4 DNAJC7 SIK2 NEUROD1 SPEN ZNF451
## GSM875412 4.094604 6.706215 6.724785 5.414996 3.804895 4.995343 8.861108
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## GSM875414 4.281354 5.739243 6.426251 5.437137 3.789468 4.647940 9.362627
## RPP30 KDM6B LINC00528 HPF1 RPAIN HEMK1 UNC13C
## GSM875412 4.081005 6.014813 3.945340 3.427102 5.192543 4.963484 3.318289
## GSM875413 4.614287 7.329993 4.154830 3.641176 5.490564 5.095547 3.474309
## GSM875414 4.118726 6.889136 4.095833 3.948833 4.676510 5.211494 3.290196
## HOMER2 LINC00290 LINC01260 NAP1L1 RAB11B-AS1 GPATCH2 RASGRF2
## GSM875412 4.064454 3.336272 4.160200 5.393300 3.617861 6.457714 5.371995
## GSM875413 3.117388 3.229152 4.227712 7.926652 3.864216 5.267247 5.381217
## GSM875414 3.338611 3.911100 4.331391 5.330939 4.347420 5.020463 5.142124
## ZNF778 TEX36-AS1 MYLK4 DHX30 ARVCF ITFG1 SNAI3-AS1
## GSM875412 5.805480 3.363496 3.874547 4.838201 5.238924 8.573872 3.685319
## GSM875413 6.521154 3.315816 3.768720 4.161655 5.392530 8.504233 4.273660
## GSM875414 6.530197 3.307494 3.745037 4.205733 5.530934 8.538879 4.363668
## GPR37L1 ESRRB SAXO2 LOC105379178 LINC02575 MROH2A
## GSM875412 4.173631 3.523337 3.201953 4.043196 5.200791 3.657603
## GSM875413 4.029621 3.637192 3.348343 4.307177 4.568542 3.659767
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## GSM875412 3.163100 4.054867 5.844601 4.63538 6.396879 3.557189
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## GSM875414 2.908626 4.602481 6.596643 4.72782 6.588059 2.988473
## EMC1 LINC02984 HSPA4L LOC105379524 RGS9BP C10orf90 RNASET2
## GSM875412 6.547723 4.041332 3.741733 4.785309 3.687152 3.661189 4.210142
## GSM875413 6.355684 3.774998 8.621357 4.930875 3.862660 3.685541 3.888924
## GSM875414 5.846234 3.503554 3.424818 4.811752 4.073686 3.942422 3.952903
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## GSM875412 4.583152 3.374210 3.543487 3.905548 6.394493 3.614014
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## GSM875412 4.633875 6.048488 3.620923 3.699347 4.307084 3.869642
## GSM875413 4.710150 6.070098 3.573378 4.026786 4.069169 4.029621
## GSM875414 5.081578 6.587904 3.414105 3.634881 4.508963 4.466984
## MYT1 LOC101928896 TENT2 TSEN2 FGFR10P2 SMIM21
## GSM875412 4.514046 4.073472 7.116782 4.176403 3.469587 3.282219
## GSM875413 4.579356 3.848346 5.413337 4.039868 3.153127 3.356844
## GSM875414 5.207063 3.622960 5.549637 4.461176 3.277095 4.164026
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## GSM875412 3.283252 6.886952 3.541536 5.573611 3.687473 3.750210
## GSM875413 3.300846 7.218493 3.918351 5.713056 3.818226 3.954636
## GSM875414 3.325511 7.986298 3.701385 6.164899 3.897073 3.464702
## LINC00899 PRRT3 FAAP20 PCARE ZNF366 MIF-AS1 CAND1
## GSM875412 4.846894 4.611290 4.024818 3.986370 4.451247 4.520501 4.431745
## GSM875413 5.309268 4.890743 4.511745 4.237012 4.527469 4.430254 4.790071
## GSM875414 5.445715 4.709701 5.251499 4.392306 4.495722 4.990043 3.747743
## TRIM44 STOML1 TLNRD1 FILIP1 RBMX MAPK12 TIAM1-AS1

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## GSM875412 4.351548 5.856320 5.238780 3.914459 6.899857 6.009765 3.666754
## GSM875413 5.272545 5.866761 5.650198 5.018446 8.411191 6.595728 3.986249
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## GSM875412 4.392563 4.230083 3.309617 3.275119 4.695559 4.100539 3.839508
## GSM875413 4.183624 3.304680 3.335308 3.223653 4.713522 3.936222 3.606256
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##          ADAMTS9-AS2  PHKG2  OLIG3  FAM185A  LOC105370622  LM07  NAA15
## GSM875412 5.295414 3.838322 3.515490 8.138416 4.192386 4.948281 3.646290
## GSM875413 8.195565 3.749599 3.538981 6.410674 4.089951 4.644686 3.506998
## GSM875414 5.662087 3.917427 3.551088 5.655506 5.139812 5.387338 3.520497
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## GSM875412 3.580069 4.093079 3.471927 4.709375 3.408538 3.162965
## GSM875413 3.538981 4.502766 3.573531 5.115065 3.252379 3.081020
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##          KY  LINC00515  YPEL2  C8orf34-AS1  VASH1  HEXA  LRRN4CL
## GSM875412 3.772483 3.464856 6.178645 3.131638 5.573611 3.501506 5.711315
## GSM875413 3.901498 3.660369 5.005231 3.156856 5.157888 4.093977 9.566925
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##          TBC1D31  LOC400622  EXTL3-AS1  LINC00606  TRAPPC12  LINC00928
## GSM875412 4.125306 3.792368 4.098831 3.166207 5.768442 4.225817
## GSM875413 3.961885 4.227285 4.794627 3.295069 5.711842 4.304833
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## GSM875412 4.261664 3.383171 6.212957 3.624532 4.613816 3.074268
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##          LINC03032  LRRC52  LOC105378577  KDM4C  LINC01365  DIPK1A  COL1A1
## GSM875412 3.284635 5.223892 3.368869 5.918551 4.481476 3.891044 12.73325
## GSM875413 3.487597 5.294454 3.434060 4.700178 4.627554 3.433768 9.69954
## GSM875414 3.615195 5.414152 3.459189 6.254842 4.796507 3.743511 12.59115
##          LOC105374989  GGACT  LINC00605  LINC01210  NFIA-AS2  LOC105372394
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## GSM875413 3.330485 3.716771 3.761476 7.702855 4.160384 3.635443
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## GSM875413 3.323050 3.531110 3.304364 5.913566 4.084418 4.771427 4.976310
## GSM875414 3.829427 3.753754 3.144490 5.784737 3.759981 5.163000 6.213412
##          TRIM50  LYRM4-AS1  ENTPD3-AS1  FAM229A  HHIPL1  NAP1L4  NDUFAF6
## GSM875412 4.389678 4.581792 3.482879 5.539744 4.311788 5.566400 3.613545
## GSM875413 4.411709 4.387341 3.613537 6.095852 4.389182 4.862432 3.689631
## GSM875414 4.775679 4.796097 3.797051 6.087684 4.826671 5.216710 3.459183
##          LINC03018  PVR  SLC8A1  ST20-AS1  SPATA13  NAV2  EHD4
## GSM875412 3.766843 6.660465 3.546716 4.405519 7.157462 3.616383 3.658653
## GSM875413 4.550896 6.318062 4.069558 4.694719 5.840176 3.564900 3.902746
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##          DPY19L4  KLHDC4  LINC00901  SHISA9  DRP2  SNAP25  CASC2
## GSM875412 6.530282 3.822214 3.455812 3.822214 3.639823 3.461224 3.762615
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## GSM875414 4.312816 3.887841 3.527312 4.094457 3.840009 3.533501 3.875309
##          SNHG28  PAX7  LINC02724  SLC7A14  BISPR  TNFRSF10B  LINC01553
## GSM875412 4.511751 3.492500 3.583269 3.927254 6.194097 4.191635 3.542163
## GSM875413 4.245123 3.470776 4.184298 3.518135 6.011127 5.155346 3.591371

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## GSM875414 4.024374 3.222928 5.544193 3.357402 5.781331 4.404540 3.754076
##          CDK12 GTSE1-DT RHOQ-AS1      TTC6  FTCDNL1  GTF3C2-AS1      RBM6
## GSM875412 4.695498 3.998364 4.299110 4.009476 4.040545 3.943389 5.675571
## GSM875413 4.338791 3.966251 4.582284 3.887294 3.978796 3.887574 5.130797
## GSM875414 5.329189 4.148116 4.628524 4.588450 4.017737 3.921383 4.529281
##          LINC01016  RPPH1  CLDN10      WNT4      MZF1  NR2F1-AS1  GPRIN3
## GSM875412 4.721800 4.455360 3.871878 4.943604 4.459683 3.409498 3.353744
## GSM875413 4.981096 4.783166 3.811923 5.540542 4.447288 3.228530 3.188676
## GSM875414 5.494614 4.560487 4.013588 6.169301 4.544212 3.459448 3.310232
##          LINC02175  FAM216B  PRPSAP1  MIR194-2HG  C20orf203  LOC100128398
## GSM875412 4.804101 3.580869 6.306171 4.500383 4.464967 4.304082
## GSM875413 5.100864 3.521919 5.536360 4.714624 4.400483 4.299589
## GSM875414 5.159469 3.792974 5.593704 4.510680 5.614004 4.631857
##          PRCD      EML4  SCOC-AS1  LINC00671  GOLGA8IP  EGFLAM-AS2  GUSBP1
## GSM875412 5.600902 6.657605 3.617453 4.590003 6.410485 4.306184 3.688859
## GSM875413 5.637109 5.372864 3.836648 4.589194 6.393380 4.586154 3.866854
## GSM875414 5.823683 4.430689 3.697454 4.722161 6.538951 5.603979 3.750175
##          LOC101928343  LINC00856  MIR3150BHG  TASOR2  LINC00930  LOC105371967
## GSM875412 5.099772 4.359778 5.053761 4.350808 5.099068 3.822214
## GSM875413 5.187054 4.616122 4.808425 4.226444 5.397832 3.649071
## GSM875414 5.070325 4.978631 5.924197 4.180448 5.607103 3.729972
##          CNTFR-AS1  PAXBP1-AS1  FAM83C  KRBOX1-AS1  GRASLND  LRRC52-AS1  POLR3B
## GSM875412 4.135281 3.593622 3.517816 3.776795 5.012801 4.169720 3.672455
## GSM875413 4.171639 3.815753 3.668730 4.086645 4.566725 4.189171 4.044202
## GSM875414 4.736410 3.771108 3.760482 4.487820 5.010199 4.678187 4.453911
##          RAP2A      DLEU2  ZNF497-AS1  LPP-AS2  TIPARP-AS1  DYNC1H1
## GSM875412 4.141833 6.320892 4.047115 3.407383 4.015993 4.861372
## GSM875413 3.871203 6.640261 4.458311 3.651056 4.010551 4.948445
## GSM875414 4.403108 5.755221 5.026283 3.585369 3.838144 4.897467
##          LOC101927314  DSG2-AS1  LOC105370792  ALDH1L2  LOC105377782  LOC100132078
## GSM875412 3.080975 5.780476 4.620473 4.144983 3.306867 3.760960
## GSM875413 3.164493 3.046065 4.976730 4.208225 3.575699 3.521987
## GSM875414 3.233756 3.315184 4.564937 4.482755 3.675741 3.732565
##          CEP290  ATP11A-AS1  PHACTR2-AS1  TCTN1      BLCAP      MEX3C  TPTE2P2
## GSM875412 3.691972 4.195733 3.748635 4.979036 3.650273 3.052108 3.508566
## GSM875413 3.592452 4.001724 3.855879 5.705984 3.741706 3.066408 3.388995
## GSM875414 3.552681 4.340441 3.877792 6.119314 3.698229 3.103818 3.362939
##          ARHGEF33  LINC00558  LAYN  NPHP3-AS1  SORCS1  NT5DC2  LINC01270
## GSM875412 3.278333 3.064210 3.495506 4.465218 3.676276 4.409695 3.902155
## GSM875413 3.628824 3.087061 3.332847 4.319667 3.691563 4.127457 4.270870
## GSM875414 3.621271 3.061703 3.449787 4.700687 3.809084 4.397062 4.332172
##          PRMT5-AS1  APCDD1L-DT  LOC101928335  ZNF577  ZNF474  LINC01898
## GSM875412 3.989234 6.432256 3.517334 3.923316 4.027837 4.738284
## GSM875413 4.049878 6.758970 3.345910 3.788752 4.178931 4.892110
## GSM875414 4.657437 6.826307 3.583341 3.754922 4.967836 4.900828
##          ALMS1-IT1  GIT2  LINC01838  LOC101928651  LEPR  LRRC77P  PTPRT-AS1
## GSM875412 4.042398 3.248710 4.707179 3.408444 4.093237 3.717816 3.465702
## GSM875413 3.670718 3.288899 5.173131 3.973663 3.799972 3.459938 3.564272
## GSM875414 3.603996 3.429498 5.645159 3.794555 3.833867 3.865707 3.677686
##          CFLAR-AS1  SMC3  KCNK10  PAPOLG  CDC42-IT1  GAS1RR  SERPINB6
## GSM875412 4.267997 3.866665 3.532215 4.369208 6.433555 3.161509 7.852109
## GSM875413 4.068822 3.736272 3.367558 4.153080 4.884031 3.311405 5.449683
## GSM875414 4.599972 3.866030 3.432252 3.945445 5.926884 3.011636 5.194538
##          CASC22      KCP      ANHX  ZDHHC14  LINC02838  OR2H1  CHD1L

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## GSM875412 3.650548 4.179387 6.776913 3.528482 4.408409 4.552811 8.330775
## GSM875413 3.537896 4.804526 7.226591 3.445906 5.038405 4.244178 7.373247
## GSM875414 3.960789 5.156386 7.212181 3.537051 5.137962 4.005777 7.876688
## PERP LEPROT LINC00486 ESPNL TTC23L LINC02028 LINC02239
## GSM875412 3.586418 3.293040 3.819400 6.681495 4.606435 3.709962 4.897301
## GSM875413 3.481348 3.309378 3.799052 6.578091 4.298515 4.110305 4.855516
## GSM875414 3.530621 3.360811 3.825769 6.616280 4.520970 3.953076 5.719058
## FAM201A LEXM LINC01990 LOC100507250 MIR4300HG LOC101927787
## GSM875412 3.250209 3.825369 2.987054 3.809147 4.118771 3.747695
## GSM875413 3.180539 3.984618 3.098021 4.231914 4.256643 3.612470
## GSM875414 3.655357 4.326286 3.190494 3.652511 4.303907 4.404058
## LOC105371401 HMMR-AS1 GAB1 RNF212 WASHC1 ZBTB1 UBAC2-AS1
## GSM875412 3.587183 3.344563 3.193322 4.528289 4.932683 4.354235 3.159781
## GSM875413 3.849219 3.345313 3.301834 4.659798 5.021335 3.796913 3.230092
## GSM875414 3.799538 3.413451 3.258517 5.149700 5.596716 4.009284 3.346441
## KCNQ3 LINC00665 YEATS2 BTBD19 HOTAIRM1 TAX1BP3 UBE2G2
## GSM875412 3.573455 3.311131 6.495326 5.774497 6.585760 4.189486 7.156324
## GSM875413 3.743161 3.180539 6.159600 6.543321 9.670755 4.139194 7.889114
## GSM875414 3.679251 3.098245 6.620186 4.744076 5.890980 3.996836 7.326936
## LINC01128 C5orf47 NIFK-AS1 OVAAL ZSCAN16-AS1 DICER1-AS1 HGSNAT
## GSM875412 7.100943 3.672978 4.320640 4.317591 3.273593 3.541864 6.414077
## GSM875413 7.494548 3.733942 3.644183 4.332360 3.338806 3.676298 6.395260
## GSM875414 7.900155 3.592826 3.627251 4.606481 3.221586 3.562778 5.472829
## YLPM1 LUC7L LOC100505782 TFAP2A-AS1 NUB1 ITGBL1 RBM25
## GSM875412 6.146444 5.248541 3.302020 5.905230 6.559298 3.648490 7.693685
## GSM875413 6.330111 5.636445 3.298650 5.854037 5.679203 3.209464 6.734151
## GSM875414 6.064071 3.810324 3.818976 6.279523 5.915304 3.190957 6.161409
## OOSP2 KIF5C MAMSTR ANXA8 HAR1A HECTD1 LMTK3
## GSM875412 3.261522 4.233642 4.888975 3.939712 3.830939 7.705209 4.881157
## GSM875413 3.285513 4.674473 4.717633 3.381351 4.422566 5.318251 4.841670
## GSM875414 3.467545 5.401814 4.848245 3.682667 4.644640 7.203871 5.226737
## ZSCAN30 SLC26A4-AS1 VPS53 ZNF561-AS1 APOL6 INTS6-AS1 ZNF575
## GSM875412 3.802585 3.223920 5.245225 4.635754 7.617604 4.285855 5.847178
## GSM875413 4.367150 3.541465 5.872682 5.605993 6.648324 4.726147 6.154227
## GSM875414 3.852450 3.304491 6.941506 4.961485 5.724029 4.713867 6.369624
## EEF1A1 HEATR6 GABRB2 CHADL TMEM198B PLD1 FAM111B
## GSM875412 5.494916 4.516115 3.423853 4.612571 4.995657 3.956979 4.372176
## GSM875413 5.095348 5.476127 3.145815 4.553017 5.179984 3.462101 4.171639
## GSM875414 5.494636 5.401832 3.467948 5.021334 5.668415 4.214359 4.155496
## ZNRD2-DT LINC00632 ATP13A4 TMEM17 DDX11-AS1 CSMD2 SSTR5-AS1
## GSM875412 4.015241 3.251434 4.358412 4.996147 3.119977 4.451247 4.046822
## GSM875413 4.089184 3.317244 4.214343 6.014075 3.310887 4.191858 4.044347
## GSM875414 4.221785 3.424818 6.528320 4.883530 3.455164 4.140618 4.386025
## TSKU-AS1 HM13 KMT2C FILNC1 C16orf92 KLHL18 PDCD4
## GSM875412 4.782850 4.185908 4.462895 3.351126 4.659292 6.282800 4.259497
## GSM875413 4.310977 4.367857 3.967492 3.388751 4.991826 5.779400 3.665899
## GSM875414 4.500971 4.647778 4.717036 4.036847 4.913540 6.029189 3.607368
## HCG11 NEK8 IRAK1BP1 ARMH4 SYT9-AS1 C11orf87 TPCN1
## GSM875412 4.094468 6.566380 3.988083 4.107114 3.183787 3.255113 6.339654
## GSM875413 4.317188 5.642243 4.617030 4.251372 3.276647 3.244062 6.459806
## GSM875414 3.422644 5.937662 3.189361 4.424371 3.388169 3.262226 6.681924
## DNASE1 COX10-DT RAD54L2 LGALS3 PABPC1L2B MEIOC B3GAT1-DT
## GSM875412 4.542311 4.782099 5.390455 5.699333 4.876007 3.254477 6.780475
## GSM875413 4.564030 4.597350 5.210760 4.160391 6.349845 3.149162 6.101234

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## GSM875414 4.730662 4.476247 5.292083 5.308338 4.598281 3.283924 6.599947
## PROSER2-AS1 FAM181A-AS1 LINC00648 LINC02475 RBPMS ASPG
## GSM875412 3.979074 3.555610 3.409148 4.050099 4.469841 3.984086
## GSM875413 3.890892 3.930694 3.348300 3.849297 7.033631 4.311770
## GSM875414 4.094448 3.721363 3.629389 3.913049 3.804895 4.322631
## TPR EHP1L1 LOC102723722 F11-AS1 LINC02415 BBX KIDINS220
## GSM875412 6.541289 7.451404 5.415149 3.542051 4.123454 4.488237 5.641907
## GSM875413 4.755259 7.157139 6.026327 3.522493 4.033126 4.008025 5.652464
## GSM875414 6.390562 6.555102 5.081997 3.618414 4.441948 3.327088 4.746364
## GABRB1 BCL10 ZNF382 AP1G2-AS1 GEN1 TLCD2 TNP01
## GSM875412 3.357101 5.243920 3.461258 3.631761 6.476131 4.462386 4.265103
## GSM875413 4.828490 3.365847 4.131670 3.779317 3.287940 4.322799 4.097615
## GSM875414 3.689959 3.607624 3.542224 3.918944 3.598247 5.120422 4.126307
## ITS1 ZNF519 AREG DPY19L2P4 MCOLN3 MIR570HG FLJ12825
## GSM875412 4.295197 3.949494 3.628504 3.460048 3.770231 8.249328 3.791130
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## GSM875414 4.459376 3.941523 3.649077 3.339959 4.441020 6.085573 4.064970
## LRRC3C ZNF585B NT5C LINC01465 DPY19L2P3 CAPN14 ZNF230
## GSM875412 3.999424 4.922631 5.480568 3.338214 3.482892 3.376638 3.198014
## GSM875413 3.839972 6.263321 5.185291 3.582833 3.866030 3.251754 4.060458
## GSM875414 3.950886 5.135560 6.405196 3.882382 3.422699 3.085073 3.488725
## ALDH1A2-AS1 CASC23 POLR1B MCM8-AS1 SUCLG2-DT PIK3CD-AS2
## GSM875412 3.257595 4.750305 5.309672 3.589169 3.658653 3.314673
## GSM875413 3.445906 4.849350 5.247852 3.781122 3.603690 3.542948
## GSM875414 3.506961 5.066026 5.798347 3.753998 3.750973 3.541368
## MIRLET7BHG LINC02693 LOC105379362 RERE G3BP1 SQLE SOS1
## GSM875412 4.842785 3.698776 3.395482 3.892953 5.801863 4.773377 3.663583
## GSM875413 5.086609 4.052072 3.561837 4.014085 6.547429 4.211330 3.594869
## GSM875414 5.771986 3.708484 3.807120 4.472828 5.602805 5.673862 3.844553
## MROCK1 LRPPRC LINC00698 MYCBP2 SPAAR LINC01141 ABCC9
## GSM875412 4.171639 8.189897 4.052335 8.030823 5.825031 4.058833 4.106997
## GSM875413 4.117902 7.173426 4.292428 7.597524 5.480072 4.090988 5.559207
## GSM875414 3.998569 6.199430 4.498556 7.753236 5.740988 4.174878 3.549022
## AGAP11 ZNF131 FAM161A LCT-AS1 SH3PXD2A-AS1 DLGAP4 IGFBP7-AS1
## GSM875412 3.518938 9.391820 4.182612 3.875490 4.737124 5.045765 3.454721
## GSM875413 3.515059 6.870378 4.303369 3.797916 4.223711 6.545805 3.496613
## GSM875414 3.624764 7.511543 4.455812 3.822214 4.440375 5.649210 3.585321
## ZKSCAN8 LOC100130111 LOC100506606 SLC25A43 ACSL4 LINC02059
## GSM875412 3.471098 3.633965 4.408829 6.793103 5.085548 3.039220
## GSM875413 3.550796 3.720787 4.181795 6.105642 7.148345 3.075176
## GSM875414 3.620446 3.580837 4.575432 6.700509 6.637341 3.308467
## SMIM17 RASAL2 CPVL-AS2 ARHGEF7-AS2 LINC02148 TREML3P WHAMMP2
## GSM875412 3.323119 6.597528 3.573503 3.117118 3.449212 3.543941 5.558349
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## DGCR5 MOSPD1 SHB CPEB1-AS1 TMEM272 IL6ST-DT LINC01122
## GSM875412 3.729762 6.742640 7.496965 3.205074 4.495651 3.931752 3.205613
## GSM875413 4.202363 6.445816 5.656240 3.342934 4.346870 3.947283 3.295445
## GSM875414 4.472686 7.970945 8.814957 3.236138 4.470856 3.907326 3.385525
## MFSD4A-AS1 LINC00507 PFN4 STIM1 PPP1R27 LINC00320 LOC284788
## GSM875412 3.941829 3.100133 4.101165 4.138423 5.775794 3.577934 4.047021
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## ANKRD44-IT1 CBX3P2 LOC100240728 LINC01487 PCCB TRIM52-AS1

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|    |             |             |           |                |              |              |              |
|----|-------------|-------------|-----------|----------------|--------------|--------------|--------------|
| ## | GSM875412   | 3.457043    | 3.297584  | 3.795329       | 3.443780     | 3.718370     | 4.155254     |
| ## | GSM875413   | 3.445681    | 3.128335  | 3.866030       | 3.706393     | 3.833506     | 5.737475     |
| ## | GSM875414   | 3.394559    | 3.025486  | 4.362322       | 3.587522     | 3.776745     | 4.102013     |
| ## | LINC02189   | TMEM59      | ATP6AP1L  | STRADA         | C10orf55     | NDUFA7       | BALR6        |
| ## | GSM875412   | 3.444008    | 3.572271  | 3.746121       | 5.249013     | 3.315584     | 5.350251     |
| ## | GSM875413   | 3.657192    | 3.636850  | 4.046384       | 5.339145     | 3.443918     | 5.163255     |
| ## | GSM875414   | 3.778649    | 3.519572  | 3.820813       | 5.625454     | 3.310568     | 5.371098     |
| ## | PALLD       | WNK2        | FBRSL1    | LOC100507403   | CFAP58       | RNF165       | DIP2C-AS1    |
| ## | GSM875412   | 3.592934    | 5.606268  | 4.730304       | 4.319219     | 3.280842     | 3.274895     |
| ## | GSM875413   | 3.426766    | 6.146029  | 6.486971       | 4.747956     | 4.006111     | 3.288649     |
| ## | GSM875414   | 3.680776    | 6.311276  | 4.965744       | 4.831113     | 3.472781     | 3.165639     |
| ## | LINC00906   | MATN1-AS1   | DSE       | ALKBH3-AS1     | LOC100507634 | MPDU1        |              |
| ## | GSM875412   | 3.902684    | 3.427071  | 3.289900       | 3.536794     | 2.972227     | 4.059735     |
| ## | GSM875413   | 3.690481    | 3.757554  | 3.445906       | 3.678665     | 3.008946     | 4.349644     |
| ## | GSM875414   | 3.882097    | 3.755426  | 3.422193       | 3.603832     | 3.205922     | 4.202363     |
| ## | LINC01305   | VPS13D      | STBD1     | PAQR3          | BIN3         | ST18         | LERFS        |
| ## | GSM875412   | 3.221278    | 3.747374  | 3.678083       | 3.615724     | 5.223113     | 3.567551     |
| ## | GSM875413   | 3.451045    | 3.500982  | 3.758159       | 3.588279     | 5.191637     | 3.533832     |
| ## | GSM875414   | 3.599861    | 3.604547  | 4.135443       | 3.769356     | 5.167143     | 3.848235     |
| ## | ATP6V1H     | LINC01310   | PAR6G-AS1 | LOC283038      | WDR3         | GINS2        | LINC00624    |
| ## | GSM875412   | 5.044357    | 4.712993  | 4.922156       | 3.645545     | 3.323931     | 6.992305     |
| ## | GSM875413   | 5.001001    | 4.837686  | 5.103633       | 3.566887     | 3.410272     | 7.165139     |
| ## | GSM875414   | 4.286992    | 4.893195  | 5.558595       | 3.482181     | 3.373285     | 7.017503     |
| ## | SLC26A5-AS1 | LINC00870   | LOC401312 | LOC101928002   | PICART1      | TBC1D12      |              |
| ## | GSM875412   | 3.491410    | 3.918337  | 3.321681       | 3.317482     | 3.780511     | 3.796501     |
| ## | GSM875413   | 3.836648    | 4.314597  | 3.403112       | 3.378871     | 3.950230     | 3.625256     |
| ## | GSM875414   | 3.444243    | 4.423710  | 3.774186       | 3.468480     | 4.257805     | 3.911749     |
| ## | PITRM1-AS1  | TTLL4       | KIF9-AS1  | ARHGAP19-SLIT1 | ZNF496       | DCTN1-AS1    |              |
| ## | GSM875412   | 3.847996    | 5.962939  | 5.250483       | 4.953538     | 4.735782     | 4.158097     |
| ## | GSM875413   | 3.945735    | 6.285068  | 5.641963       | 4.756858     | 4.598362     | 3.698915     |
| ## | GSM875414   | 4.509389    | 6.116072  | 5.685733       | 4.988520     | 4.656596     | 3.746733     |
| ## | LINC01622   | CCDC38      | LINC02436 | POM121L8P      | C7orf57      | LOC101929748 | NFIA         |
| ## | GSM875412   | 4.209434    | 3.807797  | 3.212230       | 3.777507     | 3.232844     | 3.820092     |
| ## | GSM875413   | 3.993355    | 3.903877  | 3.275738       | 3.571531     | 2.985044     | 3.587438     |
| ## | GSM875414   | 3.841928    | 5.006652  | 3.443897       | 3.616007     | 3.001288     | 3.774831     |
| ## | IQCA1       | RUNDC3A-AS1 | VWA8-AS1  | GALE           | CCDC13-AS1   | LINC00642    |              |
| ## | GSM875412   | 3.392020    | 3.446461  | 3.087936       | 7.033302     | 3.737343     | 6.357489     |
| ## | GSM875413   | 3.327713    | 3.825757  | 3.106064       | 5.760458     | 3.941339     | 6.446256     |
| ## | GSM875414   | 3.727521    | 3.494053  | 3.172500       | 7.037553     | 4.024170     | 6.780676     |
| ## | FAM170B-AS1 | AK8         | RSU1P2    | LOC101928068   | RAF1         | TRIML1       | SAMD15       |
| ## | GSM875412   | 4.291588    | 5.153060  | 3.471921       | 3.508751     | 6.160351     | 4.096349     |
| ## | GSM875413   | 4.156397    | 4.992896  | 3.547664       | 3.702642     | 6.076715     | 4.408906     |
| ## | GSM875414   | 4.448091    | 5.345095  | 3.716707       | 3.698076     | 5.868312     | 5.039657     |
| ## | LINC01142   | ZNF286A     | ASAP1-IT2 | GATM           | SMC5-DT      | POLH         | LOC101927604 |
| ## | GSM875412   | 4.066608    | 5.131774  | 4.677398       | 3.099606     | 4.598561     | 4.203018     |
| ## | GSM875413   | 4.340480    | 5.868409  | 5.436686       | 3.117082     | 4.884031     | 3.674783     |
| ## | GSM875414   | 4.249700    | 5.025686  | 4.707899       | 3.128403     | 5.314032     | 3.794322     |
| ## | MARCHF7     | ZHX2        | CTBP1     | LINC00550      | MYO16        | LOC285847    | PCBP1-AS1    |
| ## | GSM875412   | 3.355902    | 4.341171  | 5.010491       | 3.095137     | 3.622825     | 5.584442     |
| ## | GSM875413   | 3.322184    | 4.812640  | 5.224128       | 3.265930     | 3.676173     | 5.338795     |
| ## | GSM875414   | 3.318778    | 3.938981  | 5.615479       | 3.348432     | 3.735983     | 5.531632     |
| ## | GRK5        | LINC02092   | CHRM3-AS2 | LOC100130548   | NKTR         | LOC105372547 |              |
| ## | GSM875412   | 4.848949    | 4.388048  | 3.580470       | 3.510827     | 4.976418     | 3.257229     |
| ## | GSM875413   | 4.782416    | 4.596879  | 3.398096       | 3.389714     | 4.421932     | 3.326173     |

|    |              |              |              |              |              |              |          |
|----|--------------|--------------|--------------|--------------|--------------|--------------|----------|
| ## | GSM875414    | 5.494186     | 5.124026     | 3.443983     | 3.630172     | 5.063520     | 3.619455 |
| ## | UST-AS1      | LINC02466    | CEP128       | LOC101928535 | DMAC2        | LOC105377458 |          |
| ## | GSM875412    | 3.088524     | 3.576477     | 4.093334     | 3.284635     | 4.042240     | 3.130179 |
| ## | GSM875413    | 3.166852     | 3.611184     | 4.169674     | 3.202193     | 3.810559     | 3.068912 |
| ## | GSM875414    | 3.297579     | 3.474567     | 4.167559     | 3.401597     | 3.813274     | 3.288095 |
| ## | LPAR6        | PURPL        | NANOS2       | LOC101928760 | IP011        | FHAD1        | RAB17-DT |
| ## | GSM875412    | 3.233530     | 2.978327     | 3.733808     | 3.824412     | 3.713624     | 3.877236 |
| ## | GSM875413    | 3.293062     | 3.213988     | 3.855829     | 3.820092     | 3.723745     | 4.588888 |
| ## | GSM875414    | 3.274152     | 3.178697     | 4.265940     | 3.683730     | 3.734598     | 4.370698 |
| ## | ZPLD2P       | PDE6B        | LOC101927967 | LNCAROD      | C21orf62-AS1 | MAP3K14-AS1  |          |
| ## | GSM875412    | 3.659078     | 4.304604     | 3.894286     | 3.195432     | 4.094608     | 4.081005 |
| ## | GSM875413    | 4.006273     | 4.216313     | 3.881236     | 3.429306     | 4.284401     | 3.983306 |
| ## | GSM875414    | 4.301607     | 4.680803     | 4.002385     | 4.053556     | 4.225134     | 4.491082 |
| ## | CHIC1        | LINC02114    | ERCC6L2-AS1  | JRKL         | NTRK3        | FAR2         | CNPY2    |
| ## | GSM875412    | 4.582276     | 3.298151     | 4.282955     | 4.983786     | 5.238061     | 3.368844 |
| ## | GSM875413    | 4.680131     | 3.301671     | 4.207205     | 5.483680     | 4.990436     | 3.428816 |
| ## | GSM875414    | 4.718367     | 3.447492     | 4.258457     | 5.770343     | 4.969196     | 3.367513 |
| ## | SELENOH      | LOC101926944 | AFG3L2       | LINC00639    | LINC02232    | LINC01252    |          |
| ## | GSM875412    | 6.066224     | 3.289992     | 10.842659    | 3.457090     | 3.148903     | 3.733852 |
| ## | GSM875413    | 5.179473     | 3.563676     | 10.142351    | 3.423371     | 3.138017     | 5.728618 |
| ## | GSM875414    | 4.824296     | 3.762990     | 9.672774     | 3.547107     | 3.364799     | 4.084970 |
| ## | DNAJC9-AS1   | TMEM267      | LINC02996    | FAM135B      | LOC101926915 | LINC01087    |          |
| ## | GSM875412    | 4.585458     | 8.840638     | 3.411799     | 3.212147     | 4.538732     | 3.194035 |
| ## | GSM875413    | 4.230395     | 7.606671     | 3.176535     | 3.326810     | 4.669061     | 2.999879 |
| ## | GSM875414    | 4.406924     | 5.767577     | 3.236956     | 3.126736     | 4.591837     | 3.244939 |
| ## | LINC02401    | INHBA-AS1    | PHC2         | MFF-DT       | PLA2G4E-AS1  | DIAPH1-AS1   | CFAP157  |
| ## | GSM875412    | 4.451247     | 4.153595     | 5.509637     | 3.827010     | 3.293703     | 3.747367 |
| ## | GSM875413    | 4.298605     | 4.156422     | 4.707806     | 3.794944     | 3.427349     | 3.626091 |
| ## | GSM875414    | 5.318796     | 4.695279     | 5.208220     | 4.252838     | 3.328950     | 3.719244 |
| ## | LINC02052    | FBX038-DT    | GRID1-AS1    | CASC17       | LINC01020    | GALNT7-DT    |          |
| ## | GSM875412    | 3.111746     | 4.112687     | 3.519543     | 3.779596     | 3.270205     | 4.189990 |
| ## | GSM875413    | 3.143309     | 4.289458     | 3.587148     | 3.624034     | 3.302172     | 4.105267 |
| ## | GSM875414    | 3.271177     | 4.060483     | 3.462795     | 3.578773     | 3.574683     | 4.059427 |
| ## | LOC100129175 | ZNF32-AS3    | CARNMT1-AS1  | CEP112       | ZNF787       | STXBP5-AS1   |          |
| ## | GSM875412    | 3.864980     | 3.354792     | 3.779596     | 3.541142     | 4.082231     | 3.423513 |
| ## | GSM875413    | 4.361618     | 3.242900     | 3.937889     | 3.595648     | 4.567252     | 3.364430 |
| ## | GSM875414    | 4.584499     | 3.355416     | 3.941735     | 4.003874     | 4.598597     | 3.770407 |
| ## | LINC01056    | LINC02076    | LOC105374690 | LOC101928663 | SIM2         | CD44         |          |
| ## | GSM875412    | 5.699484     | 4.785651     | 4.795564     | 3.460649     | 3.846645     | 7.640042 |
| ## | GSM875413    | 5.675586     | 3.978283     | 5.041400     | 3.604688     | 3.833503     | 8.338963 |
| ## | GSM875414    | 5.861582     | 4.222160     | 5.699119     | 3.905214     | 3.912638     | 9.046181 |
| ## | HSP90AB1     | ERVFH21-1    | GSTO1        | SLC16A1      | ERVH-3       | LINC02274    | ALPL     |
| ## | GSM875412    | 11.85536     | 3.321626     | 10.046030    | 8.690681     | 3.906975     | 3.541536 |
| ## | GSM875413    | 11.45589     | 3.540479     | 10.501870    | 5.544371     | 3.859669     | 3.591262 |
| ## | GSM875414    | 11.50738     | 3.577209     | 9.669253     | 6.596400     | 4.009310     | 3.785650 |
| ## | CAVIN1       | CNP          | PHLDB3       | NEMF         | ZKSCAN1      | TXLNG        | C8orf88  |
| ## | GSM875412    | 7.798587     | 4.951050     | 5.072421     | 7.239696     | 7.616256     | 7.242792 |
| ## | GSM875413    | 9.289327     | 5.732039     | 6.516183     | 7.012902     | 8.043895     | 7.836324 |
| ## | GSM875414    | 8.241676     | 5.612102     | 6.099545     | 6.432666     | 8.436764     | 6.540361 |
| ## | CDC42BPB     | EIF4G2       | MTERF4       | RPS6KA2      | RPS9         | RPAP3        | CEP78    |
| ## | GSM875412    | 4.254378     | 5.868650     | 6.529498     | 5.749761     | 4.065655     | 6.179955 |
| ## | GSM875413    | 3.861365     | 6.040890     | 6.336006     | 5.774246     | 4.123762     | 5.191637 |
| ## | GSM875414    | 4.354084     | 6.031716     | 6.646855     | 5.987498     | 4.633525     | 5.148596 |
| ## | PLCG2        | TTN          | NAALADL2     | ARID5B       | STRAP        | LCMT1-AS2    | SLC1A2   |

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## GSM875412 3.903802 3.701855 3.430319 4.143882 5.941976 4.234576 3.045824
## GSM875413 3.448236 4.177876 3.381078 4.250216 5.176083 4.489500 3.219456
## GSM875414 3.410452 5.426895 3.848308 4.426016 5.101646 5.873991 3.516743
## FAR1 PAWR ERGIC3 RABEPK PRKAB2 NORAD CP
## GSM875412 6.876153 6.861614 4.466102 3.631501 6.714967 8.625347 4.924685
## GSM875413 4.652912 6.177319 4.584119 3.441055 5.663060 8.462430 4.065345
## GSM875414 7.315858 6.909502 5.152557 3.267947 5.933261 7.384149 5.640492
## MATCAP1 EIF2B5 TMED4 FBX010 SLF1 MDH1B DNAJC3
## GSM875412 6.210490 4.462869 4.413520 3.581068 3.391837 3.747332 9.320982
## GSM875413 6.842047 4.002200 4.389678 3.611768 3.535842 4.676570 7.308112
## GSM875414 6.183546 4.292942 4.838169 3.750187 3.448753 3.991405 9.077605
## SNORA65 UBE2I MATR3 CCDC174 HDGFL3 LOC283788 FAM78B
## GSM875412 4.088227 4.876007 8.362986 5.909648 4.171639 3.212275 4.362428
## GSM875413 4.102759 4.677093 7.999877 5.409682 6.633287 3.260327 4.369862
## GSM875414 4.435856 4.879885 7.808255 5.462986 4.063334 3.446809 4.352852
## RECK USP31 TSPAN17 DDX3X CSRNTP3 LINC00957 NUDCD2
## GSM875412 3.677112 5.065038 4.400794 4.071123 3.268459 4.324837 4.961162
## GSM875413 4.193893 4.766082 4.750856 3.490108 3.554836 4.131294 4.833497
## GSM875414 3.578413 4.800936 5.003400 3.753481 3.570906 4.307577 4.961930
## PAPOLA-DT TAF11 DUXAP8 PLXNA1 TNRC6B MEG3 BAIAP2-DT
## GSM875412 3.994792 5.849083 6.294948 4.451412 8.138297 3.994864 6.757719
## GSM875413 4.216640 5.548407 5.677876 4.535337 8.243644 4.138869 7.009601
## GSM875414 4.364108 5.611210 6.251776 5.243645 6.408339 4.873616 7.151197
## MGC16275 H1-10-AS1 FAM43A TMEM229B ATP5MF ZNF17 ANKRD54
## GSM875412 3.918969 4.469269 5.324182 3.623131 4.671596 3.476037 3.668527
## GSM875413 3.915172 4.312334 5.398919 3.817368 4.870290 3.450405 4.064331
## GSM875414 4.046681 4.477139 6.059609 4.048982 4.172479 3.488725 4.497313
## LINC00592 FN1 SLC4A1AP SRC VLDLR-AS1 CTNNA1 UBTFF
## GSM875412 3.977040 5.043457 7.544764 3.510033 4.321179 8.928014 6.308552
## GSM875413 3.975632 3.606782 7.989999 3.905201 4.271945 6.959359 7.257358
## GSM875414 4.754754 4.095799 7.978432 4.119560 4.404175 7.346969 6.738355
## AFAP1-AS1 SF3B2 ATF1 KCNJ2-AS1 DR1 TNRC18 GOLM1
## GSM875412 3.918312 5.693139 6.401474 3.137100 7.015564 4.017142 4.670427
## GSM875413 4.106357 5.440903 6.380960 4.090129 6.923985 4.428918 4.850391
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## STX16 PUS7L ZNF587 SRPK2 LINC00662 SPTY2D10S ZNF740
## GSM875412 10.124063 5.852083 4.476333 6.704723 3.900875 3.444955 3.967770
## GSM875413 8.229792 7.103826 3.559374 6.684518 3.825237 3.495279 4.168853
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## KDSR TMEM184A RFT1 PVT1 PIGW BTBD8 PPFIA2
## GSM875412 5.374676 5.164165 4.715123 6.798387 6.298670 4.305596 3.903802
## GSM875413 7.073180 5.066215 4.208124 7.155602 5.465702 4.057966 5.423259
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## EFCAB5 TSEN54 GIGYF2 LINC00942 LOC100132356 HOOK3
## GSM875412 3.452520 7.566155 4.052314 3.428560 3.931666 3.460838
## GSM875413 3.348424 7.352615 3.674617 3.601657 4.381004 3.735924
## GSM875414 3.813333 7.665005 4.321787 3.455297 3.799408 3.255698
## LOC100996549 PAQR9 TMEM72 ZDHHC18 TONSL SIRT2 C22orf15
## GSM875412 3.359183 3.464960 4.872686 5.454413 5.557536 5.262648 4.160724
## GSM875413 3.567572 3.540379 4.966165 5.305554 5.729391 5.914622 4.218297
## GSM875414 3.478479 3.486987 5.196844 6.019744 6.646032 5.962210 4.773256
## LOC100130268 SEMA6A DIXDC1 ZNF487 COX17 PLCG1-AS1 UACA
## GSM875412 3.231798 3.883938 4.913314 6.644370 5.306950 3.541536 4.245919
## GSM875413 3.334406 3.760217 5.004569 4.473325 4.923428 3.946718 4.075371

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## GSM875414      3.244911 3.807120 5.242219 4.339003 4.349764 3.597566 4.215254
##                PGK1 MPHOSPH9  LRRC38  AHNAK2 TMEM147-AS1  KPNA4  ZNF599
## GSM875412 6.448621 4.509622 3.308776 5.093726 4.585574 3.332494 3.828991
## GSM875413 4.808964 4.910894 3.380213 5.773106 4.788593 3.311405 4.169038
## GSM875414 4.231905 3.822214 3.487823 6.810187 4.760989 3.308197 4.816953
##                SYNE2  PECAM1  ANKRD24  ARIH1  TERLR1 LINC00622  PLEKHG2
## GSM875412 4.358922 6.184958 4.535193 3.922287 3.824074 3.489706 7.114266
## GSM875413 4.289458 5.833855 4.686199 3.646912 4.197430 4.038142 6.993322
## GSM875414 4.839991 6.282525 4.743154 3.511547 4.225265 3.501469 7.473891
##                EGFEM1P  MISP3  FRRS1L C14orf180 LINC00265  ORAI2  NHLRC4
## GSM875412 3.320347 6.120555 3.778965 5.594952 4.691941 7.967263 6.576752
## GSM875413 5.499833 5.724616 4.425878 5.646616 4.443855 8.997989 6.790899
## GSM875414 3.324344 6.932031 3.899462 7.071157 6.097955 8.270163 6.734524
##                IGHE      A2M  AGA-DT  TMEM144 GARS1-DT  ABCC5  LMF1
## GSM875412 4.785651 4.625382 3.496074 3.370638 6.222770 4.694540 4.820841
## GSM875413 5.214033 4.233037 3.485271 3.360775 5.823185 4.094699 4.492626
## GSM875414 5.371416 4.372707 3.376152 3.407852 5.619241 4.253838 4.938084
##                LPP      BEND5 LOC100131496 TMCC1-DT  LRRC27  ZNF493  CST13P
## GSM875412 5.616422 4.490571 3.642313 3.172150 4.160849 7.684974 3.392655
## GSM875413 4.303708 4.853402 3.667042 3.089011 4.907494 8.230236 3.419805
## GSM875414 4.788175 4.649551 3.966970 3.147584 5.062569 7.391462 3.408311
##                LINC02053  DNM3  C1orf53 LOC105369477  FTX  LRRC8C  RPE
## GSM875412 3.473947 3.750945 4.507371 3.855846 8.142101 5.470634 3.218309
## GSM875413 3.438320 3.611768 4.661344 4.720303 7.015086 5.221183 3.094324
## GSM875414 3.496609 3.341301 4.915689 3.639880 5.897358 4.485335 3.297038
##                PALS2  FAM184A YPEL3-DT PAXIP1-AS2  LRTM2  TPM1  KRBA2
## GSM875412 3.320347 3.456029 4.738284 4.104434 5.635717 3.831735 5.138318
## GSM875413 5.220188 5.469272 5.094830 4.567094 5.682772 3.762134 5.013004
## GSM875414 3.512043 3.701010 6.137219 4.214718 5.905864 3.718731 4.805939
##                ZNF844  SLC2A11  TRMT9B  VNN1  SLC66A1L  CAMK1  VPS35L
## GSM875412 3.434124 4.595185 3.581008 8.442375 3.357101 4.922102 3.369785
## GSM875413 3.651863 6.563500 3.593928 4.710005 3.396865 5.130197 3.147462
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##                BLZF1  AKNA  PCNX4 LOC101927377  MCTS1 LINC02616 ACTG1P25
## GSM875412 3.523029 4.159088 4.610777 3.387810 3.805795 3.868821 3.338001
## GSM875413 3.457154 4.054712 4.930559 3.403112 4.069885 3.801846 3.685541
## GSM875414 3.147727 4.269184 4.549861 3.292771 4.324148 4.433727 3.418797
##                LOC105371215  TEX22  UBL4B  ZNF33B LOC100996385 CYP4F29P
## GSM875412 3.133055 4.428968 5.382512 3.984017 3.395884 4.194321
## GSM875413 3.170732 4.576570 5.565402 4.085485 3.390529 4.230367
## GSM875414 3.188245 4.887062 5.689218 4.320193 3.390529 4.425563
##                METTL17  ZNF219 KANSL1L-AS1  TUSC7  PLGLB2  SSBP2  TTC5
## GSM875412 4.911751 4.785020 3.342512 3.541128 3.607146 4.188761 3.431957
## GSM875413 5.032665 4.750277 3.308188 3.356180 3.398407 5.671568 3.396717
## GSM875414 5.238322 4.894501 3.342685 3.320767 3.774400 4.457423 3.456544
##                PAPPAA  ATP1A4 SNORA17B  ZNF621  CABLES1 RGPD4-AS1  RBFADN
## GSM875412 3.719024 3.889605 5.512300 6.713641 4.558109 3.277210 3.955701
## GSM875413 3.842595 3.897475 5.461996 6.793092 3.760057 3.444070 3.945735
## GSM875414 3.943083 3.993703 6.070821 6.971544 5.235470 3.988473 4.159249
##                DLGAP4-AS1  PPARA  ADAMTS5  SPATA24  EDIL3  MIR133A1HG  SH3D19
## GSM875412 4.388315 6.289338 3.466825 7.878566 4.223421 3.471068 6.973931
## GSM875413 4.185963 5.861529 3.265199 8.163780 3.780756 3.321869 4.861526
## GSM875414 4.566396 5.372563 3.370990 8.575393 4.717955 3.310232 5.704938
##                CCDC32  CCDC28A-AS1  KANSL3  MAP3K20-AS1  PPM1H  LINC00703

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|    |              |            |              |           |           |             |          |
|----|--------------|------------|--------------|-----------|-----------|-------------|----------|
| ## | GSM875412    | 4.633995   | 3.320347     | 3.620923  | 4.482008  | 3.780525    | 3.462600 |
| ## | GSM875413    | 4.665967   | 3.266703     | 3.631246  | 3.971607  | 3.810505    | 3.504877 |
| ## | GSM875414    | 4.842784   | 3.250239     | 3.974424  | 4.041335  | 3.950153    | 3.791010 |
| ## | LOC100506207 | BANK1      | PHEX-AS1     | SPATA22   | ZNF77     | MALAT1      | NOL4L    |
| ## | GSM875412    | 3.544261   | 6.319433     | 3.953953  | 3.191452  | 4.613206    | 13.63334 |
| ## | GSM875413    | 3.485280   | 7.350959     | 3.936400  | 3.296129  | 4.400307    | 13.39376 |
| ## | GSM875414    | 3.600756   | 5.172139     | 4.679368  | 3.239696  | 5.012738    | 13.19237 |
| ## | PDE1A        | HMGA2      | ATP6AP1-DT   | MPV17L    | FOXN1     | STX17-DT    | DOCK4    |
| ## | GSM875412    | 5.364186   | 3.599845     | 7.468901  | 4.245854  | 3.902274    | 8.556129 |
| ## | GSM875413    | 7.604259   | 3.601159     | 9.326675  | 3.876850  | 4.054785    | 8.316678 |
| ## | GSM875414    | 4.487873   | 4.107110     | 7.597277  | 4.078751  | 4.252467    | 8.381641 |
| ## | GLMP         | MARF1      | ZNF264       | ZNF260    | TEX10     | ATOH8       | NRXN1    |
| ## | GSM875412    | 5.109741   | 4.219239     | 5.011636  | 5.623155  | 4.569429    | 5.479184 |
| ## | GSM875413    | 7.607265   | 3.611060     | 5.001459  | 6.078836  | 4.147301    | 5.228326 |
| ## | GSM875414    | 4.870798   | 4.091883     | 4.976640  | 6.273470  | 4.551408    | 5.769918 |
| ## | FAM13A-AS1   | TMEM134    | ZNF252P      | SRRM3     | SERP2     | VPS9D1-AS1  | MAP4K4   |
| ## | GSM875412    | 5.164877   | 3.900015     | 4.619497  | 3.402141  | 5.278749    | 5.722496 |
| ## | GSM875413    | 5.091499   | 3.871100     | 3.780479  | 3.470644  | 5.576306    | 6.072325 |
| ## | GSM875414    | 5.230202   | 3.598590     | 3.919829  | 3.468924  | 5.376211    | 5.878767 |
| ## | ZBTB38       | NOL3       | ZNF620       | SNX29     | SMCHD1    | ZNF763      | C2CD3    |
| ## | GSM875412    | 7.127823   | 6.226135     | 3.047255  | 3.663733  | 9.067513    | 3.050716 |
| ## | GSM875413    | 6.269149   | 6.168412     | 3.118649  | 3.635036  | 7.810056    | 3.346408 |
| ## | GSM875414    | 7.718332   | 7.307697     | 3.272372  | 3.872550  | 7.431746    | 3.166039 |
| ## | SPRING1      | FAM120AOS  | ZNF789       | TNRC6B-DT | DNAH1     | PIK3R6      | RANBP10  |
| ## | GSM875412    | 3.300179   | 5.908098     | 5.439868  | 3.539839  | 4.264911    | 4.796577 |
| ## | GSM875413    | 3.507345   | 5.949393     | 5.354276  | 3.620980  | 4.034238    | 4.708710 |
| ## | GSM875414    | 3.872397   | 6.782454     | 5.074376  | 3.698076  | 4.357786    | 5.677095 |
| ## | NSMAF        | MRTFB      | MACROH2A1    | NFYC-AS1  | TSPAN3    | ZNF252P-AS1 | FIRRE    |
| ## | GSM875412    | 5.155016   | 3.978153     | 3.691426  | 4.852837  | 3.609581    | 3.741854 |
| ## | GSM875413    | 4.173436   | 4.193081     | 3.836648  | 4.475156  | 3.386592    | 3.592601 |
| ## | GSM875414    | 4.486344   | 5.364170     | 3.886905  | 4.751673  | 3.701100    | 3.663070 |
| ## | AP2A1        | FRY-AS1    | NUTM2A-AS1   | ADGRB3-DT | NNT-AS1   | TM2D1       | ATAD2B   |
| ## | GSM875412    | 5.573611   | 3.023757     | 3.973325  | 3.498516  | 6.491481    | 4.884575 |
| ## | GSM875413    | 5.548030   | 3.359343     | 3.720846  | 8.118622  | 7.877056    | 3.586052 |
| ## | GSM875414    | 5.759198   | 3.341755     | 4.029133  | 4.331256  | 4.868235    | 4.103489 |
| ## | ZNF790-AS1   | TMED5      | ZNF664       | CCDC178   | MIR30DHG  | NBPF3       | ZNF831   |
| ## | GSM875412    | 4.095628   | 3.114896     | 6.710970  | 4.278139  | 6.456487    | 4.888245 |
| ## | GSM875413    | 4.245044   | 3.301446     | 5.486165  | 4.695658  | 6.074994    | 4.933775 |
| ## | GSM875414    | 4.250766   | 3.346449     | 5.751492  | 3.964888  | 5.680895    | 4.928789 |
| ## | SLC2A1-DT    | MAPKBP1    | GVQW3        | PNLIPRP3  | SWINGN    | LINC00908   | DMRTA2   |
| ## | GSM875412    | 5.542985   | 4.548790     | 5.743126  | 3.333977  | 3.990110    | 4.204152 |
| ## | GSM875413    | 5.724336   | 4.163033     | 5.185301  | 3.441968  | 4.352296    | 4.116621 |
| ## | GSM875414    | 5.654653   | 4.735578     | 5.312773  | 3.528426  | 4.462690    | 4.267856 |
| ## | LNC-LBCS     | NBPF5P     | LOC105377276 | SREBF1    | LINC00924 | HTATSF1P2   | FAM53A   |
| ## | GSM875412    | 3.503487   | 3.992697     | 3.352974  | 5.387585  | 3.674810    | 3.470060 |
| ## | GSM875413    | 3.424472   | 3.909334     | 3.455761  | 5.468083  | 3.726761    | 3.799880 |
| ## | GSM875414    | 3.771827   | 4.522530     | 3.652944  | 5.720378  | 3.574666    | 3.121286 |
| ## | IBA57        | PLK5       | RGMB-AS1     | LINC00907 | OSER1-DT  | DESI2       | PEX14    |
| ## | GSM875412    | 4.593716   | 5.061953     | 4.101165  | 3.384953  | 4.400947    | 5.490842 |
| ## | GSM875413    | 4.904940   | 5.286082     | 4.365745  | 3.513975  | 6.459633    | 5.166002 |
| ## | GSM875414    | 4.882744   | 5.214364     | 4.328779  | 3.505168  | 4.684392    | 5.555332 |
| ## | SEC23IP      | SLC8A1-AS1 | CLIP1        | LINC00460 | CARMIL1   | GTF2H5      | ZNF704   |
| ## | GSM875412    | 3.975176   | 3.426324     | 6.079859  | 4.347812  | 3.769354    | 3.167212 |
| ## | GSM875413    | 3.964636   | 3.431024     | 5.510962  | 4.183367  | 3.448523    | 4.484915 |



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## GSM875414 4.502004 3.220473 5.995675 5.341194 3.678843 3.275586 3.419675
## ZNF765 CACNA1A CEP164 SNORA78 IFT80 MFGE8 RRP8
## GSM875412 6.859688 3.736774 7.739410 6.246174 8.023606 4.059758 3.452262
## GSM875413 6.418899 3.999208 8.030884 6.396336 7.878370 4.293287 3.485558
## GSM875414 7.469987 4.566536 6.515126 6.754855 6.620958 4.462427 3.712685
## FAT3 HCG18 SCML1 RPL32P3 THEMIS UBALD1 LOC100130992
## GSM875412 3.509320 5.398025 3.572129 4.924611 4.124297 5.364745 3.444124
## GSM875413 4.116156 4.659313 3.768638 4.699946 3.732865 5.345924 3.476566
## GSM875414 3.398006 4.742814 3.974685 4.311759 3.540588 5.670629 3.312908
## ANKRD20A12P MAP3K11 C18orf21 FOXP1 MORF4L2-AS1 CCDC163 CNTLN
## GSM875412 3.401699 4.731059 3.273735 5.593328 4.645671 5.344013 3.371709
## GSM875413 5.136577 4.559281 3.195319 6.044814 4.627737 5.140673 3.352833
## GSM875414 4.044257 4.459376 3.411216 5.561170 4.874150 4.645207 3.346368
## GTF2A1-AS1 LOC100507351 PTPRE C3orf52 SEPTIN9 PPP1R26-AS1
## GSM875412 3.429574 4.091608 3.828513 5.107015 5.453657 4.224952
## GSM875413 3.606461 4.124078 3.732562 4.131002 4.468445 3.720059
## GSM875414 3.655605 4.249935 3.441844 4.497538 6.479085 4.023924
## CYP4F35P EXOSC10 LINC01018 SIRPB2 DHX36 NDUF6 EXOSC1
## GSM875412 5.545994 4.131407 3.658763 4.349173 5.741171 3.541536 4.025166
## GSM875413 5.167454 4.218885 3.686198 4.913067 5.284846 3.611768 3.587736
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## GSM875413 3.601326 5.791442 4.769612 4.446719 4.320624 3.500666 3.782420
## GSM875414 3.627692 6.176050 5.004648 6.885054 6.815407 3.540588 3.647163
## CACNA1G-AS1 ZPR1 CLEC4G ELFN2 KDM4B ABI3BP BCL11A
## GSM875412 4.456581 3.733197 3.911616 5.249686 3.703310 3.450036 6.142209
## GSM875413 4.923004 3.788570 4.238494 3.422952 4.032557 3.148784 5.054057
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## LINC00567 LOC284600 SLC9A5 LINC01530 FBX09 LINC01550 LEKR1
## GSM875412 3.651858 5.187754 4.867586 3.475491 5.933935 4.193431 3.695071
## GSM875413 3.712957 5.340884 4.796690 3.973771 3.921667 4.029621 3.731814
## GSM875414 3.935017 5.917272 5.123406 3.867889 4.732218 3.876637 3.785713
## OPRD1 LOC644135 RRP12 HSDL2 LINC02603 LOC101928047 TMEM80
## GSM875412 4.481914 3.148903 4.369699 5.015664 3.949220 3.539718 5.554481
## GSM875413 4.692097 3.423857 4.388529 4.484615 3.734083 3.651239 5.301821
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## ZNF546 SPATA19 NOC2L KAT6A LINC00910 HSPA1B CEP68
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## GSM875414 3.016775 4.388534 5.482263 3.806107 4.092201 3.731824 4.426221
## ANKRD20A5P RAB6A PRKXP1 RDH13 CLEC4GP1 KRAS LINC02273
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## GSM875414 5.473353 4.269099 4.506223 4.642434 3.789871 3.069647 4.895667
## PSEN1 ST7-OT4 LINC01419 FBX022 NFYC TWF2-DT LINC01013
## GSM875412 3.460690 3.115442 3.356854 4.827889 5.416648 5.770014 3.594657
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## GSM875414 3.622326 3.029434 3.112617 4.052149 6.123320 6.703997 3.748182
## SPDL1 LCE1E VHL CLU SOX30 LOC100507053 ATXN1
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## GSM875413 3.681196 4.686362 4.396493 4.107485 3.889323 4.075705 5.704224
## GSM875414 3.515339 4.721675 4.827032 4.956485 3.644955 4.220896 5.548461
## LINC01730 PICSAR CT83 ZC3H12D LACTB2-AS1 SKIDA1 ADAM23

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## GSM875412 3.676338 3.772202 6.426136 6.817415 3.097924 3.282492 3.289301
## GSM875413 4.175153 4.140556 3.722463 3.612739 3.293412 3.378967 3.208962
## GSM875414 4.748045 4.310093 3.649077 4.432456 3.238920 3.294648 3.367755
## ZFHx4 ZNF732 PCAT18 APELA CNPY1 LOC101929774 TADA1
## GSM875412 3.725463 3.139342 3.651477 3.345634 3.284635 3.205525 3.375723
## GSM875413 3.536334 3.466944 3.678247 3.374010 3.334994 3.314833 3.395421
## GSM875414 3.656296 3.346449 3.546938 3.311497 3.383995 3.482722 3.549108
## LINC00032 SNX29P2 SPATA41 FAM234B LINC01532 MCFD2 ANKRD18A
## GSM875412 4.099495 3.635688 3.554424 4.330052 4.092554 3.738184 3.864650
## GSM875413 4.029254 3.655190 3.554712 4.501697 4.329801 3.723226 3.779407
## GSM875414 4.191030 4.396149 3.599902 4.527020 4.656786 3.589513 4.289759
## SOCS2-AS1 LINC02241 LINC02997 USP32P2 DIO30S SRGAP3-AS2
## GSM875412 3.367107 3.362211 4.408101 4.321237 4.443861 3.715402
## GSM875413 3.487681 3.612540 4.187366 4.218714 4.159450 3.445906
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## LOC101928505 TTLL11 MAPK10-AS1 LINC01852 MILIP NXPH2 HISLA
## GSM875412 3.498780 3.854295 3.944053 3.779596 5.048029 3.854986 2.992939
## GSM875413 3.416220 3.887843 4.195103 3.973771 5.421578 3.996075 3.159170
## GSM875414 3.388259 4.120180 4.798820 3.957766 5.524754 4.108418 3.224687
## TRAPPC13 DAB2 LINC01635 ATP1A1-AS1 SMIM7 LYNX1 SPATA45
## GSM875412 3.682448 3.177516 3.736267 5.262648 6.264808 5.260353 3.652115
## GSM875413 3.630579 3.289236 3.760204 5.523204 5.444895 5.972666 3.722999
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## SYT7 PRR14 ZCCHC10 MIR9-1HG HMG3-AS1 TRPV6 CC2D2A
## GSM875412 4.202601 5.092658 7.084482 5.260576 3.808835 5.025735 4.069765
## GSM875413 4.110699 6.050527 6.899490 5.476127 3.433862 5.143080 3.972814
## GSM875414 4.746601 7.932551 6.282348 5.502519 3.512321 6.206177 4.578448
## LINC02754 MIR99AHG SMC01 ACKR2 FLJ38576 IL21R-AS1 SMC2
## GSM875412 8.334914 4.261159 3.912332 3.999665 3.579458 5.742528 4.818125
## GSM875413 7.168138 5.510284 4.057966 4.219999 3.409122 5.860720 4.672218
## GSM875414 9.937434 3.813231 4.480149 4.177988 3.418654 6.069800 4.790670
## ZNF254 LTBR LOC613266 CEP72 SIPA1L2 D21S2088E MEIS1
## GSM875412 4.404750 3.994086 3.616928 5.736346 4.631252 3.393747 6.851467
## GSM875413 4.884031 3.933135 3.524722 5.671556 4.881982 3.405014 9.032232
## GSM875414 4.441020 3.992034 3.738878 6.534701 4.994206 3.630859 6.580917
## SEPSECS-AS1 PROX1-AS1 ATG2B LINC01366 GIHCG SLC35G2 LINC01583
## GSM875412 4.076325 3.375669 4.716120 3.783975 3.130253 4.338823 3.224288
## GSM875413 4.153377 3.337096 4.554200 3.723918 3.289099 4.048360 3.129837
## GSM875414 3.923213 3.874866 4.584268 3.861225 3.279327 4.068638 3.117281
## VPS8 CBR3-AS1 LRRC25 LOC441666 LOC100130357 LINC00630 FANCC
## GSM875412 6.889946 4.104307 5.636056 3.158084 3.937697 3.452644 4.238067
## GSM875413 4.377503 3.728425 6.041036 3.201539 3.790077 3.400108 4.859775
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## GSM875414 4.182992 3.371567 5.528347 4.379152 4.494062 4.602532
## ARIH20S MRNIP-DT RNF130 GAU1 C5orf64-AS1 LOC101929622 RB1-DT
## GSM875412 3.979699 3.124062 4.250253 4.242167 3.960943 3.292086 3.466804
## GSM875413 4.370957 4.116621 4.432059 4.107952 3.902366 3.290680 3.341183
## GSM875414 3.999748 3.200073 5.024255 4.541458 4.284148 3.363830 3.832739
## SNRPN ACVR2B SPATA31E1 FBH1 FBX042 PRDM11 ZC3H14
## GSM875412 3.215326 3.840554 3.957336 4.738284 3.580069 3.951863 3.889438
## GSM875413 3.435951 3.923821 4.431176 4.482705 3.527629 4.232019 3.827728

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## GSM875414 3.301482 3.890686 5.120391 4.796413 3.475762 4.358412 3.849311
## LINC01093 FCN2 LINC00927 LRRC39 RHOQ C16orf54 DDX60L
## GSM875412 3.318898 3.513637 4.031310 4.099805 7.328300 4.738284 3.803033
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## GSM875414 3.296746 4.351118 4.407753 3.628374 5.840948 3.832362 3.600196
## ERCC6L2 CHDH MED26 LINC02458 HIC2 USF3 GPR12
## GSM875412 3.685354 3.354465 5.218631 3.662680 5.850121 3.854354 4.000811
## GSM875413 3.691453 3.241159 5.237665 3.948217 5.537871 3.988843 4.047662
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## LINC01936 GBP6 LINC02912 HDAC2-AS2 LOC101927237 C11orf54
## GSM875412 3.698776 3.188959 3.153312 4.093450 3.229646 4.095832
## GSM875413 4.167622 3.208538 3.241183 4.152561 3.399888 3.950404
## GSM875414 3.840780 3.402215 3.463843 4.292303 3.585715 4.422558
## LINC02860 PIK3CD-AS1 LINC00184 LINC00892 JAZF1-AS1 CSNK1A1P1
## GSM875412 3.568998 6.189457 3.862375 3.514822 3.269902 3.319642
## GSM875413 3.866030 6.659414 4.307131 3.271820 4.737209 3.250265
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## GRTP1-AS1 MAMDC2-AS1 KATNBL1 TENM3 LINC02318 LINC02846
## GSM875412 3.066197 3.184956 4.495104 3.620808 3.039127 5.301142
## GSM875413 3.062228 3.268694 3.964455 3.851314 3.222887 5.436142
## GSM875414 3.191157 3.162459 4.083257 3.801655 3.388223 5.711988
## LOC100506489 GS1-24F4.2 TRIM16L TMEM221 GRAPL NDST2 PHKA2
## GSM875412 3.491660 3.410465 3.860954 4.369173 4.720698 3.952285 5.626856
## GSM875413 3.463245 3.710150 3.785990 4.929311 4.043656 4.283159 5.397413
## GSM875414 3.644767 3.625130 3.908851 5.210537 6.000461 4.759224 5.347965
## ZNF138 LINC00689 LINC01968 INO80C AOPEP LINC01537 ZBTB40
## GSM875412 3.357276 3.875155 5.182948 4.580537 3.217431 3.025146 5.064784
## GSM875413 3.616506 3.766072 5.017249 4.382669 3.182572 3.241065 5.007323
## GSM875414 3.397502 3.867311 5.175995 4.627345 3.345277 3.239140 5.683481
## MACROD1 CHPT1 SPG11 ADAMTSL3 LTB LINC02656 KIFC3
## GSM875412 4.516441 4.877831 4.634559 5.320583 4.946864 3.835551 5.501752
## GSM875413 4.377244 6.114822 4.274019 5.441180 5.036113 3.700505 5.805446
## GSM875414 4.620544 5.602834 4.386571 5.666109 5.447190 3.841956 5.753197
## ZC3H12C NALT1 ALDH1L1-AS2 MIR3945HG TPPP2 LINC01800 LINC02223
## GSM875412 3.255929 4.876007 4.731605 3.734721 3.637853 3.640899 3.396481
## GSM875413 3.266398 4.724615 5.002611 3.846980 3.988273 3.572446 3.382371
## GSM875414 3.316785 4.595270 4.924965 3.870688 3.710039 3.684167 3.314673
## EBF3 LOC105375875 FAM53B-AS1 LOC105370475 SLC38A4-AS1 ATG10
## GSM875412 4.063347 3.743868 3.852375 3.825172 4.465632 4.606662
## GSM875413 3.929475 4.000007 3.935613 3.825578 4.821386 6.463042
## GSM875414 4.209456 3.745353 3.949865 4.120490 4.604657 4.290458
## MTDH LINC00960 FAM170B ARHGEF12 LINC01410 LINC01490 TBX18
## GSM875412 7.547298 3.660732 3.684656 3.346621 3.533397 3.409629 3.235935
## GSM875413 7.227461 3.654292 3.702541 3.120039 3.546865 3.538893 3.045418
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## NSUN4 ZNF605 KMT2A PCAT7 COPA LCN6 TDH-AS1
## GSM875412 3.544942 3.190627 3.963433 3.993056 3.891078 4.265103 4.978388
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## GSM875414 3.252106 3.220196 3.923440 4.786001 3.744792 4.546835 6.525399
## LZTS1-AS1 SAMHD1 CDKN2B-AS1 ABI1 GPATCH11 TIMM17B HDHD5-AS1
## GSM875412 4.331378 5.187569 3.369064 3.651358 3.651350 4.288732 3.560975
## GSM875413 4.484541 5.306348 3.612550 3.467554 3.663972 4.499774 4.108094
## GSM875414 4.475890 4.801772 3.412838 3.536349 3.737397 4.575622 4.243010
## GRIK1 SLC38A2-AS1 LINC01186 LOC101928211 LOC105369167 MDFIC

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## GSM875412 3.518508 5.823096 4.023730 3.134257 3.666123 3.711378
## GSM875413 3.310009 6.149187 3.884853 3.276440 3.635036 6.129632
## GSM875414 3.488725 6.878459 4.223134 3.356821 4.261068 3.960937
## RUVBL2 LOC101927253 DDX42 LINC00205 SYCE1L LOC401261 ZFXH4-AS1
## GSM875412 3.829281 4.053511 3.574145 5.205988 5.286419 5.753225 3.253749
## GSM875413 4.402039 4.259558 3.450443 4.844450 6.269149 6.875729 7.294152
## GSM875414 4.441517 5.200230 3.273212 5.698707 6.249155 4.653716 3.494678
## FLRT2-AS1 BSDC1 BTG1 GPRC5D-AS1 SLC25A34 SYF2 ZNF7
## GSM875412 3.224258 4.428868 3.629185 5.197142 4.776370 4.338651 3.498906
## GSM875413 3.208214 4.884857 3.736841 4.059054 5.447135 3.836648 3.626524
## GSM875414 3.275968 4.944864 3.951110 4.552425 5.619381 3.796828 3.530463
## LIFR-AS1 ZNF483 TPM4 LINC00645 SFXN3 LOC646762 TMTC3
## GSM875412 3.361578 3.738146 5.522781 3.361070 5.038130 5.020763 4.116432
## GSM875413 3.349631 4.043906 5.663482 3.250152 5.239572 5.507941 4.260379
## GSM875414 3.450995 4.188028 6.112993 3.280275 4.808541 4.612657 4.352693
## DLGAP1-AS2 DNAJC13 MCCC2 FCN1 RTP5 LOC100506071 CYB5R1
## GSM875412 4.966337 4.652434 3.577619 3.440835 5.396563 3.339144 4.107547
## GSM875413 3.898213 4.233037 3.372969 3.212830 5.653401 3.413128 4.186620
## GSM875414 3.922470 4.670954 3.448808 3.130299 5.842586 3.517198 4.228622
## LOC399900 VPS37C PAIP2 LOC729870 PLEKHM3 LOC101928191 PRKCA
## GSM875412 3.858106 4.946946 4.219239 4.166547 4.451247 3.766767 5.487556
## GSM875413 4.051233 5.839664 4.177278 3.942773 4.338911 3.998943 5.240440
## GSM875414 4.281384 6.161113 4.341830 4.184255 4.257077 4.214175 5.891429
## LAMA3 DIAPH1 RAD51-AS1 SLC25A25-AS1 PHF21B DLX1 SYDE2
## GSM875412 3.971146 3.273648 6.339515 8.194786 3.666068 4.692594 3.541858
## GSM875413 4.233037 3.251983 6.731369 5.833213 3.836648 4.983788 3.438137
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## GSM875412 3.537264 3.369771 5.359754 3.916757 5.923033 6.455059 3.437245
## GSM875413 3.638524 3.332919 4.418897 3.900305 5.769665 7.781737 3.376400
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## LOC101927432 LOC102723409 ARL5C MKLN1 WDR86-AS1 LOC112268198
## GSM875412 4.088960 3.640617 4.693505 6.161282 3.444938 4.691497
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## GSM875414 4.003087 3.677498 5.584355 6.193783 4.119111 4.683102
## TRDN-AS1 LOC101927069 INTS10 SPAG16 PPP4R1L CCDC66 PCP2
## GSM875412 3.526060 3.360115 3.505433 3.419391 3.573284 3.984971 4.223032
## GSM875413 3.376768 3.278879 4.485101 3.430538 3.563157 3.442199 4.728840
## GSM875414 3.463258 4.073686 3.711993 3.329479 3.583647 3.721778 4.932482
## GALNT14 LDLRAD4-AS1 LOC101927066 LOC105376360 ZC2HC1A LINC00523
## GSM875412 4.347099 3.935827 3.090307 3.215326 3.166400 6.324676
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## ZNF713 CSTF3-DT NT5DC4 RAD21-AS1 LOC101929248 HCP5B ASB3
## GSM875412 3.484269 3.095064 3.469496 3.694751 4.165269 4.395440 4.045627
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## GSM875414 3.456742 3.106502 3.627188 3.603600 4.404637 4.049923 4.707119
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## GSM875412 3.675167 3.698776 3.429574 3.840446 3.811183 3.727092 3.649287
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## GSM875414 3.749882 3.566343 3.696310 4.225300 3.584330 4.532912 3.834217
## RETREG1-AS1 LOC645485 LHX9 CELF2-AS1 LOC101928988 LINC02995
## GSM875412 3.321156 3.148903 3.692380 3.993056 3.482288 3.345997
## GSM875413 3.387881 3.125057 3.636018 3.984885 3.263806 3.461297

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## GSM875414      3.519199  3.156622  5.358024  3.808645      3.225735  3.419013
##              WTAP      TMEM44 LINC02874 LINC02685      TMEM95 GPM6A-DT FSIP2-AS2
## GSM875412  5.448234  5.617120  3.583901  5.137266  4.461424  3.470609  3.183787
## GSM875413  4.270069  4.872220  3.597417  5.628423  4.762773  3.477679  3.095754
## GSM875414  4.290410  5.544533  3.968638  5.628961  4.944797  3.604078  3.064779
##              RIPPLY1      TMC04 LINC02123      FKBP4      GLCCI1      HIP1 C1RL-AS1
## GSM875412  3.967755  5.447230  3.687972  3.592527  3.342048  3.429999  5.081459
## GSM875413  3.822914  5.232839  3.884088  3.831873  3.485123  3.925358  5.741772
## GSM875414  4.133384  5.933599  3.868760  3.655546  4.165239  4.839614  5.579442
##              RBMS3 LINC0105370612 LINC01289      RP9P ENTPD1-AS1      ITGA1      ANKH
## GSM875412  3.215326      3.262163  3.264222  3.577910      3.540553  5.029365  3.657309
## GSM875413  3.439593      3.365480  3.379481  3.511138      3.668883  5.772318  3.654725
## GSM875414  3.526519      3.413249  3.580323  3.399415      3.900224  4.073686  3.750761
##              LINC00997 GRIK1-AS2 LOC497256 LOC101928658      PIGL      GAS5      DPH6
## GSM875412  4.759779  4.743894  3.389515      3.184704  4.973587  5.005719  3.120443
## GSM875413  4.712197  4.719256  3.333855      3.238648  5.651425  3.992858  3.411701
## GSM875414  4.507522  5.253607  3.283003      3.329547  6.377335  3.592034  3.044196
##              MARK1 LOC101928251      ECI2-DT LINC00298 LOC105376037 PTPRD-AS1
## GSM875412  3.461644      3.901512  4.044473  3.247278      3.174910  3.313367
## GSM875413  3.619602      4.043214  4.229468  3.425241      3.242507  3.940110
## GSM875414  3.635422      4.475715  4.462000  3.270335      3.470126  3.326622
##              CFAP54      NKPD1      PGM5P2 CLRN1-AS1      CLTA      LINGO3      ARHGEF1
## GSM875412  3.412728  4.873849  3.326763  3.500484  5.515694  6.424762  7.840231
## GSM875413  3.541860  5.737181  3.524626  3.555869  5.166618  6.726947  7.605768
## GSM875414  3.568649  6.027121  3.594158  4.053384  4.266050  6.996513  7.823591
##              IPO5P1 PRR7-AS1 LOC101927543      PKN3      PLIN5      CAPS2
## GSM875412  3.903802  3.929846      3.644088  5.908158  4.649752  3.183787
## GSM875413  4.039433  3.894088      3.901630  6.041432  4.824661  3.420847
## GSM875414  3.941831  4.111145      4.003357  6.815088  5.188720  3.399034
##              LOC105379477 TSPAN10      NR5A2 LINC00705 LOC100129455      SAMD11
## GSM875412      3.590462  3.698071  4.108902  4.794826      3.654783  5.971274
## GSM875413      3.496448  3.920626  3.169538  4.492238      3.547536  7.238405
## GSM875414      3.775069  3.625683  3.238509  4.869044      3.810182  6.029586
##              LINC02282 HIVEP1      STXBP3      LCNL1 LOC102546299      CPXCR1 METTL14-DT
## GSM875412  3.550975  4.072917  4.369415  5.77037      3.243061  3.802687  3.313079
## GSM875413  3.536204  3.591750  3.115184  5.85945      3.243226  3.583795  3.416751
## GSM875414  3.540763  3.568191  3.649106  5.93430      3.351958  3.935355  3.187653
##              MRGPRF-AS1 NCKAP5-AS2      AWAT1 ARHGEF7-IT1 LINC01996 LINC00636
## GSM875412  5.471987  3.431765  3.889564      3.423300  4.111552  4.409493
## GSM875413  5.844433  3.432367  4.054535      3.250364  4.629557  4.426293
## GSM875414  6.009081  3.496508  4.067427      3.455892  5.382545  4.504151
##              TMEM26-AS1 DLGAP1-AS3 LOC105375253      NFE4      LCE1B ALG14-AS1
## GSM875412  3.051676  3.487062      3.464823  3.620923  4.301990  3.466804
## GSM875413  3.344337  3.469764      3.713836  3.678597  4.216782  3.629433
## GSM875414  3.667510  3.484985      3.635857  3.732135  4.494490  3.848288
##              FGF13-AS1 LOC101928386 MCM3AP-AS1      GRK4 LINC00382 LINC01644
## GSM875412  3.900342      3.164871  3.181777  3.093047  3.756844  4.866311
## GSM875413  4.257067      3.020291  3.227943  3.083292  3.659767  4.761381
## GSM875414  4.073677      3.017873  3.340713  3.191331  3.659064  4.933094
##              PLEKHA8 LOC105370549      INIP LOC101927143      ZNF677 LOC101929552
## GSM875412  4.244064      3.410119  3.750853      5.330713  4.155544      4.156840
## GSM875413  3.575585      3.510027  3.705157      5.082879  6.984048      4.395397
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##              LINC01333 LINC02339 LINC00944 LINC01842      PRDX5 LINC02683

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## GSM875412 3.440156 3.343404 3.989595 4.034006 10.48784 3.876087
## GSM875413 3.536594 3.292211 4.144174 4.132037 10.34726 3.952134
## GSM875414 3.716534 3.351645 4.481904 4.479628 10.01523 4.412707
## LOC100128993 LOC101929621 MRAP-AS1 TEX49 KCNK15 CATIP-AS1
## GSM875412 3.450834 3.779596 4.290247 3.677986 4.335852 4.710515
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## CALCOC02 C21orf91-OT1 LOC105373876 LOC105375839 METTL21EP TSPYL1
## GSM875412 4.037354 4.200389 3.947200 3.322395 3.549370 3.139614
## GSM875413 4.000872 3.928677 4.085770 3.620469 3.550015 3.267232
## GSM875414 3.959796 4.281292 4.345166 3.741391 3.668377 2.958287
## IRS4 FLJ37201 LINC01921 TIE1 LINC00342 SCPEP1 KIZ-AS1
## GSM875412 4.023935 3.499845 3.794118 3.485368 7.531178 4.622135 3.384888
## GSM875413 3.756912 3.629391 3.847613 3.648020 6.095926 4.603298 3.473467
## GSM875414 3.678506 3.641295 3.865372 3.911539 7.075292 4.594389 3.682716
## SIAH3 LINC01127 NBEAP1 ITGAD AKT2 LINC01153 VSTM2A-OT1
## GSM875412 3.319088 3.697053 3.211706 4.738284 4.807692 3.450987 3.095611
## GSM875413 4.359331 3.913173 3.291813 4.500228 4.764021 3.606533 3.212439
## GSM875414 3.384630 4.102669 3.372133 4.742779 5.421736 3.694039 3.184660
## SFT2D1 QTRT2 TRHDE-AS1 LYRM9 SLC25A28 NEDD9 GNA01-DT
## GSM875412 5.308690 3.564240 3.825955 5.743686 3.631705 4.762245 3.610451
## GSM875413 5.062708 3.405662 4.638598 5.878858 3.789750 4.762044 3.673444
## GSM875414 5.164299 3.520918 3.738379 4.818966 3.889707 4.632940 3.579570
## TMPRSS11B EDRF1-DT P4HA3 LINC02119 LINC02250 MKNK1 LOC283731
## GSM875412 3.258234 3.464547 3.746653 3.719066 3.272433 5.965036 3.550781
## GSM875413 3.513716 3.790262 3.882314 3.402639 3.364577 5.392222 3.527863
## GSM875414 3.193769 3.523530 3.622528 3.658945 3.422891 5.516727 3.691754
## TOR1AIP1 IL12A-AS1 HEATR4 ALG5 NEXN-AS1 LINC01854 FBXW2
## GSM875412 4.116556 3.948489 4.089421 3.524838 3.296722 3.584498 3.836778
## GSM875413 4.002332 3.970201 3.902888 3.331103 3.213118 3.618519 4.087916
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## GSM875412 7.600369 3.924023 3.046700 3.540490 3.903575 4.710200 3.702432
## GSM875413 6.338549 3.766265 3.139008 3.578497 3.882518 4.851358 3.418870
## GSM875414 6.739724 3.948834 3.038578 3.595633 3.674959 5.058170 3.686453
## DLGAP1 ZNF568 DNHD1 DYRK3 GOLGA6L2 SDAD1-AS1 IER5
## GSM875412 3.139308 3.259107 3.021695 4.089559 3.675499 3.218700 3.639875
## GSM875413 3.195570 4.063640 3.077985 4.057526 3.628236 3.291780 3.830414
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## GSM875412 5.145681 4.472954 3.636441 3.434821 3.189236 4.041340
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## MINDY2-DT C19orf84 LINC01029 RMST LINC01241 FAM217A ING2-DT
## GSM875412 4.327575 5.736519 3.997895 3.649793 3.763254 3.402254 3.894974
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## GSM875414 3.852475 6.035178 3.808630 3.912052 3.892875 3.540588 4.829412
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## ZNF826P ZNF107 ARHGAP26-AS1 SKAP1-AS2 LINC01520 CRACR2A LINC00112
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## GSM875414 4.431267 4.919014 4.993215 4.422128 4.163857 4.898365 4.725454
## TLX1NB SLC17A1 LOC645188 KRTAP10-11 LOC105378997 ASTN1
## GSM875412 6.099939 3.126457 3.529528 5.172052 3.531973 3.181289
## GSM875413 6.418195 3.137452 3.656891 5.264953 3.453117 3.452535
## GSM875414 6.559341 3.384229 3.609033 5.442860 3.665646 3.494231
## LINC02171 LINC01120 DPY19L1 ZNF169 FOSL2-AS1 RSU1 PCOLCE-AS1
## GSM875412 4.765539 4.399530 3.138409 5.690790 3.540230 3.803281 5.701827
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## SACS-AS1 PGD SLC25A3P1 HECW1-IT1 LINC01917 LOC101928626
## GSM875412 3.582802 4.075935 3.658528 3.059422 3.179676 3.586110
## GSM875413 3.225234 4.414255 3.678062 3.196648 3.402982 3.432332
## GSM875414 3.409419 5.011950 3.955025 3.222032 3.416075 3.599876
## LOC101928516 NOS1 BCL2L13 LINC00556 LOC107984974 PRKCQ-AS1
## GSM875412 3.797570 4.279646 3.686021 3.602497 3.152625 3.442755
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## GSM875414 4.154887 4.494477 3.631125 3.272286 3.160090 3.364569
## MAOB CDKAL1 LINC01425 TMC7 ZNF451-AS1 LOC102723335
## GSM875412 3.403009 3.282817 4.500383 3.365951 3.184706 4.053979
## GSM875413 3.332566 3.127444 4.507016 3.141788 3.403053 4.002332
## GSM875414 3.404389 3.266678 4.503132 3.640134 3.462782 4.540798
## LINC01703 ZNF81 TNRC6C AGO2 LINC01732 RARS2 NAV2-IT1
## GSM875412 4.253827 4.142286 4.569381 3.779596 6.594443 5.304046 3.762465
## GSM875413 3.898246 4.296396 4.291612 3.853809 7.091546 4.659798 4.126586
## GSM875414 4.417928 4.761791 5.464414 3.456468 8.252802 4.708419 4.646582
## CCDC14 LINC02192 LINC00691 LOC101929752 LINC02226 LOC101928850
## GSM875412 3.429378 3.610230 3.496784 4.028808 4.451247 3.480510
## GSM875413 3.613048 3.633120 3.457735 4.384521 4.262950 3.554489
## GSM875414 3.566476 4.003083 3.730096 4.204022 4.353343 3.728668
## LOC101060553 LOC105372969 LOC105376100 ANKRD28 TXNRD1 NID1
## GSM875412 4.026408 3.294041 3.787151 6.493408 3.146055 5.207189
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## GSM875414 4.023512 3.627268 3.925367 5.854239 3.011005 5.264703
## LINC01254 LOC153910 LINC02367 EYA4 LINC01538 LINC01209 SLC22A25
## GSM875412 3.327918 5.542672 3.498958 3.314278 3.301634 3.635176 5.741423
## GSM875413 3.416056 5.430699 3.316915 3.409554 3.177238 3.970332 5.100497
## GSM875414 3.979153 5.470129 3.485794 3.398236 3.248214 4.085729 4.993668
## LINC01091 LINC00616 TBC1D22A-AS1 JAKMIP2-AS1 LOC101929488 ADGRF5-AS1
## GSM875412 3.541108 3.329057 3.918207 3.324440 5.021121 3.869554
## GSM875413 3.478684 3.423133 4.048688 3.611526 5.202331 3.951449
## GSM875414 3.623524 3.480471 4.242235 3.684330 5.701885 3.915515
## AHI1-DT LOC101928985 BRPF3-AS1 LOC112268140 MTHFD1L ADARB2-AS1
## GSM875412 3.667631 5.974347 3.148903 3.652223 3.916779 5.698882
## GSM875413 3.729394 6.030079 3.237997 3.658018 3.539279 5.556589
## GSM875414 3.984021 6.080411 3.263702 4.102215 3.904080 5.612624
## DHX35 GYPE LINC02544 VPS35 DEFB108B AMZ1 LRP11
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| ## | GSM875412    | 6.248212     | 3.772395     | 3.911168     | 6.141618     | 4.727800     | 4.355554 3.638753 |
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## SYTL4 MOB3B DDX10 ITPK1-AS1 RAPGEF4-AS1 HYDIN2 HMCN2
## GSM875412 4.500287 5.274389 3.427178 3.767689 3.384185 4.542711 4.010723
## GSM875413 3.745476 5.501949 3.515059 3.184477 3.282563 4.713203 3.872573
## GSM875414 3.721179 4.916032 3.649077 3.678439 3.365977 4.468008 4.099693
## GADL1 LOC101927610 ANO8 FMN1 AHNAC CCDC40 INPP5B
## GSM875412 3.418325 4.147684 5.106858 3.532462 4.522936 3.688348 4.045416
## GSM875413 3.588820 4.086645 5.014465 3.492203 4.327337 4.049196 3.757625
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## LINC00559 CTBP1-AS LINC02011 RPL34-DT LOC401324 CDH4 LOC340184
## GSM875412 3.723638 3.700681 3.251431 3.335792 3.835430 4.244608 3.357260
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## SRGAP3 LOC286359 KCNT1 LOC157273 BTRC TMEM72-AS1 ITGA9-AS1
## GSM875412 3.726326 3.495300 4.808820 3.505776 3.193526 5.226230 3.875382
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## GSM875414 3.360955 3.946440 5.142124 3.536108 3.103549 5.502307 4.221715
## TEDC2-AS1 TVP23A SNX20 TNNT2 PLXND1 HERC6 ZSCAN23
## GSM875412 3.052149 3.819683 5.453023 4.567708 5.387292 3.536610 3.229973
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## GSM875413 4.168521 5.147479 3.469293 3.933786 5.395992 4.740534 3.862626
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## ZBTB8B LOC101929073 MSANTD2-AS1 CAGE1 AMN IFT122

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| ## | GSM875414    | 3.789279     | 3.312611     | 3.992530     | 3.601231  | 6.966720     | 3.876829   |
| ## | LINC02762    | LINC01226    | C2orf50      | GAB4         | LINC00858 | LOC158434    | INPP4B     |
| ## | GSM875412    | 5.145964     | 4.949576     | 4.020065     | 4.744369  | 3.645178     | 3.180150   |
| ## | GSM875413    | 5.157154     | 4.736571     | 3.978898     | 4.971559  | 3.752685     | 3.207364   |
| ## | GSM875414    | 5.608122     | 4.916643     | 4.415447     | 5.096454  | 4.458615     | 3.246806   |
| ## | TBC1D7       | PIGG         | SH2D4B       | LOC283045    | LOC283194 | VSTM2B-DT    | WDR72      |
| ## | GSM875412    | 3.448613     | 5.329653     | 3.648062     | 5.188206  | 5.301584     | 5.362453   |
| ## | GSM875413    | 3.587282     | 5.289486     | 3.556898     | 5.040711  | 5.046065     | 5.506421   |
| ## | GSM875414    | 3.660763     | 6.053088     | 3.610909     | 5.256012  | 5.866239     | 5.671317   |
| ## | C1orf220     | LOC338963    | INTS4P1      | CRABP1       | LCTL      | FAM83B       | PLPPR5-AS1 |
| ## | GSM875412    | 3.274108     | 5.212476     | 3.632557     | 3.653269  | 3.113863     | 4.238458   |
| ## | GSM875413    | 3.467554     | 5.646417     | 3.417921     | 3.381367  | 3.006966     | 3.169485   |
| ## | GSM875414    | 3.160609     | 5.935248     | 3.539594     | 3.552030  | 2.987781     | 4.356939   |
| ## | SOBP         | GARNL3       | LINC02044    | BHLHE22-AS1  | PLD5      | YWHAEP7      | LINC02145  |
| ## | GSM875412    | 4.359335     | 3.884728     | 3.940133     | 3.429574  | 3.238981     | 5.316713   |
| ## | GSM875413    | 6.812944     | 3.578621     | 3.883963     | 3.292398  | 3.250997     | 5.042539   |
| ## | GSM875414    | 3.972105     | 4.055027     | 4.125212     | 3.025266  | 3.103013     | 5.279238   |
| ## | MRPS27       | CFAP74       | TPT1-AS1     | LOC101929268 | CEP41     | ANKRD31      | COL27A1    |
| ## | GSM875412    | 3.606256     | 3.736055     | 4.671227     | 3.454484  | 3.775937     | 3.429574   |
| ## | GSM875413    | 3.613177     | 3.644094     | 4.773214     | 3.518386  | 3.760057     | 3.650964   |
| ## | GSM875414    | 3.610061     | 3.729570     | 5.195634     | 3.655343  | 3.822676     | 3.887948   |
| ## | CAST         | LINC01512    | COL18A1-AS1  | ZNF804B      | TCAF2     | USP49        | RELL2      |
| ## | GSM875412    | 4.597046     | 4.530889     | 3.794831     | 3.255544  | 4.524403     | 3.630741   |
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| ## | GSM875412    | 3.922661     | 4.444224     | 3.539069     | 4.168642  | 3.987789     | 8.356850   |
| ## | GSM875413    | 4.320624     | 4.422636     | 3.491139     | 3.780776  | 3.743553     | 6.204460   |
| ## | GSM875414    | 3.935089     | 4.751822     | 3.922937     | 3.883349  | 4.013209     | 6.729384   |
| ## | TMEM151B     | HOTTIP       | MYH16        | LINC01844    | CAD       | NEK1         | LINC02891  |
| ## | GSM875412    | 5.117380     | 5.576257     | 3.639734     | 3.478717  | 4.292733     | 3.798884   |
| ## | GSM875413    | 5.273980     | 6.010399     | 3.877354     | 6.232135  | 4.439941     | 3.886572   |
| ## | GSM875414    | 5.538557     | 6.447468     | 4.094244     | 3.302402  | 4.461112     | 3.729812   |
| ## | ABR          | GREP1        | LINC02537    | QPRT         | BSN-DT    | FBXW12       | A2M-AS1    |
| ## | GSM875412    | 3.732617     | 3.869243     | 3.764386     | 3.067324  | 4.218225     | 3.806377   |
| ## | GSM875413    | 3.445906     | 4.000481     | 3.889946     | 3.150090  | 3.973023     | 3.848798   |
| ## | GSM875414    | 3.581099     | 4.559971     | 3.920271     | 3.079926  | 4.118049     | 3.853095   |
| ## | LINC02533    | LINC01238    | LINC01619    | VAC14-AS1    | DTHD1     | LOC100630923 |            |
| ## | GSM875412    | 3.337172     | 4.271946     | 3.528102     | 3.706362  | 3.218917     | 4.951223   |
| ## | GSM875413    | 3.403056     | 4.206779     | 4.628014     | 3.636064  | 3.246817     | 5.086964   |
| ## | GSM875414    | 3.574594     | 4.133130     | 3.979919     | 4.221631  | 3.470094     | 5.107857   |
| ## | LOC101928519 | LINC00841    | KIAA2012     | MS4A15       | LINC00607 | LOC147004    |            |
| ## | GSM875412    | 3.205126     | 4.112828     | 3.547431     | 3.544155  | 3.685739     | 3.903802   |
| ## | GSM875413    | 3.289931     | 4.128273     | 3.803035     | 3.639777  | 4.031654     | 3.850173   |
| ## | GSM875414    | 3.232179     | 4.103253     | 4.137425     | 4.097662  | 4.182992     | 4.354105   |
| ## | LINC00700    | LOC101929762 | LOC107984399 | FAM239A      | FLJ33534  | PSPN         |            |
| ## | GSM875412    | 3.344475     | 3.379119     | 4.187590     | 4.109522  | 4.132796     | 4.064500   |
| ## | GSM875413    | 3.465874     | 3.279224     | 4.239851     | 4.057966  | 4.139499     | 4.138215   |
| ## | GSM875414    | 3.723227     | 3.451492     | 4.398479     | 4.060290  | 4.382503     | 3.839726   |
| ## | TRPM2-AS     | EMID1        | LOC285766    | ACTA2-AS1    | LINC00330 | LOC100133920 |            |
| ## | GSM875412    | 5.215951     | 4.011468     | 3.638966     | 4.494660  | 4.691497     | 3.681091   |
| ## | GSM875413    | 5.350846     | 4.014498     | 3.528761     | 4.146671  | 4.833009     | 3.444295   |



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## ATP9B CECR3 ABHD12B CXXC1P1 SHANK2 CEBPZOS TXNDC8
## GSM875412 3.742724 4.096531 3.283133 4.135114 3.993056 5.418595 4.108539
## GSM875413 3.789432 4.233037 3.378646 4.015443 3.889780 4.051668 3.952860
## GSM875414 4.079949 3.992179 3.337244 4.064765 4.921743 3.464702 3.970485
## DOP1A LOC400748 LINC02003 LINC01356 PNLDC1 DLGAP2-AS1 LOC729732
## GSM875412 3.218210 3.992581 3.793912 4.959741 3.703251 4.377260 4.655898
## GSM875413 3.338514 4.018376 3.896699 4.841609 3.674144 4.526296 4.381463
## GSM875414 3.538340 3.818871 4.355053 5.358024 3.875181 4.476680 5.253481
## KRT72 MRGPRG-AS1 SLC24A3-AS1 USP2-AS1 DDC-AS1 LINC01281 ESCO2
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## GSM875412 3.392426 4.577697 3.251434 4.606639 3.599882 9.562124 3.327289
## GSM875413 3.502856 4.572906 3.382258 4.761578 3.773612 8.108239 3.393042
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## GSM875413 5.587496 3.650221 3.304983 3.795777 5.288771 4.231471 3.258916
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## RUNX1T1 SMIM13 NAT16 ZNF852 RAMP2-AS1 ASB15 TBL3
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## GSM875413 3.426488 3.945251 5.547927 3.294601 3.711579 4.208028 4.274686
## GSM875414 3.667978 4.394410 5.271978 3.317357 3.750751 4.317817 4.431275
## BTN2A2 TMSB15B-AS1 LINC01144 GLS2 LINC02843 LOC101927588
## GSM875412 4.182768 3.620923 4.727018 3.128093 3.836577 3.544907
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## GSM875414 4.146242 3.460839 4.799118 3.219120 4.276036 3.632785
## CASP12 SLC9B2 CCDC148 HYAL6P LINC01599 VSIG10L2 ELMOD1
## GSM875412 3.944231 6.569044 3.809310 3.177555 4.330406 3.948355 4.218342
## GSM875413 4.409478 4.880992 4.445075 3.311833 4.552596 4.023999 4.255129
## GSM875414 4.733986 4.632642 3.906335 3.379366 4.875328 4.435129 4.434456
## ST7-AS2 EMP1 KRTAP11-1 C14orf178 CDC42BPG CRACD LOC151760
## GSM875412 3.553248 6.336166 4.431921 5.228347 4.497819 3.807187 3.763301
## GSM875413 3.623306 5.622992 4.469745 5.403424 4.716454 3.812507 3.769095
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## OR4M2-OT1 LINC01618 TNFR SNHG4 LOC101928495 KRTAP13-1 TBX20
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## KRTAP7-1 ZNF92 SETDB2 KRTAP8-1 PRMT1 AFF3 MAP3K2

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## GSM875412 3.883194 3.782849 3.694419 3.991863 4.716964 3.424319 3.820154
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##          RBMY3AP  GDGP1    MGST1      ALB      TNXB      ELL      TFE3
## GSM875412 3.600124 3.510864 8.325349 3.302641 3.628211 5.223771 3.787964
## GSM875413 3.880447 3.512932 3.769868 3.289508 3.751976 4.018217 4.172874
## GSM875414 3.841407 3.572107 4.840815 4.165239 4.043004 4.090703 4.619855
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## GSM875412 6.167768 4.026261 3.361312 3.133691 5.543556 5.463027 5.140911
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##          LOC400940  HECTD2    SMAD4      FUS    TTC34  MMEL1-AS1  ALDH3B1
## GSM875412 3.348531 3.283857 3.292294 5.192846 3.943360 4.670620 5.899787
## GSM875413 3.390446 3.349814 3.138103 4.134782 4.105391 4.545959 6.131731
## GSM875414 3.586975 3.431025 3.202064 3.878967 4.473526 5.186796 6.476016
##          SCTR  LOC105369974  N4BP2L2  METAP1D  RPL13  MEDAG  PAK1
## GSM875412 3.658653      3.621035 6.562805 3.052025 3.891850 4.51289 4.029352
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## GSM875412      4.143329 3.822214 3.734752 3.868537 3.135654 4.504903 3.495385
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##          SEPTIN7  CEP295    KANK1  MAP3K9-DT  BRPF3  RABGEF1P1  SRRM5
## GSM875412 3.587071 5.245938 5.163825 3.828578 4.962839 3.564724 3.720775
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##          SLC17A4  NAA35    ZGRF1    LM03    CHML  LOC100288656  RPS16P5
## GSM875412 3.433957 4.329110 3.516149 3.381297 3.850005      3.787432 6.445371
## GSM875413 3.162114 3.768377 3.557778 3.616347 3.580691      3.770423 7.206436
## GSM875414 3.298018 4.400096 3.503359 3.651973 3.563292      3.813307 6.429943
##          DLEU7    CD6    TTLL5    MFN2    MYNN  PIEZO1  FABP6
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## GSM875414 3.693753 5.056563 5.816295 4.556315 3.728811 5.500473 5.825302
## CLYBL-AS1 SUZ12 TCEA1 LOC105374423 SH3GL1P1 RALGAPA1 OR5E1P
## GSM875412 3.615886 3.934178 5.554579 4.040805 3.167015 3.397584 3.786537
## GSM875413 3.644313 3.908889 5.622764 3.894550 3.138101 3.305544 3.931502
## GSM875414 3.818793 3.806027 5.489346 4.566503 3.324449 3.286313 4.157051
## OR2M4 PPP1R11 MAF SNORD8 SOD2 DNTT SNORA68
## GSM875412 3.345344 3.844615 3.121581 3.708556 7.819962 3.234854 4.062357
## GSM875413 3.676355 4.092591 3.243973 3.737910 7.157306 3.436210 3.760057
## GSM875414 4.193749 4.193359 3.425180 3.725578 6.064953 3.551887 4.222348
## PLD4 CTNND2 KCNK1 RETSAT CWF19L2 CUX2 PPP5D1P
## GSM875412 4.407626 3.954260 3.484870 7.503718 3.987421 3.735360 3.580069
## GSM875413 4.931879 3.999327 3.562117 6.513551 4.043638 3.803655 3.550643
## GSM875414 4.875614 3.881935 3.597750 7.749064 3.972127 4.629462 3.618860
## ELK4 PPP2R3B LDC1P PDXK MMP2 LOC105371352 VRK3
## GSM875412 4.016064 4.729749 4.957097 6.430002 3.203226 3.460913 4.652562
## GSM875413 3.939763 5.132497 5.131529 6.461909 3.531416 3.538981 4.494967
## GSM875414 3.892068 5.454525 5.402877 6.625268 3.440833 4.144264 4.828463
## RPS10P7 HRK LINC01346 PLCE1 ATP13A3-DT MACC1 NSF
## GSM875412 4.785651 3.396121 3.589274 3.906375 3.685961 7.943733 3.655139
## GSM875413 4.421634 3.212549 3.656147 4.175766 4.479175 3.202193 3.423133
## GSM875414 4.492138 3.492146 3.954992 4.598238 4.383137 5.276480 3.839197
## FGF22 ARHGAP24 SBF2-AS1 TOP1P2 PER3P1 LOC105377223 FAM200A
## GSM875412 4.303362 4.872679 4.219239 3.463139 3.575422 4.540202 3.284635
## GSM875413 4.936214 4.585601 4.251967 3.632435 3.600825 4.180651 3.760057
## GSM875414 4.965745 4.399184 4.622143 3.967286 3.768614 4.570927 3.782841
## LOC105378726 STPG3 HPYR1 TFB2M TYR03P OR7E104P SPRY4-IT1
## GSM875412 3.723990 4.723068 3.820622 3.047254 4.066132 8.233466 4.062399
## GSM875413 3.765427 4.884628 3.950711 3.076852 4.257297 8.641347 5.682772
## GSM875414 3.816411 5.331004 4.323095 2.969002 4.319199 8.921413 4.275304
## MGAT3 LINC00674 ARID1B NFE2L2 OR5AK4P SH3GL1P2 ZNF160
## GSM875412 4.331624 4.012967 8.178366 6.514249 3.760650 3.892067 3.718066
## GSM875413 4.236135 4.187648 7.709356 5.860636 3.938225 4.308429 3.633149
## GSM875414 4.827948 4.022960 8.186137 6.924982 4.581056 5.206838 3.735302
## C20orf181 OR1C1 OR8G2P OR8G1 OR1Q1 OR4D1 CLN6
## GSM875412 4.932962 4.082483 3.591365 3.101389 3.538367 4.265103 3.721778
## GSM875413 4.597350 4.078022 3.875621 3.438619 3.445906 4.048232 3.829365
## GSM875414 4.874827 4.733784 4.101919 4.106725 3.713805 4.703188 5.380410
## LOC105376944 PNN ELOVL5 OR2L2 OR2L1P OR5J2 OR5H1
## GSM875412 3.650461 6.536104 4.500383 3.808138 3.366249 3.357371 2.968120
## GSM875413 3.827653 4.992384 4.985781 3.945735 3.357150 3.532861 3.232069
## GSM875414 4.266208 4.917000 4.753032 3.813765 3.805285 3.512126 3.567909
## OR9A1P OR10A3 OR10D3 OR10D1P OR1J2 OR4C1P OR2K2
## GSM875412 3.358540 3.711008 4.513601 4.047501 4.294802 3.929530 3.717635
## GSM875413 3.310620 3.794902 4.567615 4.524114 4.309172 3.817113 3.973771
## GSM875414 4.025415 4.276982 4.896042 4.993013 4.674449 4.611067 3.923035
## CTTN OR1J4 OR5L2 OR5K1 OR13C4 FOXD4 BDNF-AS
## GSM875412 3.688362 4.332271 4.408994 3.269612 4.251470 4.597138 3.331973
## GSM875413 4.118196 4.447212 4.694356 3.226351 4.717338 4.342532 3.256368
## GSM875414 4.379414 4.697277 6.025514 3.215902 4.935753 4.518445 3.283203
## ZNF135 RAC1 ABLIM2 TREML5P CD74 SNORA74A CECR9
## GSM875412 5.460000 3.589860 4.831130 4.001677 5.039960 3.320347 3.880790
## GSM875413 5.501949 3.155598 4.589483 4.034201 5.726441 3.487055 3.664246
## GSM875414 6.304375 3.183495 4.971105 4.292411 6.336038 3.766641 3.861623
## ZNF28 ZNF29P DEFB114 SOX4 ANXA2 MCAM SNORA71B

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## GSM875412 3.580069 3.265001 3.153655 4.290468 3.919743 5.634731 4.633268
## GSM875413 3.297466 3.286631 3.035077 4.028172 3.543696 5.608820 4.570607
## GSM875414 3.318322 3.201621 3.049331 4.270047 4.181294 5.351259 4.071011
##      DEFB124      SPP1  NUDT16L2P  TRIM52      TROAP  KAZALD1      GAD2
## GSM875412 3.475412 3.814057 6.326086 6.219062 6.605799 4.970696 3.607116
## GSM875413 4.548031 3.344341 5.159968 7.031647 6.504953 5.561913 3.808065
## GSM875414 3.641088 3.368260 5.801541 5.410266 7.940142 6.620958 4.024568
##      CADPS      HOATZ  GABRG2  RSPH3  SRD5A3-AS1  CAMSAP3      GALNT1
## GSM875412 5.676344 3.885275 3.129519 6.831441 3.682848 5.757688 10.202827
## GSM875413 2.997372 4.125048 3.156454 6.839044 3.765354 5.182025 8.565711
## GSM875414 3.521838 4.503029 3.394411 7.160695 3.658023 6.217601 9.246420
##      ITPRIPL2      CSAD  SLC35E4      SVOP  PPP4R3B  PIK3R2      COSMOC
## GSM875412 8.856913 4.606716 5.587598 4.457681 5.344013 7.972208 4.873526
## GSM875413 7.955301 5.579563 4.629557 4.524434 3.742003 8.991931 3.895716
## GSM875414 8.196058 4.129042 4.886968 4.794540 4.006805 8.186478 4.187234
##      LRRC66  LINC00354      IDO2  GATA2-AS1  LINC01843  ZNF208  LOC100505851
## GSM875412 6.037458 3.715839 3.751433 4.978649 4.592003 3.206527 3.449686
## GSM875413 3.972376 4.057966 3.685541 4.937957 4.528956 3.635036 3.308547
## GSM875414 3.948654 4.570480 3.985626 5.405164 4.609284 3.179069 3.798315
##      SLC35F3-AS1  C2orf74  PWRN2  RNF103      EAF2  CHRNA10  CEP43
## GSM875412 3.671146 4.831573 3.051676 4.763221 3.114541 4.951170 8.028822
## GSM875413 3.709569 7.011837 3.261197 3.884493 3.110563 5.231112 5.692099
## GSM875414 3.631368 4.879144 3.128048 3.954841 3.154713 4.982183 8.013544
##      YTHDC2  LOC100507336  ATP8B5P  WDR87BP  ARMC9      INTS6      CDFN
## GSM875412 6.664652 3.973978 3.199222 3.779596 6.804499 4.008158 3.558275
## GSM875413 6.169181 3.873983 3.317569 3.902486 6.892467 3.621706 3.257654
## GSM875414 4.901779 3.906701 3.274152 4.416982 7.075543 3.757342 3.410562
##      IFT43      PAAF1      CHERP      AVIL  LINC02424  TBC1D1  FKBP15
## GSM875412 4.024101 5.921937 6.792744 3.857601 3.132624 3.822280 4.022779
## GSM875413 4.095567 5.678885 6.525729 5.567155 3.064703 4.029557 3.595687
## GSM875414 4.176661 5.692145 6.813949 4.330123 3.183447 3.985921 3.772933
##      SLC22A23  ZNF506  TTC7B-AS1  CARD11-AS1  ARMH3  HS1BP3  ATP10A
## GSM875412 5.924828 3.312407 3.491744 3.564064 5.221780 4.495954 5.869883
## GSM875413 5.463958 3.253146 3.510113 3.896582 4.198067 4.552808 6.101759
## GSM875414 6.457502 3.269234 3.718794 3.846027 5.522204 4.718917 6.483900
##      LINC01704  LOC105374928  RGS13  LOC101927814  MYH11  SERPINE1
## GSM875412 4.328753 3.325420 2.938285 4.427192 6.197045 6.020941
## GSM875413 4.031468 3.428276 3.010452 4.509384 5.366848 7.063252
## GSM875414 4.115232 3.413524 2.959366 4.666559 5.640513 5.212125
##      BABAM2-AS1  EML5      ECM2      UROS      RP2      SREK1  LOC102725116
## GSM875412 4.708162 3.192811 5.227465 4.456409 3.924238 3.705304 3.204220
## GSM875413 4.686396 3.603770 5.456787 3.836648 3.572185 3.328955 3.119970
## GSM875414 4.465747 3.345923 5.254549 3.873199 3.688485 3.782997 3.410722
##      DDX19A-DT  BLTP3A  EDNRB-AS1  LINC01750  CCDC157  SLC16A1-AS1  INTS14
## GSM875412 3.367214 3.952400 3.693100 3.412315 5.783485 4.750940 4.212776
## GSM875413 3.341641 3.847654 3.757195 3.304279 5.650308 4.381463 3.622226
## GSM875414 3.413546 3.753481 4.231226 3.438591 6.080681 4.267696 3.709633
##      LOC101928371  NCOA7  RBM26-AS1  LINC01792  DDX50  LINC01694  BEND6
## GSM875412 4.437839 3.627132 3.466570 3.450661 5.137259 3.284521 3.381085
## GSM875413 4.177672 3.281591 4.228285 3.446836 5.060140 3.481621 3.230249
## GSM875414 4.832741 3.209061 3.201191 3.360133 4.646453 3.419154 3.700885
##      TTC23      MTG2  LINC01012  LOC401442  PRSS59P  IRAK3  LOC101928933
## GSM875412 4.730634 4.090469 3.447030 3.749568 4.404874 4.162681 3.458938
## GSM875413 4.858978 5.027578 3.303471 3.643111 4.502197 4.055029 3.423133

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## GSM875414 5.197520 3.869640 3.054198 4.137275 5.060388 4.026758 3.496357
## CCDC90B CLK4 WASIR2 DCAF13 TTLL13 LOC101929528 LINC00165
## GSM875412 5.887986 4.189486 3.732943 3.284635 4.171347 3.639058 3.948977
## GSM875413 5.817179 3.745161 3.324045 3.156605 4.248345 4.132152 3.869385
## GSM875414 4.761791 3.569892 3.263918 3.249869 4.431534 3.992627 4.160739
## LINC01352 TDRKH-AS1 LINC00240 NBR1 MZF1-AS1 FNTB CYP27C1
## GSM875412 3.441990 4.905868 3.351069 4.455565 3.799242 4.564133 3.478751
## GSM875413 3.463084 4.928903 3.417257 4.076610 3.198067 4.423607 3.188680
## GSM875414 3.381244 4.771250 3.246373 4.536195 3.416740 4.056873 3.511028
## SLC24A4 CADM2-AS1 CRPPA-AS1 NCOA6 ACBD5 LRTOMT DNAJC2
## GSM875412 3.661783 3.092640 3.174225 3.506958 6.142128 3.515031 3.497904
## GSM875413 3.885544 3.192190 3.339766 3.403112 4.052718 3.407318 3.364303
## GSM875414 4.016110 3.172298 3.252242 3.408939 5.685313 3.517445 3.243475
## LOC102724382 FANCD2 LRIG2-DT LOC101929007 STXP5L LOC100422212
## GSM875412 3.779596 3.723804 3.517172 4.300340 3.155558 3.390238
## GSM875413 3.994935 3.555561 3.593040 4.437859 3.306075 3.305138
## GSM875414 4.014909 3.355359 3.440087 4.401077 3.467545 3.440189
## PTPRK-AS1 LINC01970 LINC01992 SLC44A3-AS1 MIR34BHG LINC02186 NSUN3
## GSM875412 3.185083 3.544229 4.059630 4.088134 3.692198 3.460159 3.733728
## GSM875413 3.187098 3.752945 3.939212 3.937606 3.641335 3.585719 3.821350
## GSM875414 4.943775 3.842765 3.930165 3.994640 3.758897 3.766607 3.462896
## OPN5 SPIRE2 LINC01492 LOC101930149 IQUB CLXN
## GSM875412 3.851141 3.350573 3.206558 3.334645 3.396915 3.689757
## GSM875413 3.803468 3.111343 3.106607 3.597413 3.848163 4.176906
## GSM875414 4.604433 3.549800 3.180091 3.790103 3.558150 4.281550
## LOC105378231 LYPD8 CX3CR1 LINC01398 HNRNPC INPP5D PITPNC1
## GSM875412 3.443359 3.466804 4.220451 3.559321 3.623299 5.461308 6.295514
## GSM875413 3.298527 3.402866 4.733302 3.664920 3.489085 4.766509 5.889428
## GSM875414 3.670182 3.655455 4.259016 3.755967 3.496763 5.197869 6.017034
## HAPSTR1 ADAM18 NHEG1 C11orf21 PIGT POLR1E BMP1
## GSM875412 7.538966 3.224414 4.430583 4.375164 7.761745 4.186801 5.551204
## GSM875413 6.456065 3.311405 4.244832 4.466513 7.997331 5.189308 5.724002
## GSM875414 8.747910 3.299502 4.757971 4.540977 8.514615 4.984847 6.254099
## CARD8-AS1 BCAS4 LOC284379 FAM201B LOC100132249 BMS1P20 LINC00458
## GSM875412 3.831117 4.034384 4.309635 5.280096 4.354972 4.469080 3.282045
## GSM875413 3.704219 3.887252 4.241561 5.488549 4.549822 4.002542 3.265199
## GSM875414 3.845663 4.041191 4.078236 5.286040 4.406919 3.819237 3.329964
## FAM13A IGF2BP3 IGF2R AP3M2 SLC1A3 MIA3 IQGAP3
## GSM875412 3.934342 3.853354 4.323029 6.819447 3.985678 7.159661 3.945659
## GSM875413 3.733629 3.990607 3.695383 6.404856 3.453665 6.701422 4.081369
## GSM875414 3.663588 3.941831 3.724778 5.312290 3.685443 7.799334 3.944711
## LOC105374325 C15orf62 TDRD3 SMARCA4 ZNF836 RNF213-AS1 EML2-AS1
## GSM875412 3.524771 3.194921 6.007210 6.258798 4.414345 3.632711 4.274600
## GSM875413 3.812318 3.669428 5.651323 6.349965 4.541696 3.716246 4.567094
## GSM875414 4.056967 3.480108 5.950122 6.390164 4.846794 3.807862 5.348079
## TP53BP1 LINC02099 ABCA4 SETD5 ZFP69 ZNF589 PDCD6P1
## GSM875412 3.846918 4.045863 3.596997 7.820769 4.147173 4.018570 8.278846
## GSM875413 3.920626 4.073253 3.799760 7.734420 4.065936 4.379907 9.350025
## GSM875414 3.871248 4.959276 3.926061 8.851435 4.088448 4.429025 7.971958
## SOX13 SLC25A24 LOC105370697 LRRC63 CCNC C3orf38 ARSK
## GSM875412 4.500383 4.197658 3.292802 3.109698 4.473393 3.380947 5.927749
## GSM875413 4.041243 4.093008 3.491555 3.052009 3.445906 3.522047 5.756666
## GSM875414 5.564901 4.374758 3.537725 3.017132 3.672218 3.562131 6.152936
## MGAT4A UBR2 PPARGC1A TRIM13 CYSRT1 SOGA3 PDLIM7

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## GSM875412 3.576768 3.219220 3.738437 5.766446 5.400605 3.939348 5.325690
## GSM875413 3.550713 3.101729 3.602329 4.224391 5.523782 4.609400 7.213299
## GSM875414 3.549413 3.239837 3.674925 4.113232 5.632914 4.658212 4.822598
##          GRAMD4    LZTS1 LOC105374240    CFAP99 TMRSS12    GRIA4    CHM
## GSM875412 4.268440 3.490553    3.522052 4.627564 3.242090 3.025944 3.140241
## GSM875413 4.511417 3.709058    3.303058 4.718181 3.238342 2.869059 3.194949
## GSM875414 5.213964 3.708355    3.411757 5.501949 3.557424 2.966576 3.076234
##          MYO3A    TTC9C    SCLT1    CXCL2    PRCP    SCART1    LRRC74B
## GSM875412 3.264365 4.322206 3.647073 4.819494 3.284635 5.236514 3.221248
## GSM875413 3.125017 4.029621 3.473292 4.459646 3.481818 5.311775 3.302090
## GSM875414 3.428401 3.687466 3.813505 4.880552 3.639312 5.524036 3.394779
##          PKIA-AS1    ZNF93    C8orf74    FAM43B    FMNL1    DAB1-AS1    UBE3D
## GSM875412 3.087648 3.509875 4.226120 4.353716 4.022664 3.470840 3.227774
## GSM875413 3.138480 3.165580 4.284128 4.715854 4.350833 3.668251 3.317235
## GSM875414 3.153546 3.056669 4.364210 6.058290 4.581742 4.110759 3.103579
##          GRIN2C LOC100134368    PIK3C3 LINC01588    ZNF891    BIVM    GRIA3
## GSM875412 4.120882    4.377585 3.575636    4.869382 3.815852 3.716068 3.553927
## GSM875413 4.145309    4.266960 3.389231    5.011326 3.973494 3.571511 3.840873
## GSM875414 4.342868    4.555007 3.630769    5.810194 3.718899 3.703864 3.722724
##          CROCCP2    RNF187 LINC01300    MFAP3L    RGS20 LINC01834 LOC105371622
## GSM875412 7.054548 5.990940    3.755650 4.828794 4.731760    5.630909    3.469418
## GSM875413 6.730505 6.005503    3.786299 4.924525 5.075276    5.531043    3.593648
## GSM875414 7.088866 6.176670    4.093103 4.968590 4.883463    5.583785    3.531232
##          TRIM24    GPBP1L1 LINC00857    PTPRG STX18-AS1    CNKSR3 LINC00488
## GSM875412 3.702249 8.107792    5.789810 6.079723    3.914078 3.345706    3.377787
## GSM875413 3.840418 6.643621    5.371642 7.037629    4.058376 3.232779    3.404078
## GSM875414 3.664823 7.608014    6.145178 4.003696    3.714601 3.281154    3.363771
##          STRA6    SLC5A9 PAPLN-AS1 POLH-AS1    GLI3 LOC105375172    TPTEP1
## GSM875412 3.466804 4.437704    3.684567 4.131702 3.481648    3.566233 3.389625
## GSM875413 3.331737 4.373751    3.546883 4.177614 3.690959    3.495146 5.556304
## GSM875414 3.704808 4.448115    3.650075 4.714073 3.576554    4.188527 3.410341
##          EMSY    FNIP2    CCP110 LOC100129098    ALCAM ZFYVE28    LRRC59
## GSM875412 4.434432 4.301444    6.444533    4.781856 4.666128 4.353213    3.615386
## GSM875413 3.591640 3.911600    4.569627    5.127782 3.836952 3.611768    3.711487
## GSM875414 3.522491 5.119614    5.657615    5.244807 3.540588 4.681488    3.972377
##          LINC02525 C3orf62    HERPUD1    TET2 CSGALNACT1    TNKS    TECR
## GSM875412 3.410791 3.787631    6.341067 4.579525    4.446374 3.287179    3.779953
## GSM875413 4.070230 3.736817    5.998396 4.547226    4.855724 3.259687    3.997661
## GSM875414 3.629663 3.822732    6.564705 5.181598    4.650775 3.211877    4.118571
##          MGC15885    MEIS3 SUGCT-AS1 ARFGEF1-DT    AGO4    FLG2 LINC00682
## GSM875412 4.407298 5.421423    3.826498    3.377245 3.519900 3.357668    3.348249
## GSM875413 4.260754 5.489341    3.512473    3.444025 3.515059 3.377208    3.488897
## GSM875414 4.746477 5.850473    3.583679    3.569031 3.291689 3.455918    3.624275
##          CLDN4 LINC01664    PTRH1 PAFAH1B2    SAMD5 CCDC198    TUSC8
## GSM875412 4.501589    5.142124 4.078123    3.961541 6.985371 4.279134    3.608881
## GSM875413 4.567094    5.074209 4.465970    3.950957 4.350342 4.397792    4.118555
## GSM875414 4.916752    5.728424 4.226322    4.150497 3.424457 4.972809    4.864733
##          ZNF782    PGM2L1    MED14    CAPZA2 PPFIBP1    FHIP1A ZNF876P
## GSM875412 3.698776    5.633488 4.498521    4.170532 4.189865 4.896108    3.155711
## GSM875413 4.205253    4.987018 4.461524    3.712494 3.819824 5.209908    3.069560
## GSM875414 3.873086    5.639166 4.299971    3.691117 3.926291 5.920539    3.048708
##          LHX8    FRMD5    TTC3 LINC02249 LINC02987    SNX22    MDN1
## GSM875412 3.274221    5.120539 4.989258    3.374873    5.485215 4.099540    5.380293
## GSM875413 3.120259    4.567094 4.002332    3.167037    5.835293 4.320624    3.935666

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## GSM875414 3.120626 5.927822 4.114750 3.419211 7.061871 4.049652 3.552030
## LOC101928401 TACC3 FNDC3B CLN8-AS1 LOC100130872 TP73-AS1
## GSM875412 3.462391 4.246969 3.738310 3.402502 5.071354 4.851206
## GSM875413 3.314615 4.115688 3.352313 3.444112 6.617823 5.173484
## GSM875414 3.305564 4.533650 3.575116 3.808834 5.490433 5.910229
## HEATR5B LILRB4 LOC105377399 SVIL LOC100996681 ERAP1
## GSM875412 3.952006 3.244242 3.446854 5.180972 4.818744 3.619039
## GSM875413 3.868955 3.211091 3.575030 3.994734 5.095703 3.701366
## GSM875414 3.669262 3.450334 4.230937 4.194379 4.834420 3.669382
## YAE1-DT LCN15 FLVCR2 LINC00463 SAMMSON PTPN18 ESR2
## GSM875412 3.211794 4.692720 5.010491 4.218199 3.224215 5.304529 3.357658
## GSM875413 3.222887 4.811956 5.294583 4.113635 3.342093 3.229847 3.314499
## GSM875414 3.230925 5.149628 5.578209 4.664765 3.365711 3.697683 3.250948
## GDA ZNF248 HIRA LIPJ LINC02861 AADACP1 EREG
## GSM875412 5.611010 5.024897 3.182613 3.263609 3.170068 3.392426 5.053761
## GSM875413 4.597350 5.172497 3.384468 3.498883 3.829045 3.335728 4.594171
## GSM875414 4.997612 4.793434 3.785671 3.328721 2.950829 3.425312 4.683962
## KANK2 LINC01134 IQCH LCN8 GMNC OSBP2 LOC100128079
## GSM875412 4.287522 6.504974 3.167233 3.720141 4.217757 4.621917 3.676775
## GSM875413 5.686020 6.683368 3.095754 3.852258 4.092560 4.821149 3.866559
## GSM875414 4.435648 6.787300 3.155482 4.159177 4.306292 6.152890 3.730620
## NMNAT1 ZNF736 SOX5 EEPD1 F2R KIRREL3-AS2 LINC02523
## GSM875412 5.356676 3.262289 3.312578 5.536135 5.712731 3.429873 3.792314
## GSM875413 5.214481 3.404182 3.533407 5.879192 5.349938 3.538981 3.769920
## GSM875414 5.114820 3.830118 3.496065 5.549338 5.298139 3.672232 3.886942
## DACT2 MLLT3 LRRN1 LUARIS FOXR2 PP12613 TOR1AIP2
## GSM875412 4.841318 4.597486 3.360162 3.653037 3.314327 3.864650 4.746932
## GSM875413 4.900881 4.157512 3.383378 3.779413 3.476372 4.381782 3.667970
## GSM875414 8.540113 4.565160 3.447745 3.950403 3.362507 4.853904 4.302656
## CDH22 LINC01876 XYLB COX10 FM05 CSMD2-AS1 MYSM1
## GSM875412 6.341311 4.549288 4.249235 3.907272 4.786430 5.315458 4.012765
## GSM875413 6.365543 4.194820 4.470677 3.767464 3.941115 5.073043 3.075176
## GSM875414 6.295877 4.346485 4.809558 3.543514 3.960216 4.941900 3.081584
## SZT2 LOC101928052 SEC24B-AS1 RBSN LINC01812 LINC00423
## GSM875412 4.178709 3.295517 4.123186 4.500383 3.760661 3.596142
## GSM875413 3.722966 3.239345 3.904135 4.359078 4.039576 3.725558
## GSM875414 3.866030 3.417021 3.515755 4.867255 4.695760 3.896257
## ASZ1 MROH2B EYA1 LINC01653 LOC221946 LINC01477 PRKCZ
## GSM875412 3.215326 4.228747 3.735217 4.000657 3.855017 3.853980 3.686275
## GSM875413 3.231273 4.570962 3.836648 3.765819 3.673230 4.057196 4.030045
## GSM875414 3.215082 4.630571 3.788291 4.256477 4.078916 4.827534 3.909800
## TBC1D26 LOC101928940 LINC00276 LINC02395 LOC101928526 LRRC37A7P
## GSM875412 4.050948 3.412486 3.420691 3.324704 3.900703 3.469563
## GSM875413 4.221029 3.440355 3.590850 3.514912 3.837106 3.534136
## GSM875414 4.094013 3.490316 3.751426 3.537663 4.098058 3.294470
## KCNMA1-AS1 LOC105376292 LOC101927131 LYPD4 ATP8A1 RNF157
## GSM875412 4.706169 6.600949 5.480390 3.099082 3.427972 4.480592
## GSM875413 4.757176 6.052530 5.322609 3.008974 3.556436 4.381463
## GSM875414 5.007775 6.561768 5.415609 3.094844 3.476701 4.491138
## LINC01149 CNTNAP2-AS1 IQCM LOC101929116 LRRD1 LOC101930028
## GSM875412 3.430395 3.381800 3.579396 3.500035 3.423494 3.232164
## GSM875413 3.515059 3.296645 3.587939 3.516368 3.335923 3.262192
## GSM875414 3.631795 3.562980 3.807120 3.813876 3.416594 3.383244
## SETBP1-DT LINC02042 RFTN1 ST8SIA1 LINC02008 LOC100288590 STK4

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## GSM875412 3.538563 3.313448 3.509509 3.338751 3.823740 3.335181 4.367817
## GSM875413 4.840669 3.188240 3.587939 3.408785 3.989638 3.423133 3.895716
## GSM875414 4.051017 3.326605 4.148290 3.141437 4.160245 3.282719 4.088211
## LOC101929372 ATRNL1 PDE9A-AS1 LINC02071 LINC01741 LINC02510
## GSM875412 5.206645 4.032587 3.404552 4.738284 4.731218 3.495182
## GSM875413 5.900111 3.909148 3.627709 4.808721 5.002518 3.475666
## GSM875414 6.058168 3.897222 3.992046 4.837523 5.202686 3.645255
## STRN LOC101928748 CDR2-DT ATG7 LOC101928107 ZNF236-DT
## GSM875412 4.453035 3.818952 3.114896 4.343526 3.933562 3.584091
## GSM875413 3.680593 3.709633 3.193706 3.626178 4.008315 3.738797
## GSM875414 3.510350 3.909293 3.272121 3.772379 4.155263 4.029576
## LINC01585 LOC339352 ZNF84-DT LOC101927798 DYNC1I1 CGNL1
## GSM875412 3.713805 3.340729 4.625033 3.544215 3.529950 3.961206
## GSM875413 3.976887 3.538981 4.895220 3.620581 3.755175 3.866944
## GSM875414 4.451944 3.700776 5.116808 4.006196 3.664935 4.099416
## LOC102723831 ADGRL2 LSMEM1 LOC101928306 TPP2 LOC101927358
## GSM875412 3.751807 3.278705 4.917532 4.088991 3.702908 3.269837
## GSM875413 3.847346 3.737733 4.512680 3.944642 3.662974 3.324955
## GSM875414 3.832974 3.364671 4.585346 4.255663 3.909945 3.366129
## SUCLA2-AS1 TRAF5 SERAC1 CCNYL2 LINC00882 LINC02209 ATP5F1A
## GSM875412 3.663373 3.441494 3.698776 3.494196 3.835694 4.461118 4.235239
## GSM875413 3.632988 3.421217 3.057356 3.368291 3.809792 4.629114 4.621853
## GSM875414 3.861472 3.598590 3.052168 3.231660 3.951623 4.810502 4.502630
## PPP2R3C HSD11B1L PHF20 KRT79 LOC101928255 SLC6A15 DNAH17-AS1
## GSM875412 4.472466 5.369760 6.316119 4.434829 4.219239 3.250498 3.825132
## GSM875413 3.786299 5.996328 5.485148 4.749947 4.298634 3.678478 4.024962
## GSM875414 3.474567 5.819328 6.813141 5.228982 4.139226 3.230552 3.832262
## NHSL2 PREX2 SIRT5 SLC6A16 SDCBPP2 LOC112268068
## GSM875412 4.119580 3.184823 3.632104 4.367206 5.767794 3.698776
## GSM875413 4.202363 3.357437 3.433319 4.803910 5.248965 3.814503
## GSM875414 4.443583 3.210049 3.328551 3.880558 4.934565 3.868543
## LOC101928834 LOC101928893 DEPDC1-AS1 BRD7P3 LOC101928844
## GSM875412 3.480712 3.183787 3.219848 3.532697 4.767582
## GSM875413 3.685541 3.132161 3.168506 3.318200 4.696849
## GSM875414 3.901740 3.213080 3.074903 3.406154 5.155577
## LOC101928525 SEPTIN7P2 LOC101928902 ZNF875 LINC00566 TNNT3
## GSM875412 5.688395 6.288961 3.659660 3.495128 3.258311 5.775106
## GSM875413 6.151467 6.784619 3.740895 3.802182 3.430125 5.893024
## GSM875414 5.880383 5.910071 3.892932 3.835445 3.634534 6.153595
## DLEU7-AS1 LOC101928510 NUDT3 MGAT4D ANKRD26P3 MMD2 CASP8AP2
## GSM875412 3.930889 3.165189 3.979552 3.358450 3.864650 3.516300 3.497602
## GSM875413 3.908353 3.134205 4.058516 3.108025 4.002332 3.265199 3.422455
## GSM875414 3.634518 3.276802 4.035359 3.269369 4.278096 3.561852 3.480206
## LINC02245 TTC41P LINC01782 CHIAP2 AACSP1 MGAT4EP TACC2
## GSM875412 3.467030 3.381561 3.909229 3.324058 3.310987 3.266229 4.453519
## GSM875413 3.734087 3.351406 4.178389 3.263304 3.685541 3.556201 4.206533
## GSM875414 4.008359 3.441874 4.851061 3.488132 3.743546 3.650255 4.397009
## CPXM2 AP3B2 WIPI2 TBC1D10A LOC100127938 GTF2IP7 DNAJC24
## GSM875412 4.664873 3.570883 3.516962 4.639156 4.232408 4.259153 4.167182
## GSM875413 4.444354 3.734087 3.579403 4.138628 4.486723 4.202624 4.123688
## GSM875414 4.936337 3.898158 3.689145 4.477967 5.407597 4.526870 4.234839
## DMXL1-DT RNF144A KMT5C RAB7A LOC100419741 MIR3667HG CCM2L
## GSM875412 3.604952 3.421245 3.729641 4.089540 4.369558 4.546293 5.641907
## GSM875413 3.799022 3.661965 4.074188 3.718016 3.910216 4.535371 5.641026

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## GSM875414 3.812373 3.430558 4.783263 3.973647 4.659499 4.602704 5.617135
## HIPK1-AS1 TTLL1-AS1 RNU6-501P LOC101928730 MDGA2 LOC105373150
## GSM875412 3.193681 4.807465 4.166646 4.142275 3.803219 3.517034
## GSM875413 3.508028 4.884048 4.540243 4.517407 3.658394 3.798166
## GSM875414 3.572777 5.544970 4.324139 4.635472 3.837028 3.769718
## ZNF365 SLC29A4 GHET1 LINC01858 DDX19A SPATS2 MYO5B
## GSM875412 3.399663 5.240922 3.515577 3.734191 3.369400 3.690785 3.315853
## GSM875413 3.531773 5.331481 3.566191 3.705644 3.474150 3.808164 3.459960
## GSM875414 3.762283 5.499122 3.437768 3.932735 3.534265 4.887600 3.531343
## UCHL5 CCDC169 LINC01111 EGFLAM-AS4 INTS7 LOC101927539
## GSM875412 3.769064 3.619307 3.767182 3.713340 3.840887 4.192559
## GSM875413 3.650619 3.518450 3.800629 3.629081 3.443396 4.387987
## GSM875414 3.844721 3.780426 3.765581 3.723283 3.436670 4.434425
## LOC105378568 TAMALIN-AS1 NR1I3 LSAMP LOC101928797 FRRS1
## GSM875412 6.290966 3.919643 3.439331 3.795833 3.647095 3.202133
## GSM875413 6.278911 4.146231 3.488578 4.020060 3.617736 3.265761
## GSM875414 6.610356 4.207532 3.441619 4.060393 3.668083 3.451588
## PPP6R2 LOXL4 NDST4 LINC01449 TMEM150B HEATR5A-DT EVA1A-AS
## GSM875412 6.330572 4.469315 3.103549 3.567977 3.987638 3.418981 4.424995
## GSM875413 6.728109 4.246393 3.382854 3.670712 3.772679 3.182495 4.122038
## GSM875414 6.895130 4.144946 3.199983 3.767651 4.166959 3.226704 3.993393
## LATS1 LINC01467 MGC27382 ZNF527 SPATA21 PLPPR1 LINC02380
## GSM875412 3.760973 3.320347 3.211483 4.713629 5.557881 3.407503 4.081005
## GSM875413 3.523733 3.342782 3.231392 4.655940 6.300272 3.229859 4.281113
## GSM875414 3.854885 3.317780 3.477243 4.903356 5.980189 3.497442 4.683685
## ERVH-1 SMARCD1-DT LINC02653 LRRTM4-AS1 PRSS55 ABCA1 LNCATV
## GSM875412 7.740345 3.315674 3.869205 3.600929 3.845919 4.380760 3.770885
## GSM875413 8.175016 3.356180 4.040294 3.212243 3.831150 4.619130 3.639950
## GSM875414 8.552507 3.509893 3.932969 3.581120 4.078757 4.377556 3.904167
## LOC646736 CLDN10-AS1 LINC02016 TBL1X HCCAT5 LINC01620 BDH1
## GSM875412 3.512993 3.249489 3.324724 3.490842 4.710996 3.945204 4.325910
## GSM875413 3.564061 3.243226 3.610545 3.471710 4.747229 3.815304 3.969815
## GSM875414 3.677301 3.180822 3.548730 3.622960 5.297040 4.221715 4.640333
## FIGLA LINC00474 MLX ADAMTS6 STX8 DDX3Y ZNF746
## GSM875412 3.496889 3.265375 4.921794 4.185556 3.948977 3.193624 4.107375
## GSM875413 3.625912 3.180539 5.151300 4.286192 3.611768 3.186079 3.455625
## GSM875414 3.919940 3.346449 5.860836 3.999392 3.619794 3.233724 3.505362
## PTPRN2-AS1 TAS2R19 CRAT37 FAM66C FAM47E LOC101929076 KLF3-AS1
## GSM875412 4.580011 3.188653 3.247227 3.240597 3.628294 5.374958 4.045295
## GSM875413 5.077670 3.421056 3.288649 3.951698 3.290852 5.881534 4.064714
## GSM875414 5.530537 3.109898 3.278415 3.455886 3.426280 6.327345 3.747217
## DDX52 STXBP2 SNTG2 FLG-AS1 LOC100420872 TMPRSS2 NAPB
## GSM875412 4.222325 6.365213 3.294306 3.242721 3.500226 5.250474 4.297898
## GSM875413 3.445906 5.994182 3.356180 3.237090 3.556018 3.997149 5.771067
## GSM875414 3.400242 6.533962 3.410745 3.170749 4.112935 4.206345 3.671973
## LOC643201 LINC00452 EIF4EBP2 CATSPERB ART1 ABCB4 SCAF11
## GSM875412 3.900870 4.058105 3.670250 3.580166 4.634298 3.832763 5.262648
## GSM875413 3.686579 4.137853 3.894393 3.289603 4.824558 4.058882 5.821277
## GSM875414 4.237420 4.094085 3.659467 3.690115 5.198348 3.639955 4.283686
## ARHGEF10L OR51B5 XYLT2 PUM3 CMPK1 GBP1P1 PMPCB
## GSM875412 5.332666 3.597617 3.636513 4.031895 3.718308 4.500383 3.770453
## GSM875413 4.528189 3.572810 3.836648 4.149649 3.458851 4.508960 3.886279
## GSM875414 4.664773 3.724298 4.130253 4.577206 3.702261 4.594381 3.522725
## CCDC91 LOC729291 MPZL3 MPRIP-AS1 ELOA KYAT1 GAS6

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```

## GSM875412 6.076164 3.431267 3.241797 6.051496 4.074661 3.697219 9.243395
## GSM875413 7.245062 3.717814 3.306107 5.343372 4.154921 3.974944 9.971279
## GSM875414 4.698330 3.935244 3.386764 5.516033 4.079015 3.871264 9.024851
##      MMP14      TRADD DTX2P1-UPK3BP1-PMS2P11      BAD      PRPF8      CAPNS1
## GSM875412 7.869733 7.906002      7.594234 6.606417 8.534457 10.46757
## GSM875413 7.315164 7.597231      7.808240 7.464947 9.961202 10.64011
## GSM875414 8.414451 8.245900      8.212478 5.983772 8.677277 11.10842
##      RPL35      RPL28      EIF3D      PARK7      SRP14      GDI2      RPL11
## GSM875412 12.47308 13.15684 10.314069 11.75792 11.79800 10.856656 12.75147
## GSM875413 12.02148 12.98268 9.968083 11.91444 12.43582 8.898877 12.09529
## GSM875414 11.81643 13.36202 9.685305 11.57745 11.77216 10.749752 12.78886
##      ARF3      RPL24 HNRNPA1 RPS27A RPS13 FAU TARDBP
## GSM875412 9.382555 12.76870 12.84967 12.67629 13.01932 11.78823 9.721813
## GSM875413 10.981579 12.57190 12.98819 12.41562 12.65047 11.48752 9.391298
## GSM875414 8.364256 12.74657 12.54199 12.57638 13.39044 11.88467 9.553893
##      RPL18      EIF3F      RPS5      RPL27      RPL34      NARS1      STARD7
## GSM875412 12.56765 11.15157 12.51561 12.89803 13.05966 11.30481 10.14049
## GSM875413 12.70141 10.62251 12.27316 12.78193 12.77535 11.38243 9.36585
## GSM875414 13.07883 11.31882 12.96774 13.16264 13.06970 10.07022 10.03595
##      RPL19 SLC25A3 RPS11 RPL9 DDX5 CTDNEP1 RPL10A
## GSM875412 12.94877 11.85585 13.26495 13.31576 11.97449 8.490102 12.29044
## GSM875413 12.52514 12.61164 12.86538 13.33399 12.54552 8.269938 12.14002
## GSM875414 12.55432 12.34278 13.48110 13.11258 12.35407 8.489056 12.44315
##      PSMB2 KHDRBS1 RTCB ERH SRSF9 ABCF1 DAD1
## GSM875412 10.829448 10.37165 9.158016 10.54802 9.626277 9.033293 9.838784
## GSM875413 9.790015 10.37033 9.372733 11.08155 10.221676 8.433617 10.225239
## GSM875414 10.563098 10.25696 9.556617 10.75316 9.479320 8.952566 11.302784
##      YY1      JTB      KAT7      SART1      ILF2      SPAG7      TAF10
## GSM875412 9.959014 11.24255 9.657488 7.445782 9.533744 8.504078 9.532856
## GSM875413 9.904896 10.50794 8.077293 7.552093 8.706690 8.855321 8.754648
## GSM875414 10.928426 11.95184 7.176165 7.665868 10.402262 8.464572 10.071311
##      C1D      NONO SNRNP200 RNPS1 RPL30 NPM1 ARF1
## GSM875412 8.506066 11.81703 9.974592 9.991723 13.11826 12.42781 11.87484
## GSM875413 8.322842 12.14487 10.147186 9.822648 13.34282 12.69683 11.68255
## GSM875414 8.065189 11.75579 10.080232 10.419280 13.32446 12.52458 11.93973
##      IK      SNX3      CANX CNPPD1 SMNDC1 HNRNPD RPL14
## GSM875412 9.032056 10.290801 11.79195 8.372672 9.280856 10.582645 12.12186
## GSM875413 10.209192 10.783561 12.29459 8.419507 8.326551 9.984465 11.22382
## GSM875414 8.776913 9.829425 11.89879 7.550927 9.519817 10.225766 11.95900
##      GUK1      KXD1      OAZ1 ATP6VOB KARS1 RPS6 RPS7
## GSM875412 9.863314 8.039891 12.80165 10.433641 9.942264 12.88453 12.88714
## GSM875413 10.791936 8.468440 13.04047 9.996636 9.902011 12.37898 12.36640
## GSM875414 9.796214 7.671299 12.75683 9.865398 9.531174 12.76009 13.11212
##      USP22      ELOB      COX4I1 TMED2 RPL4 FNTA RPS25
## GSM875412 8.761789 11.16373 11.15267 11.15176 11.92208 10.877047 12.36495
## GSM875413 9.014562 11.23918 10.95983 11.81300 11.70378 11.348825 12.26056
## GSM875414 7.916455 12.00758 11.35086 11.34041 11.99261 9.300267 12.11270
##      RPL37      EEF2 ATP6VOE1 HNRNPK ANAPC5 RPS3A HNRNPU
## GSM875412 13.78756 11.96809 11.43155 10.95069 9.254622 13.76817 9.937244
## GSM875413 13.14388 11.63644 12.59041 10.97150 10.348653 13.43169 9.270599
## GSM875414 13.41751 12.27589 11.56346 10.70446 9.673365 13.44384 10.157951
##      EIF3A HSP90B1 MSN ACTN4 APP PRKAR1A DSP
## GSM875412 9.933089 10.26689 9.475258 8.898900 9.815493 10.64216 11.672601
## GSM875413 9.744709 10.26173 11.997354 8.596625 10.520792 11.44418 4.284257

```

|    |           |           |           |           |           |           |           |           |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875414 | 10.348388 | 10.54592  | 9.522585  | 9.966915  | 9.572931  | 11.30832  | 11.368728 |
| ## |           | RAD21     | WDR1      | NCL       | AP2B1     | AP2M1     | CLTC      | MLEC      |
| ## | GSM875412 | 9.698980  | 10.62632  | 11.17890  | 8.962980  | 9.602438  | 11.86341  | 9.936437  |
| ## | GSM875413 | 9.035132  | 10.80923  | 10.62009  | 8.644455  | 10.054161 | 11.74989  | 9.592849  |
| ## | GSM875414 | 9.631243  | 10.53889  | 10.91725  | 8.162045  | 9.941327  | 11.51786  | 9.040104  |
| ## |           | LASP1     | CSRP1     | CAP1      | PTGES3    | WARS1     | SET       | NDRG1     |
| ## | GSM875412 | 10.627318 | 9.917234  | 11.48681  | 11.91915  | 8.383120  | 10.99995  | 10.186150 |
| ## | GSM875413 | 9.605356  | 9.399084  | 10.99687  | 12.62785  | 7.681972  | 10.25207  | 8.990335  |
| ## | GSM875414 | 10.487232 | 9.985136  | 11.77214  | 12.23982  | 8.814413  | 10.12377  | 11.183026 |
| ## |           | UBB       | PFN1      | PTPRF     | YWHAZ     | SOD1      | HDLBP     | MARCKSL1  |
| ## | GSM875412 | 13.39526  | 11.07504  | 9.177889  | 12.02023  | 11.94449  | 9.271327  | 10.309942 |
| ## | GSM875413 | 13.59366  | 11.09470  | 6.960790  | 10.98933  | 12.33124  | 9.008807  | 6.990719  |
| ## | GSM875414 | 13.53914  | 11.79907  | 7.898115  | 12.03580  | 10.89544  | 8.994147  | 11.034890 |
| ## |           | GABARAP   | NUCB1     | GLUL      | LDHA      | RACK1     | SSR2      | SLC25A5   |
| ## | GSM875412 | 10.88053  | 6.633687  | 10.025725 | 12.90253  | 12.52843  | 10.59302  | 11.82020  |
| ## | GSM875413 | 11.57441  | 7.942118  | 8.226531  | 11.28340  | 12.84375  | 10.10992  | 11.46831  |
| ## | GSM875414 | 10.91377  | 8.072223  | 9.651566  | 12.66667  | 13.01287  | 10.07980  | 11.65431  |
| ## |           | PHB1      | S100A11   | CTSA      | TOMM20    | CD63      | DNAJB1    | SPARC     |
| ## | GSM875412 | 9.798434  | 11.574218 | 10.122187 | 11.024084 | 12.20245  | 9.280071  | 12.07583  |
| ## | GSM875413 | 9.245650  | 9.351508  | 10.604060 | 10.835907 | 13.27713  | 9.084041  | 11.86505  |
| ## | GSM875414 | 9.485987  | 12.036096 | 9.987634  | 9.913214  | 12.45164  | 8.459766  | 11.61384  |
| ## |           | UBE2D3    | XBP1      | SPTBN1    | LAPTM4A   | RPL32     | CD81      | UBE2L3    |
| ## | GSM875412 | 9.752264  | 9.182337  | 8.551232  | 12.04219  | 13.41022  | 10.374635 | 6.609868  |
| ## | GSM875413 | 9.996330  | 8.591962  | 7.217373  | 12.18462  | 13.02103  | 12.084005 | 7.385480  |
| ## | GSM875414 | 9.801668  | 11.729073 | 7.702586  | 11.76750  | 13.13896  | 9.939406  | 5.763798  |
| ## |           | PTTG1IP   | GRN       | HMGB1     | GL01      | SRSF11    | SF3B3     | EEF1G     |
| ## | GSM875412 | 10.95436  | 11.086287 | 11.78206  | 10.46439  | 7.425778  | 8.331857  | 13.01807  |
| ## | GSM875413 | 11.35539  | 9.584086  | 10.82825  | 10.87872  | 8.351281  | 8.153272  | 12.29705  |
| ## | GSM875414 | 11.32015  | 10.768839 | 11.61255  | 10.76542  | 5.703451  | 8.259882  | 12.47920  |
| ## |           | HSPA9     | YWHAQ     | DDX24     | PPP2R1A   | HK1       | KDELRL2   | NPC2      |
| ## | GSM875412 | 7.031852  | 11.44208  | 8.382351  | 8.887028  | 8.423910  | 10.34545  | 10.59833  |
| ## | GSM875413 | 8.437660  | 11.49665  | 10.420176 | 9.189944  | 9.507943  | 10.68807  | 10.29577  |
| ## | GSM875414 | 5.641785  | 10.75230  | 8.936400  | 9.643665  | 8.649391  | 10.68339  | 10.62454  |
| ## |           | DYNLL1    | EEF1B2    | PRKCSH    | GOT2      | FKBP1A    | ACADVL    | SKP1      |
| ## | GSM875412 | 11.14419  | 12.33892  | 8.239586  | 9.004906  | 9.549995  | 10.082183 | 9.720876  |
| ## | GSM875413 | 11.91984  | 11.07030  | 8.709186  | 9.322378  | 10.570883 | 9.045075  | 11.150179 |
| ## | GSM875414 | 11.25583  | 12.19759  | 8.710306  | 9.403965  | 9.758281  | 9.232202  | 9.046181  |
| ## |           | MAPRE1    | OS9       | RPL13A    | RPL7      | ACTR1A    | CAPRIN1   | RPL10     |
| ## | GSM875412 | 8.854495  | 9.29888   | 11.76295  | 13.57441  | 7.609582  | 9.484160  | 5.154110  |
| ## | GSM875413 | 8.579149  | 10.38705  | 11.87245  | 13.71123  | 8.317892  | 7.789632  | 5.180880  |
| ## | GSM875414 | 8.909873  | 10.31560  | 11.83910  | 13.44887  | 8.841222  | 9.348925  | 5.316867  |
| ## |           | PPP1CC    | PTP4A1    | NACA      | GPX1      | SUM03     | RPS27     | TPP1      |
| ## | GSM875412 | 11.04224  | 9.044003  | 12.56906  | 10.93917  | 8.321696  | 13.40710  | 8.956195  |
| ## | GSM875413 | 11.29449  | 7.877351  | 13.14338  | 10.53790  | 7.930027  | 13.38552  | 8.892705  |
| ## | GSM875414 | 10.35509  | 10.179460 | 12.72066  | 10.70094  | 9.026213  | 13.64285  | 9.230046  |
| ## |           | GNB1      | FTH1      | RAN       | CAPN1     | SRSF2     | CALU      | NFE2L1    |
| ## | GSM875412 | 10.081146 | 13.24675  | 9.052501  | 8.590937  | 9.552769  | 9.645306  | 10.070879 |
| ## | GSM875413 | 8.237622  | 13.06565  | 10.972086 | 6.873107  | 8.502602  | 10.353725 | 9.362712  |
| ## | GSM875414 | 10.080296 | 13.42004  | 8.078965  | 8.047665  | 9.659138  | 9.895743  | 9.483236  |
| ## |           | ARL6IP5   | DPYSL2    | RPLP1     | CTSD      | MAT2A     | LAMC1     | PTMA      |
| ## | GSM875412 | 10.430179 | 9.678236  | 13.31995  | 9.136773  | 10.40758  | 8.732639  | 12.24019  |
| ## | GSM875413 | 9.346931  | 11.416765 | 13.37297  | 8.550523  | 9.95760   | 7.978698  | 10.25665  |
| ## | GSM875414 | 10.742703 | 9.496422  | 13.56039  | 9.039738  | 10.24112  | 9.177905  | 12.21546  |
| ## |           | BZW1      | ATF4      | GNAS      | RPS15A    | ANXA5     | PSMB7     | PEA15     |

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## GSM875412 10.871198 10.85905 12.87874 13.37504 11.05625 10.681668 8.319402
## GSM875413 8.876263 10.55789 13.57113 12.81155 11.09615 9.837157 8.796193
## GSM875414 10.667098 10.30354 12.41363 13.38720 11.95263 9.948487 8.448191
##          ECH1      ODC1      IQGAP1      XRCC6      ACO2      DAZAP2      SPARCL1
## GSM875412 8.130425 11.07421 10.48905 11.14091 9.780741 11.57211 10.74349
## GSM875413 8.880537 10.94189 9.85465 11.08350 9.731532 11.98005 13.03192
## GSM875414 9.736927 11.06687 10.59369 10.47383 8.732310 11.77652 10.20250
##          MCL1      ACTB      SARS1      TMBIM6      LMAN2      HSPD1      ZYX
## GSM875412 8.308230 13.28577 9.391841 10.95133 8.872761 11.82346 7.747965
## GSM875413 5.940008 14.07747 10.227725 10.77185 8.983203 10.34563 8.892157
## GSM875414 8.847186 13.71455 9.670326 11.35549 9.101445 11.45959 7.991782
##          RPL12      CIRBP      CCT7      PAFAH1B1      PSME1      RPS10      PSMD8
## GSM875412 13.29960 9.699955 10.132719 7.789898 10.011335 13.16715 9.754619
## GSM875413 12.41836 11.160633 10.228460 8.847503 10.156832 12.83773 9.774467
## GSM875414 12.97525 10.651779 9.464024 8.056802 9.831013 13.12689 10.559774
##          LAMP2      TPI1      RPL29      GSTP1      HYOU1      SNRPD2      PLOD1
## GSM875412 8.488484 10.96406 12.47005 10.412271 9.609946 11.10446 7.793214
## GSM875413 8.352794 11.34262 11.28293 9.931101 9.394358 11.35733 8.287885
## GSM875414 8.619782 10.31086 12.46456 11.481131 8.917071 11.51250 8.172151
##          PSMD2      SCD      RAP1B      RPS21      MAP4      BCAP31      CTSB
## GSM875412 10.148351 8.324523 11.12693 12.76263 6.158591 9.883654 12.12709
## GSM875413 9.785440 6.585035 11.94115 13.15355 6.174331 11.157556 11.47834
## GSM875414 9.842011 8.038105 11.22167 13.10610 6.112032 9.541840 11.33411
##          EPRS1      PRDX6      PPP1CA      SARAF      AHCYL1      GNB2      H2AZ1
## GSM875412 8.297367 10.786377 10.193837 10.67956 9.159141 9.022770 10.89800
## GSM875413 6.393036 10.824187 9.012357 12.43770 8.606830 9.763879 10.41498
## GSM875414 8.393988 9.804106 10.923049 10.74452 9.291080 8.841016 11.48517
##          NCOR1      RPS8      FLNA      DHCR24      RAB11A      PSAP      RNF114
## GSM875412 8.656051 12.37144 8.983497 9.059828 11.409060 11.02880 8.437261
## GSM875413 7.993779 11.75594 10.804056 7.528226 9.572793 11.04391 8.792091
## GSM875414 7.628222 12.46754 9.794079 9.083005 11.268595 10.72069 8.595312
##          RPL18A      S100A10      CCT8      NOP56      PSMB1      CCT4      EPAS1
## GSM875412 12.85145 13.055582 10.390159 6.680301 11.25494 11.12268 10.432107
## GSM875413 11.99278 9.501385 10.298402 7.236568 10.94671 10.93043 8.246323
## GSM875414 12.60098 13.845806 9.947634 6.403933 11.25393 10.53595 10.207481
##          DNAJA1      PSMD4      UQCRC2      CKB      PGAM1      STAT1      RPL23
## GSM875412 9.052729 10.10189 10.014597 6.966469 10.67932 10.65345 12.39616
## GSM875413 9.946149 10.16081 9.235758 8.513697 11.25902 10.07409 12.20218
## GSM875414 8.274084 10.08989 9.291048 7.553694 10.17662 10.61857 12.39823
##          SSR1      TRA2B      HDGF      OGA      M6PR      SELENOF      AHCY
## GSM875412 9.076957 9.603027 10.396563 9.264152 8.579389 10.990105 8.963046
## GSM875413 7.605506 8.827335 8.946046 9.397312 7.900245 9.678076 8.877207
## GSM875414 9.503942 9.621735 9.495685 8.935713 8.829030 11.050455 9.929101
##          HLA-E      RPLP2      CCT3      PPM1G      TAGLN2      SRPRA      LGALS3BP
## GSM875412 9.766642 4.619217 10.409525 8.191267 11.366312 7.511605 10.507040
## GSM875413 9.304313 4.826624 9.941133 7.729173 9.028784 6.433376 10.166676
## GSM875414 9.279514 4.577000 9.720922 8.091442 10.965613 7.920189 8.105742
##          SLC3A2      COX6A1      RPS23      RAB14      TMED10      VCL      DCTN2
## GSM875412 8.283965 11.79216 13.20224 9.021608 10.68276 3.839598 9.240905
## GSM875413 8.507305 12.48487 13.71004 8.876173 9.56891 3.967741 10.295135
## GSM875414 8.437247 11.66596 13.18062 9.409805 10.42389 4.528756 9.388823
##          RPS4X      DEK      CALR      RPL8      RPL5      HSBP1      HMGN1
## GSM875412 13.46134 11.104497 6.875721 12.41133 12.09935 9.056205 11.11277
## GSM875413 13.60662 9.936488 6.894390 12.64554 12.01345 9.002791 10.54862

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## GSM875414 13.64147 10.848787 6.234875 12.54920 11.55260 8.983571 11.72568
##          SEC31A  GLUD1  MLF2  RPS20  ARPC1A  CCND2  ATP6VOC
## GSM875412 10.47872 8.255095 8.353729 12.92016 10.23291 5.735935 9.351039
## GSM875413 10.92026 7.491112 9.745613 13.28897 11.41138 8.631147 9.147793
## GSM875414 10.50095 8.787931 8.120373 12.38985 10.44215 5.274659 9.943489
##          IMMT  SSRP1  SDCBP  SEPHS2  RPL31  ABLIM1  ALDOA
## GSM875412 9.562124 8.691673 11.70021 9.574842 6.541969 9.901756 12.26905
## GSM875413 9.389139 8.194574 12.00565 8.631147 9.102533 10.028779 11.84967
## GSM875414 8.701059 9.174780 10.95417 11.487217 6.249155 9.889331 11.84757
##          PPIB  SERP1  ACTA2  PPT1  TAX1BP1  MDH1  ANXA6
## GSM875412 11.66701 10.021611 12.33193 10.47540 10.651642 10.77106 8.928029
## GSM875413 11.55631 9.927962 11.25419 11.02782 10.660073 10.57446 11.870352
## GSM875414 11.97049 10.513035 11.92307 10.83269 9.282468 10.09093 8.627870
##          CD59  SERPING1  PSME3  HIF1A  TRIM28  SNX17  IPO7
## GSM875412 11.43685 8.739129 8.630934 12.03322 8.931076 9.229224 10.220140
## GSM875413 10.73554 7.444101 7.896314 10.89052 9.399674 9.504636 9.059754
## GSM875414 11.47348 8.433709 9.409732 10.68271 9.715301 9.367364 10.103000
##          ACTR3  CKAP4  AARS1  SSR4  CD9  PRDX2  HADHB
## GSM875412 11.024219 8.463657 8.564656 10.65992 12.22565 4.677193 9.701074
## GSM875413 9.622114 8.972484 9.143916 11.43295 12.20568 4.961624 9.886813
## GSM875414 11.366859 9.611378 8.599738 11.38788 11.95748 4.319126 9.639587
##          TXNIP  RPN1  ANXA1  PAICS  JUP  EIF1AX  YWHAH
## GSM875412 11.272315 10.240216 11.553540 9.289859 9.095225 9.199131 9.109134
## GSM875413 9.212451 9.937340 8.588415 8.581148 7.958036 7.938117 9.118513
## GSM875414 11.531014 9.876063 9.355862 8.958806 10.699834 8.876995 10.310503
##          DSTN  TAF7  EIF5B  CD99  LDHB  HNRNPH1  RPLP0
## GSM875412 11.45571 8.274509 9.795131 10.205200 10.06797 10.62862 13.08719
## GSM875413 11.56047 10.568824 8.850308 10.194232 12.61004 10.48644 13.19547
## GSM875414 11.39061 8.851172 9.211257 9.534948 10.90283 10.66904 13.03582
##          ADD3  HADH  PFKP  ANP32A  RAD23A  GNAI2  DUSP1
## GSM875412 10.98649 8.265216 10.185644 7.402654 7.513374 8.008943 11.23196
## GSM875413 10.17540 8.060425 6.193461 7.820550 7.818804 8.478602 10.98215
## GSM875414 11.26628 7.793820 9.043194 6.868771 7.887072 9.090849 12.55988
##          TGM2  RPS18  PLD3  PSMF1  HNRNPAO  GOLGB1  MYL9
## GSM875412 7.631433 13.67487 8.258532 8.052100 9.652030 8.208455 8.995183
## GSM875413 5.294448 12.84698 10.595595 8.938884 10.851779 7.943867 11.014621
## GSM875414 8.435652 13.67646 8.896391 7.978416 9.464445 7.272545 9.443870
##          STOM  RCN1  PABPC4  CYC1  PSMC2  SF3B1  SMARCC1
## GSM875412 9.166137 9.273046 8.815666 9.906620 8.846782 10.248172 7.751092
## GSM875413 9.479546 8.629693 9.435539 10.036740 10.059535 7.860901 6.314315
## GSM875414 10.889371 8.942828 8.957256 9.115319 6.764988 9.533487 6.823778
##          SNU13  TM9SF2  SYNGR2  DCTN1  BCLAF1  SON  PXN
## GSM875412 8.590784 11.19587 11.813785 7.026043 8.797224 8.248928 7.308669
## GSM875413 8.268740 10.80742 9.639742 7.955240 6.907305 7.982970 7.041737
## GSM875414 7.386877 11.63627 10.802034 7.225912 7.154557 8.220149 7.189083
##          KPNA2  ATP6V1B2  RBBP7  SDHA  RPS29  DAP  ARF4
## GSM875412 10.47064 9.133731 10.471864 10.402642 13.02642 9.317413 10.705878
## GSM875413 8.65022 10.322874 10.827105 10.305813 12.85258 9.492071 9.585957
## GSM875414 10.19918 8.752305 9.515972 9.160757 12.97940 9.908626 11.561028
##          COPB2  USP9X  PFKL  LGALS1  GPX4  THBS1  CSE1L
## GSM875412 10.582024 8.433850 7.872743 11.78503 10.50426 6.078166 8.096619
## GSM875413 9.802296 9.768911 7.865411 13.21115 11.10119 5.138871 9.028016
## GSM875414 10.875804 8.347456 8.460122 11.79701 11.45647 6.017931 7.707797
##          TUFM  PSMA7  POLD2  CPE  COX8A  PGRMC1  EIF5A

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|    |           |           |           |           |           |           |           |           |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875412 | 9.827718  | 10.261445 | 7.550620  | 8.124121  | 11.46932  | 9.346041  | 7.598440  |
| ## | GSM875413 | 9.515853  | 11.176216 | 8.209513  | 10.564942 | 11.65371  | 10.512572 | 8.696755  |
| ## | GSM875414 | 10.528645 | 9.895542  | 7.690903  | 6.984477  | 10.74667  | 9.946024  | 9.163345  |
| ## |           | ITGB5     | MGAT1     | ACLY      | SRSF7     | CDH1      | PJA2      | COX7C     |
| ## | GSM875412 | 5.956585  | 7.679770  | 7.914008  | 8.362882  | 8.449722  | 9.210892  | 11.96465  |
| ## | GSM875413 | 6.901627  | 8.968993  | 7.315524  | 9.047773  | 4.255623  | 11.131884 | 13.33196  |
| ## | GSM875414 | 5.358024  | 8.146945  | 8.905711  | 7.120411  | 9.854197  | 9.040720  | 11.61896  |
| ## |           | ECHS1     | PLP2      | HLA-DPB1  | SSB       | RAB5C     | EIF2S1    | HAX1      |
| ## | GSM875412 | 9.743648  | 10.085425 | 11.14282  | 9.711163  | 8.197722  | 7.514262  | 9.152980  |
| ## | GSM875413 | 9.909499  | 7.902054  | 11.54960  | 9.584567  | 7.873782  | 8.364255  | 10.109947 |
| ## | GSM875414 | 9.830115  | 10.997046 | 10.78051  | 9.717786  | 9.248169  | 7.345345  | 9.872152  |
| ## |           | TIMP3     | NMT1      | YBX3      | IGFBP7    | PUM1      | ARHGDIA   | BHLHE40   |
| ## | GSM875412 | 8.176205  | 8.626549  | 11.013784 | 11.69070  | 9.710337  | 5.809966  | 8.705015  |
| ## | GSM875413 | 8.524509  | 7.998841  | 10.725150 | 11.53421  | 9.237227  | 5.635099  | 6.285253  |
| ## | GSM875414 | 7.142167  | 9.267065  | 9.945612  | 11.96858  | 9.395645  | 7.707431  | 8.426875  |
| ## |           | NUDC      | TERF2IP   | TMX2      | ARCN1     | UBA2      | GNAI3     | CHD4      |
| ## | GSM875412 | 9.894434  | 8.116511  | 10.43404  | 10.018156 | 9.613326  | 8.722917  | 6.855807  |
| ## | GSM875413 | 9.728653  | 9.495648  | 10.07972  | 9.962706  | 9.240310  | 7.034123  | 6.793836  |
| ## | GSM875414 | 8.846774  | 8.107653  | 10.29723  | 9.797038  | 10.093859 | 8.785817  | 6.696870  |
| ## |           | HTRA1     | LRPAP1    | ITPR3     | PITPNA    | SLC7A5    | AMD1      | PSMD1     |
| ## | GSM875412 | 9.304254  | 8.388910  | 5.157287  | 8.022391  | 7.561125  | 8.943719  | 10.105311 |
| ## | GSM875413 | 11.703114 | 9.295639  | 5.073520  | 8.993659  | 6.137397  | 8.300189  | 8.394400  |
| ## | GSM875414 | 8.405827  | 8.574615  | 5.549944  | 7.698496  | 6.604468  | 7.783262  | 8.788214  |
| ## |           | CREG1     | CSTB      | PCNA      | RRBP1     | TNFAIP1   | HDAC1     | LGMN      |
| ## | GSM875412 | 10.47777  | 11.71823  | 10.012627 | 7.512320  | 9.130427  | 10.767846 | 10.045317 |
| ## | GSM875413 | 10.24499  | 10.62373  | 9.873211  | 8.295438  | 7.500366  | 9.774350  | 8.332114  |
| ## | GSM875414 | 10.07681  | 11.67919  | 9.590640  | 7.663072  | 8.019689  | 9.722683  | 9.760146  |
| ## |           | PPP1R7    | PLS3      | ERP29     | RPL3      | CTBP2     | SNRNP70   | RAD23B    |
| ## | GSM875412 | 6.725815  | 10.31122  | 10.15400  | 12.95118  | 10.41703  | 8.745737  | 10.774743 |
| ## | GSM875413 | 6.347621  | 10.45649  | 10.45509  | 13.00979  | 10.11729  | 9.122680  | 9.296653  |
| ## | GSM875414 | 6.087553  | 10.29771  | 10.05242  | 12.95782  | 10.70187  | 8.825072  | 10.696189 |
| ## |           | SRRM1     | NDUFB8    | ARIH2     | ENO1      | PSMD13    | ILK       | BTG2      |
| ## | GSM875412 | 8.433314  | 9.755395  | 5.573611  | 11.670849 | 9.630727  | 9.035451  | 7.961345  |
| ## | GSM875413 | 7.436833  | 10.968540 | 5.534473  | 9.947595  | 8.757674  | 9.883759  | 6.930164  |
| ## | GSM875414 | 8.346633  | 9.517752  | 4.490208  | 11.194723 | 9.183729  | 9.521014  | 7.911144  |
| ## |           | SPCS2     | DDX1      | ATP1B1    | OTUB1     | SREBF2    | SLC2A1    | PKM       |
| ## | GSM875412 | 11.29424  | 10.30463  | 12.429839 | 8.480487  | 7.713775  | 3.993056  | 9.994178  |
| ## | GSM875413 | 10.96518  | 10.34508  | 8.978937  | 8.371377  | 8.381731  | 3.871289  | 10.088951 |
| ## | GSM875414 | 11.28982  | 10.22381  | 11.957539 | 8.268207  | 7.390966  | 4.132288  | 11.225651 |
| ## |           | PSMC4     | CDIPT     | BAG6      | COX7A2L   | RPS16     | SYPL1     | BGN       |
| ## | GSM875412 | 8.653994  | 9.978062  | 8.435716  | 9.815503  | 12.21995  | 10.710033 | 8.623911  |
| ## | GSM875413 | 8.461126  | 10.467229 | 9.282181  | 9.299221  | 11.74622  | 9.859897  | 6.418873  |
| ## | GSM875414 | 9.512125  | 10.208251 | 9.400290  | 8.304917  | 12.56436  | 9.707518  | 8.204298  |
| ## |           | TARS1     | COPE      | PSMC3     | NUDCD3    | RALY      | AKR1B1    | SRP9      |
| ## | GSM875412 | 10.683008 | 9.011470  | 9.616979  | 4.912879  | 8.528049  | 8.473778  | 11.98007  |
| ## | GSM875413 | 9.888053  | 9.350232  | 9.195043  | 5.306321  | 9.349797  | 10.366826 | 11.68803  |
| ## | GSM875414 | 9.494894  | 9.865515  | 9.553709  | 5.016614  | 9.046403  | 8.414716  | 12.03904  |
| ## |           | PSMA5     | FDPS      | RAB5B     | HNRNPAB   | ADRM1     | TRAK1     | APEH      |
| ## | GSM875412 | 10.508833 | 9.535778  | 7.941220  | 11.23499  | 8.373148  | 7.524142  | 8.285729  |
| ## | GSM875413 | 9.206647  | 8.544976  | 9.479032  | 11.75698  | 8.906405  | 5.446953  | 7.291226  |
| ## | GSM875414 | 10.646493 | 9.668636  | 8.264926  | 11.74705  | 8.667576  | 6.954195  | 7.901046  |
| ## |           | MKRN1     | SDC1      | CCN1      | SEC11A    | TOP2A     | PPIA      | WSB1      |
| ## | GSM875412 | 9.764938  | 9.771332  | 9.602158  | 10.90419  | 8.849476  | 13.40680  | 11.690624 |
| ## | GSM875413 | 10.170269 | 5.647576  | 9.979067  | 10.09783  | 4.851061  | 13.36654  | 8.713624  |

|    |           |           |           |           |           |           |           |           |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875414 | 9.064208  | 8.522748  | 10.109430 | 10.75447  | 8.616501  | 12.87389  | 9.175842  |
| ## |           | MOB1A     | PRNP      | ANXA4     | EIF4A3    | NDUFA5    | ANP32B    | SEPTIN11  |
| ## | GSM875412 | 7.554875  | 9.208635  | 12.095871 | 9.482264  | 9.720464  | 10.654310 | 9.487615  |
| ## | GSM875413 | 5.373795  | 10.821306 | 8.414783  | 8.498007  | 10.683072 | 9.606266  | 10.529422 |
| ## | GSM875414 | 6.206275  | 8.324078  | 12.301217 | 10.123382 | 10.192026 | 10.822278 | 7.962647  |
| ## |           | NREP      | SH3BGRL   | ENO2      | STK25     | IFITM2    | PSMA2     | ATP5F1B   |
| ## | GSM875412 | 8.131954  | 9.455681  | 5.162249  | 7.058834  | 11.10433  | 7.840623  | 11.11947  |
| ## | GSM875413 | 9.147820  | 9.452689  | 8.751847  | 7.171285  | 10.48514  | 8.374291  | 11.97082  |
| ## | GSM875414 | 6.521184  | 8.183900  | 5.461324  | 6.308976  | 10.06153  | 6.773013  | 10.98705  |
| ## |           | EBNA1BP2  | CCT6A     | ETS2      | RARS1     | STAT6     | VAMP3     | GTF3A     |
| ## | GSM875412 | 8.468546  | 9.405942  | 9.386372  | 9.390555  | 8.780915  | 10.78237  | 11.160124 |
| ## | GSM875413 | 7.795444  | 9.527262  | 9.056942  | 10.303785 | 9.968976  | 11.40514  | 9.783779  |
| ## | GSM875414 | 7.186483  | 9.276020  | 9.267897  | 9.628593  | 9.468520  | 10.51904  | 11.043860 |
| ## |           | SCP2      | ENC1      | SNRPC     | UBE2D2    | ADIPOR2   | GRHPR     | GPX3      |
| ## | GSM875412 | 10.756076 | 8.701241  | 9.107838  | 8.866105  | 8.781614  | 8.357476  | 8.102098  |
| ## | GSM875413 | 9.315941  | 7.687229  | 8.861914  | 9.656549  | 8.947661  | 8.572379  | 13.185837 |
| ## | GSM875414 | 10.957561 | 7.693578  | 9.576471  | 8.176231  | 8.552945  | 8.552169  | 7.800454  |
| ## |           | SLC9A3R1  | FLOT2     | YME1L1    | BAZ2A     | SF3A1     | COPB1     | CST3      |
| ## | GSM875412 | 8.158459  | 8.798132  | 10.117948 | 7.293763  | 8.254558  | 11.56437  | 10.80240  |
| ## | GSM875413 | 8.080650  | 7.671456  | 8.708828  | 8.143635  | 8.591962  | 10.66552  | 12.60340  |
| ## | GSM875414 | 8.906207  | 7.211109  | 10.157440 | 7.195135  | 8.652761  | 11.66109  | 10.36163  |
| ## |           | TMEM109   | IVNS1ABP  | OAZ2      | ANXA7     | ZFP36L2   | CUL3      | PLEC      |
| ## | GSM875412 | 7.709902  | 8.521505  | 8.156704  | 10.108073 | 7.747978  | 6.517083  | 8.258154  |
| ## | GSM875413 | 9.720837  | 6.790203  | 7.959359  | 9.915603  | 6.480823  | 7.083414  | 7.667316  |
| ## | GSM875414 | 7.558283  | 8.572618  | 8.186971  | 9.880998  | 8.681818  | 5.672377  | 8.565281  |
| ## |           | PPP2CB    | HNRNPF    | UBAP2L    | TPD52L2   | CACYBP    | DHX15     | PSMD3     |
| ## | GSM875412 | 4.365704  | 9.936960  | 7.911902  | 8.216428  | 9.688040  | 11.32365  | 11.406162 |
| ## | GSM875413 | 4.656109  | 7.975944  | 7.744430  | 9.945305  | 9.290674  | 10.27114  | 8.415040  |
| ## | GSM875414 | 4.422504  | 9.915871  | 8.255914  | 8.437850  | 8.333640  | 10.67693  | 8.129327  |
| ## |           | ITGA5     | CSNK2B    | TRAP1     | RBM5      | SGTA      | PHGDH     | TRAM1     |
| ## | GSM875412 | 7.284435  | 10.391097 | 9.051770  | 9.032728  | 7.258381  | 5.932707  | 11.24361  |
| ## | GSM875413 | 7.545764  | 9.931422  | 8.806393  | 9.230425  | 7.561570  | 6.867712  | 11.82851  |
| ## | GSM875414 | 7.946850  | 10.905164 | 9.019514  | 8.481589  | 7.755837  | 5.748070  | 10.99549  |
| ## |           | PSMB3     | GRK2      | MGST3     | COPS6     | PPP1CB    | PLEKHB2   | LRP10     |
| ## | GSM875412 | 10.45654  | 7.038324  | 11.99469  | 9.123567  | 9.290981  | 10.197888 | 8.77081   |
| ## | GSM875413 | 10.44510  | 6.546359  | 11.21095  | 10.800745 | 9.971840  | 8.472718  | 10.07821  |
| ## | GSM875414 | 10.26740  | 8.928260  | 12.13952  | 8.418735  | 9.082187  | 9.115036  | 10.73915  |
| ## |           | GSS       | WDR77     | IFI30     | CUL4A     | ALDH2     | SELENOP   | RPL37A    |
| ## | GSM875412 | 8.898088  | 8.290801  | 10.797758 | 9.023440  | 10.24022  | 11.49905  | 13.98443  |
| ## | GSM875413 | 8.228647  | 7.483396  | 9.688348  | 7.832965  | 10.76968  | 11.42846  | 13.88726  |
| ## | GSM875414 | 8.531105  | 8.315526  | 10.481637 | 8.574240  | 10.48186  | 11.63425  | 14.09521  |
| ## |           | DPYSL3    | CAT       | PTDSS1    | TTC1      | EIF4E     | COL6A3    | GBF1      |
| ## | GSM875412 | 7.393872  | 10.085231 | 9.501993  | 8.083256  | 9.194516  | 11.003024 | 6.108404  |
| ## | GSM875413 | 6.438717  | 9.145885  | 9.829071  | 12.060837 | 8.510309  | 7.199569  | 7.493572  |
| ## | GSM875414 | 5.040159  | 10.384825 | 8.442708  | 8.546433  | 9.544964  | 10.743328 | 7.664321  |
| ## |           | DDX23     | COX6B1    | ATP6AP2   | CNN3      | NPEPPS    | BUB3      | MAPKAPK2  |
| ## | GSM875412 | 7.551831  | 10.75769  | 3.894768  | 8.764823  | 8.942111  | 8.700073  | 7.876414  |
| ## | GSM875413 | 8.330896  | 10.66313  | 4.215921  | 8.606007  | 7.766811  | 8.074396  | 8.086931  |
| ## | GSM875414 | 7.059334  | 10.96151  | 4.310281  | 8.104193  | 8.899920  | 8.878322  | 7.893230  |
| ## |           | SCRN1     | TALDO1    | JUN       | NQO1      | SHC1      | SQSTM1    | VBP1      |
| ## | GSM875412 | 8.415055  | 11.176739 | 10.191596 | 8.961953  | 7.043177  | 10.11793  | 9.285678  |
| ## | GSM875413 | 9.935739  | 9.675837  | 9.387662  | 5.831734  | 6.674972  | 10.88358  | 10.196887 |
| ## | GSM875414 | 6.301181  | 11.112163 | 9.899527  | 11.192355 | 7.350579  | 10.93587  | 9.851497  |
| ## |           | JUNB      | ITGA3     | MARS1     | RRM1      | DKC1      | SUPT5H    | PYGB      |

|    |           |           |           |           |           |          |           |           |
|----|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|
| ## | GSM875412 | 8.743730  | 8.141997  | 8.686639  | 7.922407  | 8.431642 | 7.459785  | 9.336808  |
| ## | GSM875413 | 9.218888  | 5.797870  | 9.315345  | 6.628761  | 9.106228 | 8.310253  | 9.071418  |
| ## | GSM875414 | 9.529002  | 7.451039  | 8.752123  | 7.811686  | 8.621062 | 8.249042  | 9.951858  |
| ## |           | QSOX1     | SUPT4H1   | RCN2      | CTSC      | PPIF     | AHSA1     | RPL41     |
| ## | GSM875412 | 8.370814  | 8.317698  | 9.028158  | 9.991264  | 8.842010 | 8.617487  | 13.95464  |
| ## | GSM875413 | 8.307797  | 8.289443  | 9.153929  | 8.793006  | 8.219057 | 9.208156  | 14.19343  |
| ## | GSM875414 | 9.065832  | 9.341958  | 9.249908  | 10.043285 | 9.454962 | 8.726794  | 14.17235  |
| ## |           | PUM2      | USP7      | GRSF1     | NFKBIA    | TSN      | LAMB1     | TGFB1     |
| ## | GSM875412 | 9.527911  | 9.554792  | 8.802816  | 10.43416  | 8.684736 | 8.680688  | 9.385013  |
| ## | GSM875413 | 8.783368  | 9.319824  | 7.791995  | 10.60824  | 7.586900 | 10.385664 | 11.563108 |
| ## | GSM875414 | 9.292674  | 9.812645  | 8.537932  | 10.45305  | 9.144952 | 8.567447  | 10.304131 |
| ## |           | PFDN1     | IGFBP4    | IDH3B     | ELF3      | AAMP     | TOMM70    | SRM       |
| ## | GSM875412 | 7.922595  | 8.238302  | 7.688937  | 9.182492  | 9.297960 | 8.352498  | 7.469197  |
| ## | GSM875413 | 9.248839  | 10.123706 | 8.984413  | 4.131840  | 9.112037 | 6.990260  | 8.392646  |
| ## | GSM875414 | 7.976662  | 9.242532  | 7.312543  | 9.828713  | 8.699754 | 8.454167  | 8.553066  |
| ## |           | NCBP2     | CBX1      | UBE2N     | APOD      | ARF5     | ATP6V1F   | RPA1      |
| ## | GSM875412 | 8.163940  | 9.574968  | 9.477208  | 8.284130  | 9.008641 | 10.28450  | 9.001406  |
| ## | GSM875413 | 8.347277  | 9.451229  | 9.281525  | 5.732039  | 9.786697 | 10.78971  | 10.252303 |
| ## | GSM875414 | 8.766654  | 9.092467  | 9.918329  | 6.397200  | 9.023917 | 10.25663  | 8.681699  |
| ## |           | ZFP36     | PSMA3     | UBL3      | DUSP3     | FHL1     | ZNHIT1    | SAR1A     |
| ## | GSM875412 | 9.880906  | 11.12347  | 10.010127 | 9.269165  | 7.534107 | 9.698288  | 9.516806  |
| ## | GSM875413 | 10.867212 | 10.31780  | 8.825463  | 9.317666  | 7.950238 | 9.997617  | 10.529316 |
| ## | GSM875414 | 11.329087 | 9.77615   | 10.123691 | 9.716970  | 7.561090 | 8.963604  | 8.670881  |
| ## |           | TRIP12    | KDM5B     | ACTG1     | LAMP1     | GYG1     | MCM3      | VAMP2     |
| ## | GSM875412 | 10.132415 | 3.621057  | 13.59777  | 9.684245  | 8.351894 | 9.294716  | 5.681808  |
| ## | GSM875413 | 9.298275  | 3.840943  | 12.77127  | 8.475126  | 9.593206 | 8.534561  | 7.688814  |
| ## | GSM875414 | 9.750577  | 3.929498  | 13.52056  | 9.409631  | 8.365925 | 8.287121  | 6.148640  |
| ## |           | RAE1      | CLIC4     | CLSTN1    | SORD      | FSCN1    | ID2       | GOLGA4    |
| ## | GSM875412 | 9.518339  | 8.499948  | 9.687587  | 8.564082  | 5.765281 | 9.037120  | 9.889443  |
| ## | GSM875413 | 8.990962  | 7.260972  | 9.605279  | 5.495646  | 6.077908 | 7.915725  | 8.988773  |
| ## | GSM875414 | 9.058187  | 8.078698  | 8.968054  | 6.891108  | 7.014818 | 11.782635 | 9.111968  |
| ## |           | UQCRQ     | SAMM50    | DCTD      | ETF1      | SNW1     | GLB1      | NME1      |
| ## | GSM875412 | 10.94346  | 7.480851  | 7.584633  | 8.870871  | 8.911022 | 9.102300  | 10.117398 |
| ## | GSM875413 | 11.93829  | 7.801003  | 7.094949  | 8.217030  | 9.106707 | 8.339462  | 9.959494  |
| ## | GSM875414 | 10.89805  | 7.498718  | 7.473715  | 7.393537  | 9.132981 | 8.428268  | 10.449344 |
| ## |           | PODXL     | FAT1      | TMX4      | SEC23B    | DDX39A   | TXNL1     | NISCH     |
| ## | GSM875412 | 8.841086  | 9.709953  | 7.407835  | 6.769746  | 9.320921 | 10.50184  | 9.047744  |
| ## | GSM875413 | 7.682970  | 7.945325  | 9.298371  | 6.774798  | 8.250649 | 11.02892  | 10.159006 |
| ## | GSM875414 | 7.208153  | 8.534123  | 6.843622  | 6.622683  | 8.900900 | 10.14303  | 8.889263  |
| ## |           | EIF3H     | ZC3H15    | PPP4R1    | KRT18     | COX7A2   | INPPL1    | OAT       |
| ## | GSM875412 | 11.31068  | 10.442849 | 9.626225  | 12.265207 | 11.79157 | 6.961672  | 10.82401  |
| ## | GSM875413 | 11.05189  | 9.420645  | 9.763589  | 5.975799  | 11.19998 | 7.809545  | 11.00159  |
| ## | GSM875414 | 11.22256  | 10.613934 | 9.559383  | 12.583220 | 11.38609 | 7.010409  | 10.81184  |
| ## |           | PHB2      | PPP1R12A  | CNN2      | PWP1      | ICMT     | ALDH9A1   | AP1G2     |
| ## | GSM875412 | 10.46416  | 8.126176  | 7.836184  | 9.781163  | 9.142512 | 9.650235  | 7.821823  |
| ## | GSM875413 | 11.08008  | 9.252573  | 7.055230  | 10.072239 | 8.661516 | 9.587788  | 6.743217  |
| ## | GSM875414 | 10.59260  | 8.635447  | 8.255150  | 10.270212 | 8.896152 | 9.690687  | 9.155113  |
| ## |           | RUVBL1    | CALD1     | GPA1      | PRDX3     | MBTPS1   | NBL1      | SND1      |
| ## | GSM875412 | 8.676626  | 8.644801  | 8.046147  | 9.929172  | 8.376396 | 8.900628  | 9.278931  |
| ## | GSM875413 | 7.300970  | 8.322988  | 9.653721  | 9.618284  | 8.352853 | 10.783391 | 9.761501  |
| ## | GSM875414 | 7.683037  | 7.961674  | 8.541658  | 10.400814 | 8.238531 | 7.762489  | 9.695470  |
| ## |           | DARS1     | INSIG1    | RRAGA     | IER3      | EIF2B1   | CYB5B     | FXR1      |
| ## | GSM875412 | 9.358290  | 6.929384  | 8.620245  | 11.474895 | 8.475763 | 8.427782  | 9.050923  |
| ## | GSM875413 | 9.064858  | 5.838761  | 10.035038 | 8.752699  | 9.403745 | 6.937515  | 7.675904  |



|    |           |           |           |           |           |           |           |           |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875414 | 9.043613  | 7.601000  | 9.010951  | 11.740244 | 8.680865  | 9.932201  | 8.957409  |
| ## |           | CPSF1     | CLPTM1    | BST2      | IFNGR2    | KDM3B     | GFUS      | TNC       |
| ## | GSM875412 | 4.645039  | 7.365822  | 8.859510  | 9.247593  | 8.776951  | 9.842751  | 7.210872  |
| ## | GSM875413 | 4.512524  | 7.755010  | 8.433617  | 8.487713  | 10.145770 | 7.692117  | 6.930446  |
| ## | GSM875414 | 5.139596  | 8.109779  | 7.541874  | 9.442332  | 8.105379  | 10.214896 | 7.662785  |
| ## |           | SCARB2    | UBE2L6    | KRT19     | COPS5     | CNIH1     | HSPG2     | ITGA6     |
| ## | GSM875412 | 9.096502  | 8.501852  | 11.812061 | 9.668897  | 9.973596  | 5.671209  | 11.042199 |
| ## | GSM875413 | 8.477967  | 8.659781  | 4.818393  | 10.003073 | 9.541313  | 5.367745  | 7.541755  |
| ## | GSM875414 | 9.056793  | 7.650475  | 12.574003 | 8.780554  | 9.909548  | 7.133795  | 10.184226 |
| ## |           | ARL1      | ACSL3     | SMC4      | RPS17     | TIMP1     | GJA1      | MARCKS    |
| ## | GSM875412 | 7.757996  | 8.464666  | 8.864453  | 13.12204  | 11.72495  | 9.318907  | 8.196946  |
| ## | GSM875413 | 9.061092  | 10.985694 | 6.145876  | 12.97437  | 13.27139  | 10.473467 | 6.901768  |
| ## | GSM875414 | 8.824862  | 9.481600  | 8.263267  | 13.16043  | 11.21082  | 9.152985  | 7.894947  |
| ## |           | USP14     | GYS1      | AKAP1     | PSMA1     | HMCES     | SRRT      | DLG5      |
| ## | GSM875412 | 8.693312  | 6.883097  | 9.305667  | 11.42923  | 7.026494  | 5.965845  | 7.876139  |
| ## | GSM875413 | 9.886197  | 7.894327  | 8.176133  | 10.68362  | 6.926339  | 5.647594  | 8.802181  |
| ## | GSM875414 | 7.814691  | 7.153246  | 10.287174 | 11.00918  | 5.437241  | 5.756444  | 7.031063  |
| ## |           | TOX4      | API5      | TPD52     | SIGMAR1   | EGR1      | PNP       | SRSF4     |
| ## | GSM875412 | 7.487413  | 7.688317  | 10.375168 | 7.230009  | 6.886177  | 9.001700  | 9.535403  |
| ## | GSM875413 | 6.934021  | 6.162768  | 7.369794  | 7.770500  | 9.055703  | 6.655624  | 9.163918  |
| ## | GSM875414 | 8.264533  | 7.244009  | 9.308060  | 8.003412  | 6.834088  | 10.258667 | 8.735827  |
| ## |           | DNMT1     | PSMC6     | PGRMC2    | PPP1R10   | ENTPD6    | PSMD7     | PEX19     |
| ## | GSM875412 | 8.390427  | 9.954780  | 8.144637  | 7.378400  | 9.379927  | 9.175021  | 7.839902  |
| ## | GSM875413 | 7.057089  | 9.249382  | 8.227782  | 6.407435  | 7.944887  | 9.272672  | 8.803393  |
| ## | GSM875414 | 8.090827  | 9.200824  | 8.436634  | 7.105196  | 8.104314  | 8.682515  | 8.104802  |
| ## |           | NIPSNAP1  | MYBL2     | RANBP2    | TUBG1     | ACIN1     | SNX1      | MRPL49    |
| ## | GSM875412 | 6.907854  | 6.748035  | 9.863507  | 7.580908  | 5.614563  | 8.769898  | 8.982690  |
| ## | GSM875413 | 6.762274  | 6.050633  | 8.732182  | 7.638260  | 7.293974  | 8.915912  | 9.582105  |
| ## | GSM875414 | 7.037212  | 7.383670  | 9.152883  | 8.666643  | 7.286743  | 8.870137  | 9.336406  |
| ## |           | EPB41L2   | LAPTM5    | CDC123    | ELAVL1    | BLTP2     | CLCN3     | MARCHF6   |
| ## | GSM875412 | 8.608572  | 9.903099  | 9.598459  | 10.067501 | 8.600267  | 7.402311  | 9.312272  |
| ## | GSM875413 | 8.320616  | 8.682616  | 8.747155  | 10.036264 | 6.005736  | 5.589837  | 8.738409  |
| ## | GSM875414 | 6.711315  | 10.072340 | 8.873088  | 9.646291  | 5.786844  | 8.313479  | 9.461184  |
| ## |           | EIF1B     | SGK1      | NDUFS3    | SRSF1     | CD14      | LUM       | TWF1      |
| ## | GSM875412 | 9.753148  | 10.75980  | 9.780137  | 4.956151  | 8.814214  | 11.99508  | 9.651719  |
| ## | GSM875413 | 10.390855 | 10.65498  | 9.375407  | 4.884031  | 9.584651  | 10.84304  | 9.593614  |
| ## | GSM875414 | 10.524363 | 10.31282  | 9.296711  | 4.971385  | 8.889143  | 11.48512  | 10.072930 |
| ## |           | TP53      | SAFB      | ECE1      | JOSD1     | COX6C     | MCM5      | RPA2      |
| ## | GSM875412 | 6.811938  | 6.668765  | 7.029601  | 9.394456  | 12.26430  | 6.273671  | 7.803378  |
| ## | GSM875413 | 6.509872  | 6.667642  | 7.247631  | 8.633938  | 13.09033  | 6.092143  | 7.897189  |
| ## | GSM875414 | 6.509915  | 6.795134  | 6.498633  | 8.121384  | 11.86076  | 5.921381  | 7.171051  |
| ## |           | NDUFS5    | TSG101    | TBCD      | WSB2      | MTHFD2    | PSME2     | DAXX      |
| ## | GSM875412 | 11.20689  | 9.742755  | 5.849530  | 9.891974  | 10.455268 | 10.50516  | 7.645069  |
| ## | GSM875413 | 11.32097  | 8.917946  | 5.328162  | 10.242657 | 7.605123  | 10.15536  | 6.884408  |
| ## | GSM875414 | 11.20746  | 10.011692 | 6.251829  | 10.128459 | 9.609453  | 10.71969  | 7.591037  |
| ## |           | TMEM106C  | ELAC2     | CLINT1    | SNRPA     | SCAMP3    | AZIN1     | ADNP      |
| ## | GSM875412 | 9.026350  | 4.161278  | 9.367225  | 8.638279  | 8.574790  | 9.568449  | 9.070238  |
| ## | GSM875413 | 10.703126 | 4.254325  | 8.027025  | 8.621823  | 8.130039  | 8.679646  | 9.199485  |
| ## | GSM875414 | 8.429005  | 4.802355  | 10.392168 | 8.582633  | 8.843000  | 9.266045  | 9.293168  |
| ## |           | NCAPD2    | EFCAB14   | RNF13     | AIP       | RELA      | RNASE1    | ADAR      |
| ## | GSM875412 | 7.132185  | 8.447737  | 10.077757 | 6.036727  | 8.260908  | 10.331677 | 10.76215  |
| ## | GSM875413 | 6.416270  | 7.393727  | 9.243089  | 7.260053  | 8.578656  | 8.171885  | 10.78259  |
| ## | GSM875414 | 6.690649  | 8.774908  | 10.538639 | 7.622567  | 8.483418  | 8.779192  | 10.53772  |
| ## |           | FBLN1     | DHCR7     | AEBP1     | SMG7      | LBR       | VAR1      | MYOF      |

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## GSM875412 6.298767 7.634887 9.487481 5.250701 9.880719 6.538025 10.544834
## GSM875413 7.837161 6.828974 7.728521 5.105444 9.302153 6.249649 10.678756
## GSM875414 6.453741 7.566192 9.247513 5.453433 9.425679 6.930752 9.360337
##          SLC29A1      TBCB   PRKAG1   ATXN2L   VPS26A      ENG   SH3BP5
## GSM875412 7.275706 8.629642 8.655634 5.971027 10.309302 5.064879 8.027713
## GSM875413 9.373035 9.769908 9.577007 6.275524 10.073910 5.240739 6.938033
## GSM875414 8.639163 9.004733 9.000514 5.625282 9.821111 5.488283 6.722722
##          TBC1D5   NIPSNAP2   LPCAT1      KRT5   TIMM17A   RNF14   SCCPDH
## GSM875412 8.232713 9.724806 8.540460 4.402136 9.488255 7.705901 8.612047
## GSM875413 7.716027 10.325102 9.214599 4.504599 8.062441 8.771568 8.102741
## GSM875414 7.173684 8.376448 7.765053 4.928815 9.316686 6.787503 9.058896
##          SMARCD2      RTL8C      NET1      USO1      HDAC2   PRKAB1   SUPT7L
## GSM875412 7.529448 8.577736 10.075968 8.896111 9.370776 7.425679 5.473245
## GSM875413 7.120485 11.173911 8.599071 7.896115 8.603215 8.024870 6.271188
## GSM875414 7.664966 9.614890 10.626222 9.092260 8.364441 7.026691 5.378378
##          EPCAM      NEDD8      HSPB1   EFEMP1      RYBP      LIPA      BNIP3
## GSM875412 12.775505 9.251586 9.967526 9.473667 9.312665 10.699371 5.099772
## GSM875413 5.055812 10.079402 12.621053 5.744191 9.312418 9.048588 6.805718
## GSM875414 12.296396 10.577855 10.989294 8.921336 9.036663 11.192067 6.317372
##          CAPG      SH3GL1   COL3A1   CDC25B   ATMIN      ZFR      PLAT
## GSM875412 9.385681 6.983198 12.61040 7.491894 7.422360 8.092471 8.596595
## GSM875413 7.318383 7.818272 10.52331 9.914826 7.824581 7.629064 10.780204
## GSM875414 10.070797 7.844244 12.11573 8.396678 8.066389 7.756403 8.373719
##          LRRFIP1   FAM32A      GDI1      NR3C1   TOMM34   UBXN1   ABCE1
## GSM875412 9.455074 8.980198 7.866946 8.289751 7.968806 8.736522 9.104538
## GSM875413 7.387173 8.933876 10.423276 10.094836 8.622870 8.752011 8.157973
## GSM875414 8.893002 8.911307 8.638624 7.687447 7.612442 8.285248 8.729521
##          MPZL1      PON2   B4GALT1   CEACAM5   DCAF11   IL13RA1   FAM3C
## GSM875412 9.145548 9.966283 4.949946 11.217528 6.936244 9.201924 10.230106
## GSM875413 8.554205 10.045630 5.085268 4.334911 6.701410 9.700342 9.910805
## GSM875414 6.942537 10.584578 5.591957 11.759909 7.816017 8.766753 8.748367
##          RRM2      B2M      IMPDH2      DCN      ARAF      PSRC1   CKS1B
## GSM875412 8.796165 13.58422 10.168482 11.88438 7.471595 5.504677 9.820995
## GSM875413 5.392548 13.20481 9.484836 12.56763 8.814789 5.101148 7.952112
## GSM875414 10.208732 13.20611 9.820521 11.11714 8.147203 6.145178 8.991473
##          UBE2A      AKR1A1   UQCRC1   CTDSPL      DVL3   RPS4Y1   FARP1
## GSM875412 8.939145 10.279751 10.764510 7.450364 5.910206 9.868091 7.614265
## GSM875413 8.697558 8.972696 10.163941 9.495581 6.117538 8.640501 6.962609
## GSM875414 9.101841 11.124312 9.879198 7.748893 6.403764 6.668949 7.808354
##          GSPT1      COASY      SEC63   SLC25A36   SLC20A1   NSA2      PRDX4
## GSM875412 9.278617 7.984126 8.163457 9.262447 9.780093 10.37962 10.97499
## GSM875413 7.679139 8.045535 7.898820 8.088760 8.155688 11.38277 10.84543
## GSM875414 9.742563 8.631265 6.797277 8.272802 9.260010 10.51296 10.24150
##          AFF1      PKP4      MCM6      ETFA      CHMP1A   WDR82   DNPEP
## GSM875412 9.494871 7.262871 9.768156 9.680966 8.000804 9.695834 7.646916
## GSM875413 8.617171 6.415659 9.387417 9.188629 8.124731 9.561225 7.759920
## GSM875414 10.028434 7.334554 9.296130 9.518036 8.567826 9.519980 8.246828
##          CDK2AP1      PLK2      CPD      HEXB      FURIN      CCT2      GNL2
## GSM875412 10.37581 6.578686 10.130282 10.617474 7.436023 10.137889 8.640549
## GSM875413 11.63961 10.057002 6.211324 10.990395 7.697251 9.465433 8.246815
## GSM875414 10.86728 6.759936 10.316829 9.896866 7.587254 10.056894 8.278729
##          CAPZB      CIB1      ARPC1B   GNPAT      RNF41      ACSL1      SETX
## GSM875412 10.043346 10.123194 10.991146 9.541075 6.202796 7.930745 8.406271
## GSM875413 9.967987 9.459806 9.881829 8.950868 6.452351 8.324028 8.138876

```

|    |           |           |          |           |           |           |           |           |
|----|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875414 | 9.983445  | 9.661968 | 10.286645 | 8.968698  | 6.218535  | 7.444240  | 6.922972  |
| ## |           | NDUFS2    | PGM1     | NASP      | ATP6V1A   | CCZ1      | DELE1     | PPP5C     |
| ## | GSM875412 | 9.849575  | 9.387387 | 6.977353  | 8.252428  | 5.033316  | 6.058694  | 7.267149  |
| ## | GSM875413 | 9.209725  | 9.292329 | 5.977172  | 6.630676  | 4.912198  | 6.818484  | 6.923505  |
| ## | GSM875414 | 9.345481  | 8.319606 | 5.268473  | 9.034315  | 5.592243  | 5.647818  | 7.413535  |
| ## |           | WASHC5    | MED13    | CREBL2    | KIF5B     | MORF4L2   | EXT1      | ST6GAL1   |
| ## | GSM875412 | 8.638790  | 8.170314 | 7.867148  | 11.98873  | 11.80351  | 8.966208  | 7.568668  |
| ## | GSM875413 | 9.281127  | 8.461784 | 8.568822  | 10.75057  | 12.70696  | 8.417600  | 7.380959  |
| ## | GSM875414 | 8.557760  | 8.517928 | 7.571501  | 10.48167  | 12.10916  | 9.000963  | 8.817781  |
| ## |           | DYNLT1    | NDUFA6   | ACAA2     | SDHC      | ST14      | PTPN12    | TWF2      |
| ## | GSM875412 | 11.55743  | 7.843211 | 5.880784  | 9.416556  | 9.796225  | 9.381892  | 7.921433  |
| ## | GSM875413 | 10.86282  | 8.404935 | 6.424989  | 9.255791  | 6.303390  | 10.139659 | 7.276717  |
| ## | GSM875414 | 10.78064  | 7.179802 | 5.856158  | 9.780547  | 9.199686  | 9.420071  | 6.913376  |
| ## |           | ZNF410    | TJP1     | EXT2      | PPP1R15A  | METAP2    | MEST      | EPHX1     |
| ## | GSM875412 | 7.101542  | 10.12487 | 8.476615  | 7.097639  | 3.037275  | 9.042242  | 7.667500  |
| ## | GSM875413 | 7.774798  | 10.11997 | 8.767074  | 7.248586  | 2.911854  | 10.113362 | 10.124540 |
| ## | GSM875414 | 6.909585  | 10.16067 | 8.634171  | 7.689039  | 3.107046  | 10.335940 | 8.853188  |
| ## |           | LTF       | LANCL1   | EIF1      | ALDOC     | EFNA1     | GET3      | ACAA1     |
| ## | GSM875412 | 8.360632  | 6.688446 | 11.09356  | 8.656236  | 10.258646 | 7.740860  | 8.353538  |
| ## | GSM875413 | 5.255746  | 5.515464 | 12.00974  | 8.087027  | 5.221183  | 8.029949  | 8.149442  |
| ## | GSM875414 | 9.054750  | 6.083013 | 11.78697  | 6.759423  | 9.214772  | 8.052977  | 7.775475  |
| ## |           | SDHD      | TMEM184B | RPL38     | BCKDK     | MAN2A2    | RB1CC1    | SFRP1     |
| ## | GSM875412 | 10.081034 | 8.157205 | 8.391453  | 6.923007  | 7.914008  | 9.776828  | 3.931271  |
| ## | GSM875413 | 9.302972  | 8.541489 | 7.788064  | 7.251746  | 8.066469  | 9.951903  | 10.855122 |
| ## | GSM875414 | 8.912105  | 6.811514 | 7.458765  | 7.808255  | 7.488369  | 8.016616  | 4.521423  |
| ## |           | UBE4A     | KDM5A    | FIBP      | HARS1     | SMS       | ARHGAP35  | CBX6      |
| ## | GSM875412 | 10.028420 | 8.315521 | 8.649909  | 8.232713  | 10.465745 | 5.607720  | 6.943497  |
| ## | GSM875413 | 9.757690  | 8.662415 | 8.713247  | 9.984967  | 8.900077  | 6.895554  | 8.783331  |
| ## | GSM875414 | 9.056944  | 7.446019 | 8.632125  | 8.222106  | 9.125674  | 6.405475  | 7.189083  |
| ## |           | ZMYM4     | RAI14    | ALDH3A2   | KPNA1     | CTR9      | SEL1L     | PPFIA1    |
| ## | GSM875412 | 8.413702  | 8.571752 | 9.391049  | 8.517801  | 8.365444  | 8.634009  | 7.356613  |
| ## | GSM875413 | 7.462039  | 8.235747 | 7.677287  | 8.317955  | 9.028941  | 9.139195  | 6.317444  |
| ## | GSM875414 | 7.609499  | 8.196589 | 8.698361  | 7.914731  | 8.949570  | 9.594792  | 7.690585  |
| ## |           | LDLR      | IDH3A    | SDC4      | HNRNPL    | OPTN      | PLTP      | BIRC2     |
| ## | GSM875412 | 7.513550  | 9.189324 | 10.598393 | 7.648165  | 7.061153  | 7.306544  | 10.344300 |
| ## | GSM875413 | 6.053761  | 8.286929 | 7.512298  | 7.719382  | 7.165312  | 8.786170  | 9.081323  |
| ## | GSM875414 | 7.484049  | 8.401872 | 10.734854 | 8.404952  | 7.885542  | 7.703687  | 9.870132  |
| ## |           | NDUFAB1   | COPS3    | IER2      | SEC14L1   | TJP2      | MX1       | CTSL      |
| ## | GSM875412 | 11.36584  | 7.894705 | 10.11045  | 8.131041  | 10.654220 | 8.901790  | 9.966420  |
| ## | GSM875413 | 11.44078  | 8.301199 | 11.13269  | 6.637729  | 8.922356  | 10.018654 | 12.695385 |
| ## | GSM875414 | 11.52570  | 8.231739 | 10.94225  | 7.001707  | 9.869907  | 8.065483  | 9.644817  |
| ## |           | UQCR11    | ARL2BP   | PAF1      | TSP0      | NUP153    | PRMT2     | DGCR2     |
| ## | GSM875412 | 10.24354  | 7.571596 | 6.945278  | 10.087339 | 8.844905  | 7.472985  | 6.247652  |
| ## | GSM875413 | 11.20781  | 8.355838 | 7.944220  | 8.235084  | 7.931345  | 9.035265  | 6.172147  |
| ## | GSM875414 | 10.68529  | 9.268757 | 7.750957  | 9.713549  | 8.800908  | 8.042074  | 6.793182  |
| ## |           | RALB      | BRD4     | SPG7      | IGBP1     | MCM2      | PEPD      | ARFIP2    |
| ## | GSM875412 | 9.521195  | 7.890820 | 8.041143  | 9.436341  | 8.741600  | 8.089992  | 8.477154  |
| ## | GSM875413 | 9.385799  | 8.047277 | 7.943236  | 9.178896  | 7.209992  | 7.955757  | 7.793410  |
| ## | GSM875414 | 9.281235  | 8.046331 | 7.486178  | 9.734550  | 7.367259  | 8.711075  | 9.128334  |
| ## |           | COX7B     | SLC4A2   | VWF       | SNX2      | DPF2      | ARHGAP1   | CPNE3     |
| ## | GSM875412 | 12.05517  | 7.423676 | 7.854138  | 8.899943  | 7.876444  | 10.41538  | 9.255607  |
| ## | GSM875413 | 12.05671  | 8.333178 | 7.936277  | 9.916944  | 8.723177  | 10.65000  | 7.868045  |
| ## | GSM875414 | 11.14573  | 7.596812 | 8.330909  | 8.376481  | 8.281261  | 10.93393  | 8.904972  |
| ## |           | AP2S1     | CHMP2A   | PLIN3     | ABL1      | TRAK2     | PRPF4B    | RIOK3     |

|    |           |           |           |           |           |           |           |          |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| ## | GSM875412 | 8.797196  | 9.879866  | 9.258923  | 7.967683  | 9.466514  | 9.122167  | 9.228130 |
| ## | GSM875413 | 8.863195  | 10.440462 | 8.333392  | 8.391623  | 8.182693  | 8.087799  | 7.309501 |
| ## | GSM875414 | 9.674589  | 10.160995 | 9.534147  | 7.170483  | 9.500368  | 8.638694  | 9.604521 |
| ## |           | WWTR1     | ACTR1B    | AIMP2     | AKR7A2    | CLK3      | COPS8     | ADSL     |
| ## | GSM875412 | 6.712645  | 7.993251  | 9.176668  | 9.325336  | 7.298660  | 9.635148  | 8.785736 |
| ## | GSM875413 | 7.171019  | 8.291974  | 8.984966  | 8.788083  | 7.523321  | 10.039647 | 8.842296 |
| ## | GSM875414 | 6.664038  | 8.028352  | 8.875499  | 9.264627  | 7.830807  | 8.923197  | 8.505861 |
| ## |           | LY6E      | IFRD1     | PYCR1     | UBAC1     | USF2      | NUP62     | TUBB3    |
| ## | GSM875412 | 8.289578  | 9.564844  | 8.074600  | 8.339578  | 8.074571  | 7.806597  | 9.331092 |
| ## | GSM875413 | 10.739690 | 9.093682  | 6.472981  | 8.089760  | 9.071862  | 7.977748  | 9.225708 |
| ## | GSM875414 | 8.444224  | 6.656323  | 9.039159  | 6.662684  | 9.079858  | 8.778125  | 9.244831 |
| ## |           | NUP214    | FARSA     | CREBBP    | PKN1      | CNOT8     | PPP1R2    | MMS19    |
| ## | GSM875412 | 7.041535  | 7.140693  | 8.907374  | 6.008764  | 8.252521  | 8.349572  | 7.503914 |
| ## | GSM875413 | 7.706096  | 6.885368  | 8.106117  | 7.787097  | 8.146974  | 8.363642  | 6.879879 |
| ## | GSM875414 | 6.308715  | 6.974496  | 9.270290  | 6.230192  | 7.720294  | 8.182334  | 6.766876 |
| ## |           | AASDHPPT  | VEZF1     | PCM1      | CHPF      | ERCC3     | BLMH      | MVP      |
| ## | GSM875412 | 8.794872  | 8.199559  | 8.560999  | 7.095163  | 7.602786  | 9.148146  | 9.905542 |
| ## | GSM875413 | 8.581246  | 8.686179  | 10.133549 | 7.650632  | 7.488528  | 7.417488  | 8.278257 |
| ## | GSM875414 | 9.259536  | 9.299598  | 8.183075  | 7.552729  | 7.376485  | 6.069201  | 9.679976 |
| ## |           | SUSD6     | KAT2A     | KIF22     | NUP133    | PLOD3     | PPP2R5A   | NUP93    |
| ## | GSM875412 | 8.924615  | 7.526099  | 6.947167  | 8.401874  | 9.153164  | 4.548790  | 7.740366 |
| ## | GSM875413 | 10.274307 | 7.692793  | 6.846293  | 8.163537  | 10.186949 | 4.707688  | 7.202113 |
| ## | GSM875414 | 8.026142  | 7.403085  | 7.229403  | 7.442935  | 8.867434  | 4.477692  | 7.618533 |
| ## |           | PTBP1     | CSTF1     | GAS7      | LIMK2     | DKK3      | MTMR3     | SRPK1    |
| ## | GSM875412 | 9.814336  | 6.923606  | 7.097700  | 7.170396  | 7.385501  | 7.288273  | 8.071761 |
| ## | GSM875413 | 9.533082  | 6.451644  | 7.894318  | 6.099264  | 9.012200  | 7.254538  | 5.388401 |
| ## | GSM875414 | 10.355133 | 6.650105  | 5.305562  | 9.623748  | 7.366289  | 6.785484  | 7.145130 |
| ## |           | BLVRB     | LAMA4     | AMFR      | VASP      | ARL4C     | LSM3      | GSK3A    |
| ## | GSM875412 | 8.775658  | 8.382351  | 5.234129  | 8.965116  | 8.200745  | 10.264964 | 6.815238 |
| ## | GSM875413 | 8.067518  | 7.821901  | 8.570307  | 7.196202  | 6.070987  | 9.933100  | 6.750111 |
| ## | GSM875414 | 9.939436  | 7.767884  | 4.075663  | 9.988065  | 6.689678  | 9.824876  | 6.413802 |
| ## |           | ARFGAP3   | PES1      | CUL4B     | FADS2     | SLC6A8    | KHDC4     | EP300    |
| ## | GSM875412 | 8.853939  | 7.748427  | 7.712727  | 6.172758  | 7.434294  | 10.117879 | 5.779206 |
| ## | GSM875413 | 8.772761  | 7.876217  | 8.129741  | 7.935229  | 8.893693  | 8.686030  | 6.962056 |
| ## | GSM875414 | 9.193756  | 8.283231  | 7.521269  | 6.500521  | 6.116072  | 8.710314  | 6.183079 |
| ## |           | DES       | STT3A     | CRK       | BRD8      | NPTN      | EIF3M     | UQCRH    |
| ## | GSM875412 | 7.367720  | 9.152060  | 7.285059  | 8.887344  | 11.36779  | 10.56008  | 11.95753 |
| ## | GSM875413 | 7.870267  | 9.066312  | 7.966157  | 9.700734  | 11.55030  | 9.64855   | 11.36849 |
| ## | GSM875414 | 7.600767  | 9.351516  | 8.117102  | 8.115496  | 11.13364  | 10.54940  | 11.51992 |
| ## |           | NNMT      | PARP4     | PLK1      | TRIB1     | TSPAN7    | PSMB4     | LSS      |
| ## | GSM875412 | 9.638071  | 10.550018 | 6.375595  | 9.718879  | 4.796949  | 10.80343  | 7.863440 |
| ## | GSM875413 | 8.116722  | 7.899367  | 5.188797  | 11.712746 | 6.884203  | 10.72945  | 8.568550 |
| ## | GSM875414 | 8.776601  | 9.700839  | 6.506737  | 9.810599  | 4.588450  | 10.53542  | 8.380513 |
| ## |           | CDK4      | MTA1      | E2F4      | PRPF3     | RAB13     | SIPA1L1   | CD2BP2   |
| ## | GSM875412 | 8.840901  | 5.112310  | 6.239955  | 7.545867  | 10.392120 | 5.304046  | 7.381561 |
| ## | GSM875413 | 9.873787  | 5.980329  | 6.267042  | 7.777326  | 9.679699  | 5.682772  | 7.517786 |
| ## | GSM875414 | 9.819128  | 6.476397  | 6.702792  | 7.926216  | 11.039086 | 4.585295  | 7.592690 |
| ## |           | STXBP1    | VPS72     | DDAH2     | TOMM40    | BMI1      | TDP2      | LAMC2    |
| ## | GSM875412 | 6.245608  | 8.022148  | 8.349896  | 7.955970  | 10.303856 | 9.808681  | 9.253157 |
| ## | GSM875413 | 8.154018  | 8.070103  | 7.570224  | 7.654896  | 9.455767  | 9.682899  | 4.860062 |
| ## | GSM875414 | 6.923696  | 7.705483  | 8.979886  | 8.329493  | 8.962558  | 11.158622 | 7.659494 |
| ## |           | NAE1      | GBP1      | PDGFRB    | ACTG2     | G6PD      | SEM1      | ATP5MJ   |
| ## | GSM875412 | 9.781066  | 8.969275  | 8.145734  | 9.982284  | 6.214216  | 10.34311  | 8.290801 |
| ## | GSM875413 | 9.797162  | 7.815881  | 8.129042  | 9.931344  | 6.510898  | 11.21604  | 9.102443 |

|    |           |           |           |           |           |           |           |          |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| ## | GSM875414 | 9.992462  | 8.418735  | 8.447551  | 9.729638  | 7.489024  | 10.51049  | 8.433771 |
| ## |           | GAK       | HSD17B10  | SERPINF1  | CDKN1A    | TACSTD2   | MTOR      | PDAP1    |
| ## | GSM875412 | 3.507016  | 8.715226  | 9.287906  | 7.937207  | 4.848166  | 6.085758  | 8.953613 |
| ## | GSM875413 | 3.604274  | 10.047820 | 10.501930 | 9.666035  | 5.482208  | 5.966714  | 8.968170 |
| ## | GSM875414 | 3.394338  | 9.106500  | 8.799690  | 9.784910  | 6.117312  | 5.864190  | 9.211747 |
| ## |           | MGP       | LYPLA2    | STAG1     | CTSH      | RER1      | NDUFA1    | LAMTOR5  |
| ## | GSM875412 | 11.57124  | 8.771642  | 7.934916  | 9.973370  | 10.338217 | 11.03752  | 10.26570 |
| ## | GSM875413 | 13.22264  | 8.342032  | 6.428997  | 8.370345  | 9.547391  | 12.69282  | 10.16548 |
| ## | GSM875414 | 10.93183  | 8.677149  | 6.801530  | 11.460565 | 10.781276 | 10.53870  | 10.45674 |
| ## |           | RSRC2     | SMARCA5   | FNDCA3    | FEZ2      | POLR2G    | TAP1      | MTHFD1   |
| ## | GSM875412 | 8.289532  | 8.094422  | 9.578825  | 8.400252  | 9.560776  | 9.297932  | 8.939953 |
| ## | GSM875413 | 8.272061  | 7.956773  | 9.006978  | 7.836984  | 9.670059  | 7.262859  | 8.421059 |
| ## | GSM875414 | 7.666508  | 7.367107  | 8.767738  | 7.139112  | 8.784592  | 8.221002  | 8.460460 |
| ## |           | PPP2R2A   | BCR       | UBE4B     | SENP6     | GTF3C1    | GGPS1     | ACBD3    |
| ## | GSM875412 | 8.486361  | 7.278003  | 7.811791  | 9.070865  | 7.476610  | 5.815572  | 9.156413 |
| ## | GSM875413 | 9.182189  | 6.527819  | 7.457696  | 8.645915  | 8.009844  | 7.182818  | 5.558366 |
| ## | GSM875414 | 8.461206  | 7.765374  | 7.623619  | 8.791769  | 8.125704  | 5.088189  | 8.936401 |
| ## |           | ATP5PF    | EHMT2     | PKD1      | CSK       | UNG       | BCKDHA    | UBE2B    |
| ## | GSM875412 | 10.92172  | 7.340007  | 4.555723  | 8.014587  | 7.369736  | 7.465271  | 9.620810 |
| ## | GSM875413 | 11.31341  | 7.300797  | 5.175249  | 8.242683  | 7.355407  | 7.584296  | 9.886760 |
| ## | GSM875414 | 11.12824  | 7.050551  | 4.992349  | 7.779393  | 7.150697  | 7.378927  | 9.238198 |
| ## |           | PAM       | PMF1      | NR4A1     | TRIM2     | COX5B     | HSF1      | FABP5    |
| ## | GSM875412 | 11.03473  | 7.391883  | 7.710981  | 6.668724  | 11.31692  | 6.997853  | 10.42228 |
| ## | GSM875413 | 12.49363  | 7.234859  | 10.267841 | 6.015221  | 11.21959  | 8.307156  | 11.25241 |
| ## | GSM875414 | 9.16731   | 7.283219  | 9.478713  | 6.533438  | 10.95134  | 6.892509  | 10.05041 |
| ## |           | UBE2K     | MATN2     | ITGAV     | PSMD12    | GTF2F1    | CFB       | MAML1    |
| ## | GSM875412 | 8.027748  | 8.143226  | 10.70836  | 9.204250  | 7.202006  | 9.510820  | 8.603323 |
| ## | GSM875413 | 7.462612  | 11.896728 | 10.67501  | 8.629843  | 6.771644  | 7.058716  | 9.263684 |
| ## | GSM875414 | 7.854141  | 5.742841  | 10.70699  | 9.596746  | 7.358322  | 5.869340  | 8.440419 |
| ## |           | SEC24C    | SPOCK1    | MXI1      | UNC119B   | ACADS     | CUX1      | CBFB     |
| ## | GSM875412 | 7.874591  | 6.063877  | 9.652926  | 7.913161  | 6.622037  | 8.232713  | 8.912978 |
| ## | GSM875413 | 8.458752  | 8.813509  | 9.488024  | 10.472537 | 6.658361  | 8.225338  | 8.532347 |
| ## | GSM875414 | 8.521143  | 5.794649  | 8.068831  | 7.381371  | 6.410581  | 7.461435  | 9.051230 |
| ## |           | TCEAL4    | RAB3GAP2  | SEC24D    | SERPINA3  | GNPDA1    | KDM5C     | TCOF1    |
| ## | GSM875412 | 8.885748  | 7.821598  | 7.066767  | 8.045184  | 8.088182  | 6.979980  | 6.405075 |
| ## | GSM875413 | 11.125955 | 8.152380  | 6.041432  | 5.026159  | 8.718891  | 7.544663  | 7.252949 |
| ## | GSM875414 | 9.079858  | 8.565281  | 7.231160  | 7.155669  | 7.249761  | 7.364103  | 5.829602 |
| ## |           | BAG1      | RGS2      | HTT       | BASP1     | PISD      | KLF10     | ABCF3    |
| ## | GSM875412 | 8.258045  | 9.714334  | 6.430741  | 8.005198  | 7.911584  | 8.898644  | 7.375627 |
| ## | GSM875413 | 8.654182  | 12.878068 | 6.531300  | 9.767641  | 7.808141  | 10.440234 | 7.029441 |
| ## | GSM875414 | 7.472334  | 10.089374 | 6.620374  | 8.023914  | 7.971554  | 9.372357  | 7.521551 |
| ## |           | TCERG1    | NUTF2     | SRF       | CARS1     | COL1A2    | TIAL1     | PRPF31   |
| ## | GSM875412 | 9.718261  | 9.418210  | 4.738284  | 7.912148  | 12.96043  | 6.614141  | 6.864017 |
| ## | GSM875413 | 9.687292  | 9.173289  | 4.862542  | 6.910524  | 11.87371  | 6.080728  | 7.572241 |
| ## | GSM875414 | 8.640215  | 9.905754  | 5.100663  | 7.533543  | 12.20513  | 6.508158  | 7.649230 |
| ## |           | IFI27     | USP1      | ERCC5     | HSPBP1    | KEAP1     | YIF1A     | DHX9     |
| ## | GSM875412 | 10.187667 | 8.874134  | 7.864971  | 7.201312  | 7.636497  | 9.220592  | 8.271402 |
| ## | GSM875413 | 7.553256  | 6.937799  | 7.552271  | 7.394025  | 7.478061  | 8.945907  | 7.772099 |
| ## | GSM875414 | 8.697941  | 8.673164  | 8.095411  | 7.600136  | 7.703458  | 9.682067  | 8.015578 |
| ## |           | MAP2K2    | PPP3CA    | RXRA      | MPC2      | DBI       | PLSCR1    | MYC      |
| ## | GSM875412 | 8.223874  | 8.934930  | 5.540653  | 9.589333  | 11.25106  | 8.766334  | 8.869700 |
| ## | GSM875413 | 8.827149  | 7.614367  | 5.749393  | 9.012357  | 10.54574  | 8.257431  | 7.974740 |
| ## | GSM875414 | 8.649835  | 8.431156  | 5.537135  | 10.664070 | 11.31631  | 8.725040  | 9.462632 |
| ## |           | PPP3CB    | SLC35B1   | CYP1B1    | IDS       | DENND2B   | ERLIN1    | AP3S1    |

|    |           |           |          |           |           |           |           |           |
|----|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875412 | 8.754163  | 8.277091 | 4.435268  | 3.956974  | 8.406825  | 8.787711  | 10.220525 |
| ## | GSM875413 | 9.523169  | 7.684601 | 4.281286  | 4.833536  | 9.787021  | 7.654372  | 10.813967 |
| ## | GSM875414 | 8.371416  | 9.345411 | 4.378111  | 4.060131  | 6.797591  | 8.202658  | 9.832558  |
| ## |           | NOTCH2    | DECR1    | ZER1      | CTSK      | GTF2H1    | HDAC5     | LPIN2     |
| ## | GSM875412 | 8.712757  | 9.413297 | 5.285758  | 9.903619  | 8.590455  | 5.597432  | 9.576528  |
| ## | GSM875413 | 9.631951  | 9.532624 | 5.258194  | 8.613203  | 8.622246  | 8.177982  | 8.842485  |
| ## | GSM875414 | 8.948723  | 8.869332 | 5.678333  | 9.101060  | 8.603226  | 6.421875  | 7.853600  |
| ## |           | EIF2B2    | DDX46    | MBD3      | PFKFB3    | PCOLCE    | TENT4A    | COPS2     |
| ## | GSM875412 | 7.741306  | 9.508459 | 6.577009  | 9.974843  | 7.810500  | 8.958445  | 10.260228 |
| ## | GSM875413 | 8.488891  | 9.219075 | 7.590177  | 8.265774  | 7.362981  | 9.727022  | 9.414628  |
| ## | GSM875414 | 7.830807  | 9.262474 | 7.161772  | 8.489809  | 8.024193  | 8.362598  | 10.256168 |
| ## |           | CTNNA1    | CPSF6    | IDH3G     | MPI       | HCFC1     | TMEM147   | TUBGCP2   |
| ## | GSM875412 | 8.412861  | 8.911572 | 8.303816  | 6.106950  | 5.567433  | 9.452074  | 6.319024  |
| ## | GSM875413 | 8.609552  | 8.700574 | 9.655698  | 6.822631  | 5.848778  | 9.983265  | 5.647732  |
| ## | GSM875414 | 6.329782  | 8.896706 | 9.157634  | 5.508683  | 4.989254  | 9.993439  | 6.483900  |
| ## |           | TRIB2     | DEDD     | DHRS3     | RANBP1    | MBD2      | H2AZ2     | FXD2      |
| ## | GSM875412 | 10.210573 | 6.705412 | 7.831814  | 4.821807  | 9.224987  | 9.906545  | 8.412512  |
| ## | GSM875413 | 9.697138  | 6.581695 | 8.143097  | 5.472047  | 9.141093  | 9.912945  | 6.519319  |
| ## | GSM875414 | 6.850707  | 7.305226 | 8.664428  | 5.366204  | 8.998685  | 9.710302  | 9.318374  |
| ## |           | ELP1      | ATG9A    | PPIE      | TBCC      | EDC4      | SLC2A3    | DNAJB2    |
| ## | GSM875412 | 3.462178  | 7.780470 | 7.197890  | 7.642849  | 6.859427  | 7.954241  | 6.842240  |
| ## | GSM875413 | 3.928563  | 8.085309 | 7.127010  | 7.555028  | 7.442237  | 7.588856  | 8.200847  |
| ## | GSM875414 | 3.401971  | 6.848044 | 7.323701  | 8.247293  | 7.560141  | 7.526390  | 7.107934  |
| ## |           | MAPRE2    | ACADM    | PCLAF     | TRIM29    | ITPRID2   | TNFAIP2   | ATG5      |
| ## | GSM875412 | 9.020439  | 8.652233 | 9.652754  | 10.546004 | 9.332048  | 5.636071  | 9.448470  |
| ## | GSM875413 | 8.783114  | 8.390924 | 6.560265  | 5.466342  | 8.937443  | 5.265163  | 7.803758  |
| ## | GSM875414 | 8.894978  | 8.490767 | 10.301504 | 6.423291  | 9.596082  | 5.374333  | 9.074791  |
| ## |           | PPP2R5D   | DLG1     | CRMP1     | BCL7B     | MLH1      | CTCF      | PITPNB    |
| ## | GSM875412 | 7.440119  | 9.052729 | 6.405060  | 7.531690  | 8.827271  | 8.224969  | 9.819185  |
| ## | GSM875413 | 7.604952  | 8.434299 | 10.076992 | 9.106077  | 8.987959  | 8.442216  | 10.045105 |
| ## | GSM875414 | 7.528084  | 9.209876 | 7.077268  | 6.570263  | 8.680869  | 9.052166  | 9.682855  |
| ## |           | SPOCK2    | PRSS8    | MAPK14    | IRF1      | DHFR      | FADD      | CHMP2B    |
| ## | GSM875412 | 5.522104  | 8.825282 | 8.519015  | 7.842375  | 6.876579  | 7.954168  | 8.918702  |
| ## | GSM875413 | 5.210021  | 4.392517 | 8.123851  | 8.500012  | 5.777493  | 7.663164  | 8.187150  |
| ## | GSM875414 | 5.390909  | 9.848229 | 8.416952  | 7.131302  | 5.746576  | 8.209983  | 9.190150  |
| ## |           | HMGCR     | AIMP1    | GMFB      | PRKCD     | VAMP8     | VAPB      | CRIM1     |
| ## | GSM875412 | 7.699283  | 8.433569 | 8.274091  | 7.970598  | 10.030513 | 6.799923  | 9.177689  |
| ## | GSM875413 | 7.598630  | 7.848470 | 4.666257  | 6.067998  | 7.771131  | 5.287786  | 8.207855  |
| ## | GSM875414 | 7.903228  | 7.059334 | 7.748428  | 8.175676  | 10.348983 | 4.626695  | 7.503578  |
| ## |           | GSTM3     | MCRS1    | HSPA13    | CHTOP     | ERG28     | ARL2      | SNRPD3    |
| ## | GSM875412 | 10.74677  | 7.117674 | 7.814204  | 9.661023  | 7.147412  | 8.016868  | 10.510584 |
| ## | GSM875413 | 10.87878  | 8.416452 | 8.648124  | 9.147881  | 8.179056  | 9.632155  | 9.750107  |
| ## | GSM875414 | 10.94646  | 7.339740 | 7.952251  | 9.436275  | 7.741402  | 7.597500  | 10.764313 |
| ## |           | MARK3     | CSNK1G2  | CRABP2    | HMGN4     | FOXN1     | RANBP9    | POLR2L    |
| ## | GSM875412 | 7.093920  | 8.417074 | 5.624337  | 10.096404 | 6.209451  | 10.535405 | 5.964921  |
| ## | GSM875413 | 7.613577  | 8.180829 | 8.412033  | 9.597754  | 5.308405  | 10.015583 | 5.930437  |
| ## | GSM875414 | 7.830807  | 8.191029 | 6.048250  | 10.089659 | 5.831728  | 9.947695  | 6.184828  |
| ## |           | AK1       | PDK2     | BLOC1S1   | GDE1      | LEPROTL1  | ENSA      | S100A13   |
| ## | GSM875412 | 8.650125  | 6.409268 | 8.642580  | 8.773500  | 8.040213  | 9.678947  | 8.808897  |
| ## | GSM875413 | 9.047791  | 6.805738 | 10.003412 | 7.698572  | 9.719938  | 9.017696  | 9.275209  |
| ## | GSM875414 | 8.082650  | 6.877901 | 9.735871  | 9.126693  | 7.112300  | 10.082102 | 10.561083 |
| ## |           | NRIP1     | HTATSF1  | ADAM10    | GUSB      | TLK1      | EPS8      | CTPS1     |
| ## | GSM875412 | 8.747765  | 6.279780 | 10.646609 | 9.668279  | 8.900432  | 10.200289 | 8.070777  |
| ## | GSM875413 | 8.488110  | 7.011490 | 8.494586  | 9.305742  | 9.572336  | 8.781283  | 6.506368  |

|    |           |           |           |           |           |           |           |           |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875414 | 9.066670  | 7.469179  | 10.390186 | 8.840861  | 9.291634  | 9.687393  | 6.950089  |
| ## |           | SLC30A9   | GNAQ      | MECP2     | PLOD2     | IRF3      | ATXN2     | EAPP      |
| ## | GSM875412 | 8.644889  | 9.653285  | 5.787347  | 7.764209  | 8.256414  | 6.776332  | 9.296737  |
| ## | GSM875413 | 8.534149  | 9.483556  | 8.504106  | 7.252199  | 8.180096  | 7.904699  | 8.527330  |
| ## | GSM875414 | 8.163443  | 9.388196  | 5.055396  | 7.061546  | 8.903130  | 6.423243  | 9.043310  |
| ## |           | CABIN1    | LYN       | APBP2     | TOPBP1    | POLR2K    | ICAM1     | RANBP3    |
| ## | GSM875412 | 7.071853  | 8.845419  | 7.703704  | 8.482995  | 8.707344  | 7.658580  | 6.984328  |
| ## | GSM875413 | 8.034288  | 7.330852  | 8.118112  | 6.701639  | 9.376831  | 7.047941  | 7.233543  |
| ## | GSM875414 | 7.721306  | 6.236643  | 8.459801  | 7.857429  | 7.638404  | 7.407249  | 7.676522  |
| ## |           | ARL3      | TRRAP     | TNFAIP3   | MEN1      | CSDE1     | NRAS      | RPS19     |
| ## | GSM875412 | 7.552418  | 7.738206  | 8.585961  | 7.170610  | 9.557090  | 8.475387  | 6.297015  |
| ## | GSM875413 | 9.009037  | 8.720617  | 8.045165  | 6.552198  | 10.327654 | 5.861396  | 6.402499  |
| ## | GSM875414 | 8.092999  | 7.498221  | 8.537884  | 7.162477  | 9.318731  | 9.306374  | 6.644732  |
| ## |           | TMEM94    | APBB1     | MANF      | SERTAD2   | PEX11B    | PSMB10    | ITPR2     |
| ## | GSM875412 | 6.641226  | 5.500733  | 9.627492  | 7.962428  | 8.037540  | 8.790761  | 6.768195  |
| ## | GSM875413 | 7.706679  | 6.518483  | 9.170394  | 8.456229  | 7.895278  | 8.606003  | 5.753514  |
| ## | GSM875414 | 6.078852  | 4.907701  | 9.605246  | 7.447686  | 8.213965  | 7.651257  | 5.475695  |
| ## |           | WIPF1     | ACTL6A    | SLC39A7   | EFNB2     | MAP2K1    | DPM1      | SDHB      |
| ## | GSM875412 | 5.868650  | 8.755382  | 8.027112  | 10.028558 | 8.870854  | 10.61800  | 9.510667  |
| ## | GSM875413 | 5.481982  | 7.541237  | 6.758635  | 8.648454  | 8.440538  | 10.70922  | 8.794191  |
| ## | GSM875414 | 5.486702  | 9.083894  | 8.433856  | 10.498004 | 7.971847  | 10.34719  | 9.339784  |
| ## |           | FASTK     | RASA1     | GTF2A2    | NPC1      | GTF2E2    | USP4      | RNMT      |
| ## | GSM875412 | 7.569347  | 9.344417  | 9.744048  | 8.981621  | 7.626467  | 7.995336  | 7.794981  |
| ## | GSM875413 | 8.096656  | 10.141774 | 9.393116  | 8.732944  | 8.501493  | 8.116655  | 8.716381  |
| ## | GSM875414 | 7.919105  | 6.387896  | 9.744861  | 8.063258  | 7.478261  | 7.723087  | 7.327889  |
| ## |           | AXL       | TNFSF10   | RBM15B    | SNRPD1    | STK17A    | OXSRI     | NUDT21    |
| ## | GSM875412 | 5.309970  | 8.570888  | 7.622634  | 9.389352  | 8.431152  | 9.797940  | 7.755070  |
| ## | GSM875413 | 6.279632  | 7.883475  | 7.329462  | 10.232477 | 9.717086  | 8.437732  | 6.680686  |
| ## | GSM875414 | 5.739996  | 9.114616  | 7.731148  | 10.039950 | 7.135685  | 8.497318  | 8.974141  |
| ## |           | TMEM63A   | TRIM26    | DUSP11    | TOB1      | CCNB2     | UMPS      | H2BC21    |
| ## | GSM875412 | 7.853701  | 6.958752  | 8.558282  | 10.664209 | 8.406775  | 7.673745  | 6.318102  |
| ## | GSM875413 | 6.658255  | 6.997268  | 7.705302  | 9.806033  | 5.069958  | 7.299537  | 4.929079  |
| ## | GSM875414 | 9.303118  | 7.684580  | 8.659182  | 11.063814 | 7.776179  | 7.368115  | 9.621797  |
| ## |           | FMOD      | BET1      | EFNB1     | PRORP     | PTPN1     | CDC16     | IGFBP2    |
| ## | GSM875412 | 8.473204  | 7.836680  | 6.146487  | 9.278167  | 7.248179  | 8.023606  | 6.935759  |
| ## | GSM875413 | 9.051753  | 9.487240  | 6.493829  | 7.473804  | 7.693506  | 7.658616  | 6.545805  |
| ## | GSM875414 | 9.955987  | 8.577498  | 6.359113  | 8.453792  | 6.652883  | 8.240249  | 10.884585 |
| ## |           | TES       | GFPT1     | FOXO1     | POLR2A    | LIG1      | IFNGR1    | LTBP1     |
| ## | GSM875412 | 8.830567  | 9.580926  | 6.361513  | 7.019976  | 6.935111  | 11.016488 | 8.514202  |
| ## | GSM875413 | 6.046184  | 6.729075  | 5.371084  | 7.521012  | 7.427620  | 9.466997  | 9.091513  |
| ## | GSM875414 | 8.059848  | 9.398913  | 6.005390  | 7.302522  | 6.940050  | 10.231663 | 7.485633  |
| ## |           | PKIG      | TRIP10    | EBP       | LSM4      | PHKB      | PRKACB    | PIK3R3    |
| ## | GSM875412 | 8.203763  | 7.841331  | 8.284292  | 9.215623  | 7.913054  | 8.188785  | 7.034459  |
| ## | GSM875413 | 10.654209 | 7.714084  | 7.767569  | 8.820595  | 8.101526  | 9.424943  | 8.049143  |
| ## | GSM875414 | 7.854759  | 7.713569  | 8.892269  | 8.895206  | 8.354613  | 8.363114  | 5.529481  |
| ## |           | SLC20A2   | USP8      | ITM2A     | GBP2      | GET1      | TFIP11    | SLC7A8    |
| ## | GSM875412 | 7.114126  | 8.476244  | 6.651610  | 8.973813  | 8.500136  | 7.547707  | 6.818641  |
| ## | GSM875413 | 6.982524  | 7.639675  | 10.156250 | 8.452093  | 9.614749  | 7.728259  | 7.428896  |
| ## | GSM875414 | 4.824541  | 8.269320  | 6.665984  | 9.742366  | 9.321964  | 8.157345  | 7.980163  |
| ## |           | R3HDM1    | GPC1      | NELFB     | RFXANK    | ROCK2     | CASP3     | FBN1      |
| ## | GSM875412 | 8.754267  | 5.367622  | 7.492717  | 7.888897  | 9.003610  | 8.011833  | 8.246515  |
| ## | GSM875413 | 7.965018  | 6.089688  | 7.839512  | 7.937336  | 9.228319  | 7.271638  | 7.931609  |
| ## | GSM875414 | 7.669277  | 5.959669  | 6.548693  | 8.388488  | 8.195129  | 8.511083  | 7.171947  |
| ## |           | ACP2      | FOSB      | HMGCL     | SFSWAP    | DNTTIP2   | SHOC2     | ZMYM2     |

|    |           |           |           |          |           |           |          |           |
|----|-----------|-----------|-----------|----------|-----------|-----------|----------|-----------|
| ## | GSM875412 | 8.045001  | 6.675633  | 8.488794 | 7.008887  | 9.509898  | 8.710433 | 9.353730  |
| ## | GSM875413 | 7.814331  | 8.574553  | 8.452494 | 7.066110  | 9.373606  | 8.456242 | 7.570511  |
| ## | GSM875414 | 8.124187  | 8.704782  | 8.229691 | 6.871512  | 8.647602  | 9.043715 | 8.277545  |
| ## |           | UBE2S     | OXCT1     | INPP5K   | NNT       | STK39     | MAPKAPK3 | PLCG1     |
| ## | GSM875412 | 7.971681  | 9.316645  | 6.485821 | 9.041716  | 9.742641  | 7.116852 | 7.344093  |
| ## | GSM875413 | 7.787628  | 8.605079  | 7.004084 | 8.606003  | 8.821537  | 6.090157 | 9.222678  |
| ## | GSM875414 | 8.380623  | 5.884852  | 6.955998 | 8.369926  | 7.941586  | 7.119666 | 6.730036  |
| ## |           | CLDN7     | LPCAT3    | INPP1    | SYNPO     | SACM1L    | SEC24B   | CLPP      |
| ## | GSM875412 | 10.180349 | 6.715852  | 9.371336 | 6.720425  | 9.446719  | 9.218934 | 7.872587  |
| ## | GSM875413 | 4.723652  | 5.868137  | 8.638211 | 7.053915  | 9.171720  | 8.756510 | 8.340491  |
| ## | GSM875414 | 9.658378  | 5.900525  | 9.850759 | 6.804016  | 8.540345  | 9.287705 | 8.158061  |
| ## |           | E2F1      | PRKACA    | DHPS     | ABCC1     | DBN1      | TOM1     | WBP1L     |
| ## | GSM875412 | 5.700044  | 6.223155  | 6.875466 | 9.123094  | 7.513642  | 6.328395 | 8.449474  |
| ## | GSM875413 | 5.692152  | 7.557975  | 7.001840 | 7.512913  | 9.331667  | 6.922165 | 9.850475  |
| ## | GSM875414 | 5.836494  | 6.161106  | 6.434467 | 8.239173  | 5.763918  | 6.038886 | 8.189651  |
| ## |           | INTS3     | DRG1      | STAMPB   | GAA       | TARBP1    | HEXIM1   | SS18      |
| ## | GSM875412 | 8.478898  | 9.220061  | 7.897660 | 6.511634  | 9.329718  | 8.059178 | 8.549745  |
| ## | GSM875413 | 8.801455  | 9.455491  | 7.546855 | 8.220390  | 7.991453  | 7.741644 | 9.302960  |
| ## | GSM875414 | 8.741841  | 9.557596  | 7.432128 | 6.735121  | 7.918553  | 8.889966 | 7.759012  |
| ## |           | AHR       | ELOC      | SLC25A4  | SPINT1    | VAMP7     | SLC37A4  | GPX2      |
| ## | GSM875412 | 9.803283  | 6.455448  | 7.582293 | 8.920339  | 8.699395  | 6.956752 | 10.549693 |
| ## | GSM875413 | 8.972024  | 7.546182  | 8.296374 | 5.712477  | 9.856036  | 6.581097 | 5.147616  |
| ## | GSM875414 | 10.084779 | 6.063888  | 7.440954 | 8.913009  | 8.967637  | 5.727928 | 11.387881 |
| ## |           | GCC2      | SERPINA1  | AGT      | TRAFFD1   | FUCA1     | NDUFB7   | TAF15     |
| ## | GSM875412 | 9.275172  | 8.879939  | 7.663858 | 6.342131  | 9.866912  | 8.438417 | 8.378989  |
| ## | GSM875413 | 8.076903  | 7.436006  | 6.036262 | 7.481104  | 8.215166  | 9.271989 | 7.506965  |
| ## | GSM875414 | 8.873888  | 8.617944  | 8.260455 | 6.306148  | 10.439381 | 7.830807 | 7.205436  |
| ## |           | OGFR      | RALBP1    | PIGC     | PCK2      | GRK6      | AAGAB    | RYK       |
| ## | GSM875412 | 6.791388  | 7.816375  | 8.162010 | 6.551749  | 6.670611  | 6.566175 | 8.779982  |
| ## | GSM875413 | 7.632448  | 7.667133  | 8.198753 | 5.440904  | 7.344269  | 6.507444 | 9.139614  |
| ## | GSM875414 | 7.073315  | 8.017845  | 7.177983 | 7.791093  | 6.783756  | 6.617210 | 7.589890  |
| ## |           | SLC16A3   | CXCL8     | DENND4B  | PER1      | FAH       | SP100    | DNAJB12   |
| ## | GSM875412 | 8.009993  | 8.515099  | 7.458142 | 7.270464  | 5.670917  | 8.506841 | 5.722096  |
| ## | GSM875413 | 5.310034  | 9.491933  | 7.695020 | 7.993831  | 7.152802  | 7.840514 | 5.745340  |
| ## | GSM875414 | 7.377216  | 10.668384 | 7.721528 | 7.119825  | 6.258506  | 7.197650 | 6.148289  |
| ## |           | POP4      | OAS1      | CDC20    | TRAF4     | ATP6V1C1  | PBX2     | CD93      |
| ## | GSM875412 | 9.061785  | 7.629876  | 8.430892 | 8.591275  | 7.273503  | 6.157161 | 6.524119  |
| ## | GSM875413 | 9.391866  | 7.646658  | 4.742572 | 5.526710  | 7.502634  | 6.727564 | 6.188917  |
| ## | GSM875414 | 10.151364 | 10.230278 | 7.457266 | 7.798175  | 7.048785  | 6.789916 | 6.622005  |
| ## |           | CYTH1     | NOL7      | PPP2R1B  | DDIT4     | ANPEP     | MAP7     | NIT1      |
| ## | GSM875412 | 6.923113  | 10.032775 | 8.819914 | 10.627010 | 6.560135  | 7.993251 | 8.428424  |
| ## | GSM875413 | 6.344472  | 9.769587  | 7.331576 | 7.903254  | 6.063156  | 5.388282 | 8.280578  |
| ## | GSM875414 | 7.203636  | 10.331006 | 7.698069 | 10.647272 | 9.161691  | 7.359025 | 8.882317  |
| ## |           | CDC23     | UNC13B    | EPHB4    | SIRPA     | SRSF3     | NUP88    | CTSS      |
| ## | GSM875412 | 7.165230  | 8.225341  | 7.748222 | 4.645671  | 10.603073 | 8.455196 | 8.129256  |
| ## | GSM875413 | 8.241994  | 8.376806  | 7.231175 | 5.130951  | 9.946724  | 8.555957 | 6.334639  |
| ## | GSM875414 | 6.380802  | 7.964284  | 7.870971 | 5.841780  | 10.542581 | 7.651751 | 7.056834  |
| ## |           | LSM5      | NBN       | ADGRE5   | MSH6      | ADM       | ARHGEF11 | FAM20B    |
| ## | GSM875412 | 5.317771  | 8.228732  | 8.272198 | 8.499795  | 10.444571 | 6.335150 | 8.839991  |
| ## | GSM875413 | 6.907624  | 9.254879  | 8.973441 | 8.502181  | 8.369468  | 6.978869 | 8.184755  |
| ## | GSM875414 | 5.216466  | 7.538721  | 7.941646 | 7.621270  | 8.262889  | 6.329057 | 7.778037  |
| ## |           | S100A8    | MOB4      | ANK2     | PLAGL2    | NBAS      | PIN1     | PHF1      |
| ## | GSM875412 | 6.641486  | 9.365041  | 5.662321 | 4.252916  | 7.889546  | 7.023633 | 5.528026  |
| ## | GSM875413 | 10.490253 | 8.994115  | 9.021491 | 5.097346  | 8.078485  | 7.557672 | 7.663439  |



|    |           |           |          |           |           |           |          |           |
|----|-----------|-----------|----------|-----------|-----------|-----------|----------|-----------|
| ## | GSM875414 | 8.689073  | 9.293472 | 3.986321  | 5.541582  | 7.645924  | 7.026554 | 5.975199  |
| ## |           | SUCLA2    | BIN1     | YES1      | HK2       | SOX9      | RRP7A    | ZMPSTE24  |
| ## | GSM875412 | 9.756830  | 7.874852 | 9.153707  | 9.039329  | 10.205693 | 6.507536 | 9.987891  |
| ## | GSM875413 | 8.476288  | 7.259117 | 8.155247  | 5.277206  | 3.835599  | 7.596828 | 9.447596  |
| ## | GSM875414 | 9.361087  | 7.781177 | 8.269984  | 8.256061  | 11.713106 | 6.287983 | 9.926730  |
| ## |           | NDUFV2    | ETFB     | FPGS      | BTBD3     | GYPC      | IL1R1    | FHL2      |
| ## | GSM875412 | 9.523276  | 8.363184 | 7.427282  | 7.841269  | 7.075423  | 9.146021 | 10.50288  |
| ## | GSM875413 | 10.691061 | 9.455544 | 6.851423  | 10.108809 | 10.607725 | 7.581379 | 13.05236  |
| ## | GSM875414 | 9.985494  | 7.939060 | 6.923072  | 7.726203  | 7.566727  | 8.358282 | 10.60197  |
| ## |           | CRYZ      | ADAM12   | C1QB      | UBE2C     | ARFGEF1   | HCLS1    | PTPN9     |
| ## | GSM875412 | 9.840763  | 4.105357 | 9.121529  | 8.751943  | 8.643342  | 8.364553 | 6.916057  |
| ## | GSM875413 | 4.659798  | 3.939066 | 9.382242  | 5.933704  | 8.640198  | 8.573083 | 7.618693  |
| ## | GSM875414 | 9.852710  | 3.902899 | 9.767039  | 9.438037  | 6.849101  | 8.152248 | 6.859639  |
| ## |           | MMUT      | KIF13B   | RFX5      | CAPN6     | GSTA4     | DYRK2    | MPP1      |
| ## | GSM875412 | 7.128047  | 7.338919 | 8.593286  | 4.875369  | 8.297683  | 7.250460 | 7.097446  |
| ## | GSM875413 | 7.691931  | 8.264488 | 8.424548  | 5.539790  | 9.839571  | 6.918541 | 8.540763  |
| ## | GSM875414 | 6.085755  | 8.212435 | 7.350737  | 8.522762  | 6.544809  | 8.105599 | 7.283180  |
| ## |           | RHOBTB3   | CREBZF   | SIAH1     | HLTF      | BAG5      | ARNT2    | TRAF3IP2  |
| ## | GSM875412 | 7.342697  | 5.932781 | 6.856735  | 8.999213  | 6.309712  | 5.089518 | 3.624637  |
| ## | GSM875413 | 8.887918  | 5.887346 | 6.046245  | 8.416890  | 5.381086  | 6.271152 | 3.586874  |
| ## | GSM875414 | 5.705130  | 6.530683 | 7.435043  | 9.113368  | 6.279825  | 4.962320 | 3.712668  |
| ## |           | RGS1      | PYGL     | STARD3    | C7        | ILVBL     | POLD4    | LOXL2     |
| ## | GSM875412 | 9.582654  | 7.034313 | 8.153919  | 6.724785  | 6.692374  | 8.526524 | 5.099543  |
| ## | GSM875413 | 7.198650  | 7.022418 | 6.443331  | 7.282683  | 7.533158  | 8.183583 | 6.655824  |
| ## | GSM875414 | 9.176089  | 6.654812 | 6.174653  | 4.984230  | 6.675966  | 9.945988 | 6.336291  |
| ## |           | STMN2     | AMOTL2   | MEF2D     | LYPLA1    | BCAM      | STAT5A   | IMPA1     |
| ## | GSM875412 | 4.213306  | 7.746333 | 6.022242  | 9.902342  | 5.277127  | 6.424230 | 10.086686 |
| ## | GSM875413 | 4.283652  | 7.124068 | 6.489981  | 8.811441  | 6.343879  | 6.831036 | 10.002470 |
| ## | GSM875414 | 4.159597  | 7.069397 | 5.760968  | 8.949606  | 6.241377  | 6.002466 | 8.960648  |
| ## |           | RPL23A    | ECD      | SGSM3     | SSX2IP    | SLPI      | RNASEH2A | NOP16     |
| ## | GSM875412 | 14.17877  | 7.376164 | 7.011101  | 6.356617  | 11.119142 | 7.215327 | 7.008624  |
| ## | GSM875413 | 13.43962  | 7.582538 | 6.916060  | 4.539076  | 7.075422  | 6.843197 | 6.714673  |
| ## | GSM875414 | 13.57094  | 8.596045 | 7.135553  | 5.758632  | 10.522634 | 7.614853 | 7.592308  |
| ## |           | C5orf15   | NAA10    | ZBTB5     | MVD       | CYBA      | FH       | RPL27A    |
| ## | GSM875412 | 8.990284  | 6.849616 | 7.820623  | 6.072586  | 10.961282 | 6.913980 | 13.62201  |
| ## | GSM875413 | 9.006579  | 8.034281 | 7.368469  | 5.801748  | 8.751442  | 5.667141 | 13.41747  |
| ## | GSM875414 | 8.757780  | 7.710915 | 7.601442  | 6.358490  | 9.666715  | 6.295110 | 13.51037  |
| ## |           | PIAS3     | MTSS1    | PTPRK     | NDUFS1    | HMBS      | CHSY1    | NINJ1     |
| ## | GSM875412 | 6.741948  | 5.302029 | 10.521252 | 9.338723  | 8.153783  | 9.254352 | 7.212136  |
| ## | GSM875413 | 7.744540  | 5.545500 | 9.441254  | 8.318169  | 7.133198  | 8.596162 | 7.635921  |
| ## | GSM875414 | 7.994977  | 5.975919 | 10.510915 | 8.715248  | 7.243310  | 7.724905 | 7.690712  |
| ## |           | TIMELESS  | STK10    | BAHD1     | BCAS2     | TCTA      | PRDM2    | PAPSS2    |
| ## | GSM875412 | 6.725366  | 6.974361 | 5.884184  | 8.971748  | 7.134341  | 6.210477 | 8.252521  |
| ## | GSM875413 | 6.458883  | 6.665701 | 7.182501  | 8.887696  | 8.752983  | 6.074434 | 6.985237  |
| ## | GSM875414 | 7.226808  | 6.839058 | 5.959842  | 9.622520  | 6.943935  | 7.245498 | 6.419771  |
| ## |           | MDC1      | FOXK2    | CAV1      | CHST15    | PDHX      | KLHL21   | SV2A      |
| ## | GSM875412 | 6.102327  | 7.319922 | 7.681988  | 7.123176  | 8.407249  | 6.907854 | 5.573611  |
| ## | GSM875413 | 6.581051  | 7.086712 | 8.272443  | 8.278043  | 7.994759  | 6.601207 | 9.285832  |
| ## | GSM875414 | 6.276992  | 7.875363 | 7.078478  | 7.444144  | 8.463770  | 5.717526 | 6.050314  |
| ## |           | SEMA3B    | MYO1E    | COG2      | SMAD2     | CUL2      | BAZ2B    | CTNNBIP1  |
| ## | GSM875412 | 3.829677  | 7.404477 | 8.402809  | 7.935164  | 5.171197  | 8.553297 | 7.431606  |
| ## | GSM875413 | 4.208581  | 4.411391 | 7.849476  | 9.040826  | 5.709403  | 8.956580 | 7.515257  |
| ## | GSM875414 | 4.820473  | 7.641155 | 7.517508  | 7.708063  | 3.903693  | 6.894081 | 7.222324  |
| ## |           | BMS1      | THBS2    | TGFB1     | KIF2A     | FBLN5     | HTRA2    | SDF2      |

|    |           |          |          |           |          |           |           |           |
|----|-----------|----------|----------|-----------|----------|-----------|-----------|-----------|
| ## | GSM875412 | 9.131538 | 9.952064 | 5.324134  | 5.280603 | 7.471772  | 7.324133  | 8.765257  |
| ## | GSM875413 | 8.488891 | 9.571239 | 5.867084  | 5.961618 | 10.243637 | 8.287319  | 7.696060  |
| ## | GSM875414 | 8.337274 | 8.459918 | 5.775446  | 4.696219 | 7.193942  | 7.145130  | 7.410008  |
| ## | FUBP1     | TIMM44   | MAD2L1BP | MTIF2     | RAPGEF2  | CDYL      | MGAT2     |           |
| ## | GSM875412 | 8.342884 | 6.743950 | 8.456328  | 8.742488 | 6.533026  | 8.879264  | 5.340305  |
| ## | GSM875413 | 7.969213 | 7.282600 | 7.453033  | 8.191744 | 6.016206  | 8.465075  | 4.831607  |
| ## | GSM875414 | 8.882321 | 6.157948 | 7.926819  | 8.253757 | 7.703204  | 7.868246  | 5.690291  |
| ## | PRPF19    | CSF1R    | DNM1L    | VPS41     | RPS2     | GPRC5A    | UBE2M     |           |
| ## | GSM875412 | 9.032259 | 7.972197 | 8.184810  | 3.993056 | 13.48166  | 11.324094 | 8.003913  |
| ## | GSM875413 | 8.229527 | 8.627823 | 8.108715  | 4.177153 | 12.60746  | 5.192504  | 8.866319  |
| ## | GSM875414 | 8.221596 | 8.047171 | 7.093512  | 3.511240 | 13.51183  | 10.783652 | 8.701128  |
| ## | PTK2B     | NELFA    | EEF1D    | ZNRD2     | FECH     | PAN2      | PCSK7     |           |
| ## | GSM875412 | 5.393042 | 6.367004 | 10.86535  | 6.791176 | 5.303362  | 6.423051  | 8.476213  |
| ## | GSM875413 | 6.286494 | 6.161536 | 12.13514  | 7.291845 | 7.368290  | 8.465088  | 7.426928  |
| ## | GSM875414 | 6.017034 | 6.470048 | 11.05731  | 7.801503 | 4.676510  | 6.682213  | 7.806858  |
| ## | CCDC86    | TP53BP2  | SLC11A2  | IMPA2     | SPTLC2   | RB1       | SEC61B    |           |
| ## | GSM875412 | 7.304246 | 8.519326 | 8.260514  | 8.553390 | 7.507645  | 9.548872  | 10.85017  |
| ## | GSM875413 | 7.021308 | 8.881204 | 7.394447  | 6.283249 | 6.583169  | 8.264488  | 10.83748  |
| ## | GSM875414 | 6.483997 | 7.796444 | 7.890149  | 9.070780 | 7.835001  | 9.270103  | 11.53780  |
| ## | PICALM    | TBP      | RABAC1   | HAT1      | DAPK1    | BCL6      | AP3B1     |           |
| ## | GSM875412 | 7.265342 | 7.534107 | 9.428716  | 9.344761 | 10.177723 | 8.875319  | 7.271347  |
| ## | GSM875413 | 6.791892 | 7.504434 | 10.362433 | 8.676984 | 7.775195  | 8.618672  | 6.696127  |
| ## | GSM875414 | 7.263262 | 7.573380 | 10.717611 | 9.332360 | 8.949779  | 7.836375  | 6.642236  |
| ## | KIAA0040  | SPAG5    | GABBR1   | TRIM14    | NECTIN2  | MAP1A     | MRPL40    |           |
| ## | GSM875412 | 7.727379 | 9.039997 | 5.782517  | 7.074945 | 7.390184  | 5.571489  | 7.388911  |
| ## | GSM875413 | 8.245043 | 6.110760 | 8.140421  | 6.074206 | 7.193115  | 8.742469  | 8.444306  |
| ## | GSM875414 | 5.833345 | 7.252556 | 6.245844  | 6.477769 | 8.115022  | 6.046076  | 8.028099  |
| ## | IFIT1     | PAK4     | SETDB1   | AKAP11    | GLS      | RNF8      | KATNB1    |           |
| ## | GSM875412 | 7.167133 | 7.622137 | 7.142260  | 9.165502 | 6.735561  | 7.675770  | 6.421930  |
| ## | GSM875413 | 8.909500 | 7.942326 | 7.151680  | 9.291797 | 9.083467  | 7.508774  | 6.687084  |
| ## | GSM875414 | 5.965088 | 8.952866 | 7.231348  | 8.397973 | 6.017034  | 7.728715  | 7.469805  |
| ## | CFDP1     | TIMP2    | RGP1     | FXR2      | ARFRP1   | RHOG      | TFAM      |           |
| ## | GSM875412 | 8.264675 | 7.840744 | 7.314155  | 7.006240 | 6.759199  | 7.786924  | 7.396739  |
| ## | GSM875413 | 9.052123 | 7.284105 | 7.286959  | 7.179773 | 8.227235  | 7.958973  | 6.285540  |
| ## | GSM875414 | 8.203104 | 7.766058 | 6.592283  | 6.677623 | 6.832660  | 7.570972  | 6.698260  |
| ## | GALT      | ALDH1A3  | SMARCD1  | RASSF2    | S100A4   | DOCK1     | B4GAT1    |           |
| ## | GSM875412 | 6.773162 | 9.456229 | 4.834712  | 6.829068 | 11.274782 | 7.180230  | 7.399790  |
| ## | GSM875413 | 7.911129 | 6.411678 | 5.321474  | 9.582503 | 8.536363  | 7.799319  | 9.409929  |
| ## | GSM875414 | 7.897325 | 7.966739 | 5.381325  | 6.039915 | 10.501615 | 7.118312  | 9.479028  |
| ## | NDUFS8    | ABCB6    | NUP98    | CZIB      | CDK9     | MTRR      | PMM2      |           |
| ## | GSM875412 | 8.358347 | 4.802905 | 7.990110  | 8.226544 | 7.113216  | 7.391002  | 7.704398  |
| ## | GSM875413 | 8.528598 | 5.419146 | 7.075070  | 9.633945 | 7.828196  | 7.227567  | 6.185413  |
| ## | GSM875414 | 8.856907 | 5.302099 | 7.558283  | 8.409446 | 7.045402  | 7.448844  | 8.484217  |
| ## | KRR1      | KDM4A    | MTFR1    | RFC5      | MTMR2    | CDK1      | MYO6      |           |
| ## | GSM875412 | 7.594786 | 6.893374 | 7.380211  | 7.561330 | 8.310620  | 8.888920  | 9.610291  |
| ## | GSM875413 | 8.784310 | 6.180136 | 7.076407  | 8.121570 | 8.313103  | 6.311734  | 8.262520  |
| ## | GSM875414 | 8.116327 | 6.559921 | 7.020920  | 6.672001 | 8.330786  | 8.023737  | 9.155958  |
| ## | ST3GAL5   | MAPK9    | APRT     | TLE1      | RABEP1   | RFK       | TSPAN31   |           |
| ## | GSM875412 | 5.931580 | 8.643414 | 7.894965  | 6.019279 | 4.267647  | 9.985713  | 7.585277  |
| ## | GSM875413 | 8.447008 | 8.537219 | 7.191597  | 5.265057 | 4.912899  | 9.985989  | 9.485016  |
| ## | GSM875414 | 5.863569 | 7.983785 | 8.400419  | 5.784511 | 4.245253  | 8.746589  | 8.203816  |
| ## | PAFAH1B3  | CLK2     | DVL1     | IL4R      | UPP1     | THOP1     | LGALS9    |           |
| ## | GSM875412 | 7.161139 | 8.219082 | 8.062230  | 8.262763 | 7.550547  | 6.516492  | 10.923519 |
| ## | GSM875413 | 7.098133 | 8.161417 | 7.099298  | 6.876090 | 6.640630  | 6.282133  | 7.106587  |

|    |           |          |           |           |           |           |          |           |
|----|-----------|----------|-----------|-----------|-----------|-----------|----------|-----------|
| ## | GSM875414 | 7.910295 | 8.795864  | 7.672234  | 8.638677  | 6.444616  | 5.907443 | 7.387128  |
| ## |           | NOTCH3   | CNOT3     | FCGBP     | UVRA3     | PDLIM5    | PEX5     | BRD30S    |
| ## | GSM875412 | 4.872042 | 5.430279  | 6.418794  | 7.338443  | 8.105130  | 7.645065 | 5.128823  |
| ## | GSM875413 | 5.328503 | 5.824865  | 7.166443  | 7.400226  | 5.487313  | 9.661174 | 7.760244  |
| ## | GSM875414 | 5.428418 | 6.496232  | 11.253563 | 7.149921  | 8.923976  | 7.598896 | 4.885166  |
| ## |           | NPRL2    | EZH1      | SCAF8     | CDK2AP2   | PPIP5K2   | TLN1     | FBX011    |
| ## | GSM875412 | 8.149783 | 7.280861  | 8.903142  | 7.356284  | 7.570941  | 6.007515 | 8.220931  |
| ## | GSM875413 | 8.212677 | 8.193737  | 8.583976  | 7.362508  | 8.626791  | 7.545111 | 8.943716  |
| ## | GSM875414 | 8.688609 | 7.218430  | 8.243016  | 8.745986  | 7.570346  | 7.381327 | 6.355773  |
| ## |           | CDH3     | CSTPP1    | DRAP1     | HDCC2     | DCTN6     | FAM50A   | ARHGEF9   |
| ## | GSM875412 | 6.367997 | 8.295933  | 7.520101  | 8.779216  | 8.725044  | 7.705244 | 4.604530  |
| ## | GSM875413 | 5.667961 | 7.793544  | 8.697414  | 9.598753  | 10.269096 | 9.574119 | 7.493280  |
| ## | GSM875414 | 7.528714 | 7.027356  | 8.220153  | 9.276493  | 8.690890  | 8.345290 | 4.395788  |
| ## |           | MAP2K4   | DRG2      | UNC119    | TUSC2     | IRF2      | LMNB1    | DFFA      |
| ## | GSM875412 | 7.028577 | 6.892155  | 8.082855  | 8.233701  | 6.671782  | 7.750217 | 7.567278  |
| ## | GSM875413 | 5.941707 | 6.943505  | 7.353429  | 8.358938  | 7.163825  | 5.230816 | 7.626816  |
| ## | GSM875414 | 5.068244 | 6.968405  | 7.374893  | 8.543467  | 6.835960  | 6.351840 | 7.911749  |
| ## |           | EDEM1    | SAFB2     | GBE1      | HS2ST1    | RNF44     | LAD1     | GARRE1    |
| ## | GSM875412 | 8.306767 | 6.267091  | 8.515141  | 6.893965  | 7.575632  | 7.955431 | 7.316801  |
| ## | GSM875413 | 7.606814 | 7.373337  | 8.657857  | 5.148446  | 7.848480  | 5.172903 | 7.376110  |
| ## | GSM875414 | 7.169892 | 6.318829  | 8.155931  | 6.028097  | 7.378379  | 8.225205 | 7.312098  |
| ## |           | NPRL3    | HLA-DQA1  | CNOT4     | VPS11     | LMAN1     | ATP1A2   | JARID2    |
| ## | GSM875412 | 5.775561 | 9.819923  | 6.536104  | 7.321672  | 7.255270  | 4.102012 | 8.038425  |
| ## | GSM875413 | 6.067590 | 5.129381  | 8.253325  | 7.529758  | 6.331477  | 4.394199 | 7.297499  |
| ## | GSM875414 | 6.148486 | 5.460100  | 7.031565  | 6.985739  | 6.429894  | 4.278096 | 7.471460  |
| ## |           | AP1S2    | DMTF1     | DCK       | DYNLT3    | BAMBI     | F13A1    | SLC35A1   |
| ## | GSM875412 | 6.172448 | 8.780126  | 7.616424  | 9.685900  | 6.576752  | 6.153570 | 9.397494  |
| ## | GSM875413 | 6.835902 | 9.711853  | 7.583983  | 11.585880 | 7.857662  | 7.682664 | 9.194214  |
| ## | GSM875414 | 5.920092 | 7.897325  | 8.400679  | 9.583348  | 9.345486  | 7.039154 | 10.217291 |
| ## |           | GNL1     | HPS1      | ARF6      | TGIF1     | GTPBP6    | NCK2     | SNRPE     |
| ## | GSM875412 | 6.787450 | 6.816117  | 8.659279  | 9.401422  | 7.087071  | 8.721656 | 10.86449  |
| ## | GSM875413 | 7.145253 | 6.995634  | 7.520441  | 7.976432  | 7.781658  | 8.679962 | 10.70683  |
| ## | GSM875414 | 6.973307 | 6.664059  | 9.237475  | 9.377021  | 7.198587  | 9.016438 | 10.89230  |
| ## |           | PSD4     | ZNF148    | SH2B3     | ADNP2     | CAV2      | COL5A1   | IDE       |
| ## | GSM875412 | 7.120193 | 9.239713  | 6.908516  | 7.874516  | 8.378735  | 8.457599 | 8.576185  |
| ## | GSM875413 | 5.709733 | 9.185213  | 7.765631  | 8.234616  | 9.694045  | 8.799730 | 7.683755  |
| ## | GSM875414 | 6.475079 | 8.338213  | 6.043556  | 8.040829  | 7.641600  | 7.632915 | 7.411879  |
| ## |           | STX5     | KIFAP3    | DHX8      | PHYH      | ITGB1BP1  | PPP2R5E  | SLC25A12  |
| ## | GSM875412 | 6.222770 | 7.391716  | 7.324747  | 8.895724  | 8.244400  | 8.611682 | 6.298063  |
| ## | GSM875413 | 6.236594 | 8.381399  | 6.510313  | 8.658265  | 8.861190  | 8.775568 | 7.625028  |
| ## | GSM875414 | 6.311823 | 7.179845  | 7.423933  | 9.985860  | 8.907199  | 8.546589 | 5.548757  |
| ## |           | CEBPZ    | UGDH      | RBBP8     | MTF2      | ETV5      | AP1G1    | ORC4      |
| ## | GSM875412 | 8.878215 | 8.085879  | 8.991419  | 9.166240  | 6.837597  | 7.464352 | 9.355090  |
| ## | GSM875413 | 8.671134 | 7.579943  | 8.600917  | 7.810955  | 8.518099  | 5.759948 | 8.121657  |
| ## | GSM875414 | 7.271477 | 8.367285  | 7.844948  | 8.346452  | 6.066466  | 7.979408 | 8.617268  |
| ## |           | PSD3     | CAPN7     | EZH2      | ATG13     | MMP15     | POLG     | DUSP14    |
| ## | GSM875412 | 6.932432 | 8.050361  | 7.465346  | 7.795384  | 6.927654  | 6.933707 | 6.499271  |
| ## | GSM875413 | 5.054518 | 8.056031  | 5.794659  | 7.981488  | 6.656692  | 6.641338 | 7.637802  |
| ## | GSM875414 | 4.705128 | 6.889574  | 7.154660  | 8.050454  | 8.043742  | 6.630514 | 5.771835  |
| ## |           | CRELD1   | NDUFB3    | SOCS2     | CDC40     | PCF11     | RPS6KA1  | SRSF5     |
| ## | GSM875412 | 6.319433 | 10.107504 | 4.682350  | 8.588343  | 7.207839  | 8.108931 | 9.372014  |
| ## | GSM875413 | 7.272571 | 9.811868  | 5.065952  | 8.291517  | 7.993831  | 6.223062 | 10.291392 |
| ## | GSM875414 | 5.922576 | 10.006231 | 5.041977  | 7.985910  | 7.743042  | 6.148355 | 9.436505  |
| ## |           | APOE     | GOLGA1    | DGKA      | TBC1D4    | ARRB2     | KIF3C    | FKBP2     |

```

## GSM875412 9.775259 7.305160 7.648933 8.083741 6.697257 4.991269 9.061554
## GSM875413 9.156476 6.877922 7.016822 7.190223 6.697633 5.608666 9.015313
## GSM875414 9.560192 6.444876 7.812136 7.305617 7.586881 5.043309 8.407173
##          HES1      PSMA4      GALNT3      PSG3      TF      PRPS2      KCNAB2
## GSM875412 3.714151 10.322340 10.960035 3.431936 3.640672 7.430923 6.527639
## GSM875413 4.063181 9.740091 3.761557 3.468458 3.803743 7.484237 6.480942
## GSM875414 4.203469 10.069656 11.541372 3.509507 4.060101 7.564483 6.516158
##          RNF6      ARMCX2      PSMG1      MFAP1      PPL      SATB1      DDB2
## GSM875412 10.091088 6.724785 8.577525 8.321109 9.825825 8.176928 6.823699
## GSM875413 8.263411 10.282901 7.861839 8.925103 5.614817 9.605780 7.843786
## GSM875414 9.622441 5.671151 8.100629 7.983785 8.129966 7.168158 7.768424
##          LZTR1      NELL2      MMD      PDCD6      CD53      MFAP2      CCNA2
## GSM875412 7.183278 5.624890 7.768620 10.322992 8.989972 7.719374 6.294574
## GSM875413 7.633722 5.397699 8.495128 10.541342 8.680361 10.249021 4.038694
## GSM875414 6.976352 5.459044 9.237254 9.564323 8.837906 7.215433 7.131904
##          KMT2B      FAM8A1      TP53I11      POLD1      RBP1      ASF1A      SUCO
## GSM875412 6.878610 8.500503 6.911210 6.197045 7.086179 7.394045 8.297063
## GSM875413 7.727055 9.471295 7.999334 6.543671 9.836342 7.707308 8.508272
## GSM875414 7.358898 9.665272 7.469368 7.163081 6.878463 8.729976 8.166752
##          HEBP2      ARHGAP32      TMPO      MME      TMEM11      STC2      CDH2
## GSM875412 10.44863 6.992558 7.680682 3.795525 7.238642 4.809109 4.066325
## GSM875413 10.09745 4.631581 8.173018 3.367596 7.302705 4.773083 8.551053
## GSM875414 10.32648 5.704667 9.474598 3.631455 8.563149 5.004593 4.094366
##          EML3      MTA2      CTDSP2      OCRL      PSMD5      TERF1      LDB1
## GSM875412 6.751080 4.404874 8.807077 6.445030 8.239337 7.552932 6.668174
## GSM875413 7.603262 5.210851 10.401495 8.356783 7.355227 8.194412 7.093605
## GSM875414 6.633498 5.381399 8.453779 6.282946 9.014068 7.430668 6.635581
##          B3GAT3      SCNN1A      ATOX1      SAT1      PRAF2      STX7      SPR
## GSM875412 6.430147 9.487147 8.279474 12.09596 6.305738 5.806439 8.651360
## GSM875413 7.959362 5.728080 9.655646 10.55374 9.123928 5.019614 7.899607
## GSM875414 6.445984 8.432457 8.463066 11.65542 6.924264 5.399213 7.729562
##          VPS16      EIF3B      EPN2      MRPL19      MPV17      PMM1      CDK10
## GSM875412 7.396153 9.926894 5.987874 8.466229 7.403941 6.408403 6.642414
## GSM875413 8.622534 10.537209 6.196981 7.489426 7.633511 7.511855 5.790995
## GSM875414 7.384884 9.304433 7.350954 7.794101 7.323414 7.420226 6.983789
##          PLEK      SLC02B1      IQGAP2      TPBG      COL15A1      NDUFC1      OTUD4
## GSM875412 7.471765 5.876299 7.939978 9.938769 8.617860 10.07675 5.845238
## GSM875413 7.089403 4.971072 9.526420 10.837078 6.192403 10.96638 5.476455
## GSM875414 7.107934 6.361500 8.440044 8.077730 9.094627 11.02055 5.457351
##          SEC61G      RTN1      ADGRL1      SIVA1      ELF4      CEP57      LRRC14
## GSM875412 10.17274 4.870084 5.469078 7.125664 6.314312 7.289361 5.741171
## GSM875413 11.09241 8.001208 7.131285 8.684174 6.187638 5.929653 6.829116
## GSM875414 10.94512 4.217783 5.756444 8.365427 7.026753 6.834216 6.037583
##          MED1      RCAN2      EPHA2      GCDH      CPQ      BPGM      MED12
## GSM875412 9.160205 7.888200 8.838496 6.525122 7.147061 6.423326 6.327434
## GSM875413 5.563733 10.184725 4.789082 7.351056 9.439759 8.375900 7.422749
## GSM875414 5.726000 6.744092 9.294264 7.582929 5.569348 5.452594 6.766207
##          CD68      TNFRSF1B      SORL1      MET      TRAPPC3      MAP3K3      PMVK
## GSM875412 5.378566 7.845476 9.525864 10.145907 9.137259 5.500897 7.563604
## GSM875413 5.341962 7.620047 8.881899 4.407708 8.626070 5.972934 7.932127
## GSM875414 5.590099 6.989621 9.711795 8.348955 9.039344 5.746196 7.740785
##          SNTA1      MTX2      UPF2      ZNF318      CCS      LSP1      MPST
## GSM875412 6.376564 8.495794 8.493759 6.223145 7.114072 6.646439 7.758134
## GSM875413 7.110261 7.960457 7.802335 5.272787 7.540561 7.157207 7.439369

```

|    |           |          |           |           |          |          |           |          |
|----|-----------|----------|-----------|-----------|----------|----------|-----------|----------|
| ## | GSM875414 | 6.293451 | 8.601286  | 7.960457  | 6.394762 | 7.933265 | 7.550927  | 8.455788 |
| ## |           | APC      | SEMA4D    | PPP6C     | STX4     | CUL5     | LSM1      | S100A9   |
| ## | GSM875412 | 7.402547 | 7.955272  | 9.984939  | 8.629850 | 9.082473 | 8.610461  | 6.758516 |
| ## | GSM875413 | 8.146264 | 6.132460  | 9.120255  | 8.199953 | 9.744382 | 10.404425 | 8.444499 |
| ## | GSM875414 | 6.748685 | 6.059422  | 9.359643  | 8.330667 | 9.099975 | 9.155356  | 7.813753 |
| ## |           | CIAO1    | PRPSAP2   | CAMLG     | GFAP     | KLF9     | STAM      | ALG8     |
| ## | GSM875412 | 7.867226 | 7.367571  | 8.822984  | 4.553159 | 4.509705 | 8.550803  | 8.443591 |
| ## | GSM875413 | 7.460975 | 7.478176  | 10.528826 | 4.617225 | 4.818801 | 6.796261  | 8.721461 |
| ## | GSM875414 | 8.315143 | 8.029146  | 8.855197  | 4.763765 | 4.740328 | 8.180040  | 8.490354 |
| ## |           | IP013    | CD4       | LPL       | COX11    | MAP4K5   | PTTG1     | PCBD1    |
| ## | GSM875412 | 6.486494 | 7.047777  | 7.067299  | 6.738220 | 7.656406 | 9.128998  | 8.281979 |
| ## | GSM875413 | 7.047941 | 7.394646  | 4.168254  | 7.309085 | 7.125046 | 8.121409  | 8.743728 |
| ## | GSM875414 | 6.664719 | 7.604398  | 5.913584  | 6.786452 | 6.905263 | 8.906352  | 9.161906 |
| ## |           | CUL7     | AOC1      | GGH       | FEZ1     | AFAP1    | FANCG     | MNAT1    |
| ## | GSM875412 | 6.204962 | 10.884814 | 8.316694  | 5.969963 | 3.779596 | 6.864725  | 6.834304 |
| ## | GSM875413 | 6.606255 | 4.270625  | 8.152847  | 8.210632 | 3.423133 | 6.720194  | 7.156108 |
| ## | GSM875414 | 6.953933 | 5.622505  | 6.598992  | 5.789360 | 3.617878 | 7.857732  | 5.316728 |
| ## |           | AGL      | TRIM38    | OFD1      | LOXL1    | ADIRF    | TAF6      | RABGGTA  |
| ## | GSM875412 | 8.916078 | 8.433969  | 8.304528  | 7.796542 | 8.515547 | 7.739892  | 5.946997 |
| ## | GSM875413 | 8.003800 | 8.164917  | 8.764099  | 6.748222 | 7.108723 | 8.913602  | 6.751830 |
| ## | GSM875414 | 8.015617 | 5.986795  | 8.459966  | 7.389692 | 9.983650 | 7.603726  | 7.033058 |
| ## |           | NFIL3    | CSNK2A2   | BCAT2     | GTF2H4   | SLC7A6   | RAB4A     | UNC50    |
| ## | GSM875412 | 8.319569 | 6.593082  | 6.604296  | 6.675218 | 4.985488 | 8.288996  | 8.657805 |
| ## | GSM875413 | 7.389673 | 7.538953  | 6.861334  | 6.015547 | 4.159040 | 7.734117  | 8.658196 |
| ## | GSM875414 | 8.104019 | 7.409812  | 8.223087  | 6.921452 | 4.957651 | 8.701481  | 8.077009 |
| ## |           | EMC2     | ZNF185    | ARL4D     | TFDP2    | DYNC1LI2 | FSTL3     | CD2AP    |
| ## | GSM875412 | 9.380185 | 7.533699  | 5.641907  | 8.060190 | 9.736800 | 7.417550  | 9.353594 |
| ## | GSM875413 | 9.644521 | 6.526577  | 5.342909  | 7.575632 | 9.674423 | 6.594875  | 7.077209 |
| ## | GSM875414 | 9.045241 | 6.620551  | 5.420664  | 7.127178 | 9.986741 | 8.086150  | 9.859125 |
| ## |           | RTCA     | IFIT5     | WBP4      | FAM193A  | ZBTB17   | ZEB2      | ZNF516   |
| ## | GSM875412 | 9.119020 | 7.639130  | 6.690590  | 6.532447 | 6.019407 | 5.761112  | 5.407798 |
| ## | GSM875413 | 7.499226 | 8.030493  | 6.044541  | 7.495894 | 6.986219 | 4.200336  | 7.764842 |
| ## | GSM875414 | 9.178288 | 6.446065  | 5.911922  | 7.464891 | 7.623411 | 4.718607  | 5.698755 |
| ## |           | SRP54    | NDUFS6    | INPP5F    | ALDH5A1  | BYSL     | UTP14C    | SULT1A1  |
| ## | GSM875412 | 9.688754 | 10.96390  | 7.244314  | 6.704687 | 7.253840 | 9.100133  | 8.927428 |
| ## | GSM875413 | 8.966462 | 11.48991  | 8.795400  | 6.408427 | 6.401661 | 8.332334  | 6.830580 |
| ## | GSM875414 | 9.295320 | 10.74830  | 8.680311  | 7.565371 | 7.785916 | 8.578455  | 9.278934 |
| ## |           | POLB     | ELK1      | FAIM2     | NDUFB5   | PN01     | AKAP17A   | SKP2     |
| ## | GSM875412 | 9.692840 | 7.982941  | 5.334114  | 10.39293 | 9.310273 | 8.501929  | 9.542711 |
| ## | GSM875413 | 8.815771 | 8.761439  | 6.202727  | 10.04510 | 7.845156 | 7.718264  | 7.261956 |
| ## | GSM875414 | 8.440831 | 7.711377  | 5.839222  | 10.52876 | 8.244769 | 8.656627  | 8.166836 |
| ## |           | IGF1R    | COG5      | GPRC5B    | CPT1A    | VPS26C   | MID1      | FGFR2    |
| ## | GSM875412 | 8.083800 | 7.892659  | 5.162925  | 9.102584 | 7.787121 | 7.817537  | 7.063500 |
| ## | GSM875413 | 5.421578 | 8.261132  | 4.791460  | 7.216650 | 7.843570 | 5.479282  | 6.624280 |
| ## | GSM875414 | 5.229220 | 6.325931  | 6.788184  | 9.349221 | 8.295718 | 5.439393  | 8.496199 |
| ## |           | COBLL1   | ERF       | MON1B     | CD163    | FDX1     | PLA2G2A   | PROCR    |
| ## | GSM875412 | 6.269630 | 6.851236  | 6.513132  | 8.534900 | 8.560999 | 8.751723  | 6.946985 |
| ## | GSM875413 | 4.637521 | 7.492131  | 6.545805  | 8.224599 | 7.274533 | 5.349795  | 8.070251 |
| ## | GSM875414 | 8.022270 | 7.273886  | 6.387973  | 8.769357 | 7.652379 | 5.725151  | 7.830026 |
| ## |           | COIL     | XRCC1     | FIG4      | CTSF     | SLC25A20 | PCNT      | TMOD1    |
| ## | GSM875412 | 6.578948 | 6.972783  | 7.939760  | 7.084613 | 7.782509 | 7.062008  | 5.847134 |
| ## | GSM875413 | 5.804048 | 7.127625  | 7.850177  | 9.354688 | 6.803862 | 7.571215  | 8.461883 |
| ## | GSM875414 | 7.352753 | 6.843264  | 7.520501  | 7.227479 | 7.671393 | 6.966158  | 5.685274 |
| ## |           | COX5A    | POLR2D    | HMOX1     | CXCL12   | TBCA     | MAN2C1    | DGAT1    |

|    |           |          |           |           |          |          |          |          |
|----|-----------|----------|-----------|-----------|----------|----------|----------|----------|
| ## | GSM875412 | 11.08496 | 6.980797  | 7.836830  | 6.269788 | 10.84592 | 7.055232 | 8.113086 |
| ## | GSM875413 | 10.09329 | 6.477487  | 8.263844  | 7.176269 | 11.74654 | 8.291250 | 7.749596 |
| ## | GSM875414 | 10.40732 | 7.046721  | 7.616011  | 7.075490 | 10.34365 | 6.409416 | 8.029052 |
| ## |           | TPMT     | TG        | HELZ      | NUCB2    | GNS      | TARBP2   | FAN1     |
| ## | GSM875412 | 7.638208 | 4.819791  | 7.251518  | 7.861669 | 7.838760 | 7.034142 | 6.172114 |
| ## | GSM875413 | 6.304549 | 4.929413  | 7.693610  | 9.051231 | 7.150851 | 7.630730 | 6.803408 |
| ## | GSM875414 | 6.641339 | 5.913170  | 8.225953  | 9.932103 | 7.805365 | 7.353648 | 5.956888 |
| ## |           | TMED1    | PRKAR2B   | IVD       | VEGFB    | BCL2     | MPG      | CX3CL1   |
| ## | GSM875412 | 6.519354 | 6.244097  | 3.609436  | 5.872208 | 3.948977 | 7.685978 | 5.227244 |
| ## | GSM875413 | 7.227972 | 11.922224 | 3.945735  | 6.871714 | 5.019114 | 7.363430 | 6.417634 |
| ## | GSM875414 | 6.707591 | 5.960913  | 3.944230  | 5.753918 | 4.202363 | 8.137194 | 5.110355 |
| ## |           | PKD2     | FMR1      | PI3       | E2F3     | DHX16    | GSDME    | FRZB     |
| ## | GSM875412 | 7.720926 | 8.434021  | 11.410067 | 7.376254 | 8.565757 | 7.988987 | 7.726622 |
| ## | GSM875413 | 8.622142 | 9.150632  | 5.584150  | 7.334879 | 8.172915 | 9.598335 | 7.305711 |
| ## | GSM875414 | 7.003735 | 8.369026  | 9.521882  | 7.110255 | 8.727347 | 5.801802 | 8.914285 |
| ## |           | DIO2     | TRMT1     | RREB1     | FZD7     | ZNF263   | PDE4B    | ITPR1    |
| ## | GSM875412 | 6.850593 | 7.275296  | 9.676692  | 6.159302 | 7.543913 | 6.582795 | 6.409973 |
| ## | GSM875413 | 3.904185 | 7.153080  | 8.008228  | 6.721392 | 7.851368 | 6.128262 | 7.682630 |
| ## | GSM875414 | 5.363893 | 7.048215  | 8.974266  | 4.942898 | 8.323511 | 6.695465 | 5.337235 |
| ## |           | HIBCH    | TBCE      | DPP4      | PNPLA6   | ERCC1    | UTP18    | ALDH4A1  |
| ## | GSM875412 | 7.783755 | 8.679980  | 8.291486  | 7.089745 | 6.867872 | 9.429050 | 5.604187 |
| ## | GSM875413 | 6.811362 | 7.166845  | 5.311580  | 8.282352 | 7.656641 | 8.389568 | 6.276156 |
| ## | GSM875414 | 6.687152 | 7.789515  | 6.990164  | 7.171112 | 6.764053 | 9.713673 | 6.400530 |
| ## |           | RUFY3    | GADD45A   | SKIC2     | BAK1     | EMP3     | ZKSCAN5  | TRIP4    |
| ## | GSM875412 | 4.492039 | 8.891303  | 7.469251  | 7.210466 | 7.985670 | 5.289238 | 8.222656 |
| ## | GSM875413 | 4.075100 | 8.564276  | 8.091609  | 6.009600 | 9.759269 | 6.337527 | 7.855410 |
| ## | GSM875414 | 3.612273 | 8.954312  | 7.702718  | 6.727807 | 8.061237 | 5.119109 | 8.420986 |
| ## |           | DEXI     | PPRC1     | ZNF217    | TDG      | HMGB3    | HCCS     | AQP3     |
| ## | GSM875412 | 6.687284 | 6.865713  | 8.431200  | 7.252447 | 7.371859 | 7.461954 | 5.815512 |
| ## | GSM875413 | 8.264488 | 7.333248  | 7.742617  | 6.868760 | 7.235196 | 7.775718 | 5.606674 |
| ## | GSM875414 | 7.285847 | 7.577953  | 8.406123  | 7.991324 | 8.082097 | 6.415061 | 6.721538 |
| ## |           | RBMS1    | JUND      | TCF4      | BUB1B    | ARHGEF17 | CEACAM6  | CTSO     |
| ## | GSM875412 | 8.344567 | 6.159691  | 8.488699  | 7.888897 | 7.276660 | 12.04163 | 7.378059 |
| ## | GSM875413 | 9.050252 | 6.705106  | 9.908895  | 4.614870 | 9.228073 | 5.25082  | 8.440163 |
| ## | GSM875414 | 7.675276 | 6.588459  | 7.332597  | 6.521639 | 7.022882 | 12.65524 | 6.246473 |
| ## |           | ST3GAL4  | SLA       | DLGAP5    | GCA      | LMOD1    | STS      | BLVRA    |
| ## | GSM875412 | 6.605728 | 7.593502  | 7.250963  | 7.675501 | 7.456074 | 7.150826 | 6.625871 |
| ## | GSM875413 | 5.716819 | 6.722140  | 3.740750  | 6.539788 | 6.919822 | 6.732485 | 8.386307 |
| ## | GSM875414 | 5.317347 | 7.520603  | 5.527516  | 7.335555 | 6.320173 | 5.386761 | 6.181220 |
| ## |           | MTR      | SLC25A13  | GPKOW     | RPS6KB2  | MANBA    | MPZL2    | MRPL33   |
| ## | GSM875412 | 8.357179 | 8.290593  | 7.197237  | 6.758813 | 7.823696 | 6.073401 | 9.660360 |
| ## | GSM875413 | 8.542260 | 7.070473  | 8.520018  | 6.649120 | 8.028234 | 4.284805 | 9.902957 |
| ## | GSM875414 | 7.241393 | 7.945403  | 7.571359  | 7.732606 | 7.667420 | 4.574555 | 9.935561 |
| ## |           | POLRMT   | DDX28     | TPD52L1   | SEMA3C   | RIDA     | DMXL1    | PCGF2    |
| ## | GSM875412 | 6.627780 | 3.922760  | 10.290604 | 6.356094 | 7.918555 | 8.534900 | 5.813023 |
| ## | GSM875413 | 7.440133 | 4.244696  | 7.160112  | 4.662689 | 8.649864 | 9.387407 | 6.714401 |
| ## | GSM875414 | 6.676378 | 4.278497  | 8.162152  | 6.520510 | 7.852521 | 6.598604 | 5.794819 |
| ## |           | CDC42BPA | BCL7A     | VSNL1     | MRPS14   | NSUN5    | PCYOX1   | LUC7L3   |
| ## | GSM875412 | 8.107574 | 5.089601  | 7.742530  | 8.798431 | 8.594041 | 7.816619 | 9.840763 |
| ## | GSM875413 | 8.925743 | 5.309162  | 7.271415  | 8.594570 | 8.842243 | 7.514740 | 9.487696 |
| ## | GSM875414 | 7.432128 | 5.615958  | 5.328850  | 8.332792 | 7.753241 | 6.141818 | 9.426210 |
| ## |           | FANCA    | CSH2      | DNAJB4    | SLIT3    | NQO2     | GSTT1    | DGUOK    |
| ## | GSM875412 | 6.124740 | 4.132326  | 7.386084  | 5.531685 | 9.524170 | 8.395158 | 7.078228 |
| ## | GSM875413 | 5.424206 | 4.470771  | 8.291881  | 9.050425 | 8.951952 | 8.880328 | 6.819764 |

|    |           |           |           |           |           |          |           |           |
|----|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|
| ## | GSM875414 | 5.496944  | 5.173681  | 6.100005  | 5.888226  | 8.090879 | 8.948884  | 6.800001  |
| ## |           | GUCY1B1   | SF3A3     | HBEGF     | ELF2      | RGS3     | TSPAN8    | PITPNM1   |
| ## | GSM875412 | 8.050281  | 7.275688  | 8.143393  | 7.565085  | 7.522018 | 13.184337 | 6.808855  |
| ## | GSM875413 | 10.127382 | 8.216669  | 9.207187  | 7.286284  | 6.914376 | 8.372577  | 6.785589  |
| ## | GSM875414 | 7.582180  | 7.141960  | 8.011152  | 7.926819  | 7.125127 | 13.019700 | 6.954382  |
| ## |           | WIPI1     | IL32      | ELP4      | C17orf75  | R3HDM2   | SNRPF     | LRRC32    |
| ## | GSM875412 | 7.756965  | 10.065774 | 7.154604  | 4.893154  | 8.132480 | 9.563862  | 7.970073  |
| ## | GSM875413 | 7.185845  | 6.516183  | 6.899000  | 4.934735  | 9.432815 | 9.989932  | 6.115441  |
| ## | GSM875414 | 8.915135  | 8.565756  | 7.864736  | 4.256820  | 8.259701 | 9.781277  | 7.472394  |
| ## |           | MAP3K5    | MAPRE3    | RPS6KA3   | KAT2B     | TRIM32   | AKAP8     | KIF1A     |
| ## | GSM875412 | 8.143422  | 4.451082  | 9.764399  | 6.595511  | 6.828756 | 7.163730  | 4.152626  |
| ## | GSM875413 | 7.049343  | 5.521183  | 7.540349  | 8.306855  | 6.957914 | 6.719662  | 4.230212  |
| ## | GSM875414 | 6.389790  | 4.807513  | 8.082696  | 6.242313  | 6.678208 | 6.854831  | 5.227131  |
| ## |           | IGFBP6    | GAB2      | WDR47     | VRK1      | PDIA5    | PALM      | PCCA      |
| ## | GSM875412 | 7.170114  | 8.037619  | 7.285059  | 7.342194  | 8.852691 | 6.348941  | 7.222920  |
| ## | GSM875413 | 7.397821  | 8.521669  | 8.275991  | 7.462704  | 7.214506 | 7.732307  | 6.999677  |
| ## | GSM875414 | 6.739541  | 6.987745  | 7.305639  | 7.088136  | 8.699494 | 6.707137  | 6.378407  |
| ## |           | ACTN2     | ADARB1    | NLE1      | VCAM1     | USP46    | SENP3     | ACTA1     |
| ## | GSM875412 | 5.015900  | 5.722549  | 5.005545  | 8.162873  | 6.133615 | 6.991677  | 3.560019  |
| ## | GSM875413 | 5.937869  | 6.856348  | 5.947492  | 11.809032 | 5.431769 | 7.369883  | 3.685541  |
| ## | GSM875414 | 5.648945  | 4.813867  | 5.768775  | 8.041020  | 5.114719 | 6.305734  | 4.137915  |
| ## |           | SMARCA1   | MMP11     | PIK3CD    | DMD       | IRF9     | RAB11FIP2 | RAB21     |
| ## | GSM875412 | 3.678597  | 7.539586  | 6.555557  | 5.606268  | 8.425583 | 7.374491  | 8.282458  |
| ## | GSM875413 | 3.410093  | 7.913669  | 6.402799  | 7.657934  | 8.784868 | 8.224239  | 9.499749  |
| ## | GSM875414 | 3.531628  | 5.611539  | 6.082521  | 4.396857  | 9.721466 | 7.174974  | 9.143097  |
| ## |           | FBLN2     | THBD      | SCG5      | DAPK3     | AK6      | TUBG2     | PLCB4     |
| ## | GSM875412 | 7.115436  | 6.596739  | 6.843804  | 5.901407  | 8.602823 | 4.409846  | 7.545955  |
| ## | GSM875413 | 5.825926  | 6.492602  | 11.908915 | 5.401661  | 9.856880 | 5.847391  | 10.632828 |
| ## | GSM875414 | 6.523679  | 6.350236  | 5.285474  | 7.065163  | 8.362131 | 5.084310  | 7.194514  |
| ## |           | LYRM1     | CRCP      | TAB1      | HEPH      | CD82     | PARN      | IQSEC1    |
| ## | GSM875412 | 9.310273  | 7.174409  | 4.751385  | 3.826052  | 8.248187 | 8.983261  | 7.151781  |
| ## | GSM875413 | 8.840678  | 7.054944  | 5.114000  | 3.535237  | 8.038367 | 8.574720  | 8.166725  |
| ## | GSM875414 | 8.254283  | 6.215257  | 5.795481  | 3.747327  | 8.588421 | 8.101187  | 6.003425  |
| ## |           | SLC9A6    | RAP1GAP   | DNASE1L1  | HPGD      | CXCL9    | PCDH1     | TCEA2     |
| ## | GSM875412 | 7.929557  | 6.858936  | 7.220360  | 6.438564  | 8.454510 | 7.544640  | 5.676344  |
| ## | GSM875413 | 9.442508  | 6.469378  | 7.728858  | 4.167859  | 5.335057 | 6.621938  | 9.127769  |
| ## | GSM875414 | 8.028874  | 10.187074 | 8.201409  | 8.166615  | 8.964307 | 7.977517  | 6.365589  |
| ## |           | NR1H3     | CHST2     | CYBB      | GCLM      | ATP5F1D  | NFKBIE    | MAPT      |
| ## | GSM875412 | 7.220983  | 5.808997  | 6.909179  | 8.685832  | 6.853892 | 6.595412  | 5.491973  |
| ## | GSM875413 | 6.004448  | 6.071969  | 6.191330  | 6.302249  | 7.414758 | 6.906437  | 6.868978  |
| ## | GSM875414 | 6.232725  | 7.348605  | 6.937228  | 7.662508  | 7.183275 | 6.994437  | 7.078478  |
| ## |           | MRPL12    | HLA-DMB   | RAB11FIP3 | KDR       | ACVR1    | MMP9      | TAF1C     |
| ## | GSM875412 | 7.670544  | 9.519956  | 6.186833  | 6.057691  | 8.672455 | 7.050846  | 5.883591  |
| ## | GSM875413 | 7.443669  | 9.119685  | 7.423553  | 5.521996  | 8.178912 | 6.061733  | 6.214285  |
| ## | GSM875414 | 8.167018  | 9.096785  | 6.043011  | 7.051541  | 7.882513 | 9.602330  | 6.691177  |
| ## |           | INTS9     | MARK2     | KIF3B     | BTN2A1    | ARG2     | CSTF3     | MPD       |
| ## | GSM875412 | 6.224204  | 6.006372  | 7.521553  | 9.081428  | 4.759881 | 8.148758  | 3.861531  |
| ## | GSM875413 | 7.084906  | 5.864493  | 8.135270  | 8.531163  | 5.912150 | 7.968988  | 4.171639  |
| ## | GSM875414 | 5.740042  | 6.051307  | 7.867283  | 7.995419  | 4.900322 | 7.885811  | 3.839488  |
| ## |           | CLCN6     | CNN1      | ATF6      | CLDN3     | PPP1R26  | MORC2     | E2F6      |
| ## | GSM875412 | 5.803847  | 8.174425  | 8.478857  | 9.112706  | 7.461805 | 7.938982  | 7.163781  |
| ## | GSM875413 | 6.722110  | 9.034143  | 7.735414  | 4.538851  | 5.849136 | 8.423056  | 6.701410  |
| ## | GSM875414 | 5.686474  | 8.040639  | 8.030433  | 5.967908  | 6.577789 | 8.436489  | 6.390090  |
| ## |           | HSPB11    | NEBL      | CA12      | NMI       | USP20    | PPM1A     | CDC6      |

```

## GSM875412 8.366098 9.214370 5.284578 9.916752 5.936418 9.187914 6.092539
## GSM875413 7.564432 5.424752 4.857791 8.387424 7.041485 9.006073 3.591611
## GSM875414 7.324941 4.225518 6.160808 8.109732 5.726882 8.625015 6.458640
##          PEX3   SLC31A1   CEBPD   PUDP   CHAF1A   TAFAZZIN   NUBP1
## GSM875412 5.099772 8.577191 10.181234 8.775563 6.183160 6.634436 7.601361
## GSM875413 5.301957 7.614125 11.122051 8.930887 5.872039 6.976974 7.739131
## GSM875414 4.695091 8.059798 9.524501 9.018106 6.460081 6.463908 7.558283
##          CYP27A1   FABP4   ABCD4   TSNAX   CASP9   ZNF212   FZD6
## GSM875412 7.210267 5.483371 6.810423 8.828053 7.459712 7.529074 7.758020
## GSM875413 8.664736 10.572462 6.827909 8.771393 7.372214 7.773434 7.871323
## GSM875414 7.341832 5.126328 5.867127 7.368826 6.897426 7.447857 6.430883
##          KDM6A   CFAP410   PTPN3   SYT1   SNAPC3   ICA1   NUP42
## GSM875412 5.502566 5.212357 8.525687 3.367635 6.259735 5.927162 7.175424
## GSM875413 4.980959 5.359064 4.930579 4.832030 6.354688 5.638476 7.645108
## GSM875414 6.656831 5.212077 7.763428 3.266409 5.932930 5.654782 7.042333
##          FCGR3B   DNAL4   SPRY2   LCMT2   DUSP4   LARS2   KDELR3
## GSM875412 7.105298 6.388010 7.743610 5.438501 8.238598 6.802417 9.509405
## GSM875413 7.896509 7.138687 8.353140 7.741456 4.274861 6.289455 9.966956
## GSM875414 6.542759 5.851901 7.765853 6.130033 7.076998 6.186681 10.207507
##          PURA   RFC4   PDCD2   ZWINT   METTL1   CELSR2   PCBP2
## GSM875412 8.830949 8.204482 7.196753 9.543142 6.600556 5.373060 10.41562
## GSM875413 10.683624 7.317504 6.526437 6.152028 7.021582 5.108985 11.55973
## GSM875414 7.777181 7.879668 6.206275 8.491070 7.131034 5.252957 11.36907
##          BCAR3   TRIP13   ETHE1   SCG2   LPAR1   CEBPA   WASF3
## GSM875412 6.974062 7.890293 9.074875 4.521764 6.925337 7.519780 4.699202
## GSM875413 6.212028 5.995037 6.822521 8.138008 5.045637 7.349803 9.088119
## GSM875414 6.750116 6.199252 9.425383 4.621275 7.292942 9.966447 5.371382
##          TCN2   TCEAL1   PLCB2   PHACTR2   SFRP4   PTEN   MVK
## GSM875412 5.971060 7.384916 6.604715 5.759946 10.173402 8.359358 5.987876
## GSM875413 7.130550 8.897095 6.646066 6.032829 9.855403 8.022959 6.678154
## GSM875414 6.169549 6.989314 6.288646 6.167996 7.444117 9.370751 6.413330
##          IRF8   ME1   PRKX   THOC1   CHST10   AGAP1   STK3
## GSM875412 8.489984 7.339128 6.092764 8.668426 5.438820 7.435155 8.766368
## GSM875413 7.823394 7.344993 5.707358 9.499762 6.410173 6.149590 8.812243
## GSM875414 9.365098 4.685317 6.295862 8.944788 5.973018 4.446211 8.660365
##          PLAAT4   TOPORS   MYRF   CEP104   P3H4   TPST2   TOE1
## GSM875412 10.298263 7.594569 8.911093 7.301185 6.338676 7.902162 7.639220
## GSM875413 9.154322 7.673778 6.081896 6.615778 6.841540 7.688273 7.829591
## GSM875414 7.943135 7.010819 8.119564 7.574563 7.571933 7.809168 7.490932
##          NRG1   PBX3   TPM2   CLN5   PRAME   SLC5A6   P2RX4
## GSM875412 4.272018 7.390740 9.739460 8.351012 4.389340 7.720110 7.475893
## GSM875413 4.575015 8.214531 10.441206 8.644967 4.278729 6.595020 8.296783
## GSM875414 4.608294 6.677836 9.667222 8.195839 6.487538 7.388444 8.921970
##          MAP3K4   STK19   PDE6D   AURKA   CCNH   TSC22D2   RBMX2
## GSM875412 8.518244 7.842766 7.763395 8.316063 8.268963 8.541653 5.889068
## GSM875413 8.400936 7.774318 7.609459 4.630466 9.337589 9.236454 6.799162
## GSM875414 7.078701 7.521439 7.391716 6.884450 7.426369 8.552260 6.625997
##          SMARCD3   MTM1   CCL4   SNAPC2   NRCAM   TESK1   NFYA
## GSM875412 6.015415 4.636569 7.157666 6.190796 4.953769 7.257112 7.322863
## GSM875413 8.871049 4.850421 8.158463 6.541798 9.513848 7.798804 5.979920
## GSM875414 5.853829 4.761392 8.295239 6.469059 4.530091 7.813236 6.051482
##          NID2   GNG11   IL2RG   PREP   CD48   ADK   GADD45G
## GSM875412 7.807177 6.849043 8.627537 9.112163 7.762560 8.493058 5.396151
## GSM875413 6.335717 10.339643 6.736808 7.393938 7.344982 7.251523 7.416081

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|    |           |          |          |          |           |           |          |           |
|----|-----------|----------|----------|----------|-----------|-----------|----------|-----------|
| ## | GSM875414 | 7.524257 | 7.719659 | 8.034688 | 8.377944  | 8.081805  | 8.356818 | 5.946782  |
| ## |           | TYROBP   | SLC34A2  | NDUFAF1  | CDC45     | RFC3      | BCL9     | HSD11B2   |
| ## | GSM875412 | 8.959382 | 3.866970 | 7.333262 | 6.493447  | 8.599702  | 6.556919 | 4.904393  |
| ## | GSM875413 | 9.283149 | 3.880952 | 8.452865 | 5.313801  | 7.307786  | 6.840728 | 3.945735  |
| ## | GSM875414 | 9.220356 | 5.117953 | 6.239307 | 6.336038  | 8.112935  | 6.390775 | 5.553889  |
| ## |           | FOXO3    | RRP9     | PDE2A    | COL7A1    | GPR137B   | TPST1    | TUBB2A    |
| ## | GSM875412 | 9.573775 | 6.901367 | 5.612654 | 7.430309  | 8.677895  | 5.946395 | 9.882811  |
| ## | GSM875413 | 8.857923 | 6.363114 | 9.889402 | 5.712592  | 5.319111  | 7.414449 | 9.929771  |
| ## | GSM875414 | 7.967209 | 6.546687 | 5.878771 | 7.090038  | 6.907787  | 6.037695 | 10.227471 |
| ## |           | ENOSF1   | FRG1     | RAD51AP1 | TFDP1     | GSTM4     | MFNG     | CD01      |
| ## | GSM875412 | 8.546880 | 8.401212 | 7.694719 | 7.643796  | 8.864125  | 5.119930 | 4.219239  |
| ## | GSM875413 | 9.961395 | 8.896551 | 6.369708 | 6.516737  | 6.636151  | 4.926581 | 9.241941  |
| ## | GSM875414 | 9.150362 | 8.984479 | 6.896441 | 7.304566  | 4.786307  | 4.895734 | 3.871597  |
| ## |           | TCIRG1   | CDKN2C   | ENPP4    | NDC80     | EMILIN1   | SIPA1    | WASF1     |
| ## | GSM875412 | 8.537222 | 5.817626 | 7.984593 | 7.823166  | 6.342684  | 5.884216 | 5.496216  |
| ## | GSM875413 | 8.208164 | 8.383400 | 7.529403 | 4.000914  | 9.191117  | 6.218046 | 7.320492  |
| ## | GSM875414 | 8.018943 | 6.145178 | 7.530415 | 6.155741  | 6.522130  | 6.378454 | 4.797967  |
| ## |           | SBN02    | BTD      | MGST2    | IMPDH1    | CKS2      | RPS6KB1  | CPOX      |
| ## | GSM875412 | 6.551747 | 6.315386 | 9.370465 | 7.544640  | 9.921723  | 7.609224 | 8.033592  |
| ## | GSM875413 | 6.981474 | 7.026788 | 7.575757 | 7.350249  | 8.380646  | 5.994713 | 6.755138  |
| ## | GSM875414 | 6.899115 | 6.106030 | 9.839610 | 7.284806  | 6.364619  | 7.217552 | 7.439257  |
| ## |           | MYL6B    | ALOX5AP  | ZNF593   | KLHL20    | MB        | ZBTB43   | PPID      |
| ## | GSM875412 | 6.709275 | 8.831769 | 7.997423 | 6.614141  | 4.041144  | 7.004689 | 7.408687  |
| ## | GSM875413 | 9.630194 | 8.480406 | 7.552465 | 6.793669  | 4.937481  | 5.848386 | 7.567252  |
| ## | GSM875414 | 7.337603 | 7.775615 | 7.434562 | 4.667915  | 5.142124  | 6.336038 | 8.308558  |
| ## |           | GMPR     | RARG     | IFNAR1   | CD37      | CHKB      | BACH1    | PKN0X1    |
| ## | GSM875412 | 5.803771 | 6.137205 | 5.405087 | 6.431416  | 7.550330  | 7.405243 | 6.768137  |
| ## | GSM875413 | 5.593176 | 5.324440 | 4.651330 | 6.158473  | 8.407794  | 7.263103 | 7.036379  |
| ## | GSM875414 | 4.518822 | 5.941533 | 4.622236 | 5.850444  | 8.931267  | 7.210545 | 7.249467  |
| ## |           | RUNX3    | PDGFB    | PTPN13   | IQCE      | CEBPG     | SLC31A2  | APOBEC3G  |
| ## | GSM875412 | 6.166318 | 5.088804 | 4.249033 | 7.453355  | 8.152165  | 6.633042 | 6.825178  |
| ## | GSM875413 | 6.350188 | 5.041253 | 5.985024 | 7.561802  | 5.682772  | 5.888096 | 7.579277  |
| ## | GSM875414 | 6.085484 | 5.633896 | 3.945753 | 6.463945  | 9.331446  | 6.156851 | 6.307857  |
| ## |           | MNT      | RNGTT    | PCYT1A   | EIF2AK2   | ACOT8     | PIGR     | RAB32     |
| ## | GSM875412 | 7.703669 | 7.464686 | 6.829514 | 8.359314  | 7.282842  | 8.718702 | 7.146199  |
| ## | GSM875413 | 8.196018 | 5.839379 | 5.507203 | 7.977173  | 7.790176  | 5.756818 | 7.498679  |
| ## | GSM875414 | 7.149709 | 6.346462 | 7.162655 | 6.518585  | 7.578413  | 5.969893 | 7.591850  |
| ## |           | TMEM243  | RTN2     | ANAPC15  | PSMC1     | GMFG      | GLIPR1   | PRELP     |
| ## | GSM875412 | 8.753621 | 4.844593 | 7.711041 | 9.804662  | 7.781257  | 5.289032 | 6.971544  |
| ## | GSM875413 | 8.855528 | 5.369810 | 7.979399 | 10.496865 | 7.460155  | 7.452756 | 8.782146  |
| ## | GSM875414 | 8.457488 | 6.432851 | 7.681440 | 10.155049 | 8.257076  | 4.700856 | 6.849482  |
| ## |           | GCH1     | TK2      | PPIH     | SLC17A7   | FAAH      | CHKA     | ZNF195    |
| ## | GSM875412 | 8.710960 | 6.136536 | 9.421271 | 5.606268  | 6.834599  | 8.349788 | 7.860345  |
| ## | GSM875413 | 7.519864 | 6.325648 | 8.459993 | 5.221183  | 5.764837  | 6.693905 | 6.118989  |
| ## | GSM875414 | 8.315407 | 6.019668 | 7.809716 | 5.169526  | 7.231414  | 7.521588 | 7.582109  |
| ## |           | GULP1    | FLI1     | DNP1     | NNAT      | ACOX3     | RLF      | DBF4      |
| ## | GSM875412 | 8.449466 | 5.910744 | 8.592416 | 5.404122  | 5.981278  | 7.658916 | 7.810706  |
| ## | GSM875413 | 8.950268 | 5.403313 | 7.173226 | 5.792901  | 6.980766  | 7.296534 | 7.267163  |
| ## | GSM875414 | 5.378004 | 5.774807 | 8.305552 | 5.593205  | 5.120422  | 6.772324 | 7.576118  |
| ## |           | RPP14    | DCTN3    | CDK5     | GNA11     | LMO2      | CDK2     | VDR       |
| ## | GSM875412 | 7.569961 | 8.568304 | 7.068112 | 8.334543  | 6.772908  | 7.303056 | 5.683724  |
| ## | GSM875413 | 7.644246 | 9.609239 | 7.186155 | 7.913669  | 10.565143 | 6.978003 | 5.306283  |
| ## | GSM875414 | 7.689528 | 9.944193 | 7.052113 | 8.492842  | 7.098634  | 8.001163 | 5.885397  |
| ## |           | ELOVL6   | FADS3    | CHD1     | MMP7      | CHGB      | PSEN2    | CPT2      |

|    |           |           |           |           |          |          |          |           |
|----|-----------|-----------|-----------|-----------|----------|----------|----------|-----------|
| ## | GSM875412 | 7.090093  | 6.907854  | 9.038131  | 7.087336 | 4.586739 | 4.615543 | 6.758542  |
| ## | GSM875413 | 7.258879  | 6.949941  | 8.400367  | 5.546719 | 9.367560 | 4.342515 | 6.760476  |
| ## | GSM875414 | 6.973439  | 6.754585  | 6.928806  | 7.395481 | 4.307584 | 4.887644 | 6.514201  |
| ## |           | GPSM3     | PKMYT1    | S100A2    | PIM2     | SKI      | EDNRB    | LGALS4    |
| ## | GSM875412 | 7.232580  | 6.334561  | 5.915990  | 5.945426 | 6.575003 | 6.991173 | 10.982355 |
| ## | GSM875413 | 7.450321  | 6.341617  | 4.856581  | 6.616093 | 6.566675 | 6.516183 | 6.064302  |
| ## | GSM875414 | 7.851962  | 6.484070  | 5.980424  | 7.113288 | 4.649759 | 7.438481 | 12.786655 |
| ## |           | EBAG9     | CAPN15    | PSMB9     | RGS14    | TEAD4    | FARS2    | PPP1R3C   |
| ## | GSM875412 | 9.449557  | 5.788042  | 10.271028 | 5.287194 | 6.661109 | 7.083219 | 6.630121  |
| ## | GSM875413 | 10.417262 | 5.142563  | 8.083209  | 5.561562 | 6.485171 | 7.175255 | 8.708223  |
| ## | GSM875414 | 9.393172  | 6.773143  | 7.757786  | 6.034249 | 6.427619 | 7.116523 | 6.801998  |
| ## |           | PMAIP1    | SYNGR1    | ALDH6A1   | ZNF518A  | STK11    | SGSH     | AMT       |
| ## | GSM875412 | 8.609030  | 6.003247  | 3.799424  | 6.781481 | 6.258752 | 5.651864 | 6.752726  |
| ## | GSM875413 | 7.592593  | 7.129037  | 4.029621  | 6.592647 | 6.708467 | 7.140904 | 7.731070  |
| ## | GSM875414 | 6.965558  | 6.159650  | 3.776714  | 5.324727 | 6.703623 | 6.889136 | 6.781955  |
| ## |           | SURF1     | LOX       | SRSF10    | GATB     | KBTBD11  | CTIF     | PROM1     |
| ## | GSM875412 | 9.457331  | 5.501782  | 7.414937  | 6.469874 | 6.112100 | 6.301657 | 10.812919 |
| ## | GSM875413 | 9.392986  | 4.440700  | 6.952774  | 6.938364 | 8.149161 | 6.664187 | 11.878503 |
| ## | GSM875414 | 9.373226  | 5.523610  | 7.344743  | 6.744713 | 5.642609 | 6.336038 | 8.176526  |
| ## |           | MIPEP     | CD151     | TECPR2    | CYP11A1  | NPR2     | ATP1B2   | CREB1     |
| ## | GSM875412 | 7.970612  | 8.865776  | 5.302480  | 4.147955 | 6.445140 | 4.488459 | 7.895394  |
| ## | GSM875413 | 6.234894  | 9.432883  | 6.433918  | 4.659798 | 7.621548 | 5.346935 | 6.595285  |
| ## | GSM875414 | 6.294183  | 8.966211  | 5.561833  | 4.889187 | 6.017034 | 4.516069 | 7.747964  |
| ## |           | GTSE1     | RGS10     | COL11A1   | NEO1     | GOLIM4   | NF1      | MT1X      |
| ## | GSM875412 | 4.859755  | 6.171313  | 7.631960  | 7.302106 | 4.976294 | 5.517524 | 8.779216  |
| ## | GSM875413 | 4.867595  | 6.115298  | 3.698953  | 7.455262 | 5.539887 | 4.432927 | 9.693925  |
| ## | GSM875414 | 4.779607  | 5.819652  | 5.626751  | 6.402735 | 5.617324 | 4.563372 | 6.827397  |
| ## |           | ZNF202    | TMC6      | MRPS12    | AGA      | YJU2     | RGS19    | RGS4      |
| ## | GSM875412 | 6.049253  | 8.870340  | 4.786536  | 7.600606 | 6.674194 | 6.516912 | 6.249996  |
| ## | GSM875413 | 6.247338  | 5.983829  | 4.545005  | 7.621272 | 6.982998 | 7.669587 | 10.997933 |
| ## | GSM875414 | 5.513128  | 6.966665  | 4.535761  | 8.606479 | 7.545930 | 7.646093 | 5.034034  |
| ## |           | TMEM187   | TRIM16    | ABCA3     | SEC23A   | COL16A1  | RASSF1   | AK4       |
| ## | GSM875412 | 5.925702  | 7.744400  | 5.506710  | 7.288239 | 7.863921 | 7.436258 | 7.807920  |
| ## | GSM875413 | 7.426408  | 5.208355  | 7.225785  | 7.087462 | 9.166412 | 7.316734 | 5.285521  |
| ## | GSM875414 | 5.956731  | 9.048943  | 6.436331  | 7.774033 | 8.620479 | 7.300541 | 6.863648  |
| ## |           | MED7      | S100P     | POT1      | LIMK1    | FLRT2    | NAGLU    | SKAP2     |
| ## | GSM875412 | 6.811949  | 12.840742 | 7.638692  | 4.662199 | 5.367968 | 6.357948 | 6.860817  |
| ## | GSM875413 | 7.914458  | 7.353241  | 7.733924  | 4.880105 | 5.002957 | 6.271887 | 8.903378  |
| ## | GSM875414 | 6.450131  | 13.525666 | 7.069397  | 4.891142 | 5.447675 | 6.473193 | 6.161113  |
| ## |           | F3        | REEP1     | GTF3C2    | SP2      | SLC02A1  | PIK3CA   | CLP1      |
| ## | GSM875412 | 9.775012  | 8.648208  | 9.071200  | 7.692923 | 7.447869 | 7.462563 | 7.703228  |
| ## | GSM875413 | 8.437539  | 8.576542  | 8.417879  | 7.515645 | 6.875597 | 7.083185 | 6.770347  |
| ## | GSM875414 | 8.400516  | 4.826470  | 8.701796  | 6.893090 | 6.287015 | 7.929761 | 7.936628  |
| ## |           | KHSRP     | CEP350    | GALK1     | CLSTN3   | DCAF1    | BCAS1    | FGFR3     |
| ## | GSM875412 | 5.509692  | 8.840288  | 4.738762  | 6.041432 | 4.574350 | 6.041776 | 7.541807  |
| ## | GSM875413 | 5.836128  | 8.414666  | 5.340927  | 6.414607 | 4.342043 | 4.774412 | 4.472143  |
| ## | GSM875414 | 5.765512  | 9.020538  | 4.957703  | 5.404701 | 3.627172 | 8.391468 | 9.692838  |
| ## |           | LRP3      | NAT9      | ESS2      | GOLGA2   | KYNU     | MRPL57   | MAOA      |
| ## | GSM875412 | 6.578799  | 7.106104  | 5.641907  | 7.399041 | 6.527941 | 10.76656 | 6.387843  |
| ## | GSM875413 | 7.371812  | 7.316749  | 6.200406  | 7.392359 | 6.308429 | 10.30970 | 7.234675  |
| ## | GSM875414 | 7.359455  | 6.853818  | 5.856178  | 7.244387 | 5.794712 | 10.71753 | 6.307917  |
| ## |           | ACP3      | SLC43A1   | EML2      | EFS      | KCNN4    | RHBDD3   | TCAF1     |
| ## | GSM875412 | 5.096511  | 7.043591  | 4.966337  | 4.620591 | 7.598111 | 6.014909 | 7.401918  |
| ## | GSM875413 | 3.946625  | 6.757539  | 5.556319  | 5.278900 | 5.105415 | 6.732711 | 7.611663  |

|    |           |           |           |           |           |           |           |           |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875414 | 4.297589  | 7.044367  | 6.271844  | 4.596008  | 8.439565  | 7.039973  | 7.449581  |
| ## |           | SLC12A2   | DIMT1     | FLT1      | APEX2     | EIF1AY    | KIF21B    | NEFH      |
| ## | GSM875412 | 9.484498  | 8.934355  | 3.846050  | 6.306000  | 4.921794  | 5.533109  | 4.118002  |
| ## | GSM875413 | 10.041061 | 10.231466 | 3.733463  | 7.078941  | 3.828846  | 7.120009  | 4.336084  |
| ## | GSM875414 | 8.716315  | 8.341326  | 3.670335  | 7.426768  | 3.130130  | 5.448232  | 4.536807  |
| ## |           | TRAF2     | LARGE1    | IFI6      | APOC1     | GALC      | GSTM2     | HBG2      |
| ## | GSM875412 | 5.662831  | 3.259290  | 8.457404  | 9.827790  | 8.827316  | 9.243650  | 4.921023  |
| ## | GSM875413 | 5.893273  | 3.682572  | 8.136851  | 8.282401  | 7.990980  | 9.049743  | 5.476713  |
| ## | GSM875414 | 5.601234  | 3.842448  | 8.530397  | 8.965331  | 8.088600  | 6.334845  | 5.425797  |
| ## |           | FOSL1     | FGF2      | ARHGAP4   | LCAT      | SLC2A5    | TLE2      | SOX12     |
| ## | GSM875412 | 6.344322  | 5.125551  | 5.787419  | 5.171223  | 5.459899  | 4.652114  | 3.983911  |
| ## | GSM875413 | 5.751833  | 6.859058  | 5.943603  | 6.790800  | 5.168277  | 9.060948  | 5.802821  |
| ## | GSM875414 | 6.071883  | 4.771526  | 6.529744  | 5.210278  | 5.525985  | 6.295006  | 4.662179  |
| ## |           | SPATA2    | NUP58     | PLEKH02   | FOLR1     | MRC1      | IFI44L    | CD83      |
| ## | GSM875412 | 5.536135  | 8.916554  | 7.031910  | 10.359507 | 7.667414  | 7.403567  | 7.391124  |
| ## | GSM875413 | 6.401094  | 7.454321  | 7.920301  | 4.589539  | 5.879026  | 8.443255  | 8.847418  |
| ## | GSM875414 | 6.240823  | 7.772215  | 6.660782  | 4.756839  | 8.488359  | 5.068924  | 7.529187  |
| ## |           | POLA2     | LTBP4     | ARSA      | KIF11     | ALOX5     | LZTS3     | PDCL      |
| ## | GSM875412 | 5.965419  | 6.680559  | 5.577926  | 6.428802  | 6.701357  | 8.308751  | 7.121131  |
| ## | GSM875413 | 6.908863  | 9.705478  | 5.711091  | 4.394970  | 5.748269  | 8.520632  | 6.024477  |
| ## | GSM875414 | 6.524135  | 7.949728  | 6.235975  | 5.321810  | 5.694250  | 7.510939  | 6.717316  |
| ## |           | APOA1     | FZD1      | ZNF84     | LDLC1     | GAS1      | PLA2G15   | CSTF2     |
| ## | GSM875412 | 5.592973  | 6.843380  | 6.900318  | 5.950845  | 3.884199  | 5.738757  | 7.545889  |
| ## | GSM875413 | 5.788138  | 7.688660  | 7.743147  | 9.068616  | 4.411709  | 5.837221  | 7.557380  |
| ## | GSM875414 | 5.615739  | 7.020495  | 7.431005  | 7.439257  | 5.286452  | 6.145178  | 8.217803  |
| ## |           | RAD1      | SLC16A2   | EDNRA     | INA       | SNCA      | PTPRZ1    | CXCL1     |
| ## | GSM875412 | 8.444245  | 7.536731  | 7.064062  | 4.357462  | 5.392766  | 3.580069  | 7.766369  |
| ## | GSM875413 | 7.504816  | 7.701351  | 4.220770  | 4.757204  | 6.437419  | 4.046686  | 5.205819  |
| ## | GSM875414 | 7.663061  | 5.668860  | 5.644566  | 4.238725  | 4.933474  | 4.763518  | 9.437455  |
| ## |           | GAP43     | GEM       | ZNF592    | ZNF142    | MMP1      | PC        | RAB1F     |
| ## | GSM875412 | 3.429574  | 10.487159 | 5.573611  | 6.812462  | 9.046099  | 5.325099  | 6.707105  |
| ## | GSM875413 | 8.274880  | 12.185500 | 5.102687  | 6.872509  | 8.382289  | 6.558882  | 6.771715  |
| ## | GSM875414 | 3.184282  | 9.594859  | 5.386457  | 6.634468  | 10.449700 | 5.832602  | 6.596725  |
| ## |           | OSTF1     | BBLN      | BRPF1     | CLDN5     | ENO3      | PIK3C2B   | TOM1L1    |
| ## | GSM875412 | 8.077601  | 8.879201  | 6.415165  | 6.306025  | 4.579863  | 9.327101  | 8.471298  |
| ## | GSM875413 | 6.228173  | 8.630517  | 6.872285  | 6.173996  | 4.652224  | 6.770726  | 5.107302  |
| ## | GSM875414 | 7.791999  | 7.260829  | 6.323641  | 6.395413  | 4.739460  | 9.400785  | 10.064994 |
| ## |           | KCNQ1     | DOLK      | ARHGAP11A | BID       | C15orf39  | STRN3     | ADCY9     |
| ## | GSM875412 | 9.275226  | 6.977826  | 3.707282  | 8.118041  | 5.307474  | 8.695300  | 6.230061  |
| ## | GSM875413 | 6.046599  | 7.016592  | 3.543189  | 5.520882  | 5.641477  | 7.876867  | 7.973054  |
| ## | GSM875414 | 7.600767  | 6.594960  | 3.642879  | 6.457152  | 6.295876  | 7.841305  | 6.682341  |
| ## |           | AGTPBP1   | CCN3      | EVPL      | HIRIP3    | DMTN      | PPP3R1    | CDC7      |
| ## | GSM875412 | 4.641496  | 5.072657  | 6.151631  | 6.470685  | 6.032314  | 6.066913  | 6.874715  |
| ## | GSM875413 | 5.049053  | 4.653138  | 5.471764  | 7.972365  | 7.761767  | 5.406299  | 5.554997  |
| ## | GSM875414 | 4.380071  | 6.154206  | 6.095995  | 7.642806  | 6.909915  | 5.756444  | 4.965744  |
| ## |           | ELMO1     | DPH2      | HSD3B1    | ATXN7     | PPIC      | PLLP      | BRD1      |
| ## | GSM875412 | 4.875675  | 7.975239  | 3.521452  | 8.266293  | 10.742693 | 8.480295  | 6.958546  |
| ## | GSM875413 | 5.476127  | 7.107223  | 3.564061  | 7.714278  | 9.252407  | 4.654513  | 7.533520  |
| ## | GSM875414 | 4.927556  | 7.867553  | 3.558346  | 7.493458  | 9.736182  | 10.141307 | 6.287651  |
| ## |           | FAM216A   | DXO       | ZNF140    | PDPK1     | PHF14     | TBC1D8    | MYO5A     |
| ## | GSM875412 | 4.554092  | 6.060643  | 6.270110  | 7.006031  | 3.505433  | 8.939857  | 5.475450  |
| ## | GSM875413 | 7.501661  | 6.632211  | 7.924463  | 6.557509  | 3.558767  | 7.867164  | 4.533074  |
| ## | GSM875414 | 4.840373  | 5.991967  | 6.446580  | 7.336541  | 3.233243  | 8.268619  | 5.897358  |
| ## |           | TOX       | BRCA1     | CXCL10    | VTN       | REST      | GABRE     | NPIPA1    |

```

## GSM875412 6.053156 6.553346 8.073156 4.918882 6.478591 6.776332 10.06001
## GSM875413 4.378017 6.016010 8.641710 5.098513 7.153193 5.742102 10.96216
## GSM875414 4.518565 6.472882 8.528767 4.926272 7.556023 4.632940 10.13259
##          CELSR1   EEF1A2  SEC14L2 ST6GALNAC2 RAPGEF1   HPS5     PEX6
## GSM875412 4.107861 5.722564 5.313078   6.187986 5.180106 7.760751 4.879867
## GSM875413 4.021187 7.569774 5.124588   5.148015 5.267086 6.877340 5.661254
## GSM875414 4.229684 6.535770 5.914443   6.999614 4.931553 7.535329 5.808637
##          RAB40B     STAR    IKBKE    GSTM1    AHSB    INPP4A  PPP1R3D
## GSM875412 9.615145 3.750365 6.172115 8.587792 4.512547 6.545855 8.086911
## GSM875413 7.842860 3.995174 6.287401 7.937625 4.301903 6.837652 7.269219
## GSM875414 10.185818 3.866080 6.512813 5.549369 4.464359 5.362315 6.817006
##          DZIP1    RAD54L    LSM7    FKBP5    IRF4    SELL    PCGF3
## GSM875412 6.366432 6.650887 10.075468 6.107021 5.971297 5.979275 6.800874
## GSM875413 8.046954 5.631951 9.498735 6.455539 6.107010 6.052015 6.175857
## GSM875414 5.664726 6.624263 10.289403 6.137221 6.270155 5.766024 6.874563
##          ACOT13    PPM1D    ABCG1    ATG14    COX7A1    PIN4    CROT
## GSM875412 7.321398 6.212274 6.666167 7.106962 7.167148 9.290121 7.673190
## GSM875413 8.007192 6.665136 6.728109 7.589172 11.387209 9.735368 8.260931
## GSM875414 7.955334 7.887043 7.453046 6.190584 7.516334 8.579546 7.439257
##          MMP19    CLUAP1    MMP12    CD22    KLK3    L1CAM    BSN
## GSM875412 6.321787 7.181205 8.964073 4.960079 4.487925 3.822214 3.715678
## GSM875413 6.106404 7.431465 3.670441 5.501037 4.522614 3.946913 4.044563
## GSM875414 6.336038 7.060445 11.146559 5.183356 4.327852 4.343270 3.730002
##          SLC25A14  SLC7A7    NUA1    VPS33A    CHL1    DLG4    MIEF1
## GSM875412 7.336791 7.751112 7.130356 5.641397 3.349686 3.970106 6.614618
## GSM875413 8.701648 7.034617 9.468096 5.748208 6.178099 4.907252 6.918519
## GSM875414 7.702635 10.697596 6.857943 5.073462 3.327497 3.875869 6.284790
##          STC1    UBOX5    MRPL28  N4BP1    DKK1    EXO1    CDK14
## GSM875412 6.856437 6.449033 7.951742 6.413051 3.698776 5.749064 6.550668
## GSM875413 5.969371 8.087919 7.999721 5.650447 3.538981 5.281665 9.029546
## GSM875414 6.927675 6.707108 8.563470 7.161066 8.166627 6.512257 5.667706
##          CGRRF1    CCL21    HMGCS2    ASL    CCDC85B  PPP2R5B  PKIA
## GSM875412 6.387843 6.944594 6.06664 8.673891 3.518259 7.534107 5.061940
## GSM875413 7.604172 6.843182 5.00971 7.773551 3.896196 7.780092 9.057370
## GSM875414 6.236128 7.188686 10.91207 8.449200 3.811287 6.432700 4.453974
##          SERPINB2  IDI1    UCHL3    ACD    VCAN    NR4A2    TFF3
## GSM875412 3.592034 9.758516 10.277300 7.068479 8.161217 7.954594 7.899427
## GSM875413 3.341546 8.937869 8.777821 7.907133 7.259040 6.853064 5.750951
## GSM875414 3.549233 10.404873 9.245266 8.301221 7.143797 8.657726 12.945813
##          ATP7B    ITGB3    PARVB    MYH2    RPS6KA4  COL17A1  CGA
## GSM875412 9.330060 3.920676 4.861058 3.616518 7.678485 5.732863 4.548790
## GSM875413 5.117695 4.220359 5.340754 3.845606 7.351758 5.167011 4.286319
## GSM875414 4.379302 4.028653 4.919462 3.929584 7.411767 7.364468 4.317209
##          ACP5    ADA    SPOP    NEK2    S1PR1    ENOX2    CCNT2
## GSM875412 8.297730 7.002314 7.816576 7.360453 6.104017 6.250080 7.638386
## GSM875413 5.102050 6.486110 8.135215 3.648517 5.664852 8.138816 6.763425
## GSM875414 8.424232 6.347744 8.569098 6.974737 6.285683 7.501679 7.341513
##          HOMER3    NPR1    APBB3    NRF1    TFAP2A    TRA2A    GFER
## GSM875412 5.654937 6.070013 6.247315 6.141123 8.410041 8.681191 6.554106
## GSM875413 6.588414 6.370193 7.816331 7.111636 4.733670 8.491586 6.388437
## GSM875414 4.970903 6.534034 6.174542 5.756878 7.651086 8.360772 7.116398
##          CD52    ME3    ALPP    SIKE1    FOXA1    RNF24    ANKRD6
## GSM875412 8.669489 6.874805 4.296956 3.664302 5.511737 4.851719 4.794012
## GSM875413 6.978084 8.520235 4.631302 3.611670 4.763234 7.612517 6.110580

```

|    |           |           |          |           |          |          |           |          |
|----|-----------|-----------|----------|-----------|----------|----------|-----------|----------|
| ## | GSM875414 | 8.011893  | 6.025605 | 6.005757  | 3.438206 | 7.591124 | 4.744013  | 5.398633 |
| ## |           | MUC2      | IRAG2    | SRD5A1    | TMEM186  | CDH5     | LTBP2     | ICAM2    |
| ## | GSM875412 | 6.130775  | 6.250931 | 7.369475  | 7.283299 | 5.459899 | 8.345727  | 6.160136 |
| ## | GSM875413 | 6.086919  | 6.279531 | 6.964230  | 6.583281 | 5.678648 | 6.313086  | 6.266470 |
| ## | GSM875414 | 8.590229  | 6.523533 | 6.897933  | 6.681320 | 6.498336 | 7.748680  | 7.371981 |
| ## |           | NPTX1     | ATP2B2   | IRS1      | PARM1    | SGCE     | HHEX      | PLA2G6   |
| ## | GSM875412 | 5.990927  | 4.577871 | 7.357405  | 7.575076 | 6.620903 | 5.292515  | 6.702420 |
| ## | GSM875413 | 5.656611  | 4.467246 | 7.313003  | 7.224876 | 9.805747 | 5.132137  | 6.793612 |
| ## | GSM875414 | 5.625042  | 4.266914 | 5.703912  | 5.715106 | 7.555153 | 8.771793  | 7.827989 |
| ## |           | CDC42EP1  | AFP      | CHGA      | ISG20    | UTP25    | NFE2L3    | IFT88    |
| ## | GSM875412 | 6.573472  | 4.016174 | 9.052729  | 8.737399 | 7.137159 | 7.359600  | 8.447435 |
| ## | GSM875413 | 5.853635  | 4.192487 | 7.307755  | 6.377395 | 6.839540 | 3.600826  | 8.520018 |
| ## | GSM875414 | 6.942156  | 4.139775 | 7.203072  | 9.017244 | 6.807876 | 6.148829  | 7.551086 |
| ## |           | ALDOB     | INPP5E   | MAPK4     | KIF23    | KIAA0753 | WIF1      | F5       |
| ## | GSM875412 | 3.193750  | 6.714440 | 4.315562  | 6.453081 | 7.201722 | 3.714800  | 5.750594 |
| ## | GSM875413 | 3.311405  | 7.427922 | 4.582983  | 3.818375 | 6.730471 | 3.525919  | 5.140514 |
| ## | GSM875414 | 3.502150  | 7.041656 | 5.202035  | 5.702565 | 6.549836 | 3.791073  | 7.177490 |
| ## |           | PANX1     | CCDC6    | EPHB6     | DNAJC6   | SCN3B    | COL9A3    | NCK1     |
| ## | GSM875412 | 6.412992  | 8.074700 | 4.646407  | 3.678713 | 3.643902 | 4.721511  | 8.196020 |
| ## | GSM875413 | 5.946528  | 6.121148 | 5.789580  | 4.384669 | 5.392689 | 6.420562  | 7.226930 |
| ## | GSM875414 | 5.561847  | 6.882165 | 6.163020  | 3.727769 | 3.504072 | 6.033173  | 7.978473 |
| ## |           | CDH13     | WDHD1    | STX1A     | RIMS3    | TGFBR3   | TRIM23    | KLK6     |
| ## | GSM875412 | 4.076286  | 3.812353 | 6.188139  | 5.226479 | 5.778474 | 5.304046  | 8.760630 |
| ## | GSM875413 | 3.753330  | 3.558118 | 6.610652  | 5.532461 | 5.988941 | 7.175799  | 4.418755 |
| ## | GSM875414 | 4.432671  | 3.616433 | 6.688830  | 4.248903 | 5.687785 | 4.960701  | 4.350747 |
| ## |           | KRT15     | PDE4A    | CSPG4     | KRIT1    | CENPC    | CNKSR1    | TAGLN3   |
| ## | GSM875412 | 4.523438  | 5.514169 | 4.552002  | 6.740952 | 6.014813 | 6.798302  | 5.446214 |
| ## | GSM875413 | 4.279578  | 5.018706 | 6.814799  | 6.949360 | 6.375728 | 5.628954  | 5.473103 |
| ## | GSM875414 | 6.571710  | 5.911387 | 4.658834  | 6.697841 | 6.213489 | 6.609927  | 5.069460 |
| ## |           | IARS1     | MT1G     | PICK1     | IFIT3    | NAP1L3   | DSC2      | PARP2    |
| ## | GSM875412 | 10.613101 | 8.804135 | 6.827120  | 7.160094 | 4.499522 | 8.626008  | 7.633929 |
| ## | GSM875413 | 10.104398 | 9.692496 | 6.711068  | 7.747555 | 9.777947 | 4.410570  | 7.842552 |
| ## | GSM875414 | 9.340255  | 7.959157 | 6.434887  | 6.645654 | 4.110523 | 6.570629  | 8.205619 |
| ## |           | HLF       | MAP2K5   | C2CD2L    | USP6NL   | GNAO1    | ARHGEF5   | NUDT1    |
| ## | GSM875412 | 4.489247  | 6.755200 | 6.013661  | 6.503107 | 4.094230 | 8.537972  | 7.095109 |
| ## | GSM875413 | 8.592504  | 6.941588 | 6.067964  | 5.621892 | 4.292720 | 6.176281  | 8.006823 |
| ## | GSM875414 | 4.690394  | 6.940007 | 5.594282  | 5.478856 | 4.038549 | 8.305263  | 6.400580 |
| ## |           | FEN1      | TAP2     | TTF1      | EVI2A    | CHAF1B   | THBS4     | MAL      |
| ## | GSM875412 | 8.089512  | 7.252371 | 8.237148  | 6.996845 | 5.970285 | 7.828442  | 5.049866 |
| ## | GSM875413 | 6.788914  | 6.529512 | 7.590177  | 6.965344 | 6.117103 | 7.009421  | 6.812978 |
| ## | GSM875414 | 7.760345  | 5.358024 | 7.636728  | 7.021241 | 6.431083 | 6.519853  | 4.273080 |
| ## |           | HOXB7     | FAS      | MLF1      | IFNAR2   | VSIG4    | PPOX      | SMAD7    |
| ## | GSM875412 | 6.213744  | 7.497017 | 3.867328  | 7.953927 | 7.149252 | 6.208345  | 6.567439 |
| ## | GSM875413 | 6.178819  | 7.633298 | 3.840227  | 7.465509 | 7.704637 | 6.444131  | 7.272571 |
| ## | GSM875414 | 6.223051  | 8.739405 | 3.587939  | 7.349206 | 7.424687 | 6.351459  | 5.795078 |
| ## |           | NR2C1     | IFT140   | GPRASP1   | DUSP2    | PRR3     | EML1      | MYB      |
| ## | GSM875412 | 7.978415  | 5.390055 | 6.824471  | 6.456865 | 5.455195 | 5.345388  | 8.756178 |
| ## | GSM875413 | 8.006855  | 5.275687 | 10.606560 | 6.942655 | 5.599570 | 6.714184  | 4.515764 |
| ## | GSM875414 | 8.684333  | 5.901660 | 4.937226  | 5.776146 | 5.933818 | 4.178399  | 7.062057 |
| ## |           | ZBED4     | DHRS12   | RRAD      | TRIM21   | H1-10    | HLA-F     | RXYLT1   |
| ## | GSM875412 | 5.734322  | 6.874722 | 5.434755  | 7.056883 | 7.298010 | 11.563916 | 4.437449 |
| ## | GSM875413 | 4.487543  | 6.846902 | 7.441334  | 6.833861 | 8.911096 | 9.706465  | 6.615264 |
| ## | GSM875414 | 4.324567  | 6.091447 | 4.724584  | 6.396074 | 8.285765 | 10.011487 | 4.563945 |
| ## |           | CLPX      | CKM      | CACNA2D2  | ZW10     | MAPK10   | DHX34     | ESPL1    |

|    |           |           |           |          |           |          |           |          |
|----|-----------|-----------|-----------|----------|-----------|----------|-----------|----------|
| ## | GSM875412 | 7.478209  | 4.050636  | 5.340522 | 8.008126  | 6.281589 | 4.264652  | 6.414084 |
| ## | GSM875413 | 6.628255  | 4.246410  | 6.030661 | 7.103576  | 8.694433 | 4.361354  | 6.333589 |
| ## | GSM875414 | 7.044091  | 4.403542  | 5.467038 | 6.805210  | 5.550117 | 5.742373  | 7.059334 |
| ## |           | HSD17B2   | FGD1      | BTN3A3   | TTK       | ENDOG    | MELK      | CCNF     |
| ## | GSM875412 | 8.308234  | 4.872229  | 8.662545 | 7.592181  | 7.269607 | 8.539369  | 6.318469 |
| ## | GSM875413 | 4.383022  | 6.400118  | 7.156603 | 3.734087  | 6.397608 | 5.039864  | 5.733995 |
| ## | GSM875414 | 10.906209 | 4.851548  | 5.885433 | 4.454330  | 6.176076 | 8.832449  | 6.329215 |
| ## |           | RAD9A     | FOLR2     | PSG5     | BMPR1A    | ATG12    | FGL2      | POLA1    |
| ## | GSM875412 | 6.875693  | 6.425124  | 4.030179 | 7.538623  | 7.641671 | 7.164733  | 7.814932 |
| ## | GSM875413 | 6.657170  | 6.985170  | 3.902945 | 7.841243  | 7.290537 | 10.818289 | 8.057459 |
| ## | GSM875414 | 7.648071  | 7.207192  | 4.161722 | 6.008196  | 7.311680 | 7.032608  | 6.175589 |
| ## |           | GLDC      | MTMR9     | MLH3     | POP5      | EEA1     | PRKAR2A   | ENPEP    |
| ## | GSM875412 | 4.164178  | 7.574975  | 6.163887 | 8.940161  | 3.616000 | 9.514358  | 4.343741 |
| ## | GSM875413 | 4.473325  | 8.138106  | 6.829389 | 10.095326 | 4.109171 | 8.953573  | 3.867484 |
| ## | GSM875414 | 4.915210  | 5.625516  | 5.698990 | 8.711434  | 4.025748 | 8.828688  | 4.329838 |
| ## |           | ZBTB11    | TCFL5     | DCX      | ORC2      | P3H3     | B3GNT3    | MAD1L1   |
| ## | GSM875412 | 8.070848  | 5.475544  | 3.653443 | 7.480159  | 5.910810 | 7.717876  | 7.680886 |
| ## | GSM875413 | 7.515969  | 9.711604  | 3.917634 | 5.402536  | 7.958944 | 6.021216  | 6.774627 |
| ## | GSM875414 | 8.108841  | 4.446766  | 4.425074 | 7.647022  | 6.349498 | 7.790684  | 6.618561 |
| ## |           | TYMP      | APAF1     | NAIP     | NME3      | IL6ST    | CA3       | JADE3    |
| ## | GSM875412 | 6.799078  | 7.181605  | 5.340508 | 7.921578  | 7.843193 | 3.973294  | 6.324001 |
| ## | GSM875413 | 7.155384  | 6.970599  | 4.655975 | 8.709220  | 9.236340 | 3.834779  | 6.181427 |
| ## | GSM875414 | 7.660047  | 7.259306  | 5.016413 | 8.144519  | 6.668365 | 3.413262  | 5.374264 |
| ## |           | GCHFR     | MRPL58    | PCSK2    | MTERF1    | TLE4     | PEX1      | BAIAP3   |
| ## | GSM875412 | 6.640989  | 7.711379  | 3.251434 | 5.477959  | 7.613308 | 6.178193  | 4.578434 |
| ## | GSM875413 | 5.756073  | 7.715885  | 3.350957 | 5.438484  | 9.322030 | 6.566839  | 4.712921 |
| ## | GSM875414 | 6.539009  | 7.734049  | 3.205782 | 5.966423  | 6.468838 | 5.322281  | 5.061964 |
| ## |           | GMDS      | ZNF646    | TAOK2    | PDPN      | MGMT     | UGCG      | HUS1     |
| ## | GSM875412 | 9.464920  | 6.110054  | 4.868425 | 5.944560  | 7.035290 | 10.246253 | 7.485254 |
| ## | GSM875413 | 5.040262  | 6.178099  | 5.112687 | 8.222074  | 7.610092 | 8.853761  | 7.678820 |
| ## | GSM875414 | 11.380213 | 6.195199  | 5.748240 | 6.946405  | 7.129513 | 10.033672 | 7.938016 |
| ## |           | MSLN      | PLK4      | NEURL1   | LCK       | ZFYVE9   | AOC3      | PTGER4   |
| ## | GSM875412 | 9.563043  | 4.056365  | 4.506449 | 5.956585  | 6.883143 | 7.512757  | 8.030823 |
| ## | GSM875413 | 5.191637  | 3.475040  | 4.697999 | 5.517363  | 7.057011 | 6.590264  | 4.564090 |
| ## | GSM875414 | 5.360321  | 3.787424  | 4.647076 | 6.594879  | 5.793785 | 6.868032  | 5.374074 |
| ## |           | SAP30     | ATG4B     | GJA4     | EEF1E1    | BCL3     | TRIM3     | IL10RA   |
| ## | GSM875412 | 4.527351  | 5.976642  | 6.218668 | 8.606657  | 5.075818 | 3.865020  | 7.619534 |
| ## | GSM875413 | 4.213862  | 6.315471  | 6.270548 | 7.885357  | 5.593678 | 4.109783  | 8.277688 |
| ## | GSM875414 | 4.536783  | 5.590727  | 6.601016 | 8.971122  | 6.774610 | 4.600239  | 8.344533 |
| ## |           | SOX11     | RAMP1     | PRR4     | CPS1      | GAS8     | C11orf80  | SASH3    |
| ## | GSM875412 | 3.496471  | 8.313796  | 5.943951 | 5.543712  | 6.760720 | 6.633042  | 6.257804 |
| ## | GSM875413 | 3.695276  | 9.280680  | 6.528963 | 5.732993  | 7.396546 | 5.022727  | 6.816143 |
| ## | GSM875414 | 3.518443  | 5.959552  | 5.989247 | 5.032091  | 7.776491 | 6.646936  | 6.788386 |
| ## |           | TLR2      | CTNS      | INHBA    | RASSF7    | SLC10A3  | VAMP5     | BNIP1    |
| ## | GSM875412 | 7.207554  | 6.051848  | 4.080758 | 7.713071  | 6.435359 | 6.129244  | 6.591260 |
| ## | GSM875413 | 7.811885  | 6.306828  | 3.675268 | 6.663425  | 8.662714 | 6.537030  | 7.931609 |
| ## | GSM875414 | 7.098600  | 6.007027  | 3.806059 | 8.236849  | 7.731835 | 6.476207  | 6.945102 |
| ## |           | TCF21     | TNFRSF11B | HPN      | PTPN2     | MAP4K2   | ZNF274    | PLN      |
| ## | GSM875412 | 5.906449  | 3.520396  | 5.076047 | 3.658653  | 5.564091 | 7.311940  | 6.805354 |
| ## | GSM875413 | 8.765242  | 3.602349  | 4.731067 | 3.610183  | 5.661958 | 8.175927  | 3.979644 |
| ## | GSM875414 | 6.625191  | 3.549768  | 5.163037 | 3.142955  | 5.432008 | 8.275715  | 4.522530 |
| ## |           | ALDH3B2   | PTPRN     | TOP3A    | FST       | ICAM3    | RHOH      | LYPD3    |
| ## | GSM875412 | 3.501416  | 4.081005  | 5.581791 | 6.156169  | 7.134244 | 5.574364  | 6.365213 |
| ## | GSM875413 | 3.817322  | 4.184614  | 5.765670 | 6.763545  | 6.986713 | 5.154228  | 5.819154 |

|    |           |          |           |           |           |           |          |          |
|----|-----------|----------|-----------|-----------|-----------|-----------|----------|----------|
| ## | GSM875414 | 4.359327 | 4.646149  | 5.511344  | 6.417346  | 7.623693  | 6.239293 | 5.820956 |
| ## |           | SNAP91   | DYRK1B    | SRPX      | MTAP      | ORC5      | PLK3     | MNDA     |
| ## | GSM875412 | 3.691755 | 4.651975  | 4.970669  | 4.617131  | 8.382351  | 7.196459 | 6.203608 |
| ## | GSM875413 | 4.607173 | 5.057464  | 10.119069 | 3.895394  | 8.704076  | 7.069329 | 7.599285 |
| ## | GSM875414 | 3.618333 | 5.428397  | 5.416601  | 3.945472  | 7.310453  | 6.435456 | 6.756245 |
| ## |           | CENPA    | GC        | ADGRB2    | SHROOM2   | C6orf47   | RDX      | MAFG     |
| ## | GSM875412 | 7.477890 | 3.429574  | 4.279627  | 3.877887  | 6.600180  | 4.697679 | 6.509993 |
| ## | GSM875413 | 4.704291 | 3.246119  | 4.418241  | 3.712899  | 6.634207  | 4.806235 | 6.327042 |
| ## | GSM875414 | 7.363346 | 4.038977  | 4.307781  | 4.082023  | 6.868314  | 4.091101 | 5.912948 |
| ## |           | CSTA     | OAS2      | GJB1      | RAB3A     | EMP2      | CLASRP   | SH3BGR   |
| ## | GSM875412 | 7.219571 | 6.305736  | 6.742139  | 5.426991  | 9.031151  | 7.408613 | 5.273660 |
| ## | GSM875413 | 6.540605 | 6.503989  | 6.289726  | 5.956719  | 8.093349  | 7.755010 | 7.659035 |
| ## | GSM875414 | 6.980756 | 5.623042  | 8.335032  | 5.371984  | 7.398526  | 7.999632 | 5.773588 |
| ## |           | CLOCK    | SLC22A18  | GPC4      | TRAPPC6A  | ITIH2     | FGF      | ITGB4    |
| ## | GSM875412 | 8.405165 | 9.037831  | 6.211004  | 8.036798  | 4.291051  | 3.869162 | 7.328289 |
| ## | GSM875413 | 8.446598 | 6.486726  | 9.365214  | 6.853768  | 4.285641  | 4.248988 | 4.609333 |
| ## | GSM875414 | 6.878463 | 8.212189  | 5.898513  | 8.342119  | 4.688597  | 4.077872 | 7.578338 |
| ## |           | NF2      | PFN2      | GNAZ      | MX2       | CDK5R1    | ATF5     | AHDC1    |
| ## | GSM875412 | 4.628644 | 8.709062  | 5.822166  | 7.001017  | 3.493350  | 6.832827 | 4.808709 |
| ## | GSM875413 | 4.690451 | 10.531059 | 6.363855  | 7.316680  | 3.399269  | 7.746958 | 5.572737 |
| ## | GSM875414 | 4.763244 | 9.568603  | 5.455384  | 6.636501  | 3.162942  | 7.307309 | 5.897358 |
| ## |           | NKRF     | NMT2      | CIB2      | TFF1      | GNL3L     | VWA5A    | HAGH     |
| ## | GSM875412 | 6.700799 | 6.296342  | 4.827444  | 11.859658 | 7.349964  | 8.971464 | 7.884029 |
| ## | GSM875413 | 7.051204 | 5.984927  | 5.409883  | 8.905885  | 6.773213  | 7.273006 | 8.254075 |
| ## | GSM875414 | 6.707245 | 4.910750  | 5.099261  | 14.113479 | 6.899656  | 6.635106 | 8.370469 |
| ## |           | FGFBP1   | TGFA      | VIPR1     | ARL4A     | FOXN3     | RAD51    | ZBTB48   |
| ## | GSM875412 | 8.497225 | 6.223437  | 7.203301  | 9.055296  | 5.926259  | 3.620835 | 6.124641 |
| ## | GSM875413 | 4.551981 | 4.528355  | 5.482516  | 7.271373  | 6.068985  | 3.635496 | 6.701192 |
| ## | GSM875414 | 5.043918 | 6.157428  | 6.100614  | 10.196011 | 6.719612  | 3.633515 | 6.969100 |
| ## |           | MAP3K8   | TRO       | FABP7     | EFNB3     | ITGA2     | CCNE2    | CTDP1    |
| ## | GSM875412 | 7.714488 | 3.723305  | 3.405557  | 4.676161  | 7.761346  | 5.927744 | 6.701892 |
| ## | GSM875413 | 6.115227 | 3.979567  | 3.223183  | 4.620646  | 7.199317  | 3.871394 | 6.944580 |
| ## | GSM875414 | 5.513747 | 4.079586  | 3.545522  | 4.354058  | 7.987972  | 5.183764 | 6.030057 |
| ## |           | LSM6     | IFT27     | ORM1      | GNE       | CFTR      | GABRP    | AKAP10   |
| ## | GSM875412 | 8.047706 | 6.070904  | 4.405498  | 7.285369  | 7.000542  | 8.159042 | 5.595713 |
| ## | GSM875413 | 7.434402 | 7.582653  | 4.276348  | 7.031832  | 4.927213  | 3.191055 | 4.925285 |
| ## | GSM875414 | 7.465099 | 6.360680  | 8.304526  | 10.524676 | 5.320890  | 8.743935 | 4.441020 |
| ## |           | CENPE    | ASNS      | KIT       | AUH       | PRIM1     | NEB      | ITGAE    |
| ## | GSM875412 | 6.495217 | 8.018477  | 7.482710  | 8.841643  | 6.348194  | 3.970443 | 8.781677 |
| ## | GSM875413 | 4.887719 | 9.245639  | 13.023109 | 7.315478  | 5.936380  | 3.659767 | 9.642610 |
| ## | GSM875414 | 5.331748 | 8.572068  | 6.032757  | 6.894522  | 7.214590  | 7.565371 | 8.536549 |
| ## |           | GPR162   | IDUA      | PARG      | EXOSC9    | ARID4A    | GEMIN2   | SPRR1B   |
| ## | GSM875412 | 5.190050 | 4.250575  | 7.366787  | 7.344921  | 7.184804  | 4.464021 | 3.647585 |
| ## | GSM875413 | 7.400626 | 4.794410  | 7.251295  | 7.343045  | 6.284255  | 4.416638 | 3.656449 |
| ## | GSM875414 | 5.001972 | 5.252018  | 6.795948  | 8.200125  | 6.032028  | 5.482263 | 3.659064 |
| ## |           | ENPP1    | IL1B      | ARHGAP26  | ING3      | XRCC4     | CYP2J2   | SLC22A5  |
| ## | GSM875412 | 3.540184 | 6.603950  | 7.533032  | 8.062158  | 6.488231  | 6.600993 | 6.382300 |
| ## | GSM875413 | 3.424232 | 8.165388  | 6.915014  | 8.765847  | 6.711917  | 4.029845 | 7.922145 |
| ## | GSM875414 | 3.579319 | 8.428153  | 7.207891  | 6.772290  | 5.187203  | 7.147998 | 6.159816 |
| ## |           | SERPINF2 | PIGF      | MPDZ      | RARB      | CRIP1     | AOX1     | BCAP29   |
| ## | GSM875412 | 5.193704 | 9.037021  | 6.776332  | 5.333258  | 8.758571  | 5.664837 | 7.481575 |
| ## | GSM875413 | 5.199949 | 7.428110  | 8.695781  | 5.828752  | 6.348912  | 5.518716 | 9.080182 |
| ## | GSM875414 | 5.207914 | 8.296539  | 5.158663  | 4.681134  | 11.002802 | 5.740375 | 6.238579 |
| ## |           | ORC1     | NCAPH2    | RWDD3     | MAMLD1    | NAGPA     | RECQL    | PLEKHA6  |

|    |           |          |           |          |          |           |          |          |
|----|-----------|----------|-----------|----------|----------|-----------|----------|----------|
| ## | GSM875412 | 4.205291 | 5.622266  | 7.493217 | 5.805109 | 6.982397  | 7.586804 | 5.982222 |
| ## | GSM875413 | 4.116621 | 6.824770  | 7.001567 | 4.737873 | 6.914542  | 7.442244 | 5.572247 |
| ## | GSM875414 | 4.373278 | 6.759835  | 6.931316 | 5.650648 | 7.897325  | 6.439681 | 6.524858 |
| ## |           | PEX12    | ATP6VOA1  | POM121   | SLC26A2  | CCR1      | GFPT2    | CIITA    |
| ## | GSM875412 | 5.998783 | 5.794508  | 6.211250 | 6.883292 | 6.120477  | 5.773045 | 5.565559 |
| ## | GSM875413 | 7.331090 | 6.139379  | 5.817762 | 8.240082 | 7.196627  | 8.098933 | 5.643379 |
| ## | GSM875414 | 4.868075 | 7.260543  | 6.300602 | 6.460105 | 6.209367  | 4.819388 | 5.168072 |
| ## |           | SNPH     | MAN2A1    | EFNA4    | APOB     | ARHGEF4   | NEFM     | RBM19    |
| ## | GSM875412 | 6.195049 | 8.468441  | 7.309037 | 3.976932 | 6.436437  | 3.395030 | 5.660574 |
| ## | GSM875413 | 7.256944 | 8.470842  | 5.330162 | 4.634404 | 5.044763  | 4.141558 | 7.119827 |
| ## | GSM875414 | 5.558815 | 7.900902  | 6.862120 | 4.695855 | 5.281513  | 3.670157 | 5.189179 |
| ## |           | LAMA2    | FPR1      | SGCB     | PLCD1    | VRK2      | PTGS1    | NPM3     |
| ## | GSM875412 | 7.034226 | 4.070285  | 7.953098 | 6.977445 | 8.139056  | 5.855691 | 6.533287 |
| ## | GSM875413 | 5.849609 | 3.969385  | 7.948473 | 7.535096 | 6.510504  | 5.268537 | 5.953068 |
| ## | GSM875414 | 5.509386 | 3.941976  | 7.565511 | 7.833378 | 6.620958  | 5.736257 | 7.496659 |
| ## |           | MOK      | CLEC11A   | ACTC1    | HSPE1    | NUFIP1    | USH1C    | UST      |
| ## | GSM875412 | 5.939843 | 5.237581  | 6.875204 | 10.47869 | 6.104972  | 7.793637 | 4.226653 |
| ## | GSM875413 | 6.429260 | 8.914165  | 6.760352 | 10.02681 | 5.049954  | 5.638966 | 4.187107 |
| ## | GSM875414 | 6.538893 | 5.506475  | 7.127091 | 10.04715 | 5.759871  | 8.758318 | 4.416731 |
| ## |           | FPGT     | ANG       | ABCD1    | NCAN     | MYL5      | APBA3    | NCF4     |
| ## | GSM875412 | 6.483789 | 6.753400  | 6.214350 | 3.635254 | 5.616064  | 5.656305 | 6.845083 |
| ## | GSM875413 | 6.468765 | 6.758109  | 6.635152 | 3.448157 | 5.454919  | 5.785035 | 6.356098 |
| ## | GSM875414 | 6.453691 | 10.139909 | 7.127935 | 3.597983 | 5.608608  | 5.851539 | 6.048399 |
| ## |           | CLCN4    | TRIL      | SLC6A1   | CD40     | LRRN2     | SPTBN2   | ASIC1    |
| ## | GSM875412 | 4.097721 | 4.289779  | 3.706376 | 5.966637 | 4.297541  | 5.761139 | 4.867944 |
| ## | GSM875413 | 4.955901 | 7.727407  | 3.573927 | 8.606003 | 4.418290  | 5.794428 | 6.537831 |
| ## | GSM875414 | 4.408461 | 4.302139  | 3.542030 | 6.792530 | 4.286573  | 5.673103 | 4.841409 |
| ## |           | KRT17    | RNASE4    | CSF2RB   | PEX11A   | MYL11     | GCAT     | CELSR3   |
| ## | GSM875412 | 5.051824 | 8.291046  | 6.431416 | 5.838430 | 5.468692  | 6.830529 | 5.134052 |
| ## | GSM875413 | 4.982142 | 9.241506  | 6.150496 | 7.000904 | 5.589389  | 7.411399 | 5.082334 |
| ## | GSM875414 | 5.625282 | 10.976160 | 6.377335 | 5.648415 | 6.076150  | 7.139945 | 5.342815 |
| ## |           | CAPN5    | CDC25C    | DDR2     | RBBP5    | STAT2     | PTPN4    | CLTB     |
| ## | GSM875412 | 7.193736 | 5.010491  | 7.554971 | 6.257591 | 5.641907  | 7.707489 | 8.090813 |
| ## | GSM875413 | 5.956795 | 4.538781  | 9.399339 | 6.937544 | 5.088977  | 5.708001 | 8.684418 |
| ## | GSM875414 | 8.366254 | 5.230341  | 7.589348 | 7.245081 | 5.855596  | 6.926452 | 9.054987 |
| ## |           | CD58     | QPCT      | KHK      | ITGB3BP  | TNNI1     | ADAM8    | ZSCAN9   |
| ## | GSM875412 | 9.221813 | 4.218530  | 4.750837 | 8.423915 | 4.088753  | 4.779311 | 5.904182 |
| ## | GSM875413 | 7.355698 | 4.857344  | 4.973075 | 8.184826 | 4.740051  | 5.009064 | 5.919746 |
| ## | GSM875414 | 8.935919 | 4.314703  | 6.241304 | 7.506588 | 5.850425  | 5.820934 | 5.606663 |
| ## |           | ZNF324   | SPINK5    | DNALI1   | SMAD5    | PLS1      | MAP3K14  | MAFF     |
| ## | GSM875412 | 5.304046 | 6.025416  | 5.541961 | 6.926416 | 10.950091 | 5.774900 | 8.059898 |
| ## | GSM875413 | 6.476425 | 4.749004  | 6.601709 | 6.755726 | 4.212031  | 7.015688 | 7.680221 |
| ## | GSM875414 | 6.336038 | 5.665738  | 7.101890 | 5.323934 | 10.298492 | 5.768932 | 6.959414 |
| ## |           | PSPH     | AP1S1     | ATP7A    | CA9      | PCMT1     | NMB      | RELB     |
| ## | GSM875412 | 5.120209 | 6.413340  | 6.839298 | 8.886833 | 9.79062   | 6.840830 | 5.813094 |
| ## | GSM875413 | 5.927376 | 6.272303  | 8.621055 | 6.120447 | 9.42076   | 6.786331 | 6.662616 |
| ## | GSM875414 | 6.757209 | 5.657883  | 7.721020 | 6.978488 | 9.16493   | 6.914077 | 6.473657 |
| ## |           | ANOS1    | IL6       | ALDH1L1  | ACVR1B   | TGFBRAP1  | RIN1     | ACAP1    |
| ## | GSM875412 | 7.101600 | 5.825978  | 5.646443 | 6.728722 | 6.701130  | 6.618829 | 5.711912 |
| ## | GSM875413 | 6.740332 | 7.965698  | 5.053207 | 5.779734 | 5.419779  | 7.009721 | 5.697495 |
| ## | GSM875414 | 5.376358 | 6.750702  | 5.491116 | 7.505504 | 6.787361  | 7.324786 | 5.371946 |
| ## |           | STK17B   | RNF2      | APOH     | TIMM8A   | POLR3F    | GALK2    | HCAR3    |
| ## | GSM875412 | 7.181831 | 5.843173  | 3.804381 | 4.960908 | 5.741171  | 6.815262 | 4.124066 |
| ## | GSM875413 | 4.560951 | 5.666216  | 4.026698 | 5.465104 | 6.654946  | 5.509068 | 4.659798 |



|    |           |          |          |           |          |           |           |          |
|----|-----------|----------|----------|-----------|----------|-----------|-----------|----------|
| ## | GSM875414 | 5.965590 | 5.752981 | 5.322816  | 4.623049 | 5.467884  | 7.980983  | 4.764104 |
| ## |           | HGD      | EHHADH   | DEPDC5    | SURF2    | ESR1      | PDGFRL    | IL1RAP   |
| ## | GSM875412 | 7.722117 | 5.216033 | 6.204877  | 5.715088 | 4.362898  | 4.608424  | 6.236982 |
| ## | GSM875413 | 5.484238 | 4.508393 | 5.916611  | 5.682772 | 4.143111  | 7.052740  | 6.095469 |
| ## | GSM875414 | 8.533067 | 4.579580 | 6.142872  | 5.352891 | 3.512271  | 4.653382  | 5.996514 |
| ## |           | RBMS2    | RPH3A    | EPM2A     | PAFAH2   | SLC16A4   | KIF20B    | SOD3     |
| ## | GSM875412 | 5.495029 | 4.500383 | 5.546405  | 6.837723 | 5.257562  | 6.971544  | 6.591008 |
| ## | GSM875413 | 6.343722 | 4.565661 | 6.093949  | 5.468155 | 7.015086  | 6.272459  | 8.237213 |
| ## | GSM875414 | 5.785054 | 4.495131 | 4.231186  | 5.214615 | 4.805093  | 6.555998  | 7.407451 |
| ## |           | GPSM2    | SC02     | CXCL13    | SLC13A3  | PARDA6    | NOTCH4    | DOP1B    |
| ## | GSM875412 | 8.025416 | 6.778242 | 7.018670  | 4.789308 | 6.452350  | 5.905766  | 5.784666 |
| ## | GSM875413 | 6.334613 | 7.527480 | 4.171639  | 4.684195 | 6.745408  | 6.386946  | 5.485147 |
| ## | GSM875414 | 7.679815 | 7.953998 | 5.863461  | 4.370237 | 6.900875  | 6.809582  | 8.084419 |
| ## |           | EGR2     | PER2     | ZNF174    | PBX1     | TCF7      | ZBTB39    | AMPH     |
| ## | GSM875412 | 6.838559 | 9.329066 | 5.517762  | 5.512477 | 5.086336  | 4.787706  | 4.106225 |
| ## | GSM875413 | 8.419276 | 8.641133 | 5.689006  | 6.304549 | 4.846635  | 5.746946  | 7.576096 |
| ## | GSM875414 | 7.359216 | 7.447415 | 5.912908  | 5.813712 | 5.534518  | 3.968403  | 3.943769 |
| ## |           | INHBB    | NR3C2    | ACYP1     | KCNH2    | POLR1G    | LIF       | POU2AF1  |
| ## | GSM875412 | 6.209254 | 6.818300 | 7.547834  | 5.055532 | 6.810423  | 7.663812  | 7.157462 |
| ## | GSM875413 | 5.319179 | 7.878560 | 6.330179  | 8.711661 | 6.651290  | 6.462758  | 5.499831 |
| ## | GSM875414 | 7.057012 | 5.733892 | 6.216557  | 4.734666 | 6.817419  | 6.631003  | 8.554059 |
| ## |           | ADD2     | LCP2     | CDK20     | PITRM1   | GTPBP1    | GAD1      | GLRB     |
| ## | GSM875412 | 4.226733 | 6.761225 | 6.011840  | 8.205974 | 4.829178  | 3.559125  | 4.301449 |
| ## | GSM875413 | 4.139610 | 6.738639 | 7.204474  | 8.898561 | 4.657656  | 3.377978  | 6.096729 |
| ## | GSM875414 | 4.944582 | 6.578931 | 6.163244  | 8.307309 | 4.844651  | 3.300576  | 4.255891 |
| ## |           | PIGA     | LRP8     | FKTN      | URB2     | FYB1      | TFAP2C    | CDC14A   |
| ## | GSM875412 | 6.279634 | 7.369048 | 6.628480  | 6.835485 | 6.218170  | 7.712727  | 3.688212 |
| ## | GSM875413 | 5.834487 | 3.701549 | 6.553957  | 6.023685 | 5.583817  | 4.063282  | 3.381904 |
| ## | GSM875414 | 6.084976 | 4.746966 | 5.867404  | 6.198145 | 6.795091  | 5.542451  | 3.502591 |
| ## |           | BMP2     | IL2RB    | HNRNPA2B1 | BAIAP2   | CKMT2     | SNRNP35   | OGG1     |
| ## | GSM875412 | 6.492766 | 7.105179 | 11.84298  | 9.179475 | 4.738326  | 7.256719  | 5.750726 |
| ## | GSM875413 | 4.845976 | 6.344032 | 11.14652  | 6.129504 | 5.221285  | 7.842810  | 5.764741 |
| ## | GSM875414 | 7.369135 | 7.208179 | 11.31636  | 7.227436 | 4.894482  | 7.351965  | 4.842226 |
| ## |           | IGFBP1   | KCNJ8    | FGL1      | KMO      | FBX046    | DDC       | SP11     |
| ## | GSM875412 | 4.029194 | 5.152757 | 5.761053  | 4.672183 | 6.081061  | 9.102315  | 4.903106 |
| ## | GSM875413 | 3.165111 | 8.832344 | 5.249125  | 4.263059 | 5.537262  | 5.167873  | 5.444026 |
| ## | GSM875414 | 3.159066 | 5.147950 | 5.123285  | 4.597667 | 6.915043  | 10.085404 | 5.649346 |
| ## |           | HNF1B    | SNTB2    | SLC15A2   | KIF5A    | PSCA      | APC2      | EIF2S3   |
| ## | GSM875412 | 7.082046 | 4.080480 | 5.006747  | 5.184238 | 10.504445 | 6.357484  | 9.661954 |
| ## | GSM875413 | 6.929739 | 4.417659 | 4.444707  | 4.975023 | 5.372859  | 6.317704  | 8.515826 |
| ## | GSM875414 | 8.209174 | 4.275061 | 4.710081  | 4.826524 | 12.967406 | 6.629930  | 9.218440 |
| ## |           | MTF1     | FTSJ1    | PHYHIP    | RAMP3    | ACVR2A    | SNX4      | MN1      |
| ## | GSM875412 | 7.233824 | 8.379304 | 4.579370  | 6.559180 | 7.835653  | 7.471590  | 5.355032 |
| ## | GSM875413 | 7.128781 | 8.362920 | 5.321352  | 6.306712 | 6.949941  | 6.906286  | 6.789990 |
| ## | GSM875414 | 7.118597 | 8.796890 | 5.227493  | 6.578651 | 7.730884  | 7.160352  | 4.200186 |
| ## |           | REEP2    | RCE1     | S100A1    | SRP19    | PVALB     | DCT       | STIL     |
| ## | GSM875412 | 6.250121 | 5.942461 | 4.500383  | 9.374905 | 3.881313  | 3.523706  | 7.888897 |
| ## | GSM875413 | 7.456441 | 6.226987 | 4.482754  | 9.656963 | 3.929814  | 3.384620  | 5.128738 |
| ## | GSM875414 | 6.368654 | 6.651755 | 6.980390  | 9.541132 | 3.735837  | 3.047197  | 6.961452 |
| ## |           | EHD2     | SULT1C2  | CSPG5     | BARD1    | ST3GAL2   | TMSB15A   | GNA15    |
| ## | GSM875412 | 6.100198 | 7.390676 | 4.318409  | 7.855625 | 4.441031  | 4.343104  | 4.743105 |
| ## | GSM875413 | 6.544506 | 4.023463 | 4.721585  | 7.242648 | 5.445998  | 5.511065  | 5.298718 |
| ## | GSM875414 | 6.705186 | 6.965083 | 5.610773  | 7.987624 | 4.893181  | 4.112551  | 5.314545 |
| ## |           | GGCX     | SERPINI1 | PEBP1     | ACADSB   | USP13     | AGTR1     | GRIA2    |

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## GSM875412 7.111303 5.327806 9.707626 4.645274 5.757127 4.341258 3.588410
## GSM875413 6.856338 8.233149 11.333796 4.911295 7.574338 7.279465 3.596434
## GSM875414 6.735440 5.915304 8.676499 4.510710 7.304284 4.045476 3.665890
## AKAP6 PFDN4 BBOX1 ACOX2 HOXB6 SH2B2 FAM131B
## GSM875412 4.290322 5.069059 3.467112 6.197555 4.382708 7.386958 4.177012
## GSM875413 4.097020 5.590198 3.831056 7.796106 4.171639 7.507252 4.263918
## GSM875414 4.258457 6.747962 3.875471 6.045210 4.099850 6.967783 4.205317
## DBT PLAG1 CTNNA2 SLN MDFI ACHE CBR3
## GSM875412 6.263715 3.886418 3.597413 4.331929 5.500438 4.896467 6.145469
## GSM875413 5.212400 4.170382 3.594191 4.174094 6.329401 5.481170 5.532932
## GSM875414 6.795082 4.173265 3.609308 4.908141 5.407581 5.148498 7.027872
## PDZK1 LRRC17 CFD ZBTB20 FXD1 MDM2 TNNC2
## GSM875412 5.442465 6.147771 6.904617 8.636412 6.014813 4.219239 4.909387
## GSM875413 3.751260 5.396534 6.241168 10.770523 6.050654 4.117028 4.920198
## GSM875414 3.540588 4.700985 7.360004 8.519015 6.285603 4.035954 5.226092
## ANK1 CHEK1 MRE11 SMAD3 DCLK1 WAS AGPS
## GSM875412 3.751000 5.913778 8.081605 5.659476 5.390880 5.076870 7.798262
## GSM875413 3.732770 4.584225 6.093808 5.321131 7.578493 4.906346 5.657827
## GSM875414 3.729169 5.492089 7.295160 5.124958 4.751937 5.141684 8.177849
## PRSS2 IL1R2 HSD11B1 SEMA5A SPA17 FOXL2 ATP2B4
## GSM875412 7.694719 7.610068 5.655901 7.163430 7.186646 6.478312 5.552774
## GSM875413 6.413513 5.009850 6.150899 6.183362 6.221296 5.990167 4.640767
## GSM875414 7.807819 8.738966 5.035893 6.383556 5.471537 7.572440 4.648363
## MPPED2 ARHGAP44 ATXN3 DAG1 FES GPR183 PEX7
## GSM875412 3.432926 7.064912 5.724032 9.637998 5.348530 7.908812 7.629068
## GSM875413 9.464764 7.432727 6.266913 8.657857 5.509323 7.159976 6.456781
## GSM875414 3.325454 5.343423 6.244013 8.869317 5.538560 7.696447 6.108024
## SLC22A3 AP1B1 TBKBP1 ZNF354A CALB2 BMP5 OVGP1
## GSM875412 5.627038 7.439497 5.235566 6.014813 4.777645 3.427741 6.365213
## GSM875413 3.564061 7.395312 5.822543 6.965388 4.654047 3.356180 7.038961
## GSM875414 3.311040 7.724707 5.372995 6.260248 4.898476 3.323522 6.151386
## BCHE AAK1 H2AX ZNF211 NPY1R OCEL1 SNAPC1
## GSM875412 4.170077 8.169535 7.938765 6.255390 3.413769 7.018093 7.540539
## GSM875413 10.738738 7.777545 7.564079 7.662271 3.151764 6.958886 5.888622
## GSM875414 3.350603 7.048403 8.382177 7.287222 3.496357 7.058354 6.322007
## ATP2A1 PRL MAP3K12 SAC3D1 PHKA1 FOXO4 PIGB
## GSM875412 3.811458 4.141164 5.400015 6.603711 7.105048 5.794417 7.282570
## GSM875413 4.140852 4.473325 7.617692 5.677603 7.358983 6.632211 7.925450
## GSM875414 4.406284 4.345365 6.010851 7.498276 6.203613 5.344747 6.390562
## HOXB2 HPCA MST1R CD3E ILRUN MC1R NPAS2
## GSM875412 7.535802 5.625101 8.616483 5.422236 5.519364 5.644681 5.931493
## GSM875413 8.475690 5.871834 5.113749 4.977059 5.086435 6.304415 6.363813
## GSM875414 5.943815 5.927825 7.836931 5.751048 6.772322 5.538553 7.160247
## RAB35 HPCAL1 PDGFA SCNN1B HS3ST1 CASP10 IRF5
## GSM875412 5.064395 6.901502 7.573764 4.116236 5.263935 7.381041 4.315780
## GSM875413 5.300672 5.704867 5.687592 4.637173 5.029500 5.553207 4.498473
## GSM875414 5.759359 7.977435 7.557901 4.841021 5.206463 5.868014 4.942059
## KLK11 DACH1 CRLF3 SCRG1 CCL20 AMBP PPP1R1A
## GSM875412 10.232141 5.589745 9.272675 6.634820 8.850600 4.387327 4.451247
## GSM875413 4.922136 3.415169 7.274438 7.429385 4.589902 4.420772 5.572308
## GSM875414 5.447759 3.864656 8.133991 5.606264 11.176860 4.851061 6.009585
## PLAUG UGP2 ADORA1 SNX15 ISG15 SIT1 RYR1
## GSM875412 8.050408 10.539567 4.342524 6.832837 9.061386 5.260232 4.055421
## GSM875413 6.155214 10.367417 4.805839 6.876114 9.646243 5.366130 4.204186

```

|    |           |          |          |          |           |          |          |          |
|----|-----------|----------|----------|----------|-----------|----------|----------|----------|
| ## | GSM875414 | 7.663811 | 9.916107 | 4.968453 | 6.793644  | 9.803764 | 6.336038 | 6.002466 |
| ## |           | TESK2    | VGLL1    | GZMA     | CRYM      | GJB3     | DPYSL4   | ZNF821   |
| ## | GSM875412 | 6.241236 | 4.612590 | 6.224002 | 5.960736  | 8.234242 | 5.014734 | 4.707007 |
| ## | GSM875413 | 7.198661 | 4.548225 | 5.849609 | 5.817252  | 5.980280 | 5.144214 | 5.182988 |
| ## | GSM875414 | 6.046333 | 5.437190 | 5.741933 | 5.968268  | 8.171781 | 5.565829 | 5.030913 |
| ## |           | GNLY     | KIAA0408 | ZNF175   | GHR       | SRPX2    | C5       | PDE10A   |
| ## | GSM875412 | 4.444576 | 3.134233 | 6.402193 | 4.136215  | 5.866268 | 4.888746 | 5.915348 |
| ## | GSM875413 | 4.856433 | 3.326554 | 7.069243 | 10.007276 | 9.864751 | 6.327549 | 4.876457 |
| ## | GSM875414 | 5.712074 | 3.247390 | 6.674079 | 3.832898  | 5.234297 | 5.305586 | 3.625362 |
| ## |           | PTPN14   | BTK      | GCNT1    | ARHGEF15  | SCN1B    | CPB1     | AIFM1    |
| ## | GSM875412 | 4.484803 | 5.699351 | 6.227497 | 4.744392  | 5.750435 | 3.830757 | 7.646186 |
| ## | GSM875413 | 4.121756 | 5.525860 | 4.795701 | 5.027557  | 6.400112 | 3.700595 | 8.573129 |
| ## | GSM875414 | 5.010887 | 4.894501 | 5.749942 | 4.944368  | 5.952396 | 4.588063 | 7.798829 |
| ## |           | TCN1     | ZNF415   | PRSS12   | CIZ1      | WDR76    | EXOG     | HAPLN1   |
| ## | GSM875412 | 7.273704 | 3.876469 | 6.144063 | 8.189099  | 5.297873 | 5.314268 | 3.583856 |
| ## | GSM875413 | 4.705598 | 6.140063 | 3.646001 | 8.860385  | 4.498592 | 5.137030 | 3.269466 |
| ## | GSM875414 | 8.670568 | 4.447594 | 4.458340 | 8.325820  | 5.183838 | 5.087853 | 3.450612 |
| ## |           | KATNA1   | GEMIN4   | ETFDH    | CDH6      | PCDH7    | VAV2     | CORO2A   |
| ## | GSM875412 | 7.346730 | 5.751675 | 5.323155 | 4.136995  | 5.576691 | 6.506557 | 7.770920 |
| ## | GSM875413 | 7.427725 | 5.584390 | 5.342216 | 6.821346  | 4.646365 | 7.217203 | 4.260754 |
| ## | GSM875414 | 6.725944 | 5.545952 | 5.567882 | 4.109376  | 4.360966 | 6.234570 | 7.433258 |
| ## |           | RRAGB    | GSPT2    | STEAP1   | CR2       | DNAJC8   | TYK2     | BTG3     |
| ## | GSM875412 | 4.432267 | 4.921341 | 7.931323 | 4.403970  | 9.212457 | 8.137007 | 7.887069 |
| ## | GSM875413 | 4.951026 | 8.985611 | 4.851061 | 3.827968  | 9.361396 | 8.245125 | 8.041969 |
| ## | GSM875414 | 4.643027 | 4.913364 | 9.096990 | 3.849551  | 8.691400 | 8.180040 | 7.733019 |
| ## |           | PCP4     | BABAM2   | SV2B     | CSRP3     | MSX2     | BPI      | TRAF6    |
| ## | GSM875412 | 5.548460 | 8.693514 | 5.011515 | 3.675591  | 5.654253 | 4.185405 | 6.769819 |
| ## | GSM875413 | 4.798087 | 8.810308 | 4.851763 | 3.689356  | 4.122328 | 4.352573 | 6.226244 |
| ## | GSM875414 | 4.609790 | 7.931772 | 4.699256 | 4.024038  | 4.998138 | 4.261755 | 6.807358 |
| ## |           | PCSK5    | RPP38    | KISS1    | PAGE4     | FXN      | ABHD2    | CHST1    |
| ## | GSM875412 | 7.650821 | 7.795652 | 3.980813 | 4.046651  | 6.561866 | 7.619568 | 5.373826 |
| ## | GSM875413 | 6.418952 | 6.537294 | 4.193708 | 4.385725  | 5.293912 | 6.347318 | 7.436006 |
| ## | GSM875414 | 4.356988 | 7.755221 | 4.443496 | 4.963410  | 4.760894 | 8.328350 | 5.332710 |
| ## |           | AQP9     | LAMP3    | PIP4K2A  | LIPT1     | ANGPT2   | SNX7     | C1QL1    |
| ## | GSM875412 | 5.954159 | 5.291944 | 4.587422 | 6.841249  | 5.992702 | 9.759522 | 4.724398 |
| ## | GSM875413 | 5.891420 | 4.591938 | 5.255403 | 8.215853  | 4.761572 | 9.006568 | 9.476653 |
| ## | GSM875414 | 5.758620 | 5.941642 | 4.831696 | 6.626812  | 5.910813 | 9.281850 | 5.224350 |
| ## |           | SERPIND1 | PYGM     | ROR2     | HRH1      | NOS3     | GGT5     | ALG13    |
| ## | GSM875412 | 3.431488 | 4.497227 | 4.615248 | 6.002519  | 4.367266 | 6.526972 | 7.121800 |
| ## | GSM875413 | 3.592370 | 5.297430 | 5.836026 | 4.571283  | 4.740148 | 5.600505 | 8.432408 |
| ## | GSM875414 | 3.937141 | 5.105127 | 4.171764 | 4.888672  | 5.921021 | 6.801152 | 6.511667 |
| ## |           | ETV6     | VGF      | MYL3     | RASGRP1   | OLFM1    | PDE9A    | ZNF652   |
| ## | GSM875412 | 6.397659 | 5.391806 | 5.246774 | 6.719032  | 5.267989 | 5.274335 | 8.040444 |
| ## | GSM875413 | 5.395327 | 5.532989 | 5.812590 | 4.158128  | 5.755916 | 7.436679 | 6.851408 |
| ## | GSM875414 | 6.028787 | 5.782611 | 5.567716 | 6.233374  | 7.491779 | 5.650788 | 8.350697 |
| ## |           | DSG3     | SMURF2   | TRAIP    | TRAF1     | HOXB5    | PSG7     | DIAPH2   |
| ## | GSM875412 | 7.614594 | 8.858652 | 5.262648 | 5.198054  | 5.848737 | 4.657840 | 7.625888 |
| ## | GSM875413 | 3.973771 | 7.648209 | 5.032373 | 5.930469  | 7.020135 | 4.519912 | 8.224763 |
| ## | GSM875414 | 4.511125 | 8.140700 | 4.829412 | 5.233022  | 4.912709 | 5.201727 | 5.099671 |
| ## |           | HOXD9    | LRP6     | SCYL3    | MYOM1     | TNFSF12  | MMRN1    | SYT17    |
| ## | GSM875412 | 4.402623 | 6.674665 | 6.775035 | 4.386315  | 5.578584 | 3.646314 | 6.252304 |
| ## | GSM875413 | 4.636450 | 7.268243 | 6.097276 | 4.626477  | 6.603880 | 3.523130 | 5.908633 |
| ## | GSM875414 | 4.199399 | 6.199179 | 6.195919 | 4.568086  | 5.347656 | 3.320710 | 5.794974 |
| ## |           | MST1     | CPA1     | PRRG2    | PRRG1     | MEOX1    | F10      | ALKBH1   |

|    |           |          |          |          |          |          |          |           |
|----|-----------|----------|----------|----------|----------|----------|----------|-----------|
| ## | GSM875412 | 7.414124 | 3.392426 | 5.538379 | 7.659782 | 4.867182 | 5.390049 | 7.101600  |
| ## | GSM875413 | 6.967953 | 3.572306 | 5.118364 | 7.866239 | 5.243037 | 6.937717 | 7.621512  |
| ## | GSM875414 | 9.755534 | 3.742712 | 5.970591 | 5.342522 | 4.961490 | 4.913646 | 7.320400  |
| ## |           | SMPD2    | ALDH3A1  | CPA3     | CALB1    | CDA      | CRH      | KIAA0586  |
| ## | GSM875412 | 7.049440 | 6.444879 | 7.301153 | 3.368613 | 6.326393 | 4.673088 | 6.577172  |
| ## | GSM875413 | 6.643871 | 5.410991 | 4.326018 | 3.206454 | 5.022120 | 5.016448 | 6.817319  |
| ## | GSM875414 | 7.325145 | 6.864949 | 9.500598 | 3.296604 | 9.139884 | 5.351559 | 5.900842  |
| ## |           | PIP5K1B  | ALAS1    | KALRN    | SH3GL3   | ADGRB3   | AOAH     | CNTRL     |
| ## | GSM875412 | 9.679452 | 9.213197 | 4.027925 | 4.709921 | 3.333552 | 6.598210 | 6.054880  |
| ## | GSM875413 | 7.651743 | 7.793544 | 4.120885 | 4.590778 | 8.042095 | 7.111381 | 5.914399  |
| ## | GSM875414 | 8.060550 | 8.813050 | 3.709633 | 4.403030 | 3.385525 | 7.019804 | 5.694665  |
| ## |           | PPP2R2B  | SNRPG    | REPS2    | PAX6     | RAD52    | WNT2     | FGA       |
| ## | GSM875412 | 3.895625 | 11.41612 | 7.210245 | 5.376439 | 5.030210 | 7.131389 | 3.204143  |
| ## | GSM875413 | 3.973771 | 10.81622 | 6.749450 | 5.400251 | 5.224679 | 5.405880 | 3.129166  |
| ## | GSM875414 | 4.263693 | 10.38263 | 6.024477 | 5.887341 | 4.458574 | 5.617911 | 3.222080  |
| ## |           | RAPGEF4  | TTL1     | CTSG     | C4BPA    | MDM4     | PCDH17   | HAAO      |
| ## | GSM875412 | 3.653714 | 5.533438 | 5.368509 | 4.815936 | 5.974829 | 6.409268 | 6.166487  |
| ## | GSM875413 | 5.445116 | 6.841597 | 5.429536 | 4.727555 | 4.068366 | 9.766719 | 7.007627  |
| ## | GSM875414 | 3.638382 | 6.478456 | 6.322563 | 5.227405 | 4.734620 | 6.868771 | 6.384701  |
| ## |           | SNAPC4   | OASL     | FLAD1    | B9D1     | PCBP3    | KIN      | TSPAN9    |
| ## | GSM875412 | 5.641907 | 5.422236 | 7.469698 | 5.838430 | 5.102279 | 6.952746 | 5.006076  |
| ## | GSM875413 | 5.645243 | 4.293322 | 6.492141 | 6.949941 | 6.798341 | 6.132800 | 4.738930  |
| ## | GSM875414 | 5.833918 | 4.278096 | 7.677091 | 5.963461 | 5.398125 | 7.529030 | 4.717221  |
| ## |           | FMO1     | WRN      | LY75     | NCAM2    | GAL3ST1  | XPA      | ASB9      |
| ## | GSM875412 | 5.247543 | 6.381834 | 9.693235 | 3.413002 | 5.336553 | 8.050078 | 4.296298  |
| ## | GSM875413 | 4.244810 | 6.960790 | 4.171222 | 3.767550 | 4.822001 | 8.106007 | 3.949981  |
| ## | GSM875414 | 4.589946 | 6.235975 | 6.276606 | 3.962632 | 6.743687 | 7.398117 | 4.201742  |
| ## |           | MTTP     | CYP27B1  | DLEU1    | MMP10    | BCL2A1   | APOM     | DENND4C   |
| ## | GSM875412 | 3.421920 | 4.222041 | 7.356613 | 3.995668 | 6.049466 | 5.134704 | 6.923606  |
| ## | GSM875413 | 3.746338 | 3.816872 | 7.462307 | 7.518629 | 6.191750 | 4.951297 | 6.487713  |
| ## | GSM875414 | 3.408563 | 4.849376 | 7.126886 | 6.515425 | 6.901577 | 6.179074 | 5.598525  |
| ## |           | CD86     | UBFD1    | TFAP4    | BUD31    | SYNGR3   | CD38     | TYRP1     |
| ## | GSM875412 | 5.638394 | 6.837609 | 5.852514 | 9.145027 | 4.706182 | 5.767850 | 7.268875  |
| ## | GSM875413 | 5.959249 | 6.424079 | 5.656197 | 9.668178 | 4.148232 | 5.017518 | 12.267239 |
| ## | GSM875414 | 5.537166 | 7.264529 | 4.616272 | 9.714410 | 7.141234 | 6.315917 | 4.050300  |
| ## |           | GFRA1    | SCGN     | MAP2K6   | HSD17B6  | IP08     | PHTF1    | ANKRD26   |
| ## | GSM875412 | 3.748762 | 4.376266 | 7.410757 | 5.429752 | 6.417634 | 5.845621 | 4.394516  |
| ## | GSM875413 | 6.904371 | 4.798093 | 7.542473 | 4.301916 | 5.602751 | 5.268410 | 4.153704  |
| ## | GSM875414 | 3.628747 | 5.501124 | 5.636477 | 4.618444 | 5.744367 | 4.971208 | 4.029055  |
| ## |           | IL17RA   | TRPM2    | CDS1     | LRP2     | ATP5F1C  | PTPRD    | COMP      |
| ## | GSM875412 | 7.039295 | 6.388216 | 9.036733 | 3.633513 | 11.76828 | 3.941968 | 6.218044  |
| ## | GSM875413 | 6.859554 | 6.287479 | 5.216270 | 3.672351 | 10.67939 | 4.482007 | 5.049962  |
| ## | GSM875414 | 6.648035 | 7.030620 | 9.238272 | 4.050621 | 11.19794 | 4.082606 | 6.051814  |
| ## |           | ZMYND10  | BST1     | SLC25A40 | ITGB7    | PAH      | POMC     | GFRA2     |
| ## | GSM875412 | 5.714336 | 4.319644 | 6.836738 | 6.365213 | 3.357101 | 4.738284 | 4.970800  |
| ## | GSM875413 | 5.725703 | 4.565842 | 5.731786 | 6.466184 | 3.271169 | 5.275687 | 4.922799  |
| ## | GSM875414 | 5.954382 | 4.121586 | 6.239534 | 7.078971 | 7.415688 | 5.059260 | 4.931946  |
| ## |           | CNTFR    | PKP1     | SCGB1A1  | TEP1     | ABLIM3   | NCOA2    | BLM       |
| ## | GSM875412 | 5.569158 | 4.487118 | 3.869733 | 4.996836 | 5.922396 | 6.014813 | 6.350441  |
| ## | GSM875413 | 7.182681 | 4.902247 | 4.053934 | 4.361529 | 5.752774 | 5.688241 | 5.292933  |
| ## | GSM875414 | 5.442340 | 6.096264 | 4.128707 | 5.055435 | 5.210973 | 5.163952 | 6.326605  |
| ## |           | PGAM2    | KCNQ2    | FABP3    | RBM42    | DTNA     | TNNI3    | STAC      |
| ## | GSM875412 | 3.862705 | 4.320835 | 5.529977 | 7.261233 | 4.126572 | 4.025527 | 5.693715  |
| ## | GSM875413 | 4.267442 | 4.143193 | 4.821987 | 8.178984 | 4.239150 | 4.589167 | 5.517468  |

|    |           |          |          |           |          |          |          |          |
|----|-----------|----------|----------|-----------|----------|----------|----------|----------|
| ## | GSM875414 | 4.574545 | 4.694693 | 5.415667  | 8.853150 | 4.284319 | 5.868266 | 5.515893 |
| ## |           | DOC2A    | ADAM17   | CBLN1     | RNF126   | CYP1A1   | BPHL     | SH3GL2   |
| ## | GSM875412 | 4.307910 | 7.544640 | 3.803187  | 7.339694 | 4.351843 | 6.318388 | 3.262113 |
| ## | GSM875413 | 4.481488 | 7.393082 | 3.964055  | 7.221688 | 4.178135 | 6.641642 | 3.265199 |
| ## | GSM875414 | 4.944591 | 7.325250 | 3.838435  | 8.339085 | 4.512730 | 6.073543 | 3.206440 |
| ## |           | GSTM5    | CRP      | F2        | ITIH3    | F8       | CD8A     | SULT2B1  |
| ## | GSM875412 | 5.317843 | 4.238148 | 4.578298  | 4.850967 | 4.515709 | 6.682544 | 5.687507 |
| ## | GSM875413 | 8.113721 | 3.982539 | 5.187567  | 4.330103 | 7.075574 | 5.768608 | 5.502193 |
| ## | GSM875414 | 5.509852 | 4.550905 | 5.684427  | 4.731187 | 4.704659 | 6.206275 | 5.897173 |
| ## |           | DUS4L    | DDX18    | CYP3A5    | TCAP     | SLC27A2  | GSR      | AKAP7    |
| ## | GSM875412 | 6.669522 | 8.710871 | 10.776489 | 5.873648 | 5.261823 | 7.185249 | 5.299690 |
| ## | GSM875413 | 7.043749 | 8.114393 | 4.916779  | 5.599907 | 4.270588 | 5.906752 | 5.494143 |
| ## | GSM875414 | 5.838625 | 8.514332 | 7.722008  | 5.658182 | 4.787358 | 8.611286 | 8.490108 |
| ## |           | F12      | DUSP9    | KLK7      | RAMP2    | BIK      | VPS9D1   | KLK13    |
| ## | GSM875412 | 6.594589 | 4.166175 | 9.527160  | 5.358375 | 8.695403 | 5.142124 | 4.991674 |
| ## | GSM875413 | 5.480058 | 4.321269 | 5.050064  | 5.430626 | 4.298685 | 6.245594 | 4.151963 |
| ## | GSM875414 | 7.777557 | 4.649991 | 6.263772  | 5.834300 | 8.977818 | 5.541059 | 4.358412 |
| ## |           | ITGAM    | CD1D     | SKAP1     | CCN5     | TNK1     | NOVA1    | NRXN3    |
| ## | GSM875412 | 4.837541 | 4.322235 | 9.283937  | 4.392309 | 6.620874 | 4.534963 | 4.059212 |
| ## | GSM875413 | 5.159528 | 3.901264 | 5.215100  | 4.891558 | 6.494050 | 6.867712 | 3.920626 |
| ## | GSM875414 | 4.937812 | 4.536756 | 5.942681  | 4.932412 | 6.556862 | 3.895561 | 3.798331 |
| ## |           | TCP11L1  | IL7R     | SLC3A1    | RASGRP3  | TRPC1    | TRAF3IP3 | ROR1     |
| ## | GSM875412 | 4.165896 | 8.657398 | 5.463787  | 5.611240 | 5.507452 | 6.029734 | 6.167952 |
| ## | GSM875413 | 4.674825 | 6.427794 | 4.424262  | 5.101625 | 8.559509 | 5.644423 | 6.517516 |
| ## | GSM875414 | 5.652352 | 8.516411 | 4.982001  | 5.569398 | 4.917162 | 5.849260 | 7.219510 |
| ## |           | ROM1     | TUFT1    | ASPH      | WASL     | POLG2    | MAT1A    | GRM3     |
| ## | GSM875412 | 5.342156 | 8.753144 | 7.300943  | 8.304267 | 6.437618 | 5.091301 | 3.932138 |
| ## | GSM875413 | 5.606674 | 6.752166 | 5.766291  | 8.380720 | 5.968794 | 5.482912 | 7.175225 |
| ## | GSM875414 | 5.132361 | 9.174378 | 5.627233  | 8.349166 | 6.900363 | 5.558786 | 4.221715 |
| ## |           | REG3A    | SIX1     | MARCO     | APOC3    | HMGCS1   | HSPB2    | PCSK1    |
| ## | GSM875412 | 8.123398 | 4.974859 | 6.308912  | 5.063790 | 9.297024 | 5.256834 | 3.561313 |
| ## | GSM875413 | 7.908136 | 5.465119 | 5.476127  | 5.920121 | 6.329141 | 5.416789 | 3.480293 |
| ## | GSM875414 | 4.065634 | 5.377734 | 6.021343  | 6.332754 | 8.018461 | 5.580957 | 3.641139 |
| ## |           | MYOM2    | CCK      | MMP3      | HSD17B1  | CLGN     | CD2      | CPA4     |
| ## | GSM875412 | 4.989677 | 5.606142 | 6.268945  | 3.808838 | 3.368830 | 7.408863 | 4.987255 |
| ## | GSM875413 | 6.069664 | 4.755923 | 5.470749  | 4.193528 | 5.463260 | 5.836300 | 5.201265 |
| ## | GSM875414 | 4.776217 | 6.047222 | 9.851163  | 4.432679 | 3.483573 | 7.242783 | 5.271738 |
| ## |           | PART1    | TSPOAP1  | GH1       | CRAT     | CACNA1H  | PRSS22   | GAS2     |
| ## | GSM875412 | 4.796602 | 5.119096 | 4.400211  | 7.404829 | 5.521752 | 7.307738 | 4.546335 |
| ## | GSM875413 | 5.211242 | 5.407959 | 4.509946  | 7.680389 | 8.345145 | 5.995992 | 3.797167 |
| ## | GSM875414 | 5.328691 | 4.933676 | 4.917635  | 7.272143 | 6.129390 | 6.918736 | 4.541611 |
| ## |           | UQCRB    | NME6     | CDK5R2    | ZBTB7B   | TULP3    | ZNF197   | SLC14A1  |
| ## | GSM875412 | 11.35675 | 6.396063 | 4.192573  | 5.087826 | 7.110937 | 4.588655 | 3.620923 |
| ## | GSM875413 | 12.17259 | 5.392823 | 4.753647  | 5.639036 | 8.426486 | 4.229653 | 3.669284 |
| ## | GSM875414 | 11.20487 | 5.169739 | 4.684846  | 5.944591 | 6.666042 | 4.265305 | 3.524144 |
| ## |           | NGFR     | LY86     | SPIB      | GREB1    | S100A12  | SLC7A4   | ARID3A   |
| ## | GSM875412 | 3.979941 | 8.055456 | 4.902155  | 3.219800 | 4.181129 | 4.673311 | 4.302502 |
| ## | GSM875413 | 4.090540 | 8.117905 | 4.629557  | 4.446754 | 5.825926 | 4.191084 | 4.822001 |
| ## | GSM875414 | 4.015563 | 7.387411 | 5.078201  | 2.956759 | 4.260488 | 4.562635 | 5.956794 |
| ## |           | FCN3     | PRSS1    | BDKRB2    | PDE4DIP  | ITPKA    | TREX1    | LIFR     |
| ## | GSM875412 | 4.363526 | 4.132232 | 6.770577  | 5.972032 | 5.844228 | 7.421589 | 8.037892 |
| ## | GSM875413 | 4.578700 | 4.512194 | 6.139768  | 5.989594 | 5.899316 | 6.520274 | 4.793982 |
| ## | GSM875414 | 5.218645 | 5.075670 | 6.089849  | 6.341152 | 5.995052 | 7.728412 | 3.951343 |
| ## |           | ZC3H7B   | POU6F1   | RET       | PRKD1    | ZNF74    | ZBTB16   | ITGA4    |

|    |           |          |          |           |           |           |           |          |
|----|-----------|----------|----------|-----------|-----------|-----------|-----------|----------|
| ## | GSM875412 | 6.240435 | 5.194017 | 6.576752  | 4.526952  | 5.301892  | 4.308624  | 5.129640 |
| ## | GSM875413 | 6.509079 | 7.480372 | 5.305825  | 6.154274  | 5.598432  | 6.315824  | 6.653882 |
| ## | GSM875414 | 6.039814 | 4.942464 | 5.720145  | 3.779529  | 5.469759  | 5.269139  | 5.187886 |
| ## | REG1B     | MSH3     | JAKMIP2  | ADORA2B   | FABP1     | NLGN1     | ARSL      |          |
| ## | GSM875412 | 5.493319 | 6.046336 | 4.135554  | 7.721502  | 10.444855 | 3.168029  | 5.498430 |
| ## | GSM875413 | 4.227646 | 6.297746 | 6.222186  | 4.143578  | 6.069946  | 4.570555  | 4.647988 |
| ## | GSM875414 | 4.046181 | 5.773588 | 4.392401  | 4.775856  | 4.552444  | 3.162336  | 6.904792 |
| ## | NOLC1     | SLC22A4  | NFATC4   | CCNA1     | KRT1      | PNOC      | KCNN3     |          |
| ## | GSM875412 | 8.232953 | 4.213883 | 5.218883  | 3.488209  | 4.294988  | 4.941107  | 5.074866 |
| ## | GSM875413 | 7.128368 | 5.201574 | 5.446917  | 3.625061  | 4.344163  | 4.723652  | 6.414827 |
| ## | GSM875414 | 8.722293 | 4.033182 | 5.445064  | 6.134045  | 4.464517  | 4.917635  | 6.025407 |
| ## | MICA      | FOXJ1    | OMD      | POLE2     | PTH1R     | PNLIP     | PLIN1     |          |
| ## | GSM875412 | 7.499812 | 5.651715 | 4.90437   | 6.306283  | 4.905548  | 3.491921  | 4.365673 |
| ## | GSM875413 | 7.762080 | 5.447000 | 3.35618   | 4.196474  | 6.218849  | 3.624511  | 4.835319 |
| ## | GSM875414 | 8.099009 | 5.701885 | 3.55203   | 6.287427  | 4.965396  | 3.734750  | 4.522530 |
| ## | GRIN1     | S100A7   | SLC4A3   | HBE1      | SLC6A6    | VNN2      | RELN      |          |
| ## | GSM875412 | 3.810214 | 4.249802 | 4.500383  | 4.498480  | 6.014813  | 6.076656  | 5.504712 |
| ## | GSM875413 | 4.739324 | 4.002332 | 6.081297  | 5.025174  | 4.104932  | 6.450759  | 5.276845 |
| ## | GSM875414 | 4.831789 | 4.689273 | 6.256053  | 5.701885  | 4.301191  | 5.171473  | 4.710726 |
| ## | RAB3B     | IL27RA   | CTSE     | ZNF443    | GPA33     | GTF2E1    | CREB5     |          |
| ## | GSM875412 | 4.534021 | 4.778041 | 12.369123 | 6.520841  | 7.794008  | 7.749969  | 3.856385 |
| ## | GSM875413 | 4.253058 | 5.027135 | 5.969023  | 7.056330  | 4.968240  | 7.181493  | 3.892629 |
| ## | GSM875414 | 5.076312 | 5.400109 | 11.463008 | 6.878463  | 4.576555  | 7.577987  | 3.762814 |
| ## | MSX1      | SETBP1   | PLCL1    | FOXF1     | HK3       | CGREF1    | PPM1E     |          |
| ## | GSM875412 | 5.121450 | 5.611041 | 3.972716  | 8.040104  | 5.506708  | 5.402562  | 3.761537 |
| ## | GSM875413 | 4.553367 | 9.093166 | 5.291731  | 11.145203 | 5.806135  | 5.360049  | 5.344580 |
| ## | GSM875414 | 4.452606 | 5.353728 | 3.767212  | 7.625133  | 6.320990  | 5.476832  | 3.747647 |
| ## | CYP3A7    | MYH3     | COL10A1  | ACSM3     | TD02      | CLTCL1    | IL6R      |          |
| ## | GSM875412 | 3.642805 | 3.582152 | 9.139063  | 5.595751  | 4.991076  | 4.785651  | 4.834544 |
| ## | GSM875413 | 5.546703 | 3.895475 | 6.105955  | 4.260088  | 3.997956  | 5.348938  | 4.653133 |
| ## | GSM875414 | 3.675864 | 4.239111 | 6.404206  | 6.272375  | 4.666991  | 5.066644  | 4.076546 |
| ## | VIPR2     | PTPRT    | CA1      | MYH1      | KCNK3     | LRIG2     | RXRG      |          |
| ## | GSM875412 | 6.210004 | 4.216407 | 3.576348  | 3.277013  | 3.899605  | 6.967894  | 3.961030 |
| ## | GSM875413 | 6.690282 | 6.053024 | 3.461325  | 3.325910  | 10.652083 | 5.459822  | 3.995733 |
| ## | GSM875414 | 6.078827 | 4.307437 | 3.546165  | 3.822214  | 4.257421  | 6.600759  | 4.698473 |
| ## | PSMC3IP   | PLXNB3   | CSHL1    | MMP13     | ZNF426    | BATF      | TAF13     |          |
| ## | GSM875412 | 6.172114 | 4.591346 | 3.880693  | 3.814842  | 5.898629  | 6.711018  | 3.235987 |
| ## | GSM875413 | 6.659554 | 4.663983 | 3.936840  | 3.780918  | 6.224188  | 6.620317  | 3.225376 |
| ## | GSM875414 | 6.405017 | 5.020212 | 4.438898  | 3.628684  | 5.248126  | 7.269906  | 3.799976 |
| ## | H4C3      | KCNS3    | AADAC    | MT3       | SLC38A3   | HOXD1     | FASTKD2   |          |
| ## | GSM875412 | 8.698162 | 7.519757 | 6.035157  | 6.033883  | 5.387704  | 3.833196  | 5.476662 |
| ## | GSM875413 | 8.202103 | 8.159505 | 4.177530  | 6.223209  | 5.456192  | 4.025747  | 4.346760 |
| ## | GSM875414 | 7.791630 | 7.091845 | 7.258052  | 6.479966  | 5.314923  | 4.575974  | 4.447943 |
| ## | EPHA1     | KL       | SCGB2A1  | ING2      | SFTPC     | DPEP1     | CRHBP     |          |
| ## | GSM875412 | 7.946831 | 3.588492 | 4.578707  | 6.927383  | 5.304684  | 7.901265  | 3.671226 |
| ## | GSM875413 | 6.498748 | 3.437489 | 4.003014  | 7.443211  | 5.439130  | 5.382675  | 3.890181 |
| ## | GSM875414 | 6.902827 | 3.799222 | 4.482286  | 7.441282  | 5.765692  | 6.146869  | 4.155162 |
| ## | AATK      | CD1C     | CD84     | WNT5A     | PRRX1     | IL15      | TBX2      |          |
| ## | GSM875412 | 8.492299 | 5.980007 | 7.619897  | 8.913049  | 5.957043  | 6.253357  | 5.733579 |
| ## | GSM875413 | 7.447161 | 5.713955 | 6.734867  | 5.788213  | 4.345410  | 5.801084  | 6.314858 |
| ## | GSM875414 | 7.317936 | 6.511190 | 7.012752  | 7.607672  | 5.408918  | 5.120422  | 6.754035 |
| ## | IQCB1     | AK2      | ADAM28   | CYP3A4    | MEP1A     | NPY       | ADGRG2    |          |
| ## | GSM875412 | 8.627517 | 8.239768 | 7.488421  | 6.375672  | 4.782333  | 4.644357  | 4.494981 |
| ## | GSM875413 | 7.695555 | 6.210000 | 7.269047  | 6.182272  | 4.785659  | 11.828778 | 4.090759 |

|    |           |            |          |          |          |          |          |          |
|----|-----------|------------|----------|----------|----------|----------|----------|----------|
| ## | GSM875414 | 7.058177   | 5.986694 | 6.694808 | 6.403250 | 4.605416 | 7.870159 | 3.917341 |
| ## |           | CEP135     | TGM3     | CEP162   | PRG4     | TGM1     | HABP2    | CASP1    |
| ## | GSM875412 | 6.457670   | 4.051208 | 5.797607 | 3.340407 | 4.770625 | 5.290774 | 8.445203 |
| ## | GSM875413 | 5.480180   | 4.444982 | 5.499774 | 3.311405 | 5.042712 | 5.032408 | 8.183198 |
| ## | GSM875414 | 6.182576   | 5.113733 | 5.634579 | 3.291293 | 5.491584 | 9.154468 | 4.956583 |
| ## |           | LEFTY2     | ACTL6B   | FOXJ3    | CCDC22   | KIAA0319 | FOXG1    | SOCS6    |
| ## | GSM875412 | 4.073592   | 3.806068 | 9.425488 | 5.714302 | 4.157993 | 3.464501 | 7.152301 |
| ## | GSM875413 | 7.748222   | 4.326613 | 9.251027 | 6.959930 | 4.162240 | 4.240158 | 5.902515 |
| ## | GSM875414 | 4.255242   | 4.182992 | 9.175871 | 6.622966 | 4.438213 | 4.185591 | 7.210648 |
| ## |           | SCAND2P    | NDP      | NMU      | HPD      | TNFAIP6  | S100A3   | MERTK    |
| ## | GSM875412 | 4.324692   | 3.312414 | 8.648908 | 4.450074 | 7.501740 | 4.877769 | 7.477321 |
| ## | GSM875413 | 3.822568   | 3.991109 | 4.742116 | 4.143540 | 5.602592 | 4.831338 | 7.111089 |
| ## | GSM875414 | 4.334497   | 3.531343 | 4.724897 | 4.610336 | 5.858128 | 4.924448 | 6.168290 |
| ## |           | ANKRD1     | ASPA     | USP5     | DSC3     | REL      | NR2C2    | RAB33A   |
| ## | GSM875412 | 3.541536   | 4.073488 | 6.497290 | 3.508955 | 4.428917 | 4.897853 | 4.050960 |
| ## | GSM875413 | 3.664763   | 3.517287 | 7.268421 | 3.532993 | 3.707999 | 3.945735 | 5.572328 |
| ## | GSM875414 | 3.820612   | 4.249887 | 6.371567 | 3.514145 | 3.972014 | 5.938002 | 4.406768 |
| ## |           | MAPK11     | ATP2C2   | NOL4     | GNB3     | OVOL2    | SELP     | ELAVL4   |
| ## | GSM875412 | 4.107926   | 7.739366 | 3.611142 | 6.058044 | 6.076900 | 5.677531 | 4.034384 |
| ## | GSM875413 | 4.761325   | 5.105628 | 3.554970 | 6.852076 | 5.756818 | 5.405829 | 4.048640 |
| ## | GSM875414 | 5.103622   | 9.503023 | 3.479630 | 6.333342 | 6.176866 | 5.548084 | 4.194609 |
| ## |           | SLBP       | ZNF510   | KNG1     | SNRPA1   | SPN      | SLC6A12  | PTPN22   |
| ## | GSM875412 | 8.988482   | 5.611826 | 3.727470 | 9.525173 | 7.406073 | 3.741335 | 5.536135 |
| ## | GSM875413 | 8.322984   | 5.356992 | 3.871453 | 8.516011 | 7.562539 | 3.769163 | 4.171639 |
| ## | GSM875414 | 9.478177   | 5.731447 | 3.970381 | 8.878061 | 7.475928 | 3.995857 | 4.758538 |
| ## |           | DICER1     | PPIL2    | DPYS     | RAD51C   | WT1      | ACADL    | EPHA3    |
| ## | GSM875412 | 8.288618   | 7.063976 | 3.779874 | 6.062684 | 5.447407 | 3.673340 | 5.606268 |
| ## | GSM875413 | 6.651014   | 6.962644 | 3.809804 | 6.702515 | 3.671699 | 4.215208 | 8.721621 |
| ## | GSM875414 | 8.468031   | 6.952833 | 4.105138 | 6.754218 | 3.489152 | 4.478244 | 4.200269 |
| ## |           | UCN        | COLQ     | HMGA1    | CSNK2A1  | LRRC23   | KEL      | PLCH2    |
| ## | GSM875412 | 4.373926   | 4.867989 | 9.155623 | 7.897498 | 4.379860 | 5.275995 | 5.526883 |
| ## | GSM875413 | 4.641949   | 5.324394 | 6.443312 | 7.430437 | 5.879998 | 5.567581 | 5.642359 |
| ## | GSM875414 | 4.832406   | 4.794458 | 9.672595 | 6.909585 | 4.552712 | 5.628534 | 5.110595 |
| ## |           | SLC24A1    | HCP5     | ADGRB1   | PTPRR    | CTH      | MATN3    | ZNF35    |
| ## | GSM875412 | 5.642560   | 6.941605 | 5.037204 | 4.965678 | 6.185862 | 3.749942 | 6.394551 |
| ## | GSM875413 | 6.147870   | 4.923726 | 5.405416 | 3.149578 | 3.929073 | 2.963846 | 6.034087 |
| ## | GSM875414 | 5.499905   | 5.619643 | 5.170272 | 3.139137 | 5.437131 | 2.936231 | 6.203591 |
| ## |           | SLC22A18AS | ZBTB6    | PRKCH    | CPM      | GIN51    | RAC3     | ISL1     |
| ## | GSM875412 | 6.396919   | 4.356016 | 6.391165 | 7.094660 | 8.616890 | 4.800007 | 6.172114 |
| ## | GSM875413 | 6.126324   | 3.473026 | 6.690119 | 7.420164 | 6.653344 | 4.614481 | 8.002101 |
| ## | GSM875414 | 6.522026   | 3.564415 | 6.309607 | 4.666255 | 5.970864 | 5.924745 | 6.321366 |
| ## |           | AFF2       | SRSF6    | FUT1     | H3C10    | RNASE2   | ANKRD7   | RAB5A    |
| ## | GSM875412 | 3.862352   | 9.284851 | 5.423659 | 3.653240 | 4.303579 | 3.191184 | 8.793664 |
| ## | GSM875413 | 3.586257   | 7.102901 | 5.388539 | 3.844159 | 4.412397 | 3.922057 | 6.923503 |
| ## | GSM875414 | 3.866262   | 6.428506 | 6.764568 | 5.486453 | 4.258457 | 3.485728 | 8.745976 |
| ## |           | EPHA4      | EGR3     | STAT4    | BHMT     | CD33     | AMPD1    | SOX15    |
| ## | GSM875412 | 4.907846   | 5.407326 | 5.729194 | 4.357922 | 5.059576 | 3.948977 | 5.072453 |
| ## | GSM875413 | 6.646432   | 8.870074 | 5.793973 | 6.966630 | 5.469703 | 4.548337 | 5.922873 |
| ## | GSM875414 | 8.577599   | 5.387041 | 5.437700 | 4.291970 | 6.266195 | 4.367796 | 6.331838 |
| ## |           | LLGL1      | CXCR5    | ELK3     | ADRA2C   | ASGR2    | CLPS     | MCC      |
| ## | GSM875412 | 6.222989   | 4.236286 | 5.364771 | 5.956875 | 4.986017 | 5.028131 | 6.040902 |
| ## | GSM875413 | 6.491608   | 4.634505 | 5.102503 | 5.910574 | 5.529586 | 4.939723 | 7.038601 |
| ## | GSM875414 | 6.583764   | 4.417776 | 5.467057 | 7.060584 | 6.275784 | 4.899135 | 5.478930 |
| ## |           | XAF1       | ADAMDEC1 | FZD5     | RIMS2    | PI4KB    | LHX2     | MOCS3    |

|    |           |          |          |           |           |           |          |          |
|----|-----------|----------|----------|-----------|-----------|-----------|----------|----------|
| ## | GSM875412 | 7.285677 | 8.061974 | 5.447256  | 5.320213  | 8.300017  | 3.474342 | 5.459899 |
| ## | GSM875413 | 6.417231 | 3.688276 | 4.998862  | 6.781811  | 8.905979  | 3.363534 | 5.738917 |
| ## | GSM875414 | 6.563472 | 8.144164 | 7.513712  | 5.742551  | 8.203378  | 3.430482 | 6.604764 |
| ## |           | SLC26A3  | RHAG     | SCML2     | IL3RA     | CHP2      | CD27     | CELA3B   |
| ## | GSM875412 | 3.297887 | 3.190891 | 7.868844  | 5.688452  | 6.508521  | 6.408266 | 5.162370 |
| ## | GSM875413 | 4.189564 | 3.002077 | 7.942373  | 6.099605  | 4.549017  | 5.384184 | 5.283264 |
| ## | GSM875414 | 3.200615 | 3.139137 | 7.079476  | 6.066473  | 4.630457  | 6.543461 | 6.448147 |
| ## |           | AGAP2    | CYP4F11  | RLBP1     | ABCC2     | GJB5      | PTX3     | CNBP     |
| ## | GSM875412 | 5.480934 | 3.548530 | 4.431928  | 4.388498  | 6.096414  | 3.510383 | 11.62945 |
| ## | GSM875413 | 5.475647 | 3.703493 | 4.749494  | 4.082025  | 4.694356  | 3.928723 | 11.30827 |
| ## | GSM875414 | 5.581588 | 3.980360 | 4.897218  | 5.127271  | 4.487202  | 3.171486 | 11.24602 |
| ## |           | GDF10    | APOBEC2  | SYT5      | CLCA2     | ARHGAP6   | ADRB2    | ADORA3   |
| ## | GSM875412 | 3.593865 | 5.225969 | 4.144492  | 3.554337  | 5.131073  | 4.636041 | 5.856106 |
| ## | GSM875413 | 3.538060 | 6.836080 | 4.263093  | 3.508567  | 8.413007  | 4.600588 | 5.716757 |
| ## | GSM875414 | 3.868477 | 5.824749 | 4.897400  | 3.749675  | 4.869996  | 4.459376 | 4.902655 |
| ## |           | IL13RA2  | ZNF222   | BMP6      | ARG1      | PLA2G5    | TPPP     | ZNF747   |
| ## | GSM875412 | 3.742657 | 5.549000 | 4.608187  | 3.698706  | 5.236185  | 6.664383 | 6.971658 |
| ## | GSM875413 | 3.789910 | 5.893024 | 4.869882  | 3.779253  | 5.369260  | 5.529586 | 6.959322 |
| ## | GSM875414 | 6.101348 | 5.117144 | 4.672105  | 4.214007  | 5.420525  | 4.983141 | 7.414809 |
| ## |           | ZNF134   | CRKL     | CRYBB1    | MPP3      | ZNF623    | GPR17    | CDSN     |
| ## | GSM875412 | 5.630943 | 5.519478 | 5.230737  | 5.852596  | 5.207263  | 3.425024 | 4.767575 |
| ## | GSM875413 | 6.193778 | 4.369055 | 5.679260  | 4.712887  | 5.950506  | 3.467554 | 4.442681 |
| ## | GSM875414 | 7.154649 | 5.419125 | 5.699763  | 5.186417  | 4.963125  | 3.173331 | 4.765337 |
| ## |           | HOXC4    | GH2      | RUNDC3A   | NME5      | CEACAM7   | ANXA11   | MEOX2    |
| ## | GSM875412 | 6.160911 | 4.005464 | 4.181932  | 4.542958  | 3.583941  | 10.81283 | 3.740576 |
| ## | GSM875413 | 7.050507 | 4.077314 | 4.246842  | 8.438964  | 3.322986  | 10.12066 | 3.751482 |
| ## | GSM875414 | 6.652608 | 3.923509 | 3.878967  | 4.561924  | 4.166710  | 11.54813 | 3.721565 |
| ## |           | RCVRN    | GRB14    | CD180     | CLC       | CA4       | CETP     | SELE     |
| ## | GSM875412 | 3.949901 | 4.971769 | 5.370239  | 4.038222  | 4.903799  | 3.766636 | 4.853661 |
| ## | GSM875413 | 4.327315 | 4.115587 | 5.363186  | 4.629557  | 5.069175  | 3.757987 | 6.570059 |
| ## | GSM875414 | 4.627761 | 5.394773 | 5.575470  | 4.221715  | 6.054646  | 5.262968 | 3.895708 |
| ## |           | CPA2     | WNT10B   | PLA2G7    | OPCML     | SRPK3     | EDA      | MAGEB2   |
| ## | GSM875412 | 5.452087 | 6.123396 | 7.316483  | 3.785112  | 5.872401  | 6.005977 | 3.640998 |
| ## | GSM875413 | 5.727506 | 6.454949 | 4.822967  | 4.048906  | 6.658412  | 6.076488 | 3.520430 |
| ## | GSM875414 | 5.337450 | 6.191341 | 7.894641  | 4.432241  | 6.737962  | 6.130686 | 3.798883 |
| ## |           | VAV1     | RASA3    | TNFRSF10C | LMTK2     | CST1      | ZNF507   | HRG      |
| ## | GSM875412 | 5.251811 | 5.752475 | 3.881121  | 4.883255  | 7.675501  | 3.936902 | 4.122353 |
| ## | GSM875413 | 5.980329 | 5.947722 | 4.992460  | 4.444707  | 12.162019 | 3.935839 | 3.964850 |
| ## | GSM875414 | 6.873914 | 6.694924 | 4.721218  | 5.315817  | 5.680074  | 3.959931 | 4.055502 |
| ## |           | CILP     | PAX2     | LHX1      | KCNN1     | B4GALT6   | MMP17    | LIG4     |
| ## | GSM875412 | 5.475909 | 3.503651 | 5.062585  | 5.395158  | 3.947127  | 5.187849 | 7.374760 |
| ## | GSM875413 | 5.699032 | 3.710035 | 4.947682  | 5.870349  | 4.601724  | 5.651993 | 6.355918 |
| ## | GSM875414 | 4.344873 | 4.120544 | 4.695740  | 6.030626  | 3.535002  | 5.993365 | 6.705238 |
| ## |           | GPR4     | NRG1     | YAF2      | SPINK1    | ZNF136    | KPNA5    | TM4SF5   |
| ## | GSM875412 | 5.180808 | 4.435461 | 6.239978  | 11.008871 | 6.672105  | 4.330078 | 6.139097 |
| ## | GSM875413 | 5.142962 | 5.079068 | 6.626946  | 5.914622  | 7.068167  | 4.285550 | 5.969484 |
| ## | GSM875414 | 5.842281 | 6.075322 | 6.316467  | 10.184286 | 6.013823  | 4.073631 | 8.246515 |
| ## |           | TIMP4    | CR1      | PFKFB4    | MICB      | PRKCE     | AVPR1A   | DLG2     |
| ## | GSM875412 | 5.524813 | 3.981523 | 5.499615  | 6.162451  | 4.619428  | 4.641723 | 3.774129 |
| ## | GSM875413 | 4.717518 | 3.961493 | 5.280273  | 5.102050  | 4.887592  | 5.110334 | 3.746518 |
| ## | GSM875414 | 5.326315 | 3.978447 | 5.359469  | 4.182777  | 5.142124  | 5.330771 | 4.049407 |
| ## |           | EGF      | BLK      | CPN1      | CCDC9     | ST8SIA5   | PROC     | TGM4     |
| ## | GSM875412 | 3.501525 | 4.421221 | 4.126215  | 6.480737  | 4.081005  | 5.493516 | 4.299655 |
| ## | GSM875413 | 3.485585 | 4.349702 | 4.627878  | 6.658690  | 4.504146  | 5.613647 | 4.000925 |



|    |           |           |          |          |           |          |          |          |
|----|-----------|-----------|----------|----------|-----------|----------|----------|----------|
| ## | GSM875414 | 3.451735  | 4.774069 | 5.080304 | 7.164582  | 4.232529 | 5.756444 | 4.561545 |
| ## |           | ZNF239    | ADH1C    | FM04     | GPLD1     | MATK     | LEFTY1   | GCM1     |
| ## | GSM875412 | 7.253837  | 6.995375 | 5.756089 | 3.775787  | 5.511843 | 3.928872 | 3.365886 |
| ## | GSM875413 | 6.173235  | 5.720543 | 5.873833 | 3.679361  | 5.781728 | 3.957316 | 3.642678 |
| ## | GSM875414 | 6.058630  | 5.736257 | 5.005015 | 3.758845  | 6.082521 | 4.761791 | 3.611697 |
| ## |           | PRKCG     | TLR3     | PRELID3A | CROCC     | MICAL2   | LY6D     | P2RY2    |
| ## | GSM875412 | 5.201962  | 6.277644 | 4.714632 | 5.174464  | 4.944269 | 4.787974 | 5.282115 |
| ## | GSM875413 | 5.506896  | 6.002466 | 5.319166 | 6.572033  | 4.481011 | 5.045640 | 4.847224 |
| ## | GSM875414 | 5.359428  | 3.889585 | 4.674519 | 5.725580  | 5.400546 | 5.783488 | 5.360694 |
| ## |           | PTAFR     | PRKY     | CDH18    | ADCYAP1   | NPHP1    | ITIH4    | PGGT1B   |
| ## | GSM875412 | 5.917984  | 4.503529 | 4.234259 | 3.804615  | 3.541536 | 5.555083 | 6.085928 |
| ## | GSM875413 | 6.151008  | 4.072751 | 4.335081 | 3.814281  | 3.838685 | 6.231396 | 4.952851 |
| ## | GSM875414 | 5.094240  | 3.386626 | 4.428036 | 3.938117  | 3.685012 | 5.870445 | 5.426111 |
| ## |           | HOXA4     | NTS      | SULT2A1  | HSD3B2    | IL18     | MAP4K1   | CTRC     |
| ## | GSM875412 | 5.799206  | 3.778417 | 3.867682 | 3.712357  | 8.073330 | 5.297936 | 4.568077 |
| ## | GSM875413 | 8.884896  | 3.551810 | 3.774310 | 3.863972  | 5.129468 | 5.405169 | 5.316382 |
| ## | GSM875414 | 5.773246  | 3.635950 | 3.985042 | 3.693639  | 7.203794 | 6.263724 | 5.667851 |
| ## |           | NALF2     | PTHLH    | TEC      | MYBPH     | C8A      | RYSR3    | FOXDI    |
| ## | GSM875412 | 5.057057  | 3.578239 | 4.696379 | 4.309658  | 3.691689 | 3.463977 | 4.544525 |
| ## | GSM875413 | 5.173354  | 3.295693 | 4.592668 | 4.390962  | 3.906765 | 3.590314 | 4.278955 |
| ## | GSM875414 | 5.182306  | 3.516704 | 4.947144 | 4.319113  | 4.579860 | 3.377038 | 7.682966 |
| ## |           | TRDMT1    | CNMD     | SPINK2   | PLA2G1B   | GUCY2C   | HLA-DOA  | ZKSCAN7  |
| ## | GSM875412 | 5.394124  | 3.691199 | 4.723357 | 3.769155  | 7.757043 | 5.392570 | 5.052470 |
| ## | GSM875413 | 5.939064  | 4.029621 | 4.471750 | 3.902794  | 5.159914 | 5.540802 | 4.756858 |
| ## | GSM875414 | 5.395681  | 4.386901 | 5.205981 | 4.063466  | 5.494176 | 6.122916 | 4.225482 |
| ## |           | CRLF1     | KNTC1    | ABCB8    | EPPIN     | SMAD9    | RFX1     | SYN3     |
| ## | GSM875412 | 5.562545  | 6.663298 | 5.767938 | 3.496686  | 4.245965 | 4.081357 | 3.877911 |
| ## | GSM875413 | 6.191112  | 6.858407 | 6.142255 | 3.492749  | 4.123258 | 4.235853 | 3.943174 |
| ## | GSM875414 | 6.589398  | 5.756444 | 5.980239 | 3.366741  | 4.796129 | 4.400104 | 4.590544 |
| ## |           | OPHN1     | DAPK2    | SERPINA6 | GRP       | CDH15    | EXTL1    | SHC3     |
| ## | GSM875412 | 10.113262 | 5.756515 | 4.319440 | 5.684254  | 4.770334 | 4.377377 | 4.728686 |
| ## | GSM875413 | 9.465194  | 5.131461 | 3.813840 | 4.080458  | 5.076305 | 4.612125 | 4.812838 |
| ## | GSM875414 | 10.066128 | 5.967241 | 3.970575 | 4.007617  | 5.422643 | 5.124943 | 4.872680 |
| ## |           | CALCRL    | IFI16    | MSI1     | LIPF      | GALNS    | CXCL6    | CCR7     |
| ## | GSM875412 | 5.546980  | 8.982192 | 4.444286 | 12.885824 | 7.424466 | 3.880807 | 5.485779 |
| ## | GSM875413 | 4.567728  | 8.677623 | 4.722820 | 10.407225 | 6.842479 | 3.445906 | 5.137667 |
| ## | GSM875414 | 5.565946  | 8.492372 | 5.124449 | 6.735455  | 6.589085 | 4.770706 | 6.173125 |
| ## |           | CARTPT    | IL2RA    | PON1     | PRLR      | PDK3     | LGI1     | APCS     |
| ## | GSM875412 | 5.810127  | 5.304046 | 3.675471 | 3.300082  | 4.711617 | 3.650651 | 4.204669 |
| ## | GSM875413 | 5.892364  | 4.542309 | 3.572080 | 3.145889  | 4.106065 | 6.866791 | 4.275690 |
| ## | GSM875414 | 5.414138  | 5.358428 | 3.706004 | 3.574594  | 4.236747 | 3.498536 | 4.255974 |
| ## |           | PEX10     | COX6A2   | SLC01B3  | GNAL      | OPA3     | PRM1     | SOCS3    |
| ## | GSM875412 | 4.965731  | 4.443507 | 3.726069 | 4.647292  | 4.802613 | 5.265698 | 6.869914 |
| ## | GSM875413 | 4.525527  | 4.950786 | 3.788304 | 3.309733  | 4.715425 | 5.516750 | 7.399397 |
| ## | GSM875414 | 5.894833  | 4.650722 | 3.967941 | 3.216778  | 5.340479 | 5.911120 | 7.236336 |
| ## |           | PTGDR2    | MAP3K10  | KIF14    | XCL1      | REN      | CPLX2    | PIK3CG   |
| ## | GSM875412 | 5.459042  | 6.510886 | 7.319687 | 3.621053  | 3.965856 | 4.270298 | 3.747783 |
| ## | GSM875413 | 6.892023  | 6.841059 | 4.319235 | 3.422954  | 3.914832 | 4.464872 | 5.556343 |
| ## | GSM875414 | 5.398195  | 7.228569 | 6.425801 | 3.446317  | 4.390394 | 4.353293 | 3.734741 |
| ## |           | FOLR3     | MYF6     | ZIC1     | DUSP8     | HSPB3    | FOXF2    | SCGB2A2  |
| ## | GSM875412 | 4.409803  | 4.272070 | 3.729701 | 6.288725  | 4.111944 | 6.387843 | 3.223451 |
| ## | GSM875413 | 4.751248  | 4.583601 | 3.565557 | 6.094907  | 4.344780 | 4.010747 | 3.347034 |
| ## | GSM875414 | 4.757500  | 5.082559 | 3.824597 | 5.433163  | 4.468546 | 6.382656 | 3.419887 |
| ## |           | CFP       | SCN2A    | BDNF     | G3BP2     | CACNG3   | ANK3     | SERPINA7 |

|    |           |          |          |          |          |          |          |          |
|----|-----------|----------|----------|----------|----------|----------|----------|----------|
| ## | GSM875412 | 4.654756 | 3.878181 | 4.112566 | 8.198356 | 4.879666 | 8.131999 | 3.853672 |
| ## | GSM875413 | 5.369446 | 4.895480 | 5.159968 | 5.780591 | 4.810057 | 9.299066 | 3.816547 |
| ## | GSM875414 | 4.874150 | 4.516535 | 4.013821 | 8.636414 | 5.096454 | 6.074603 | 4.231457 |
| ## |           | CDX2     | PDE3A    | PF4      | RARRES1  | TNNI2    | MYBPC2   | DGKG     |
| ## | GSM875412 | 6.246609 | 4.785651 | 5.668356 | 6.668510 | 6.139088 | 3.977155 | 3.941827 |
| ## | GSM875413 | 5.264436 | 5.524797 | 5.275687 | 3.770726 | 5.897610 | 4.057966 | 4.566705 |
| ## | GSM875414 | 5.279783 | 4.991795 | 5.426960 | 5.089581 | 5.472189 | 4.676510 | 4.054564 |
| ## |           | SLC1A1   | CD19     | NPFF     | ZNF536   | FGF9     | SMCP     | CCL13    |
| ## | GSM875412 | 7.839115 | 5.368442 | 5.312962 | 4.223308 | 4.887197 | 4.732993 | 5.709253 |
| ## | GSM875413 | 4.676321 | 5.014768 | 6.081685 | 4.107407 | 4.641052 | 4.672672 | 5.343950 |
| ## | GSM875414 | 7.068078 | 5.766572 | 5.170228 | 4.574613 | 4.840028 | 5.020094 | 5.955290 |
| ## |           | LRRTM2   | TIAM1    | NROB2    | ABL2     | FER      | TCL1B    | ASAP2    |
| ## | GSM875412 | 3.765618 | 4.873366 | 7.298319 | 4.376392 | 6.542828 | 5.085588 | 9.537984 |
| ## | GSM875413 | 3.855900 | 5.232882 | 4.997509 | 4.105830 | 6.543015 | 5.191648 | 6.589202 |
| ## | GSM875414 | 3.725692 | 5.501949 | 6.997855 | 4.824950 | 6.050160 | 5.093437 | 8.857240 |
| ## |           | ZNF205   | CNGA1    | NOX1     | RORC     | IGSF6    | SERPINB7 | GCG      |
| ## | GSM875412 | 6.002167 | 4.486072 | 3.514549 | 5.962910 | 6.070013 | 4.033299 | 3.823215 |
| ## | GSM875413 | 5.874589 | 4.867695 | 3.124559 | 5.381152 | 4.805586 | 3.766790 | 3.930408 |
| ## | GSM875414 | 5.900656 | 5.172647 | 3.232977 | 6.219497 | 5.991763 | 3.848572 | 3.532147 |
| ## |           | ANGPTL7  | CYP26A1  | TRPC3    | MLANA    | ZNF143   | F2RL1    | CDX1     |
| ## | GSM875412 | 4.324951 | 4.732554 | 3.804245 | 3.215326 | 4.145480 | 8.390729 | 7.645277 |
| ## | GSM875413 | 4.159332 | 4.852584 | 4.411709 | 3.159988 | 4.632226 | 4.912178 | 6.085588 |
| ## | GSM875414 | 4.527912 | 4.959108 | 3.756559 | 3.147196 | 4.637233 | 7.059269 | 6.472155 |
| ## |           | TBC1D9B  | HAS2     | MPPED1   | S1PR4    | TCTN2    | EPYC     | LIN7A    |
| ## | GSM875412 | 7.309147 | 4.565138 | 5.056029 | 6.926054 | 7.407080 | 3.251434 | 3.679147 |
| ## | GSM875413 | 8.121050 | 5.492800 | 5.191637 | 7.143108 | 7.301603 | 3.180539 | 4.010419 |
| ## | GSM875414 | 7.121953 | 4.171781 | 5.193292 | 7.087167 | 7.244948 | 3.142861 | 4.500971 |
| ## |           | COMMD4   | SEMG1    | RORB     | PDE1B    | MASP1    | DBH      | TBCCD1   |
| ## | GSM875412 | 8.552141 | 5.781608 | 3.702964 | 5.606268 | 3.736794 | 5.090533 | 6.146073 |
| ## | GSM875413 | 8.692512 | 3.507376 | 3.824323 | 5.496494 | 3.896929 | 5.298448 | 5.612210 |
| ## | GSM875414 | 8.509357 | 3.557826 | 3.891466 | 6.203077 | 4.306065 | 5.407711 | 6.584587 |
| ## |           | PTPA     | NDRG2    | RHO      | GABRA5   | DIO1     | WNT2B    | AJAP1    |
| ## | GSM875412 | 7.594085 | 8.175018 | 3.971217 | 3.159425 | 3.354913 | 3.983838 | 3.829058 |
| ## | GSM875413 | 8.191744 | 9.192829 | 3.984370 | 3.403112 | 3.288898 | 3.644614 | 7.705694 |
| ## | GSM875414 | 7.661864 | 9.065674 | 4.096712 | 3.332356 | 3.606250 | 3.903270 | 3.874050 |
| ## |           | MT1H     | DHRS2    | BMX      | ACSBG1   | METTL13  | AKR7A3   | PLXNC1   |
| ## | GSM875412 | 8.175707 | 5.206833 | 3.803084 | 3.519011 | 6.694583 | 9.360528 | 6.188304 |
| ## | GSM875413 | 8.777272 | 5.252514 | 4.145322 | 3.520343 | 6.368093 | 7.731972 | 4.691649 |
| ## | GSM875414 | 6.619322 | 5.968696 | 4.375462 | 3.936596 | 6.685606 | 8.747508 | 5.513652 |
| ## |           | TLE3     | CDK17    | NOVA2    | FAM30A   | TRPM1    | LTC4S    | LDB2     |
| ## | GSM875412 | 5.266672 | 5.353885 | 3.834752 | 4.400794 | 3.370677 | 5.010491 | 6.637024 |
| ## | GSM875413 | 5.424143 | 4.976356 | 4.099444 | 4.062402 | 3.449169 | 5.480520 | 8.392066 |
| ## | GSM875414 | 6.464715 | 5.740077 | 4.414873 | 4.359168 | 3.852682 | 5.433571 | 6.429755 |
| ## |           | DNAAF11  | XPNPEP2  | CD5      | LAG3     | SUN1     | CD36     | NAPA     |
| ## | GSM875412 | 4.702503 | 4.368468 | 5.762191 | 4.499197 | 6.617983 | 5.422236 | 8.067174 |
| ## | GSM875413 | 6.239866 | 4.386873 | 5.681249 | 4.860811 | 6.328721 | 5.286688 | 8.163780 |
| ## | GSM875414 | 6.335945 | 4.423930 | 5.758084 | 5.077237 | 5.505917 | 6.157827 | 9.361915 |
| ## |           | FHIT     | ITGA2B   | HINFP    | FM03     | COA1     | OCA2     | RCC1     |
| ## | GSM875412 | 4.992429 | 5.477975 | 7.041532 | 7.450224 | 4.260446 | 6.021059 | 8.337561 |
| ## | GSM875413 | 5.890455 | 5.721828 | 6.493498 | 4.231247 | 3.740479 | 5.544249 | 6.394365 |
| ## | GSM875414 | 4.556706 | 5.449261 | 5.358013 | 6.936945 | 4.344193 | 6.438592 | 7.459694 |
| ## |           | MIS18BP1 | ETV1     | INSM1    | PML      | CYP24A1  | UGT2B4   | SUPT3H   |
| ## | GSM875412 | 5.863175 | 5.508784 | 3.830949 | 5.923500 | 3.092191 | 3.155872 | 6.355069 |
| ## | GSM875413 | 4.381463 | 9.880873 | 3.492666 | 6.636069 | 3.124948 | 2.989962 | 6.325517 |

|    |           |           |           |          |          |          |          |          |
|----|-----------|-----------|-----------|----------|----------|----------|----------|----------|
| ## | GSM875414 | 4.248654  | 4.851061  | 3.915126 | 6.013738 | 3.254511 | 3.130779 | 6.448044 |
| ## |           | ZSCAN12   | CD70      | PIP      | SIX2     | AIM2     | CYP4F3   | AMH      |
| ## | GSM875412 | 4.831901  | 6.338183  | 4.469506 | 4.820375 | 5.437161 | 4.921794 | 4.457121 |
| ## | GSM875413 | 4.736057  | 6.461910  | 4.605489 | 8.560175 | 4.874570 | 3.621204 | 4.654368 |
| ## | GSM875414 | 4.866838  | 6.285899  | 4.504396 | 5.090374 | 5.224701 | 4.761791 | 4.872426 |
| ## |           | CDH16     | RGS9      | SIGLEC6  | GTF2A1   | MGAM     | CYTH3    | TBXT     |
| ## | GSM875412 | 4.278021  | 4.244014  | 3.399376 | 4.743465 | 3.589879 | 5.506779 | 5.205911 |
| ## | GSM875413 | 4.531337  | 5.427850  | 3.356180 | 4.920591 | 4.156346 | 5.139233 | 5.286595 |
| ## | GSM875414 | 5.806356  | 5.040529  | 3.429089 | 5.600138 | 7.527381 | 4.879115 | 5.777460 |
| ## |           | GABRR1    | RIBC2     | ABAT     | TRPC6    | SLC26A4  | RAB30    | DPF1     |
| ## | GSM875412 | 4.310457  | 4.238591  | 4.472038 | 4.168790 | 3.502966 | 4.751459 | 5.460631 |
| ## | GSM875413 | 5.633568  | 4.791067  | 5.046026 | 3.632666 | 6.531815 | 4.390088 | 5.619101 |
| ## | GSM875414 | 3.717925  | 5.415923  | 5.807666 | 3.973771 | 3.443172 | 5.217007 | 6.066367 |
| ## |           | SMARCB1   | CHRNA5    | GRIN2A   | SLC2A2   | XIAP     | MRAS     | CYP4F12  |
| ## | GSM875412 | 3.765346  | 4.404664  | 4.595408 | 3.483086 | 5.020094 | 5.180671 | 7.082567 |
| ## | GSM875413 | 3.354042  | 3.790067  | 4.723506 | 3.257402 | 3.985886 | 4.723652 | 6.907788 |
| ## | GSM875414 | 3.335654  | 4.076730  | 5.733257 | 3.354754 | 4.653549 | 5.287640 | 7.587076 |
| ## |           | GLB1L     | KLKB1     | SMARCA2  | CD28     | SYCP2    | PPEF1    | INSL4    |
| ## | GSM875412 | 5.438699  | 5.290463  | 7.872587 | 4.603003 | 4.960117 | 3.585860 | 4.144959 |
| ## | GSM875413 | 6.500325  | 6.407557  | 8.998430 | 4.051428 | 4.320943 | 4.246368 | 4.231679 |
| ## | GSM875414 | 5.709738  | 5.643159  | 7.158251 | 4.003004 | 7.316955 | 4.100499 | 4.399523 |
| ## |           | NUP155    | KLHL24    | TAC1     | THUMPD1  | CLUL1    | ZNF702P  | MIA      |
| ## | GSM875412 | 7.448970  | 8.538673  | 3.215326 | 8.734881 | 3.429574 | 3.359285 | 5.917386 |
| ## | GSM875413 | 6.962421  | 8.366183  | 5.529586 | 9.064056 | 4.076430 | 3.398504 | 5.905723 |
| ## | GSM875414 | 6.390562  | 8.492042  | 3.401626 | 9.132501 | 3.451922 | 3.315291 | 6.874396 |
| ## |           | AKR1B10   | OPRL1     | GUSBP14  | SLC7A1   | TNP1     | IL24     | PSG11    |
| ## | GSM875412 | 9.887040  | 4.789176  | 4.953647 | 4.667964 | 4.928403 | 4.219239 | 3.870323 |
| ## | GSM875413 | 6.578595  | 5.245483  | 6.263774 | 3.849964 | 5.052783 | 4.289458 | 4.406487 |
| ## | GSM875414 | 12.116767 | 5.368994  | 5.726514 | 4.236298 | 5.562321 | 4.793463 | 4.160400 |
| ## |           | PTP4A3    | CDKL5     | CEACAM1  | VIP      | NKX2-5   | EFEMP2   | ADGRG1   |
| ## | GSM875412 | 6.289815  | 4.469613  | 7.801325 | 3.700907 | 5.012891 | 8.039110 | 6.577890 |
| ## | GSM875413 | 11.430467 | 4.765289  | 5.455762 | 3.609472 | 5.131718 | 9.125482 | 6.231301 |
| ## | GSM875414 | 6.356378  | 5.126786  | 8.795680 | 3.493651 | 4.837073 | 7.634488 | 7.408632 |
| ## |           | KRBOX4    | LY96      | MKRN3    | CNR2     | CCT6B    | DAZL     | GFI1     |
| ## | GSM875412 | 6.440725  | 8.043635  | 4.185238 | 4.876007 | 4.738284 | 3.119810 | 4.604879 |
| ## | GSM875413 | 8.064248  | 7.672171  | 4.495250 | 4.967534 | 4.709108 | 3.288649 | 4.446816 |
| ## | GSM875414 | 5.908795  | 7.100721  | 4.366856 | 5.467506 | 4.672485 | 3.216922 | 5.140090 |
| ## |           | DRD2      | AP3D1     | MED22    | PASK     | CST6     | NRL      | INS      |
| ## | GSM875412 | 5.193875  | 9.541424  | 5.346297 | 5.120453 | 4.500292 | 4.558681 | 4.000148 |
| ## | GSM875413 | 5.321678  | 9.400275  | 6.943947 | 4.352015 | 4.426094 | 4.702386 | 4.096027 |
| ## | GSM875414 | 5.256406  | 10.042541 | 5.482154 | 4.377625 | 4.605920 | 4.812224 | 4.182113 |
| ## |           | SLC16A5   | SLC2A4    | OVOL1    | ENDOU    | LIPC     | CBL      | RPGRIP1  |
| ## | GSM875412 | 6.665376  | 3.698776  | 5.018816 | 3.580069 | 3.999915 | 4.219239 | 4.765208 |
| ## | GSM875413 | 4.905693  | 3.696381  | 4.581132 | 3.913381 | 3.910650 | 4.077032 | 5.056454 |
| ## | GSM875414 | 6.458732  | 3.727884  | 5.236461 | 3.826460 | 3.940440 | 3.954642 | 5.714722 |
| ## |           | MAGEC1    | C2orf27A  | CACNG1   | TAF1A    | GDF5     | RENBP    | IL18R1   |
| ## | GSM875412 | 3.823591  | 6.077667  | 5.170055 | 6.091095 | 6.345423 | 4.930721 | 5.460590 |
| ## | GSM875413 | 3.713655  | 5.984741  | 5.765667 | 4.133934 | 6.523419 | 5.068493 | 4.255345 |
| ## | GSM875414 | 3.891847  | 5.814498  | 5.737387 | 5.614836 | 6.416632 | 5.426405 | 5.833669 |
| ## |           | DKK4      | EIF4H     | TRH      | PDE6A    | USP9Y    | PRPH2    | SSX1     |
| ## | GSM875412 | 4.358823  | 10.53818  | 4.612628 | 4.049610 | 4.715338 | 4.966337 | 4.283918 |
| ## | GSM875413 | 3.979407  | 11.10976  | 4.546135 | 4.288449 | 3.826650 | 5.543661 | 4.243465 |
| ## | GSM875414 | 4.411588  | 10.09568  | 5.057726 | 4.552285 | 3.493843 | 5.074070 | 4.274168 |
| ## |           | SLC5A1    | ADAMTSL2  | PTGER2   | APOBEC3B | CHRNA1   | SIX3     | CHRNA2   |

|    |           |          |           |          |          |          |          |          |
|----|-----------|----------|-----------|----------|----------|----------|----------|----------|
| ## | GSM875412 | 7.301430 | 4.708790  | 6.243492 | 5.784215 | 4.024282 | 4.029157 | 6.837234 |
| ## | GSM875413 | 4.514568 | 7.319681  | 4.912899 | 4.567094 | 3.895716 | 4.093283 | 7.037950 |
| ## | GSM875414 | 6.424431 | 4.712088  | 5.421687 | 7.366353 | 4.184177 | 5.208622 | 6.970044 |
| ## |           | RASA2    | P2RY14    | HTR2B    | HTN1     | TNFRSF17 | DSG1     | HAL      |
| ## | GSM875412 | 7.013669 | 6.791557  | 4.026941 | 3.616112 | 4.395010 | 3.466597 | 4.018297 |
| ## | GSM875413 | 5.295429 | 9.256447  | 4.178404 | 3.461911 | 4.525626 | 3.353583 | 3.909372 |
| ## | GSM875414 | 5.777042 | 6.486924  | 4.551256 | 3.194131 | 5.572620 | 3.509760 | 3.625163 |
| ## |           | NROB1    | GLI1      | HBZ      | ZNF571   | IQCC     | CPB2     | ZMYM5    |
| ## | GSM875412 | 3.506458 | 6.449018  | 3.783204 | 3.420143 | 5.669679 | 3.355349 | 5.956585 |
| ## | GSM875413 | 3.515994 | 5.870349  | 4.083009 | 3.774359 | 6.016861 | 3.446932 | 4.946645 |
| ## | GSM875414 | 3.645547 | 5.562308  | 4.830327 | 3.409194 | 5.643118 | 3.677716 | 5.809808 |
| ## |           | POLR3G   | APMAP     | MYOD1    | UPK3B    | IGLL1    | GLRX     | SP4      |
| ## | GSM875412 | 4.631929 | 8.717839  | 5.016734 | 5.335977 | 5.921790 | 9.472607 | 3.779583 |
| ## | GSM875413 | 4.229030 | 10.210785 | 5.039716 | 5.112852 | 6.061815 | 9.452991 | 3.763167 |
| ## | GSM875414 | 4.471973 | 8.225529  | 5.044888 | 5.118033 | 6.518886 | 9.696860 | 3.941831 |
| ## |           | SI       | BCL2L1    | GZMK     | SAG      | AQP2     | GPR176   | FLT3     |
| ## | GSM875412 | 8.486482 | 6.312594  | 7.013546 | 4.594836 | 5.481937 | 4.133505 | 4.525031 |
| ## | GSM875413 | 4.953360 | 5.687654  | 6.096147 | 4.844497 | 5.632792 | 4.066333 | 4.283972 |
| ## | GSM875414 | 3.585855 | 8.398222  | 6.728109 | 5.698535 | 7.896033 | 4.306347 | 4.961512 |
| ## |           | SKIL     | CEACAM8   | KRT31    | GABRA1   | APBA1    | CD5L     | GP2      |
| ## | GSM875412 | 4.520634 | 3.357101  | 3.771898 | 3.790264 | 5.746383 | 4.657620 | 5.859511 |
| ## | GSM875413 | 4.423653 | 3.160961  | 3.956205 | 4.074276 | 5.797918 | 4.628339 | 5.779971 |
| ## | GSM875414 | 5.207603 | 3.265103  | 4.332529 | 4.207433 | 5.877104 | 4.396722 | 7.849893 |
| ## |           | CLEC10A  | ZNF165    | ATF7     | HCG4     | PDK1     | PTPN6    | CPSF4    |
| ## | GSM875412 | 4.753252 | 5.157507  | 4.446530 | 3.538117 | 7.555289 | 7.004693 | 8.097083 |
| ## | GSM875413 | 5.121475 | 3.918611  | 4.224960 | 4.694356 | 4.992147 | 7.199288 | 8.748237 |
| ## | GSM875414 | 6.734806 | 6.705559  | 4.438118 | 3.765945 | 6.782784 | 7.803556 | 8.044516 |
| ## |           | KAT5     | ASIC2     | PDIA2    | KCNJ10   | IL7      | PNLIPRP1 | ZNF43    |
| ## | GSM875412 | 7.776427 | 4.449191  | 5.310491 | 3.561849 | 6.205395 | 4.247104 | 6.346528 |
| ## | GSM875413 | 8.389987 | 4.449209  | 5.450356 | 3.529958 | 4.256199 | 4.340935 | 6.554784 |
| ## | GSM875414 | 7.424009 | 4.308742  | 5.675646 | 3.928296 | 4.007910 | 4.377878 | 6.021264 |
| ## |           | GPR143   | HP        | XK       | NPAS1    | KDM5D    | TEK      | CHRNA1   |
| ## | GSM875412 | 3.901474 | 5.129968  | 6.940714 | 4.700377 | 6.831806 | 5.201904 | 5.111817 |
| ## | GSM875413 | 3.871832 | 5.272777  | 6.154384 | 5.422343 | 4.916041 | 4.192281 | 4.936567 |
| ## | GSM875414 | 4.290063 | 5.583668  | 3.488725 | 5.543869 | 3.878406 | 4.372550 | 4.649982 |
| ## |           | CLCN5    | TULP1     | NTF3     | RIPOR2   | FOXN2    | GPT      | EPB41L3  |
| ## | GSM875412 | 4.792501 | 4.171639  | 5.850418 | 4.911584 | 4.444587 | 5.558795 | 6.197526 |
| ## | GSM875413 | 3.860934 | 4.566210  | 8.563561 | 5.341500 | 3.514716 | 5.562953 | 7.119577 |
| ## | GSM875414 | 5.657754 | 4.501047  | 5.955235 | 5.321523 | 3.634518 | 5.539083 | 5.252957 |
| ## |           | GRTP1    | NTNG1     | TFEC     | UMOD     | MYH8     | LMO1     | SYNGR4   |
| ## | GSM875412 | 4.987158 | 3.799954  | 5.238288 | 4.411168 | 3.620923 | 4.763781 | 4.221190 |
| ## | GSM875413 | 4.901561 | 3.534710  | 4.341773 | 4.171166 | 3.817857 | 4.562112 | 4.267256 |
| ## | GSM875414 | 5.424885 | 4.566503  | 4.364200 | 4.235022 | 4.020818 | 4.526101 | 4.579776 |
| ## |           | MGAT5    | LPAR2     | CBX4     | HPGDS    | C9       | TNFRSF8  | SLITRK3  |
| ## | GSM875412 | 4.231342 | 6.063720  | 5.474881 | 5.029795 | 3.276485 | 4.490925 | 3.566323 |
| ## | GSM875413 | 4.641724 | 5.406024  | 5.184106 | 5.650635 | 3.151783 | 4.737270 | 6.634271 |
| ## | GSM875414 | 4.863918 | 6.818128  | 7.473360 | 5.459071 | 3.334349 | 4.681327 | 3.478190 |
| ## |           | TULP2    | CHRNA4    | WNT11    | HOXC5    | SYCP1    | SSUH2    | ASGR1    |
| ## | GSM875412 | 3.779596 | 4.708694  | 6.940195 | 5.108050 | 3.483803 | 5.112649 | 4.186026 |
| ## | GSM875413 | 4.248944 | 5.327833  | 5.160616 | 5.212795 | 3.582537 | 5.195155 | 4.525387 |
| ## | GSM875414 | 4.599632 | 6.305452  | 4.978345 | 5.038773 | 3.897553 | 4.874150 | 4.867250 |
| ## |           | HOXC11   | BFSP1     | CD1B     | MAFK     | PCYT1B   | DFFB     | RDH16    |
| ## | GSM875412 | 5.424012 | 4.664348  | 3.817227 | 5.426183 | 3.249340 | 6.694533 | 4.950040 |
| ## | GSM875413 | 4.848370 | 5.817947  | 3.708273 | 5.033646 | 3.725379 | 5.606674 | 4.908575 |

|    |           |           |          |          |          |           |           |           |
|----|-----------|-----------|----------|----------|----------|-----------|-----------|-----------|
| ## | GSM875414 | 7.276458  | 6.384027 | 4.219725 | 5.224121 | 3.613980  | 6.161481  | 5.257681  |
| ## |           | CYP2B6    | CHST7    | EDN2     | FCER2    | KCNA5     | FKBP6     | MPPE1     |
| ## | GSM875412 | 3.677010  | 4.386480 | 5.033552 | 5.089580 | 4.71576   | 5.181953  | 7.549782  |
| ## | GSM875413 | 3.682291  | 4.538512 | 5.295378 | 4.997679 | 7.32768   | 4.876770  | 7.424295  |
| ## | GSM875414 | 3.798640  | 4.700607 | 5.101187 | 5.162099 | 4.51335   | 4.762507  | 7.455727  |
| ## |           | KCNJ2     | ITGA10   | RPL3L    | TMSB4Y   | SLC35A3   | UPK3A     | PTH2R     |
| ## | GSM875412 | 6.422168  | 5.336457 | 4.739038 | 5.810283 | 10.350692 | 4.321695  | 3.541536  |
| ## | GSM875413 | 11.368133 | 8.808800 | 5.450491 | 6.170921 | 6.782617  | 4.598937  | 3.543563  |
| ## | GSM875414 | 5.359620  | 5.255919 | 5.303027 | 5.916768 | 9.987332  | 5.245551  | 3.360374  |
| ## |           | LY6H      | FRMPD1   | CUBN     | ACRV1    | CRYBB2    | ASMT      | DNAJC4    |
| ## | GSM875412 | 3.761566  | 4.025245 | 3.950693 | 3.930634 | 5.379553  | 4.199813  | 4.909016  |
| ## | GSM875413 | 10.187498 | 5.160259 | 4.228714 | 4.022261 | 5.809941  | 4.265816  | 4.890987  |
| ## | GSM875414 | 3.754318  | 4.939133 | 4.212505 | 4.581718 | 6.683501  | 4.546161  | 4.745233  |
| ## |           | AQP8      | HTN3     | BRDT     | POU2F1   | NDUFB1    | PNMT      | ERBB4     |
| ## | GSM875412 | 4.024695  | 3.392436 | 3.183787 | 6.421396 | 10.38161  | 5.924721  | 3.802585  |
| ## | GSM875413 | 4.029621  | 3.302717 | 3.291321 | 6.260882 | 11.69362  | 5.610812  | 3.699734  |
| ## | GSM875414 | 4.049821  | 3.289914 | 3.767017 | 6.036034 | 10.89536  | 5.827939  | 3.684652  |
| ## |           | F2RL2     | CCN4     | NAT2     | DLEC1    | SCGB1D2   | MTHFR     | NPPB      |
| ## | GSM875412 | 4.372841  | 4.706381 | 6.185225 | 5.076162 | 3.621384  | 5.670465  | 4.345628  |
| ## | GSM875413 | 6.130191  | 5.139869 | 4.275017 | 5.597117 | 3.605714  | 5.591946  | 4.879051  |
| ## | GSM875414 | 3.945116  | 4.277740 | 4.238000 | 6.249155 | 3.725485  | 6.080435  | 5.724100  |
| ## |           | PAX5      | PDYN     | CD3G     | SEMA3A   | DGKI      | HNRNPA3P1 | ZNF44     |
| ## | GSM875412 | 5.225491  | 4.094611 | 5.490099 | 5.184238 | 4.144864  | 3.354983  | 3.829158  |
| ## | GSM875413 | 5.285375  | 4.178358 | 4.553507 | 6.158825 | 4.028691  | 3.182217  | 4.097772  |
| ## | GSM875414 | 5.707212  | 3.927838 | 5.293313 | 5.517116 | 4.239380  | 3.229498  | 3.814178  |
| ## |           | ADCY8     | ADRB3    | CTF1     | NGF      | SPAG8     | CELF3     | POM121L9P |
| ## | GSM875412 | 4.207871  | 5.012177 | 5.481632 | 5.470325 | 4.394416  | 6.047646  | 3.849081  |
| ## | GSM875413 | 4.212130  | 5.623392 | 5.459431 | 5.805496 | 4.699448  | 6.031427  | 3.758673  |
| ## | GSM875414 | 4.940547  | 4.683109 | 5.067846 | 5.734660 | 6.061815  | 5.878816  | 4.026137  |
| ## |           | L3MBTL1   | CES1P1   | OXTR     | PMP2     | TXK       | ZNF430    | SLC4A10   |
| ## | GSM875412 | 4.179179  | 5.621611 | 4.882847 | 3.542438 | 3.391562  | 7.229085  | 3.268876  |
| ## | GSM875413 | 5.084020  | 5.465481 | 4.805931 | 3.611768 | 3.295058  | 6.530649  | 3.288297  |
| ## | GSM875414 | 4.142035  | 5.501949 | 5.307991 | 3.687806 | 3.479380  | 7.972126  | 3.353050  |
| ## |           | ARSD      | SEMA3F   | ACYP2    | HBD      | STATH     | SLC6A3    | ALX1      |
| ## | GSM875412 | 6.067646  | 4.931858 | 6.786587 | 4.105732 | 3.189147  | 5.508811  | 4.179039  |
| ## | GSM875413 | 5.208634  | 4.199775 | 7.174536 | 5.988383 | 3.253233  | 5.361680  | 4.308720  |
| ## | GSM875414 | 5.628350  | 4.382537 | 6.941198 | 4.561952 | 3.193111  | 5.341051  | 4.205521  |
| ## |           | TBX19     | C22orf31 | AFM      | PDE6H    | KCND1     | CRYBA4    | FBP2      |
| ## | GSM875412 | 5.056950  | 4.666211 | 3.665204 | 3.353625 | 4.853030  | 3.633966  | 4.583896  |
| ## | GSM875413 | 5.034035  | 4.868840 | 3.362912 | 3.294700 | 5.273584  | 3.974780  | 4.590440  |
| ## | GSM875414 | 4.942464  | 5.377351 | 3.246806 | 3.237071 | 4.460236  | 4.050580  | 4.429963  |
| ## |           | RNF40     | HDAC6    | HOXA7    | RASL10A  | RNASE3    | MAP3K7    | HYAL2     |
| ## | GSM875412 | 7.197324  | 7.600811 | 5.204486 | 4.432928 | 5.079772  | 6.862554  | 7.874621  |
| ## | GSM875413 | 7.500127  | 8.704425 | 5.308101 | 4.884031 | 5.411776  | 6.999058  | 6.791593  |
| ## | GSM875414 | 7.402364  | 8.091449 | 5.091496 | 5.612721 | 5.689067  | 5.675040  | 7.798338  |
| ## |           | LILRB5    | FKBP1B   | HOXC6    | PAEP     | MIOS      | CGGBP1    | GCKR      |
| ## | GSM875412 | 4.682527  | 8.595680 | 6.794206 | 3.654078 | 7.675501  | 7.747969  | 7.028907  |
| ## | GSM875413 | 4.806048  | 4.810769 | 3.606350 | 3.866030 | 7.694597  | 6.688443  | 5.677686  |
| ## | GSM875414 | 5.381449  | 8.007419 | 8.802471 | 4.401032 | 6.608571  | 8.687994  | 5.481840  |
| ## |           | STARD8    | CHAD     | ELANE    | SLK      | MXD1      | DAO       | NRG2      |
| ## | GSM875412 | 5.565270  | 4.412713 | 4.171639 | 7.944375 | 7.495067  | 4.668725  | 3.898001  |
| ## | GSM875413 | 5.461394  | 4.496151 | 4.134478 | 8.965622 | 4.668836  | 4.858884  | 6.338908  |
| ## | GSM875414 | 5.496738  | 4.663861 | 4.607289 | 6.721000 | 6.658325  | 4.773521  | 4.858303  |
| ## |           | P2RX6     | LILRA3   | GP9      | ARHGDIG  | ACTN3     | AMHR2     | SALL1     |

|    |           |          |          |          |          |          |          |           |
|----|-----------|----------|----------|----------|----------|----------|----------|-----------|
| ## | GSM875412 | 5.799183 | 4.600078 | 6.240413 | 4.599494 | 4.678307 | 4.767235 | 3.093505  |
| ## | GSM875413 | 6.463912 | 4.946386 | 5.934704 | 4.953674 | 4.792687 | 5.001195 | 3.290015  |
| ## | GSM875414 | 5.986206 | 5.167426 | 5.980373 | 5.448570 | 4.937884 | 5.302862 | 3.392714  |
| ## |           | APOA4    | PPP1R3A  | GNG7     | PAGE1    | NTSR2    | ZNF253   | BRME1     |
| ## | GSM875412 | 6.268307 | 3.251434 | 5.602992 | 3.642384 | 3.876724 | 5.486667 | 6.079189  |
| ## | GSM875413 | 6.495595 | 3.095754 | 6.627183 | 4.242868 | 3.774183 | 5.011297 | 6.117580  |
| ## | GSM875414 | 6.297238 | 3.281097 | 6.049320 | 5.472383 | 3.927103 | 5.968409 | 6.214442  |
| ## |           | MATN1    | ICAM5    | TNFSF9   | CLDN11   | CFHR2    | TRIM25   | FOXE1     |
| ## | GSM875412 | 4.449216 | 4.838423 | 6.078646 | 5.105296 | 4.645596 | 6.469220 | 3.389982  |
| ## | GSM875413 | 4.447626 | 4.499292 | 4.520119 | 5.603814 | 4.825452 | 5.910302 | 3.457068  |
| ## | GSM875414 | 5.017111 | 5.100108 | 5.096349 | 5.584430 | 4.583418 | 6.862321 | 3.489588  |
| ## |           | BAAT     | CRTAM    | NKX2-2   | GNA13    | CPNE1    | GLE1     | IL11      |
| ## | GSM875412 | 4.890433 | 3.756887 | 3.472222 | 6.198910 | 8.873796 | 7.316768 | 3.810168  |
| ## | GSM875413 | 5.144778 | 3.540376 | 3.778966 | 3.844223 | 8.895997 | 5.721156 | 3.988737  |
| ## | GSM875414 | 6.970189 | 3.579864 | 3.892753 | 6.447598 | 8.691210 | 5.412806 | 5.556446  |
| ## |           | GUCY1A2  | ZNF124   | NFIC     | GLYAT    | ZNF141   | CH25H    | PCDH8     |
| ## | GSM875412 | 4.270350 | 7.564645 | 6.103016 | 3.429574 | 3.571239 | 6.551982 | 3.148903  |
| ## | GSM875413 | 3.906176 | 5.961711 | 6.723437 | 3.564282 | 3.587939 | 7.551605 | 3.106103  |
| ## | GSM875414 | 4.212696 | 8.432954 | 6.353690 | 3.620948 | 3.729706 | 5.566581 | 3.207697  |
| ## |           | SPTA1    | SRD5A2   | DCC      | POU4F1   | SEMA3E   | PMCH     | TGFBR1    |
| ## | GSM875412 | 3.822214 | 3.847839 | 3.744911 | 3.651502 | 3.816207 | 4.346749 | 5.428777  |
| ## | GSM875413 | 3.511756 | 3.998142 | 3.703861 | 3.404020 | 7.906236 | 3.623754 | 3.587939  |
| ## | GSM875414 | 3.550976 | 4.221715 | 3.720478 | 4.449235 | 3.956456 | 4.698282 | 4.828131  |
| ## |           | LCT      | HCN4     | B3GALT5  | NEU3     | RUSC1    | SCN9A    | H4C5      |
| ## | GSM875412 | 4.167676 | 3.870741 | 4.382021 | 4.296731 | 8.170793 | 3.373506 | 5.309335  |
| ## | GSM875413 | 4.053366 | 3.795761 | 3.568884 | 4.300367 | 7.359245 | 3.149490 | 4.901742  |
| ## | GSM875414 | 4.260630 | 3.811794 | 3.888926 | 4.278096 | 9.461474 | 3.520953 | 5.903911  |
| ## |           | WT1-AS   | AQP7     | AGXT     | UPF3A    | LPAR4    | MED20    | NAT8B     |
| ## | GSM875412 | 4.121854 | 5.818516 | 3.902373 | 8.171725 | 3.484733 | 5.781531 | 3.991911  |
| ## | GSM875413 | 4.150314 | 5.392530 | 3.743483 | 8.716465 | 3.813096 | 5.307256 | 4.272837  |
| ## | GSM875414 | 4.611486 | 5.771886 | 4.038549 | 8.035773 | 3.594104 | 6.545720 | 4.135144  |
| ## |           | KLF12    | CCNT1    | NFRKB    | CNTN2    | GPR161   | CXCR6    | LTA       |
| ## | GSM875412 | 4.506983 | 6.471614 | 6.171770 | 5.021456 | 4.729289 | 5.747956 | 4.092924  |
| ## | GSM875413 | 4.215088 | 6.006180 | 5.956401 | 5.075249 | 4.829169 | 5.551258 | 4.385811  |
| ## | GSM875414 | 3.885280 | 5.755295 | 6.237704 | 5.172346 | 4.848668 | 6.292843 | 4.428016  |
| ## |           | HSPH1    | PTH      | CCR2     | C8B      | FLT3LG   | SCN4A    | CRYBA1    |
| ## | GSM875412 | 10.66636 | 3.215960 | 4.541347 | 4.870134 | 4.929923 | 4.710728 | 3.587430  |
| ## | GSM875413 | 10.37682 | 3.403603 | 4.183007 | 4.779211 | 5.385813 | 4.474695 | 3.818067  |
| ## | GSM875414 | 10.14405 | 3.507254 | 4.363496 | 5.637017 | 5.125920 | 4.500898 | 4.269093  |
| ## |           | CCR6     | RIT2     | HSD17B3  | FGF18    | CCL25    | CCR5     | CST4      |
| ## | GSM875412 | 4.190906 | 3.504558 | 4.693861 | 4.990099 | 5.123704 | 7.553727 | 7.711614  |
| ## | GSM875413 | 4.108891 | 3.574021 | 4.336451 | 4.952093 | 4.292916 | 7.763619 | 11.600358 |
| ## | GSM875414 | 5.986845 | 3.377927 | 4.464980 | 4.818332 | 4.314087 | 7.222564 | 6.913517  |
| ## |           | CACNB1   | HS6ST1   | PRB3     | IL12RB2  | PPP3CC   | TSC22D3  | PLAGL1    |
| ## | GSM875412 | 4.070380 | 5.430212 | 5.070204 | 3.814073 | 5.347184 | 7.703498 | 6.263771  |
| ## | GSM875413 | 4.205434 | 5.421578 | 5.493548 | 3.854894 | 6.930648 | 8.113894 | 10.520635 |
| ## | GSM875414 | 4.562006 | 5.815346 | 6.418238 | 3.865748 | 6.316113 | 7.661864 | 4.419068  |
| ## |           | CCDC106  | CXCR2    | PHOX2B   | MMP16    | ALDH1A2  | RAB27B   | AKAP4     |
| ## | GSM875412 | 4.778832 | 5.084938 | 4.276714 | 3.828110 | 5.151475 | 5.176979 | 4.099059  |
| ## | GSM875413 | 5.511186 | 5.569024 | 4.080551 | 3.866919 | 7.280629 | 4.196939 | 4.264526  |
| ## | GSM875414 | 4.877849 | 5.682649 | 4.025492 | 3.519199 | 5.514610 | 6.265305 | 4.428720  |
| ## |           | ZPBP     | LDHC     | KRT10    | CHRND    | GJC2     | ATP2B3   | HGFAC     |
| ## | GSM875412 | 3.569714 | 4.955660 | 8.687062 | 4.186347 | 5.404877 | 4.486948 | 3.887070  |
| ## | GSM875413 | 3.596133 | 4.419490 | 9.530351 | 4.202363 | 6.133104 | 4.664567 | 4.344222  |

|    |           |          |          |           |           |          |           |           |
|----|-----------|----------|----------|-----------|-----------|----------|-----------|-----------|
| ## | GSM875414 | 4.083919 | 5.324195 | 9.710320  | 5.001777  | 5.904412 | 4.804654  | 4.962984  |
| ## |           | MYCNOS   | KITLG    | CSRP2     | NKX3-2    | CRISP1   | CBLIF     | GLI2      |
| ## | GSM875412 | 4.583512 | 4.797871 | 8.827271  | 4.461743  | 3.819973 | 9.121129  | 4.707941  |
| ## | GSM875413 | 4.668522 | 3.527142 | 12.921330 | 10.662257 | 3.594797 | 4.859270  | 5.593903  |
| ## | GSM875414 | 4.500971 | 4.791253 | 7.848935  | 4.719966  | 3.869740 | 4.165892  | 5.077320  |
| ## |           | SLC30A3  | GRIN2D   | TNFRSF11A | SLC16A6   | CDKN2A   | ST13      | MASP2     |
| ## | GSM875412 | 6.018847 | 3.821446 | 6.495530  | 5.416898  | 3.770542 | 10.525294 | 4.594213  |
| ## | GSM875413 | 6.221814 | 4.065828 | 5.035912  | 4.428942  | 3.982687 | 10.508256 | 4.597297  |
| ## | GSM875414 | 6.308698 | 4.477357 | 6.470048  | 4.967314  | 3.790790 | 9.969598  | 4.531233  |
| ## |           | E2F2     | SLC6A9   | THRB      | CACNA2D1  | HAVCR1   | IMPG1     | SLC16A7   |
| ## | GSM875412 | 4.415144 | 4.359264 | 4.467352  | 5.227733  | 3.382027 | 3.176150  | 6.456010  |
| ## | GSM875413 | 4.504323 | 4.580981 | 4.115015  | 5.100734  | 3.489244 | 3.180539  | 6.861833  |
| ## | GSM875414 | 5.536614 | 5.107092 | 4.606525  | 5.067899  | 3.650526 | 3.337186  | 6.432368  |
| ## |           | PAX9     | EN2      | ERN1      | IAPP      | TTY14    | AOC2      | KRT75     |
| ## | GSM875412 | 4.305450 | 4.176472 | 5.201670  | 3.475585  | 4.069261 | 3.957359  | 4.388573  |
| ## | GSM875413 | 4.268717 | 3.933622 | 5.281759  | 3.712487  | 3.875305 | 3.491389  | 4.842943  |
| ## | GSM875414 | 4.625950 | 3.724647 | 5.976139  | 3.751347  | 4.077908 | 3.559812  | 4.796212  |
| ## |           | HRC      | HDC      | ZFP37     | SMAD6     | ACO1     | IL18RAP   | CDKL2     |
| ## | GSM875412 | 4.392180 | 5.017576 | 3.878105  | 6.828396  | 8.308754 | 4.500383  | 3.998808  |
| ## | GSM875413 | 4.479403 | 5.286518 | 4.453474  | 5.399444  | 8.417438 | 4.682134  | 4.558474  |
| ## | GSM875414 | 4.809245 | 6.174399 | 3.689749  | 7.274207  | 7.510120 | 4.562771  | 4.361136  |
| ## |           | SLC18A1  | NLRP3    | ASS1      | CELA2B    | MED6     | PYY       | PI4KA     |
| ## | GSM875412 | 3.752302 | 4.368269 | 11.073602 | 4.034384  | 4.171814 | 3.669146  | 7.139411  |
| ## | GSM875413 | 3.958082 | 5.043438 | 9.382194  | 4.126504  | 4.574705 | 4.091943  | 8.530685  |
| ## | GSM875414 | 4.186063 | 4.092650 | 8.599732  | 4.315474  | 3.422007 | 3.954156  | 7.964304  |
| ## |           | CSF1     | CC2D1A   | POU3F2    | CSF2RA    | SLC25A11 | NRAP      | ZFP30     |
| ## | GSM875412 | 4.628715 | 4.302727 | 3.779596  | 5.407162  | 7.573693 | 3.547345  | 4.839672  |
| ## | GSM875413 | 4.579139 | 4.693598 | 3.869975  | 5.938367  | 7.925450 | 3.899209  | 5.287955  |
| ## | GSM875414 | 4.827599 | 4.813283 | 4.020025  | 5.332446  | 6.946117 | 3.701565  | 5.494055  |
| ## |           | P2RX7    | LEP      | OMG       | CXCR1     | SLC10A2  | SAA4      | SLC17A2   |
| ## | GSM875412 | 4.358412 | 3.789542 | 4.139135  | 5.627982  | 3.753032 | 5.420636  | 3.620923  |
| ## | GSM875413 | 4.933857 | 3.782341 | 4.164534  | 5.698268  | 3.795495 | 5.277248  | 3.452504  |
| ## | GSM875414 | 5.179815 | 4.046691 | 4.566155  | 5.514831  | 4.032614 | 4.882815  | 3.753481  |
| ## |           | MFN1     | VAMP1    | AKR1D1    | KCND2     | LILRB1   | LTK       | RPE65     |
| ## | GSM875412 | 8.184607 | 5.439704 | 3.311537  | 3.356593  | 6.801197 | 5.265851  | 3.201441  |
| ## | GSM875413 | 7.307173 | 6.469229 | 3.128415  | 4.482914  | 7.055480 | 5.278357  | 3.179625  |
| ## | GSM875414 | 8.752155 | 6.012440 | 3.228204  | 3.364898  | 7.325915 | 5.184314  | 3.181263  |
| ## |           | NIPBL    | POU2F3   | KCNJ12    | ADGRE1    | LY6G6C   | MBTD1     | GAPDHS    |
| ## | GSM875412 | 8.750545 | 3.429574 | 4.035405  | 4.529249  | 5.201527 | 4.118296  | 3.655888  |
| ## | GSM875413 | 7.377360 | 3.363058 | 3.972973  | 5.246945  | 4.848318 | 4.002332  | 4.078108  |
| ## | GSM875414 | 7.481286 | 3.386568 | 4.785204  | 5.559709  | 5.804663 | 4.237592  | 3.813677  |
| ## |           | ZNF117   | PRKG1    | ZNF667    | MAPK6     | SULT1A2  | MATN4     | ZNF225    |
| ## | GSM875412 | 6.711056 | 3.464705 | 3.842959  | 10.267435 | 7.953995 | 5.585122  | 3.523130  |
| ## | GSM875413 | 3.503981 | 3.579879 | 5.082887  | 9.015757  | 7.175000 | 5.719636  | 3.609232  |
| ## | GSM875414 | 3.424245 | 3.251088 | 3.713754  | 10.186503 | 8.369061 | 5.874869  | 3.437365  |
| ## |           | HNRNPH3  | ZNF223   | CA5B      | ZMYND8    | PFDN5    | ALPK1     | HTR2A     |
| ## | GSM875412 | 7.855692 | 4.138295 | 4.817142  | 3.866241  | 10.95790 | 6.668879  | 4.497931  |
| ## | GSM875413 | 7.611934 | 3.781113 | 5.026781  | 3.926116  | 12.10358 | 6.693980  | 4.857267  |
| ## | GSM875414 | 7.691530 | 4.144883 | 4.879417  | 3.690621  | 11.13408 | 6.774164  | 4.358757  |
| ## |           | ARR3     | PHF2     | ATP4A     | ALPI      | KCNJ3    | CDK6      | CITED1    |
| ## | GSM875412 | 5.738207 | 4.041610 | 5.487748  | 4.985225  | 4.940403 | 5.338626  | 5.368623  |
| ## | GSM875413 | 5.928514 | 4.400291 | 5.049165  | 4.650599  | 4.253141 | 5.363419  | 5.332208  |
| ## | GSM875414 | 6.417037 | 4.894501 | 5.494716  | 6.288143  | 5.416764 | 6.772818  | 5.160900  |
| ## |           | MSTN     | KRT32    | DLX2      | MYOZ2     | CDH12    | SLC18A3   | ADCYAP1R1 |

|    |           |          |          |          |          |           |           |          |
|----|-----------|----------|----------|----------|----------|-----------|-----------|----------|
| ## | GSM875412 | 3.144930 | 4.970398 | 3.527423 | 3.495191 | 3.575711  | 4.119886  | 4.251869 |
| ## | GSM875413 | 3.285875 | 4.953362 | 3.574020 | 3.607950 | 3.467554  | 4.264990  | 4.468633 |
| ## | GSM875414 | 3.045981 | 4.956423 | 3.777568 | 3.499422 | 3.429278  | 5.629563  | 4.595543 |
| ## |           | NTRK2    | GLMN     | DIO3     | H2AC11   | NGG5      | APOBEC1   | CRTC1    |
| ## | GSM875412 | 4.606973 | 6.964961 | 5.707680 | 4.030435 | 11.18106  | 5.673859  | 6.218299 |
| ## | GSM875413 | 4.708378 | 5.914642 | 6.464417 | 3.994115 | 10.54720  | 4.852805  | 6.994139 |
| ## | GSM875414 | 4.486677 | 5.559191 | 5.479714 | 4.079320 | 11.57034  | 4.837310  | 7.105652 |
| ## |           | IL12A    | KIAA0087 | CACNA1B  | AKT1     | ZBTB18    | HMMR      | NGGT1    |
| ## | GSM875412 | 3.597081 | 3.406719 | 4.492447 | 7.703409 | 4.596732  | 7.490148  | 3.242620 |
| ## | GSM875413 | 4.371789 | 3.353880 | 4.992599 | 8.573346 | 3.865034  | 4.478406  | 3.612069 |
| ## | GSM875414 | 3.501802 | 3.382218 | 4.849687 | 8.410673 | 3.689891  | 6.774486  | 3.656620 |
| ## |           | CD101    | LETMD1   | CDH11    | GPC5     | ADIPOQ    | FRK       | TLX1     |
| ## | GSM875412 | 4.172385 | 8.556962 | 8.167372 | 3.154599 | 3.564177  | 5.486890  | 4.211528 |
| ## | GSM875413 | 4.451809 | 9.440171 | 9.901955 | 3.860741 | 3.445906  | 3.512011  | 4.486523 |
| ## | GSM875414 | 4.627523 | 8.237166 | 7.641600 | 3.704410 | 3.363908  | 4.444381  | 4.151447 |
| ## |           | HTATIP2  | CASP7    | GABRA6   | GPR19    | SLC6A13   | SLC10A1   | BPTF     |
| ## | GSM875412 | 9.063421 | 9.232561 | 3.493272 | 4.049942 | 4.817579  | 3.970218  | 8.710023 |
| ## | GSM875413 | 6.737106 | 6.472061 | 3.450950 | 4.044856 | 5.159968  | 3.892426  | 8.078485 |
| ## | GSM875414 | 9.008574 | 7.124683 | 3.690700 | 4.417776 | 5.136491  | 4.032291  | 8.877009 |
| ## |           | JAK3     | ZZEF1    | ISLR     | DNASE1L2 | AGRP      | ICAM4     | CNTN6    |
| ## | GSM875412 | 5.410171 | 4.845558 | 7.359611 | 5.198507 | 5.058450  | 3.856790  | 3.320347 |
| ## | GSM875413 | 5.171243 | 5.169073 | 9.894219 | 5.582825 | 4.822001  | 4.059625  | 3.674315 |
| ## | GSM875414 | 5.421056 | 5.325562 | 6.009128 | 5.561460 | 4.881424  | 4.508993  | 3.598590 |
| ## |           | TNIP1    | ZIC3     | OTC      | SLC22A1  | NR1I2     | FSCN2     | CEACAM4  |
| ## | GSM875412 | 8.690472 | 3.731886 | 3.790607 | 4.098784 | 6.872142  | 4.096902  | 5.098369 |
| ## | GSM875413 | 9.211554 | 3.627501 | 3.756584 | 4.373222 | 3.917003  | 3.978500  | 5.295185 |
| ## | GSM875414 | 8.171514 | 3.598489 | 4.135626 | 4.359021 | 3.796154  | 4.231215  | 5.277144 |
| ## |           | ALOX12   | RBMXL2   | CETN1    | GABRA3   | USP2      | SLC9A3    | SPINK4   |
| ## | GSM875412 | 3.706263 | 3.479305 | 4.749100 | 3.668168 | 4.340992  | 4.108626  | 5.913029 |
| ## | GSM875413 | 3.751539 | 3.749036 | 4.675142 | 3.728190 | 4.233037  | 4.333624  | 5.363186 |
| ## | GSM875414 | 3.674920 | 4.030115 | 5.065122 | 4.091821 | 4.238949  | 4.839350  | 6.827120 |
| ## |           | TNFSF8   | F9       | ZFP69B   | ART4     | F2RL3     | PLA2G10   | PTBP3    |
| ## | GSM875412 | 5.480804 | 3.320347 | 3.789921 | 3.737190 | 3.840775  | 8.487153  | 8.277214 |
| ## | GSM875413 | 5.633973 | 3.497464 | 3.438174 | 3.805136 | 3.877989  | 5.865322  | 4.530283 |
| ## | GSM875414 | 5.625282 | 3.537987 | 3.757711 | 3.672135 | 3.769933  | 9.675702  | 6.563364 |
| ## |           | SIGLEC7  | AANAT    | H2BC15   | RFPL2    | PRKACG    | KLRA1P    | DZIP3    |
| ## | GSM875412 | 4.669287 | 3.865792 | 3.584845 | 4.756393 | 4.708668  | 3.900229  | 4.098556 |
| ## | GSM875413 | 4.555684 | 3.851385 | 3.648285 | 4.512856 | 4.580723  | 4.124804  | 6.019374 |
| ## | GSM875414 | 5.006959 | 3.864077 | 3.698001 | 4.543781 | 4.965744  | 3.587042  | 3.751327 |
| ## |           | RFX3     | ZNF345   | KCNA3    | CDK16    | LHCGR     | LINC01587 | CALM2    |
| ## | GSM875412 | 4.098950 | 3.738063 | 4.146878 | 5.459899 | 3.241731  | 3.658653  | 12.93475 |
| ## | GSM875413 | 3.943276 | 3.917821 | 4.009529 | 6.298336 | 3.462236  | 3.675470  | 12.88645 |
| ## | GSM875414 | 4.155954 | 3.941831 | 4.336214 | 6.711854 | 3.534508  | 3.696173  | 13.38308 |
| ## |           | ZFY      | KCNA4    | SLC28A2  | SIX6     | MEP1B     | INE1      | UBN1     |
| ## | GSM875412 | 3.602636 | 4.653051 | 4.580550 | 3.899961 | 3.867698  | 5.538838  | 7.219238 |
| ## | GSM875413 | 3.365165 | 4.614928 | 4.470261 | 3.919889 | 3.850714  | 5.256794  | 7.251008 |
| ## | GSM875414 | 3.409158 | 4.469083 | 9.384738 | 4.474046 | 4.000200  | 5.754669  | 7.038072 |
| ## |           | SLC15A1  | MBL2     | EPO      | DSCR4    | ANKRD40CL | FEV       | CNGA3    |
| ## | GSM875412 | 4.758985 | 3.203903 | 4.179304 | 4.500383 | 4.421685  | 4.910205  | 3.328165 |
| ## | GSM875413 | 4.137335 | 3.246774 | 4.385428 | 4.379666 | 3.865931  | 4.740629  | 3.276613 |
| ## | GSM875414 | 4.709788 | 3.343563 | 4.645793 | 4.347750 | 9.601474  | 4.722045  | 3.759615 |
| ## |           | APOF     | VEZT     | RIPPLY3  | ABI2     | DEFA4     | CD300C    | CHRNE    |
| ## | GSM875412 | 3.401506 | 4.591634 | 3.562259 | 6.786231 | 3.875107  | 4.984612  | 4.881394 |
| ## | GSM875413 | 3.368112 | 4.675126 | 3.453298 | 7.492520 | 4.258594  | 4.810209  | 4.875356 |



|    |           |          |            |          |           |           |          |          |
|----|-----------|----------|------------|----------|-----------|-----------|----------|----------|
| ## | GSM875414 | 3.558838 | 4.555731   | 3.570588 | 7.042606  | 4.328950  | 5.345804 | 5.500680 |
| ## |           | CDR1     | RNF185-AS1 | VCX2     | MYOG      | RPL23AP32 | BIN3-IT1 | MMP25    |
| ## | GSM875412 | 3.397658 | 4.292738   | 5.512984 | 5.346232  | 6.300525  | 5.092990 | 6.028732 |
| ## | GSM875413 | 3.543793 | 4.288017   | 5.536186 | 5.052440  | 7.078782  | 5.277871 | 6.195408 |
| ## | GSM875414 | 3.813809 | 4.212910   | 5.443021 | 4.942464  | 6.024040  | 4.686246 | 6.798528 |
| ## |           | PLXNA2   | PRRG4      | MAPK7    | AGTR2     | SCNN1G    | ZNF343   | SLC17A3  |
| ## | GSM875412 | 4.257474 | 6.218079   | 5.834702 | 3.527658  | 4.625776  | 4.134613 | 3.815224 |
| ## | GSM875413 | 4.202327 | 4.948630   | 6.101755 | 3.515059  | 5.015854  | 4.297499 | 3.770890 |
| ## | GSM875414 | 4.975676 | 5.370106   | 6.526404 | 3.751386  | 4.821879  | 3.999142 | 3.903901 |
| ## |           | GRM1     | F7         | EFNA5    | SGCG      | ZNF45     | TRAPPC8  | TCF15    |
| ## | GSM875412 | 3.658653 | 4.645671   | 4.777585 | 3.733299  | 4.841112  | 9.982426 | 5.644584 |
| ## | GSM875413 | 3.610525 | 4.844284   | 4.743955 | 3.841369  | 5.156318  | 9.791771 | 6.180809 |
| ## | GSM875414 | 3.478120 | 4.715314   | 4.361365 | 4.057253  | 5.317490  | 9.082999 | 5.864372 |
| ## |           | HTR2C    | SLC01A2    | DOC2B    | PHKG1     | KIR3DL2   | CD226    | HAS1     |
| ## | GSM875412 | 3.287058 | 3.159487   | 4.960940 | 5.016868  | 4.523047  | 3.620309 | 4.135876 |
| ## | GSM875413 | 3.333203 | 3.206054   | 5.363773 | 6.242359  | 4.674824  | 3.721567 | 5.010794 |
| ## | GSM875414 | 3.291266 | 3.141305   | 5.373448 | 6.516469  | 5.071376  | 3.592269 | 4.695241 |
| ## |           | CASQ2    | CDK13      | STAU1    | DSC1      | MAGEA1    | BTC      | ALOX15   |
| ## | GSM875412 | 5.144926 | 8.193005   | 10.45578 | 3.419900  | 4.092499  | 4.500383 | 3.606752 |
| ## | GSM875413 | 5.399680 | 8.544827   | 11.12907 | 3.447058  | 3.967960  | 4.245168 | 3.441556 |
| ## | GSM875414 | 5.228273 | 7.192615   | 10.77938 | 4.000722  | 6.202793  | 4.159305 | 3.496033 |
| ## |           | MMP8     | PZP        | CENPF    | TFRC      | NMBR      | TGFBR2   | ATP5ME   |
| ## | GSM875412 | 3.773051 | 4.726841   | 3.748636 | 13.024880 | 3.531849  | 6.936859 | 9.618455 |
| ## | GSM875413 | 3.458701 | 6.360852   | 3.458476 | 8.539494  | 3.911641  | 5.449683 | 9.777482 |
| ## | GSM875414 | 3.531420 | 5.867138   | 3.544948 | 11.826369 | 3.202200  | 6.336589 | 9.366960 |
| ## |           | CTAG2    | ZNF200     | PRTN3    | CNGB1     | LYZL6     | AKAP3    | STX2     |
| ## | GSM875412 | 3.619609 | 7.012889   | 3.415112 | 3.621564  | 4.606609  | 3.742230 | 5.220665 |
| ## | GSM875413 | 3.706398 | 6.779585   | 3.602097 | 3.685541  | 4.638701  | 4.144576 | 5.391396 |
| ## | GSM875414 | 3.978940 | 6.547814   | 3.632764 | 3.778011  | 4.783502  | 4.184276 | 5.224922 |
| ## |           | ERCC6    | UCP3       | VAMP4    | SH2D2A    | HMX1      | CCL16    | SLC1A7   |
| ## | GSM875412 | 4.872435 | 4.009834   | 6.355034 | 5.814306  | 6.007699  | 3.689991 | 5.186023 |
| ## | GSM875413 | 4.751211 | 4.365028   | 5.571715 | 5.456758  | 6.322949  | 3.659080 | 5.400488 |
| ## | GSM875414 | 4.529192 | 4.799818   | 5.798819 | 5.415885  | 6.306435  | 3.820521 | 5.363531 |
| ## |           | GALNT10  | CAMKK2     | NTSR1    | HBP1      | SLC30A4   | RS1      | TEX28    |
| ## | GSM875412 | 6.619444 | 4.679760   | 4.975012 | 4.656512  | 3.828573  | 3.391673 | 4.076213 |
| ## | GSM875413 | 6.693840 | 4.395996   | 5.068112 | 3.649049  | 3.581232  | 3.582014 | 4.712411 |
| ## | GSM875414 | 6.644880 | 4.840920   | 5.446213 | 3.707476  | 3.523658  | 4.158494 | 4.631544 |
| ## |           | USP34    | KCNS1      | ATP12A   | HTR1D     | IBSP      | ENTPD2   | HOXD10   |
| ## | GSM875412 | 9.247043 | 5.807616   | 4.969748 | 4.341291  | 4.404874  | 5.046438 | 3.631365 |
| ## | GSM875413 | 9.070906 | 6.255433   | 5.106286 | 4.047744  | 4.490431  | 5.104828 | 4.163809 |
| ## | GSM875414 | 9.160661 | 7.221545   | 5.232889 | 4.329639  | 5.439603  | 4.970667 | 4.600355 |
| ## |           | PLSCR2   | IL15RA     | VENTX    | PPP1R2C   | TREH      | ALOX12B  | RHBDL1   |
| ## | GSM875412 | 3.768067 | 7.385016   | 4.942868 | 4.318146  | 4.310146  | 4.409184 | 3.958359 |
| ## | GSM875413 | 3.679969 | 5.545186   | 5.325382 | 4.329491  | 4.057394  | 4.557699 | 4.107868 |
| ## | GSM875414 | 3.632267 | 6.976618   | 5.322571 | 5.280428  | 4.814298  | 5.444785 | 4.414503 |
| ## |           | PGLYRP1  | TFDP3      | CYP7B1   | GK        | PTGES     | GP1BA    | PIP5K1A  |
| ## | GSM875412 | 4.507047 | 4.191199   | 3.505433 | 6.454165  | 6.497930  | 5.395403 | 8.158485 |
| ## | GSM875413 | 5.062246 | 4.577915   | 3.623597 | 5.679941  | 6.735639  | 5.357962 | 8.048063 |
| ## | GSM875414 | 5.713834 | 4.605596   | 3.540845 | 5.637292  | 6.396393  | 5.341509 | 8.168889 |
| ## |           | UGT2B15  | HCRTR2     | ZNF137P  | BTN1A1    | ALG3      | HOXD13   | BFSP2    |
| ## | GSM875412 | 5.896167 | 3.987628   | 5.856498 | 3.679481  | 8.267950  | 3.209046 | 3.974844 |
| ## | GSM875413 | 4.976985 | 4.449308   | 4.912945 | 3.546190  | 7.913647  | 3.593127 | 4.230092 |
| ## | GSM875414 | 5.921869 | 4.761791   | 3.924157 | 3.652434  | 8.542753  | 3.776609 | 4.505434 |
| ## |           | NPY5R    | PROX1      | ZNF132   | HTR1E     | RAD17     | CYP7A1   | SLC22A14 |

|    |           |          |          |           |           |          |           |           |
|----|-----------|----------|----------|-----------|-----------|----------|-----------|-----------|
| ## | GSM875412 | 3.825483 | 4.181496 | 3.625647  | 3.875865  | 7.499364 | 3.289936  | 5.566873  |
| ## | GSM875413 | 3.671388 | 3.893776 | 4.063678  | 4.346080  | 8.363342 | 3.216599  | 5.606905  |
| ## | GSM875414 | 3.581016 | 4.211804 | 4.515372  | 3.806463  | 6.935074 | 3.174203  | 5.636036  |
| ## |           | LECT2    | TLX2     | CELP      | SCN5A     | PLA2R1   | NFATC3    | DDO       |
| ## | GSM875412 | 3.613451 | 3.433302 | 6.323051  | 4.506646  | 4.195014 | 6.739253  | 5.074810  |
| ## | GSM875413 | 3.760057 | 3.812088 | 5.476127  | 4.834196  | 3.607042 | 6.440096  | 5.293305  |
| ## | GSM875414 | 3.689965 | 4.411211 | 6.508226  | 5.565872  | 3.512338 | 6.771175  | 5.756444  |
| ## |           | RAC2     | COLEC10  | CA5A      | ADAM20    | MYF5     | TNFSF4    | ACR       |
| ## | GSM875412 | 6.244738 | 4.034786 | 4.182250  | 4.718797  | 3.574309 | 6.369578  | 4.700260  |
| ## | GSM875413 | 5.683424 | 4.302167 | 4.191752  | 4.542802  | 3.615714 | 10.219854 | 4.202932  |
| ## | GSM875414 | 7.142410 | 4.144946 | 4.467868  | 4.549635  | 3.531343 | 3.875134  | 4.658540  |
| ## |           | CDK11B   | SLC22A2  | MSMB      | DEGS1     | BEST2    | IL10      | SORBS1    |
| ## | GSM875412 | 7.495586 | 3.986308 | 5.151510  | 9.602998  | 4.500383 | 3.712932  | 8.074230  |
| ## | GSM875413 | 7.301593 | 3.654839 | 3.786299  | 9.001961  | 4.621517 | 3.723614  | 7.744657  |
| ## | GSM875414 | 7.814656 | 4.249590 | 12.110002 | 9.361623  | 4.838944 | 3.403597  | 8.005599  |
| ## |           | SNUPN    | SLC35A2  | SMR3B     | CSF3      | NR2E1    | SLC22A13  | CCR9      |
| ## | GSM875412 | 7.344966 | 6.940709 | 3.419805  | 5.952951  | 3.350805 | 4.828761  | 3.739371  |
| ## | GSM875413 | 8.002983 | 6.016629 | 3.494408  | 6.366905  | 3.571624 | 4.599427  | 3.731702  |
| ## | GSM875414 | 7.135643 | 7.225590 | 3.803204  | 5.997667  | 4.039024 | 5.163064  | 3.532140  |
| ## |           | TLR6     | MGAT4C   | POU6F2    | NKX2-8    | CNTN5    | DNAJB5    | GRIK3     |
| ## | GSM875412 | 4.049902 | 3.169474 | 3.394988  | 4.731546  | 3.492541 | 4.240929  | 3.571805  |
| ## | GSM875413 | 4.378188 | 3.169941 | 4.058174  | 5.187530  | 3.479915 | 5.448657  | 3.765229  |
| ## | GSM875414 | 4.732355 | 3.172195 | 4.484810  | 4.966103  | 3.342351 | 5.069933  | 3.866449  |
| ## |           | P2RY1    | HNF4G    | LY6G6D    | RHPN1-AS1 | GYPB     | GZMM      | GLRA2     |
| ## | GSM875412 | 3.548696 | 6.409651 | 4.978545  | 4.670319  | 4.690340 | 4.677198  | 4.366384  |
| ## | GSM875413 | 3.362795 | 4.346799 | 4.710821  | 4.762184  | 4.344664 | 5.582268  | 4.641699  |
| ## | GSM875414 | 3.405773 | 4.297070 | 5.515763  | 4.556885  | 4.145556 | 5.868712  | 5.512529  |
| ## |           | PRSS3    | GAL      | SFRP5     | PIR       | MLN      | FABP2     | MEIS2     |
| ## | GSM875412 | 9.694068 | 4.001723 | 5.008106  | 7.343875  | 4.633395 | 4.652341  | 8.084514  |
| ## | GSM875413 | 6.421257 | 3.762768 | 4.649030  | 8.990474  | 5.044387 | 4.835004  | 10.472341 |
| ## | GSM875414 | 9.122921 | 3.871868 | 5.009710  | 6.112008  | 5.663853 | 4.554311  | 6.230865  |
| ## |           | TP53TG5  | BTN3A1   | RPS2P45   | TUBA4B    | MOGAT2   | NGLY1     | ZNF76     |
| ## | GSM875412 | 5.775794 | 7.484773 | 3.410073  | 5.622099  | 4.899817 | 6.409268  | 7.142043  |
| ## | GSM875413 | 6.237402 | 5.893588 | 3.686670  | 6.048177  | 4.337760 | 5.177978  | 8.013270  |
| ## | GSM875414 | 5.846842 | 5.964113 | 3.626068  | 6.294934  | 4.596102 | 5.166724  | 6.961146  |
| ## |           | RAB28    | MS4A2    | UNC45A    | CASP5     | FGF12    | GUCA2B    | TCP10L3   |
| ## | GSM875412 | 4.970298 | 3.636097 | 6.298443  | 4.673356  | 3.465118 | 4.034384  | 4.397006  |
| ## | GSM875413 | 6.024451 | 3.549504 | 6.167879  | 4.006942  | 3.774460 | 4.232269  | 4.541913  |
| ## | GSM875414 | 5.186171 | 4.071931 | 6.223253  | 4.143077  | 3.779596 | 4.770802  | 4.751135  |
| ## |           | CA7      | PRKG2    | GLRX3     | ATP5MC3   | LAIR2    | BDKRB1    | ZNF189    |
| ## | GSM875412 | 5.677709 | 3.671188 | 4.926286  | 11.39762  | 5.795469 | 5.244847  | 8.158680  |
| ## | GSM875413 | 5.703092 | 3.685541 | 4.888408  | 10.59988  | 5.395219 | 5.187328  | 8.075111  |
| ## | GSM875414 | 6.000258 | 3.766203 | 5.034680  | 10.98423  | 5.910565 | 5.393447  | 8.743045  |
| ## |           | GNAT1    | POLR1C   | CHRNA4    | SLC6A4    | RO60     | ATP2A3    | TSBP1     |
| ## | GSM875412 | 4.889637 | 8.181898 | 3.530391  | 4.066566  | 3.959951 | 4.620975  | 3.372838  |
| ## | GSM875413 | 4.735685 | 7.150366 | 3.688756  | 3.999831  | 3.809349 | 7.607280  | 3.182968  |
| ## | GSM875414 | 4.644309 | 8.013979 | 3.743891  | 4.357919  | 3.685984 | 6.240443  | 3.286493  |
| ## |           | GIPC1    | IL1RL1   | KCNJ9     | SLC7A11   | DEFA5    | CDKN2B    | CRYGC     |
| ## | GSM875412 | 8.475448 | 4.652555 | 4.548790  | 4.337627  | 4.546204 | 5.142124  | 5.102009  |
| ## | GSM875413 | 8.689329 | 3.971500 | 5.167200  | 3.833026  | 7.483419 | 4.919451  | 5.149424  |
| ## | GSM875414 | 8.745616 | 4.169398 | 5.701329  | 4.141907  | 4.341002 | 4.565425  | 5.196195  |
| ## |           | CRYGD    | CCL1     | MAGEB1    | NFKB2     | TNFRSF9  | PFKFB1    | IL4       |
| ## | GSM875412 | 5.637503 | 4.245392 | 3.325794  | 7.216575  | 5.814214 | 4.938108  | 3.428344  |
| ## | GSM875413 | 5.825926 | 3.992321 | 3.465324  | 7.030887  | 4.258926 | 5.368743  | 3.715799  |

|    |           |          |          |           |          |           |           |           |
|----|-----------|----------|----------|-----------|----------|-----------|-----------|-----------|
| ## | GSM875414 | 5.748499 | 4.808582 | 3.611934  | 7.976846 | 4.813666  | 6.194169  | 3.955659  |
| ## |           | SYK      | AQP1     | P4HA1     | ADH6     | FAM107A   | GRM7      | CD46      |
| ## | GSM875412 | 8.046074 | 9.262922 | 8.898062  | 3.660777 | 6.385672  | 3.144112  | 10.697520 |
| ## | GSM875413 | 6.504367 | 6.609500 | 9.300844  | 3.662909 | 7.271495  | 3.219442  | 7.328268  |
| ## | GSM875414 | 7.251859 | 9.957616 | 8.305552  | 3.573490 | 6.562064  | 3.069998  | 9.862585  |
| ## |           | MPL      | MSL3     | ATP5MC2   | OPRK1    | TBXA2R    | DGKZ      | RYR2      |
| ## | GSM875412 | 3.574340 | 7.299462 | 3.921802  | 4.345844 | 4.935144  | 7.950019  | 4.114846  |
| ## | GSM875413 | 4.837244 | 7.991934 | 4.313930  | 4.431247 | 6.410035  | 7.600403  | 4.352296  |
| ## | GSM875414 | 3.434234 | 7.023151 | 4.592943  | 4.513454 | 5.170028  | 7.860808  | 4.719341  |
| ## |           | PITX2    | SLC28A1  | DGKQ      | OGT      | MR1       | SLC13A2   | CHRNA6    |
| ## | GSM875412 | 3.119785 | 5.300098 | 5.053761  | 8.854407 | 5.218492  | 4.962147  | 4.679083  |
| ## | GSM875413 | 3.115184 | 5.904195 | 5.111733  | 8.424897 | 6.477717  | 4.928221  | 4.567736  |
| ## | GSM875414 | 3.221189 | 5.722553 | 5.833827  | 7.639028 | 5.168405  | 4.948430  | 4.747457  |
| ## |           | ROS1     | SHOX     | THEMIS2   | EFCAB2   | ATP5MG    | GADD45B   | OXT       |
| ## | GSM875412 | 3.882183 | 3.778084 | 6.754115  | 3.801683 | 11.42714  | 8.168251  | 5.009147  |
| ## | GSM875413 | 3.788732 | 4.017800 | 6.744314  | 3.812088 | 11.50757  | 9.834919  | 5.537602  |
| ## | GSM875414 | 4.368982 | 3.737694 | 6.379470  | 4.059752 | 10.63289  | 7.382903  | 5.526028  |
| ## |           | HTR4     | MAGEB3   | MAGEB4    | PIN1P1   | ABCD2     | LPA       | RPL36AL   |
| ## | GSM875412 | 3.656691 | 3.357101 | 3.178776  | 4.817465 | 3.181390  | 3.418673  | 10.59198  |
| ## | GSM875413 | 3.817457 | 3.583565 | 3.132534  | 4.987005 | 3.467554  | 3.317116  | 10.90638  |
| ## | GSM875414 | 3.930008 | 3.327088 | 3.128999  | 5.016554 | 3.205922  | 3.317334  | 10.68850  |
| ## |           | SHH      | CRYGA    | ADRA1B    | ARID1A   | HCN2      | ABCG4     | SYNJ1     |
| ## | GSM875412 | 4.209352 | 3.648833 | 3.925090  | 4.626420 | 3.768674  | 5.561074  | 3.994125  |
| ## | GSM875413 | 4.141277 | 4.177666 | 4.847048  | 4.779621 | 4.317255  | 5.632442  | 3.638530  |
| ## | GSM875414 | 4.935013 | 4.203806 | 4.067899  | 4.920936 | 4.232726  | 5.984955  | 4.279101  |
| ## |           | XRCC2    | MMP20    | KCNC3     | SULT1B1  | TMPRSS11D | SLC4A7    | ARHGAP12  |
| ## | GSM875412 | 6.167392 | 3.284635 | 4.882705  | 5.474420 | 4.718244  | 3.558278  | 8.647961  |
| ## | GSM875413 | 6.232135 | 3.258279 | 5.280568  | 5.221183 | 4.744878  | 3.308719  | 6.245787  |
| ## | GSM875414 | 6.380943 | 3.502860 | 5.081405  | 5.560093 | 4.541342  | 3.496357  | 4.544648  |
| ## |           | ASCL2    | CYP1A2   | ADGRE2    | H2BC13   | WNT8B     | CAMK2A    | CUL1      |
| ## | GSM875412 | 3.828622 | 5.442013 | 4.844050  | 3.948977 | 4.542326  | 4.635585  | 8.575117  |
| ## | GSM875413 | 3.292252 | 4.932820 | 5.506760  | 3.712963 | 4.742990  | 5.122083  | 9.323945  |
| ## | GSM875414 | 3.189014 | 5.113499 | 5.438095  | 3.596112 | 4.494948  | 5.541974  | 7.852780  |
| ## |           | GAS8-AS1 | TANK     | BCS1L     | HCRTR1   | CASK      | PEMT      | RPGR      |
| ## | GSM875412 | 4.370954 | 8.845864 | 7.554778  | 4.060762 | 8.061790  | 6.831858  | 5.743340  |
| ## | GSM875413 | 4.171749 | 8.327320 | 7.741644  | 3.823939 | 7.236073  | 7.317710  | 5.799071  |
| ## | GSM875414 | 4.503834 | 9.481971 | 7.190591  | 4.064941 | 6.617937  | 6.520030  | 5.751296  |
| ## |           | SLC7A2   | TFCP2    | BUD23     | CREM     | MUSK      | PDCD1     | KCNH1     |
| ## | GSM875412 | 3.620923 | 7.519185 | 9.600942  | 8.180981 | 3.862766  | 5.698446  | 3.746997  |
| ## | GSM875413 | 3.517094 | 7.693641 | 10.073092 | 8.818002 | 3.970519  | 5.604085  | 4.094062  |
| ## | GSM875414 | 3.693148 | 7.677874 | 8.535273  | 7.749503 | 4.221715  | 5.496380  | 4.616498  |
| ## |           | SERPINI2 | WSCD2    | TMPRSS15  | FZD9     | NTN3      | TNFRSF13B | HCRT      |
| ## | GSM875412 | 3.658653 | 3.889962 | 3.417231  | 4.726968 | 4.449366  | 5.360185  | 4.028649  |
| ## | GSM875413 | 4.805649 | 4.113244 | 3.375506  | 5.360272 | 4.717816  | 5.179910  | 4.166404  |
| ## | GSM875414 | 3.773147 | 3.889962 | 2.980024  | 5.321766 | 4.441020  | 5.403362  | 4.258457  |
| ## |           | TNFRSF1A | FOXH1    | CDY1      | KRT37    | PTGER1    | GPR171    | CMKLR1    |
| ## | GSM875412 | 8.326714 | 4.354563 | 3.359134  | 4.077799 | 6.385285  | 5.139150  | 4.642285  |
| ## | GSM875413 | 9.598660 | 4.139041 | 3.303987  | 4.184378 | 7.109291  | 4.195312  | 4.614486  |
| ## | GSM875414 | 8.468832 | 4.061831 | 3.431954  | 4.096813 | 6.237222  | 5.142124  | 4.805652  |
| ## |           | FOXD2    | BLNK     | ACOX1     | MOBP     | SH3PXD2A  | TBX1      | ADAM2     |
| ## | GSM875412 | 3.660132 | 7.979350 | 4.298625  | 3.984342 | 3.767861  | 3.880432  | 3.244568  |
| ## | GSM875413 | 3.876381 | 6.856348 | 4.658150  | 4.182995 | 3.605290  | 4.173593  | 3.324644  |
| ## | GSM875414 | 4.476108 | 9.050171 | 4.918340  | 3.874307 | 4.052925  | 4.437378  | 3.354989  |
| ## |           | SSX3     | MAP2K3   | PDIA6     | KRT83    | KRT85     | NPHS1     | FCAR      |

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## GSM875412 3.874862 8.076695 11.316493 4.786756 4.729278 4.597046 3.397930
## GSM875413 3.836648 7.348533 9.753031 4.932878 4.716968 4.715077 3.328087
## GSM875414 4.237958 8.181135 10.956477 4.762147 5.326157 4.975998 3.255146
##          ARTN  ONECUT2      PAX3      CXCR3      KIF25      TBX6      CRYBB3
## GSM875412 4.486318 5.211063 3.891217 5.167876 4.046271 5.789286 5.534206
## GSM875413 4.603871 5.581740 4.108997 5.327601 4.745917 5.604604 5.677013
## GSM875414 5.642959 6.200775 3.984626 5.263124 5.010718 5.706337 6.265653
##          INHBC      TBX10      ALX3      ENTPD1      CACNB4      POU3F4      IGSF1
## GSM875412 4.265770 4.146540 5.305446 7.652548 4.021078 3.630877 4.093393
## GSM875413 4.219629 4.380169 5.682130 8.381662 4.280036 4.072694 4.264567
## GSM875414 4.237483 4.672870 5.633523 7.456133 5.598541 4.482755 4.221772
##          FUT9      LIIRB2      ZFXH2      YWHAH-AS1      MAGI2      NINL      USH2A
## GSM875412 3.170564 5.562951 5.459899 4.103354 3.903633 7.299621 3.273050
## GSM875413 2.916963 6.355468 5.710793 4.113541 4.731762 8.231803 3.155589
## GSM875414 3.170414 6.626061 6.231918 4.055011 4.598540 7.440348 3.334510
##          SEC13      ALOXE3      PRKAA2      LCE2B      SOGA1      RBCK1      SERPINH1
## GSM875412 10.36233 5.146612 3.778443 3.759514 5.389274 6.749486 9.153499
## GSM875413 10.42041 5.123561 3.812088 3.839218 6.558030 8.318835 9.564036
## GSM875414 10.81459 5.260198 3.652660 4.238725 4.639949 5.876773 9.302807
##          CRYGB      KRT38      PKP2      CYP2A7      CEP170      LORICRIN      BTBD2
## GSM875412 4.181694 4.224335 8.691425 3.985322 8.562730 3.966609 6.207479
## GSM875413 4.352143 4.202363 3.821350 4.112509 8.515437 5.168515 6.863635
## GSM875414 4.216577 4.470432 7.897252 4.250882 7.389712 4.213369 6.599649
##          KLRC3      SPAST      POU4F2      MUTYH      ATF7IP      CDH9      TNFAIP8L1
## GSM875412 3.251434 5.668323 3.611817 7.785028 4.219277 3.305375 9.529490
## GSM875413 3.728045 4.003118 3.457057 7.585794 4.510313 3.435627 9.448601
## GSM875414 3.474762 3.805572 3.391065 8.206468 4.117289 3.515618 9.447188
##          DLG3      PSG9      LAX1      RNF125      TNP2      NCKAP1      TPSAB1
## GSM875412 7.321527 4.306660 5.922894 5.380321 3.809082 10.116907 6.930827
## GSM875413 5.770714 4.247604 5.685499 4.502981 4.310239 9.813625 7.029757
## GSM875414 6.269559 4.312705 6.349444 5.400035 4.744849 10.202817 9.457202
##          NR6A1      CABP2      POLQ      DOK4      PPP2R3A      PRB1      ZNF304
## GSM875412 5.478865 4.396345 6.145469 6.889074 6.319433 5.927162 4.299871
## GSM875413 4.804121 4.933779 3.917560 7.321727 5.645819 7.008980 5.557392
## GSM875414 4.808446 4.860643 4.848686 6.987239 6.812966 7.242730 5.060874
##          RASSF8      ZFP2      NCOR2      METTL7A      LPAL2      S100A5      HIPK3
## GSM875412 4.040532 3.765693 8.481755 8.941239 3.849362 4.677259 5.856505
## GSM875413 4.395949 5.194169 10.017151 12.832944 4.205025 4.484783 4.110383
## GSM875414 4.404815 4.607024 7.624809 9.340082 4.271904 4.639200 5.208622
##          ATOSB      EGR4      PQBP1      SLC5A2      PRMT8      CYP3A43      MGC4859
## GSM875412 7.229914 4.520779 7.759963 5.202849 3.945381 4.974615 3.357101
## GSM875413 7.523491 4.980854 8.666121 5.306884 4.285857 4.649723 3.095754
## GSM875414 7.474647 5.595236 8.563514 6.200943 4.693374 5.154805 3.326156
##          SP140      REG1CP      CYLC2      ZNF711      HUWE1      RBPJ      CYP2R1
## GSM875412 3.903802 4.490676 3.228082 3.426786 13.69443 8.265776 5.021768
## GSM875413 4.520624 4.745319 3.356180 6.394083 13.74268 9.089115 4.125266
## GSM875414 4.746581 4.386064 3.610523 3.379717 13.91424 7.729916 4.646437
##          KRT33B      SORBS3      LRRC1      RAB1A      KLRD1      LRP2BP      AKAP5
## GSM875412 4.136720 4.791363 6.986143 10.909538 4.199115 3.822214 3.578925
## GSM875413 4.270868 5.502090 5.324235 9.482187 4.063128 5.024598 3.645731
## GSM875414 4.590687 6.197495 6.394022 10.072943 4.530783 3.805909 4.229074
##          RNF10      CRISP3      CSN3      PSMD9      PROS1      ATP6AP1      F13B
## GSM875412 8.355040 3.259184 3.948973 8.289491 8.180873 9.098122 3.186996
## GSM875413 9.735024 3.254409 3.818122 9.067174 8.928909 10.601773 3.192748

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## GSM875414 8.523029 3.208290 4.927243 8.305646 6.707189 10.023358 3.659699
##          KRT12    GORASP2    FDXR    DEFA6    PF4V1    LALBA    IFNW1
## GSM875412 3.398518 9.762064 5.397482 4.832310 3.021377 4.411477 3.603903
## GSM875413 3.527085 9.535044 6.282920 6.342923 3.002793 4.269813 3.599838
## GSM875414 3.562106 10.201652 5.680104 4.588977 2.975991 4.753893 3.672232
##          HTR7    ADH1A    FGFR1    AIF1    MAZ    GHRHR    ID3
## GSM875412 3.539047 3.650167 4.224579 4.062469 5.340181 4.349529 8.005717
## GSM875413 3.927030 3.895716 6.087524 4.051591 5.823080 4.309573 6.749801
## GSM875414 4.249822 3.977210 4.155746 4.126973 5.765849 4.853989 8.494983
##          PPP1R8    HLCS    PBXIP1    TMEM8B    CD160    SPIN2A    CASC3
## GSM875412 8.949970 4.299003 6.519305 5.109416 3.732276 4.184589 10.336291
## GSM875413 8.749881 4.179409 7.284084 6.687307 3.750792 3.933160 9.100027
## GSM875414 8.149076 4.812354 6.595223 4.579220 3.833805 4.136303 7.603783
##          CYB5A    IL13    ANAPC10    POU1F1    MUC1    AVP    IL2
## GSM875412 10.203560 4.448115 7.180381 3.114896 10.934899 4.991015 3.321104
## GSM875413 8.135638 4.538851 7.012493 3.311405 5.692718 5.488373 3.225216
## GSM875414 9.770532 5.052726 6.351288 3.236793 11.115333 5.143140 3.389145
##          CXCL3    INSR    CXCL5    SNCB    LILRA2    PKLR    CHRNB3
## GSM875412 7.785028 4.837484 3.175151 5.372833 4.108316 4.273968 3.855118
## GSM875413 4.362026 4.723652 3.112926 5.600008 4.620203 4.759317 3.645477
## GSM875414 9.363760 4.649729 3.113693 5.460950 4.286161 5.773588 3.666716
##          NCR1    CCL22    UPK2    ADPRH    SCN7A    BMP8B    PAX4
## GSM875412 3.527397 5.856835 3.847819 4.970971 3.241545 4.023130 3.296121
## GSM875413 3.527549 5.373991 4.070555 4.793633 3.504933 4.039743 3.109467
## GSM875414 3.691117 6.293089 4.811443 5.109050 3.353362 4.311166 3.139739
##          CHRNA2    CACNA1G    AKAP9    LILRA1    SEZ6L    CFHR4    FLNC
## GSM875412 5.741444 3.148903 3.572767 4.163474 4.906155 4.020597 7.436363
## GSM875413 6.161577 3.577917 3.408245 4.352296 4.677134 4.219767 10.273475
## GSM875414 6.406908 3.033908 3.361831 4.879570 5.063762 4.117248 6.115505
##          NVL    KRT76    ADAM11    TFR2    GUCY2D    S100G    CALCR
## GSM875412 7.138510 4.686846 5.014919 4.785140 4.381820 3.823613 3.507565
## GSM875413 7.272571 4.669773 5.647401 4.794593 4.806148 3.911756 3.585064
## GSM875414 7.488172 4.504607 6.101822 4.734444 4.870817 4.034662 3.629358
##          SARDH    CD40LG    SRY    TCL6    NAALADL1    CRHR2    GIP
## GSM875412 3.480761 5.237537 3.540939 4.862536 4.534576 4.043593 4.520003
## GSM875413 4.088449 5.189042 3.760057 5.178868 5.359730 4.821817 4.444707
## GSM875414 3.751391 5.099957 4.044365 4.833930 5.399479 4.527124 4.733911
##          CCL17    IL12B    IL5RA    LNPEP    IL3    TNFSF14    KRT2
## GSM875412 5.540888 3.344794 4.260876 5.018764 3.620923 5.100973 3.876314
## GSM875413 5.703111 3.191709 4.316026 3.915786 3.882661 5.146854 3.992931
## GSM875414 5.590890 3.477014 4.582978 4.237531 4.868573 5.556121 4.039930
##          SCGB1D1    TGM5    CYP2F1    EVX1    RBMY2BP    NUDT13    ZFX
## GSM875412 3.308240 5.390860 3.627537 5.508855 3.915405 5.539024 6.698503
## GSM875413 3.591020 5.765655 3.786578 5.878386 3.929406 4.818652 5.159968
## GSM875414 3.770149 5.204734 3.687386 5.372457 3.922853 5.195421 6.657532
##          MAEA    CST5    GP5    GLRA3    GRPR    LCN1    PFKFB2
## GSM875412 9.340732 4.682094 3.795585 3.041129 5.575295 4.925250 6.055871
## GSM875413 8.654209 4.546888 3.638565 3.093531 5.784795 4.627888 5.532197
## GSM875414 9.644878 4.785417 3.440783 3.020730 5.610237 5.328361 5.472549
##          IFNA8    ZP2    RFPL1    KRT13    RFPL3    PI15    RBM39
## GSM875412 3.154533 4.256192 3.182546 3.663594 4.492310 4.315130 10.30211
## GSM875413 3.348207 4.125526 3.103135 3.680596 4.230963 4.266487 10.76431
## GSM875414 3.183208 4.237989 3.213304 4.500971 4.355682 4.196696 10.16782
##          OCM2    CSNK1D    MAML3    CSN2    IL5    GATA2    CCL27

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|    |           |          |           |          |           |           |          |           |
|----|-----------|----------|-----------|----------|-----------|-----------|----------|-----------|
| ## | GSM875412 | 3.688460 | 7.956387  | 4.006133 | 3.810631  | 3.525962  | 5.034136 | 3.836324  |
| ## | GSM875413 | 3.870654 | 7.745172  | 3.833374 | 3.790012  | 3.401858  | 4.781568 | 4.002420  |
| ## | GSM875414 | 3.943053 | 8.699169  | 3.929982 | 3.965349  | 3.363295  | 5.004962 | 3.937689  |
| ## |           | PRKCB    | DNAH9     | CAPN11   | KIF25-AS1 | IFNA4     | NEUROG3  | GLG1      |
| ## | GSM875412 | 4.901975 | 4.456800  | 4.011292 | 3.977768  | 4.110540  | 3.925599 | 8.943271  |
| ## | GSM875413 | 4.687228 | 4.990088  | 4.181495 | 4.058405  | 3.685541  | 4.151812 | 9.368979  |
| ## | GSM875414 | 4.864506 | 5.415635  | 4.413569 | 4.369232  | 4.229222  | 3.836282 | 8.723999  |
| ## |           | VPS45    | MEF2C     | GLRA1    | DPT       | NR4A3     | CITED2   | ESRRG     |
| ## | GSM875412 | 4.835398 | 5.683672  | 3.772911 | 5.304046  | 5.219992  | 6.486081 | 4.489331  |
| ## | GSM875413 | 5.119660 | 5.692032  | 4.018259 | 6.172050  | 5.723171  | 8.526839 | 4.520784  |
| ## | GSM875414 | 5.545288 | 5.208416  | 4.044179 | 5.667937  | 6.142451  | 7.728715 | 4.007470  |
| ## |           | STAG2    | MPP2      | CYB561   | GNRH1     | ARPC2     | OPRM1    | AMPD3     |
| ## | GSM875412 | 8.485533 | 4.725347  | 8.076553 | 3.669449  | 10.723625 | 3.376727 | 7.070584  |
| ## | GSM875413 | 9.095668 | 4.540469  | 7.693624 | 4.208794  | 10.650112 | 3.284811 | 10.748974 |
| ## | GSM875414 | 8.511256 | 4.476941  | 9.022502 | 4.158548  | 9.914905  | 3.254747 | 6.114884  |
| ## |           | CHP1     | CLEC4M    | GML      | ACOT7     | NFAT5     | OPRPN    | NTN1      |
| ## | GSM875412 | 7.766110 | 3.924218  | 4.169940 | 8.882592  | 7.853357  | 3.653164 | 3.772489  |
| ## | GSM875413 | 4.771247 | 3.854179  | 4.031961 | 7.460371  | 6.902368  | 3.676969 | 4.289458  |
| ## | GSM875414 | 7.119356 | 3.956890  | 4.357919 | 8.906650  | 7.065097  | 3.808622 | 4.363935  |
| ## |           | FOXI1    | CES3      | TBC1D29P | ARHGEF16  | SP110     | HCK      | ZNF157    |
| ## | GSM875412 | 3.586706 | 3.982633  | 4.971826 | 7.535947  | 7.728282  | 6.971966 | 3.215326  |
| ## | GSM875413 | 3.820583 | 4.408703  | 4.468433 | 5.973405  | 7.210962  | 7.290522 | 3.081229  |
| ## | GSM875414 | 4.358412 | 4.561181  | 5.396409 | 8.273979  | 7.609737  | 7.647910 | 3.009064  |
| ## |           | CACNA1C  | RFC1      | CDC14B   | TNFRSF4   | H4C6      | TLL2     | GPX5      |
| ## | GSM875412 | 4.318612 | 6.861839  | 8.458135 | 4.341855  | 3.490338  | 3.637670 | 3.810482  |
| ## | GSM875413 | 4.347598 | 7.838226  | 6.666295 | 3.993595  | 3.635036  | 3.782252 | 4.076994  |
| ## | GSM875414 | 3.908968 | 6.330186  | 7.171947 | 4.182992  | 3.766484  | 3.769874 | 3.880497  |
| ## |           | ADD1     | RFX2      | ZFHX3    | PROZ      | GRM6      | OPN1SW   | MADCAM1   |
| ## | GSM875412 | 8.617773 | 5.101477  | 4.548790 | 5.194171  | 3.779596  | 3.852091 | 5.469158  |
| ## | GSM875413 | 9.645524 | 5.756811  | 6.929406 | 4.704836  | 3.533714  | 3.929942 | 5.843898  |
| ## | GSM875414 | 8.555026 | 5.761300  | 4.978119 | 4.723941  | 3.509277  | 4.466153 | 5.881540  |
| ## |           | IL1RL2   | SLC9A2    | MYBPC3   | GRK1      | AGGF1     | PPARD    | H4C1      |
| ## | GSM875412 | 4.965390 | 4.388404  | 6.361654 | 4.867914  | 5.821064  | 6.127564 | 3.723480  |
| ## | GSM875413 | 4.896366 | 4.665139  | 6.581091 | 4.756302  | 5.009710  | 6.311264 | 3.849111  |
| ## | GSM875414 | 6.103567 | 5.189555  | 6.685558 | 4.924752  | 5.079871  | 5.752454 | 3.725485  |
| ## |           | NAB1     | TACR1     | CASP2    | PAIP1     | CEACAM3   | GUCY2F   | HERC4     |
| ## | GSM875412 | 6.516619 | 3.849392  | 5.650284 | 10.554086 | 6.058724  | 3.800933 | 3.892363  |
| ## | GSM875413 | 5.030949 | 3.997329  | 4.944798 | 8.688977  | 6.232135  | 4.095157 | 3.551440  |
| ## | GSM875414 | 6.482377 | 4.120021  | 6.049900 | 8.691003  | 6.438670  | 4.530708 | 3.155159  |
| ## |           | CBFA2T3  | CCR8      | CAPN9    | ST8SIA3   | GTF2B     | UTY      | REV3L     |
| ## | GSM875412 | 4.312001 | 4.903181  | 5.324171 | 3.688091  | 8.803202  | 5.705950 | 8.138405  |
| ## | GSM875413 | 4.364841 | 4.110825  | 4.555039 | 3.968149  | 8.454664  | 4.973862 | 8.012041  |
| ## | GSM875414 | 4.540383 | 4.353520  | 7.293064 | 3.890601  | 9.476512  | 5.602650 | 6.823287  |
| ## |           | LAIR1    | DGKD      | CCL7     | H4C4      | ZNF442    | ZBP1     | CFHR5     |
| ## | GSM875412 | 6.454977 | 8.180129  | 3.908195 | 3.610341  | 3.546420  | 5.119390 | 3.155245  |
| ## | GSM875413 | 6.042947 | 7.352956  | 5.499888 | 3.702469  | 3.776048  | 5.464380 | 3.192421  |
| ## | GSM875414 | 6.451253 | 8.128974  | 3.916628 | 3.929388  | 3.782060  | 5.122579 | 3.141282  |
| ## |           | AIRE     | VOPP1     | CYRIA    | NDEL1     | YJU2B     | COL21A1  | TMX1      |
| ## | GSM875412 | 5.032137 | 9.203780  | 6.236074 | 8.441524  | 7.019155  | 4.692486 | 8.620981  |
| ## | GSM875413 | 5.568921 | 11.012391 | 5.389054 | 8.636977  | 7.143337  | 6.152422 | 7.976750  |
| ## | GSM875414 | 5.711978 | 9.576707  | 5.022121 | 7.879668  | 7.011723  | 5.057954 | 9.011678  |
| ## |           | SEMA6C   | URM1      | PSD      | ANP32E    | GIPR      | PSG6     | REXO5     |
| ## | GSM875412 | 5.905321 | 7.706527  | 4.796122 | 7.776462  | 4.109171  | 4.766657 | 5.373113  |
| ## | GSM875413 | 6.248354 | 7.413859  | 7.091263 | 5.136026  | 4.307699  | 4.439001 | 5.643157  |

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## GSM875414 5.965576 7.262096 4.423712 6.749841 4.163494 4.854750 6.289590
##          AVPR2 LINC00597      EHD1  PABPC3  ISG20L2      EDRF1  MAN1A1
## GSM875412 4.234428 4.973440 8.024172 11.61826 8.117422 4.877922 7.049288
## GSM875413 4.163231 4.851061 7.714958 10.89453 7.436006 4.546513 4.249860
## GSM875414 4.763747 3.519199 7.775977 11.43627 7.918932 4.379688 5.244472
##          LAS1L  KCNB2  SEMA4F  CYP2C18  SOCS5  TBXAS1  PTGIS
## GSM875412 7.732389 3.698776 5.184238 7.003065 8.069971 5.771171 7.317729
## GSM875413 9.423798 4.305617 5.568827 4.397893 8.282841 6.788523 11.007335
## GSM875414 8.247052 4.731683 5.130656 4.917635 7.148947 7.098581 5.758279
##          PRRC2A  PSG2  ZNF205-AS1  GAST  DOHH  EDDM3A  CPVL
## GSM875412 6.971535 3.824206 3.830263 5.284008 6.464149 3.507137 6.845633
## GSM875413 7.833450 3.605122 3.785872 5.570598 6.625332 3.631619 9.515727
## GSM875414 7.056348 3.702530 3.849183 5.663504 6.961452 3.537417 7.841444
##          CYP2C8  MYH4  DDX11  DDX17  DDX21  FAT2  EPPK1
## GSM875412 3.376868 3.404046 7.368263 7.606756 9.367730 4.138222 6.454927
## GSM875413 3.630046 3.668909 8.396917 7.611733 7.613643 4.289142 5.407954
## GSM875414 3.439984 3.822214 7.616629 8.396471 8.461289 4.456935 5.923882
##          ABCC3  OSBPL7  IL9R  PRSS16  CHIT1  PTGER3  TRIM31
## GSM875412 11.823488 5.099772 4.593359 6.109843 4.645671 4.864683 8.004005
## GSM875413 5.668314 4.566046 4.592545 3.784018 4.628197 4.800991 3.695465
## GSM875414 10.114769 6.157683 4.814408 6.703997 8.167315 4.922311 6.484525
##          IFNB1  ZRSR2  DMP1  DUX1  SLC34A1  TRIO  KIR2DL3
## GSM875412 4.126572 7.086996 3.212893 5.497795 4.465297 7.332231 4.510180
## GSM875413 4.222608 8.512034 3.075737 5.992834 4.360164 7.602584 4.738834
## GSM875414 5.003527 7.608687 3.110472 5.912911 4.700021 6.547413 5.238816
##          H4C8  IFNA14  TACR3  LIPE  KRT9  MYO7A  LSR
## GSM875412 4.046708 3.713716 3.840405 5.389117 5.086603 5.830393 9.000580
## GSM875413 3.439825 3.515059 3.952627 5.710907 5.473302 6.150300 4.790071
## GSM875414 7.180994 3.413164 4.379479 6.320311 5.314136 6.197369 9.345502
##          PSG4  IL9  STAM2  NFATC1  KIR2DS1  ZBTB14  IL1A
## GSM875412 4.309078 3.28146 4.605398 5.782357 5.162676 4.924241 4.921794
## GSM875413 4.099619 3.30826 4.139977 6.531815 5.217360 4.699931 4.307396
## GSM875414 5.030221 3.55274 4.802771 6.190605 5.242224 4.636436 4.107884
##          JADE2  KIR2DS5  CAV3  PCDHA9  RASGRP2  MYH13  C4BPB
## GSM875412 4.875430 5.798401 5.489884 4.396184 6.154616 4.159270 8.472606
## GSM875413 6.393606 6.071548 5.618154 4.533176 6.160291 5.217306 4.880360
## GSM875414 5.050156 5.974812 6.375097 4.301301 6.423699 5.390495 5.771624
##          MAS1  ALK  KCNAB1  ADRB1  DRD4  DLX4  GABRR2
## GSM875412 4.087017 3.717626 3.968180 3.697139 4.628271 4.800170 5.761654
## GSM875413 3.892990 4.113110 3.816658 3.878982 4.842255 4.337782 5.855477
## GSM875414 4.230661 3.943751 3.966175 5.176112 5.302569 4.794797 6.177905
##          AMELY  SLIT1  HOXB1  RAX  BMP3  RAB9BP1  ERC2-IT1
## GSM875412 4.696795 4.258765 5.034583 5.729944 4.238630 3.276011 3.864597
## GSM875413 4.372842 4.444707 5.207730 5.793527 4.229470 3.327001 3.834876
## GSM875414 4.676510 4.387224 5.340027 5.616576 4.343748 3.373139 4.850772
##          APLP2  TGDS  DMBT1  KCNC4  CHST3  SIGLEC8  FKBP8
## GSM875412 10.31422 7.570668 11.804222 4.907771 4.335782 4.111103 6.298660
## GSM875413 12.88890 6.684238 6.624339 5.159968 4.644524 4.136283 6.900858
## GSM875414 10.92308 7.900688 6.012931 5.556273 4.306743 3.750676 6.397880
##          PSG1  GAS2L1  IFNA7  AVPR1B  IFNA10  MEFV  SRP72
## GSM875412 5.293057 5.00985 3.922042 5.870585 3.788009 4.301879 3.196376
## GSM875413 5.635741 5.50558 3.659767 6.158798 3.564061 3.343839 3.151953
## GSM875414 5.853636 5.55171 3.819857 5.834689 4.038488 3.507254 3.211691
##          EIF3J  C2orf83  C8orf17  RNPEP  PAPOLB  UTF1  PITX3

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|    |           |          |           |          |           |           |          |          |
|----|-----------|----------|-----------|----------|-----------|-----------|----------|----------|
| ## | GSM875412 | 7.130123 | 3.584323  | 3.902606 | 10.293426 | 3.217089  | 3.948977 | 6.100120 |
| ## | GSM875413 | 6.182146 | 3.814355  | 4.367864 | 8.305887  | 3.600531  | 4.041833 | 6.326398 |
| ## | GSM875414 | 6.132123 | 3.473740  | 4.089020 | 9.583192  | 3.766259  | 4.509811 | 6.866310 |
| ## |           | FBXW10B  | GAGE1     | OR7A5    | HCG9      | ABCB11    | EI24     | EIF5     |
| ## | GSM875412 | 4.731108 | 3.466804  | 4.127043 | 4.491980  | 3.531371  | 8.776126 | 8.308160 |
| ## | GSM875413 | 4.667853 | 3.641201  | 4.173453 | 4.790071  | 3.586374  | 8.928136 | 8.559559 |
| ## | GSM875414 | 5.076932 | 3.653965  | 4.124145 | 4.613659  | 3.575553  | 9.041042 | 9.364207 |
| ## |           | TH       | BMP10     | TNFAIP8  | EVI5      | CACNA1I   | PTPRH    | HMHB1    |
| ## | GSM875412 | 3.836389 | 3.716697  | 8.040253 | 5.540512  | 5.978324  | 7.387891 | 3.922141 |
| ## | GSM875413 | 4.036758 | 4.103870  | 9.690578 | 5.405037  | 6.200949  | 5.073043 | 4.028323 |
| ## | GSM875414 | 4.952659 | 5.114204  | 8.547472 | 5.285724  | 5.935006  | 6.503640 | 4.363181 |
| ## |           | CRLF2    | CCR3      | PGR      | GPI       | MALT1     | GPR50    | RRH      |
| ## | GSM875412 | 5.067524 | 3.817277  | 3.496364 | 10.42638  | 7.179957  | 3.982948 | 3.838818 |
| ## | GSM875413 | 5.192612 | 3.989506  | 3.382948 | 10.63964  | 7.101150  | 6.574235 | 3.752243 |
| ## | GSM875414 | 5.853875 | 4.200899  | 3.815129 | 10.07251  | 6.200088  | 4.154684 | 4.037166 |
| ## |           | TRAF3    | RBM3      | CABP1    | ST3GAL1   | ANXA13    | AKAP13   | CYP2A13  |
| ## | GSM875412 | 6.119101 | 9.294027  | 3.874155 | 5.296081  | 8.951298  | 4.163942 | 5.003059 |
| ## | GSM875413 | 6.117099 | 9.418654  | 3.930946 | 5.946975  | 7.294290  | 3.645649 | 5.460565 |
| ## | GSM875414 | 5.672036 | 9.325198  | 4.238725 | 6.034192  | 8.073149  | 4.151866 | 5.365214 |
| ## |           | MEF2A    | PBOV1     | ALX4     | BPY2      | LHX5      | ACKR1    | P2RX3    |
| ## | GSM875412 | 5.230716 | 3.551612  | 4.463452 | 3.710823  | 5.223771  | 6.222770 | 3.958952 |
| ## | GSM875413 | 5.742439 | 3.887561  | 5.159257 | 3.717629  | 5.469386  | 6.369547 | 4.001424 |
| ## | GSM875414 | 4.309296 | 3.758624  | 5.870399 | 4.221715  | 5.439560  | 5.041738 | 4.198074 |
| ## |           | CASP4LP  | IFNA13    | POU3F1   | PPBPP2    | CBLB      | TRPA1    | CSN1S1   |
| ## | GSM875412 | 3.402576 | 5.036717  | 3.882954 | 3.814997  | 3.620923  | 3.734632 | 3.574022 |
| ## | GSM875413 | 3.310927 | 4.771947  | 4.162615 | 3.425118  | 3.382718  | 3.675385 | 3.370636 |
| ## | GSM875414 | 3.654144 | 4.884120  | 3.772659 | 3.807144  | 3.422466  | 3.840927 | 3.551509 |
| ## |           | SLC12A3  | CSH1      | UGT8     | KCNJ4     | ERVH-4    | POLR3D   | PCDH11X  |
| ## | GSM875412 | 4.549122 | 4.206168  | 9.064436 | 4.209798  | 3.867420  | 5.985760 | 3.357101 |
| ## | GSM875413 | 4.533123 | 4.582131  | 4.286724 | 4.060308  | 3.760057  | 6.909113 | 3.538981 |
| ## | GSM875414 | 4.513407 | 4.928267  | 6.338808 | 4.122517  | 3.708952  | 5.933261 | 3.690481 |
| ## |           | BRCA2    | RCAN1     | RING1    | P2RY6     | CAPZA1    | IFNA1    | CCR4     |
| ## | GSM875412 | 4.868138 | 8.078171  | 7.847893 | 4.915224  | 11.356558 | 3.199482 | 3.993056 |
| ## | GSM875413 | 3.574304 | 10.727393 | 8.333820 | 5.349211  | 9.917911  | 3.216086 | 3.712823 |
| ## | GSM875414 | 3.780143 | 9.490150  | 8.508052 | 5.596017  | 11.435820 | 3.312913 | 4.011896 |
| ## |           | CACNA1F  | FGF5      | NPY2R    | LBX1      | SGPL1     | DMC1     | PCK1     |
| ## | GSM875412 | 4.690097 | 4.095727  | 3.993056 | 3.809296  | 4.609707  | 3.311210 | 9.081899 |
| ## | GSM875413 | 4.645764 | 4.101753  | 3.941220 | 4.252168  | 3.870527  | 3.494802 | 3.635036 |
| ## | GSM875414 | 5.340037 | 4.222338  | 4.155717 | 4.382703  | 4.575656  | 3.371354 | 3.995582 |
| ## |           | MID2     | NR2E3     | MMP24    | GLP1R     | RAD50     | ESM1     | URB1     |
| ## | GSM875412 | 5.422236 | 4.173571  | 4.691050 | 6.109474  | 7.603993  | 4.626642 | 4.439327 |
| ## | GSM875413 | 6.356716 | 4.627945  | 4.837412 | 5.997421  | 8.372162  | 4.273431 | 5.353907 |
| ## | GSM875414 | 5.700498 | 4.940621  | 4.697017 | 6.107596  | 6.991688  | 5.665581 | 4.661159 |
| ## |           | KCNJ5    | TBPL1     | EDN3     | IL17A     | MAX       | CD164    | GRAP2    |
| ## | GSM875412 | 5.144361 | 8.156704  | 5.715768 | 3.910589  | 7.191684  | 11.65788 | 5.304046 |
| ## | GSM875413 | 5.224876 | 7.343930  | 4.321319 | 3.895716  | 6.532509  | 11.59139 | 5.247982 |
| ## | GSM875414 | 5.848528 | 7.832616  | 5.128857 | 4.058188  | 7.361446  | 11.74672 | 5.615435 |
| ## |           | PTN      | SLC14A2   | AMELX    | PPEF2     | HOXB3     | ING1     | SPTB     |
| ## | GSM875412 | 4.216844 | 3.910441  | 3.307871 | 3.148538  | 5.975679  | 7.669856 | 5.502000 |
| ## | GSM875413 | 4.293368 | 4.097065  | 3.373691 | 3.015954  | 5.937944  | 8.165404 | 5.566735 |
| ## | GSM875414 | 4.442140 | 4.184086  | 3.553263 | 3.099387  | 5.686407  | 7.659485 | 5.977202 |
| ## |           | FGF6     | MSR1      | CIAPIN1  | TANC2     | KIR2DL4   | ELAVL2   | HNF4A    |
| ## | GSM875412 | 5.781185 | 3.617878  | 7.119789 | 4.459710  | 4.549266  | 3.323441 | 5.282916 |
| ## | GSM875413 | 5.893302 | 3.632253  | 6.860628 | 4.371854  | 4.330594  | 3.570789 | 4.889115 |



|    |           |           |          |          |          |          |          |          |
|----|-----------|-----------|----------|----------|----------|----------|----------|----------|
| ## | GSM875414 | 6.094167  | 3.684167 | 7.160265 | 4.141390 | 4.739198 | 3.450048 | 5.983049 |
| ## |           | TUB       | CACNA1E  | MECOM    | AQP6     | IRF7     | CLCN1    | FGR      |
| ## | GSM875412 | 4.301182  | 4.293421 | 4.602942 | 4.544837 | 6.781499 | 5.418380 | 6.008480 |
| ## | GSM875413 | 4.604100  | 4.374574 | 3.897425 | 4.742110 | 6.977883 | 5.633973 | 5.840203 |
| ## | GSM875414 | 4.767719  | 4.630712 | 4.489363 | 5.028610 | 8.355382 | 5.741846 | 5.537876 |
| ## |           | LINC01565 | SHOX2    | BAZ1B    | PRPS1    | IFNA16   | FGF8     | LGALS2   |
| ## | GSM875412 | 5.277765  | 3.693040 | 7.436258 | 6.272811 | 3.599345 | 3.891539 | 5.326725 |
| ## | GSM875413 | 5.370416  | 3.895424 | 8.833439 | 7.452965 | 3.401304 | 4.206687 | 4.752439 |
| ## | GSM875414 | 5.367749  | 3.890759 | 7.154043 | 6.522026 | 3.468848 | 4.969384 | 7.155572 |
| ## |           | MYO9B     | XPNPEP1  | NECTIN1  | RRAS2    | GABRD    | SCNN1D   | XP07     |
| ## | GSM875412 | 4.632108  | 8.706744 | 4.226035 | 7.289763 | 4.671266 | 4.627918 | 7.529984 |
| ## | GSM875413 | 5.661842  | 8.201246 | 4.477042 | 4.535940 | 4.931062 | 5.065177 | 7.196542 |
| ## | GSM875414 | 6.719639  | 8.464761 | 4.795306 | 6.365302 | 5.259194 | 4.913620 | 7.125889 |
| ## |           | GJC1      | HIC1     | GABRA4   | GRM2     | RAB3D    | SOX21    | HPR      |
| ## | GSM875412 | 4.448068  | 4.210215 | 3.868285 | 4.432938 | 4.884722 | 4.219239 | 3.843982 |
| ## | GSM875413 | 4.260754  | 5.552787 | 4.166959 | 4.755400 | 5.252396 | 4.497568 | 4.066881 |
| ## | GSM875414 | 4.397186  | 4.584208 | 4.428492 | 5.528890 | 6.588442 | 5.023601 | 4.306959 |
| ## |           | IKZF4     | CLDN6    | KCNC1    | BAX      | KCNA1    | ABCC6    | ASB4     |
| ## | GSM875412 | 5.112602  | 6.387129 | 3.744248 | 6.547585 | 4.036514 | 5.076970 | 3.230265 |
| ## | GSM875413 | 5.450808  | 6.510300 | 4.060954 | 6.149514 | 4.408053 | 5.159968 | 3.359273 |
| ## | GSM875414 | 5.492898  | 6.023267 | 4.614284 | 7.359151 | 4.357422 | 5.114423 | 3.504565 |
| ## |           | SSTR1     | KRT33A   | H1-1     | CFLAR    | DRD5     | LMX1B    | GJA8     |
| ## | GSM875412 | 4.919633  | 4.701559 | 3.929522 | 8.737303 | 4.363156 | 4.594749 | 4.930959 |
| ## | GSM875413 | 4.510983  | 4.953351 | 4.326355 | 7.554943 | 4.251475 | 4.799303 | 5.762523 |
| ## | GSM875414 | 4.686764  | 5.575193 | 5.217213 | 8.399404 | 4.890350 | 4.993322 | 6.430245 |
| ## |           | H2BC7     | RFXAP    | HXA11    | SLC6A7   | TLX3     | H3C8     | NEUROG1  |
| ## | GSM875412 | 6.584241  | 4.802869 | 4.838350 | 6.273712 | 3.816334 | 6.248782 | 4.338883 |
| ## | GSM875413 | 5.030269  | 4.507844 | 4.279847 | 6.262889 | 4.314668 | 5.841493 | 4.486116 |
| ## | GSM875414 | 9.091887  | 4.840337 | 4.774548 | 6.104657 | 4.182992 | 6.184290 | 4.780538 |
| ## |           | FOXD3     | GF11B    | PITX1    | GATAD1   | PCDHB11  | FUT2     | H3C7     |
| ## | GSM875412 | 3.645609  | 4.002575 | 5.954399 | 8.581687 | 5.270934 | 7.230695 | 3.533118 |
| ## | GSM875413 | 3.635036  | 4.626650 | 7.172359 | 8.951887 | 6.583283 | 6.308231 | 3.551056 |
| ## | GSM875414 | 3.758175  | 4.919851 | 6.216624 | 9.205687 | 6.065340 | 8.338594 | 4.073686 |
| ## |           | OR7C2     | OR2J2    | OR7A17   | PPARG    | PTTG3P   | AFDN     | FOXB1    |
| ## | GSM875412 | 4.785651  | 3.342530 | 4.223648 | 8.284597 | 4.514051 | 4.625292 | 4.227839 |
| ## | GSM875413 | 4.780556  | 3.215304 | 4.260216 | 5.029885 | 4.591550 | 4.186850 | 4.793482 |
| ## | GSM875414 | 4.649927  | 3.347459 | 4.432309 | 6.050048 | 4.743154 | 4.892774 | 4.721352 |
| ## |           | H2BC14    | MTNR1B   | BTF3     | GNRH2    | OR10H3   | OR5I1    | H2BC10   |
| ## | GSM875412 | 3.609409  | 4.735960 | 11.82638 | 5.261666 | 3.832073 | 3.970963 | 6.035850 |
| ## | GSM875413 | 3.662568  | 5.014898 | 12.22959 | 5.682772 | 3.704054 | 3.851301 | 5.051402 |
| ## | GSM875414 | 4.153605  | 5.154071 | 12.06821 | 5.690636 | 3.654932 | 4.119640 | 8.295305 |
| ## |           | GPR15     | OR2F1    | H2BC6    | SSX5     | BTF3P11  | SERPINA2 | KRTAP5-8 |
| ## | GSM875412 | 3.822214  | 4.239227 | 6.397418 | 4.833808 | 3.368926 | 3.499915 | 6.817341 |
| ## | GSM875413 | 3.789388  | 4.252689 | 4.893192 | 5.205731 | 3.609556 | 3.734087 | 6.208853 |
| ## | GSM875414 | 3.705014  | 4.778832 | 9.041040 | 5.623683 | 4.450881 | 3.819792 | 6.071740 |
| ## |           | SOX1      | COL13A1  | S1PR2    | ANP32C   | OR10H2   | ADRA2B   | TAF4     |
| ## | GSM875412 | 3.580069  | 6.271343 | 4.646747 | 3.531505 | 3.556779 | 5.405587 | 4.086984 |
| ## | GSM875413 | 3.958876  | 6.608735 | 4.596708 | 3.573420 | 3.578066 | 5.961743 | 3.949098 |
| ## | GSM875414 | 3.948453  | 6.573884 | 4.767548 | 3.787548 | 3.758200 | 5.445191 | 4.161048 |
| ## |           | H2BC9     | H2BC3    | IFNA6    | KCNG2    | H4C7     | GRIK4    | H1-4     |
| ## | GSM875412 | 6.412954  | 4.107605 | 3.989700 | 4.373520 | 3.581797 | 4.219239 | 3.939644 |
| ## | GSM875413 | 4.864192  | 3.983016 | 3.857147 | 4.380778 | 4.143111 | 4.484673 | 4.421420 |
| ## | GSM875414 | 9.599164  | 4.614876 | 4.025734 | 4.212732 | 4.376143 | 4.388066 | 4.685803 |
| ## |           | POU4F3    | CST2     | GPR31    | HXA6     | OR10H1   | PDX1     | KCNA10   |

|    |           |           |          |           |           |           |           |           |
|----|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875412 | 3.587215  | 7.011855 | 4.423440  | 4.325829  | 5.241599  | 5.078259  | 4.356411  |
| ## | GSM875413 | 3.920694  | 8.884179 | 4.433480  | 4.817142  | 5.384573  | 5.186276  | 4.397843  |
| ## | GSM875414 | 4.281589  | 5.425741 | 4.539453  | 5.188140  | 6.126264  | 5.522204  | 4.882079  |
| ## |           | POU3F3    | KCNA2    | MC5R      | MC2R      | H2AC4     | WNT1      | ANP32D    |
| ## | GSM875412 | 4.077147  | 4.256803 | 3.735166  | 5.487375  | 4.824413  | 3.989501  | 3.658653  |
| ## | GSM875413 | 4.610072  | 4.141616 | 3.588068  | 5.556618  | 4.756858  | 4.064935  | 3.774898  |
| ## | GSM875414 | 4.874455  | 4.973805 | 3.661314  | 5.764132  | 5.388878  | 4.874118  | 4.532214  |
| ## |           | H3-4      | OR2H2    | SOX14     | H3C1      | H3C2      | H3C3      | SCN10A    |
| ## | GSM875412 | 4.065243  | 4.034805 | 4.036697  | 3.387631  | 3.799305  | 4.225624  | 3.943308  |
| ## | GSM875413 | 4.036780  | 4.652922 | 4.196509  | 3.528232  | 3.971749  | 4.220849  | 3.922924  |
| ## | GSM875414 | 4.163692  | 4.887468 | 4.935162  | 3.827892  | 4.627822  | 4.521757  | 4.206459  |
| ## |           | H2AC14    | SNCG     | BTN2A3P   | TPT1P8    | TRPC7     | GJA3      | PDE3B     |
| ## | GSM875412 | 6.167614  | 4.508682 | 4.656208  | 3.785506  | 3.731637  | 4.299190  | 5.464843  |
| ## | GSM875413 | 5.660530  | 5.025286 | 4.505426  | 3.912247  | 3.677779  | 4.449010  | 4.356224  |
| ## | GSM875414 | 7.042597  | 5.318994 | 4.424672  | 4.102713  | 4.303503  | 4.497355  | 4.471324  |
| ## |           | CD1E      | GPR39    | TUBB1     | HOXA3     | NTRK1     | SNTB1     | SPTAN1    |
| ## | GSM875412 | 5.539876  | 4.901551 | 4.071319  | 5.230494  | 3.741658  | 5.926151  | 8.555573  |
| ## | GSM875413 | 5.306365  | 4.125484 | 4.142957  | 6.632211  | 4.347768  | 4.177983  | 9.929608  |
| ## | GSM875414 | 5.523486  | 4.551967 | 4.691438  | 5.580346  | 4.531994  | 4.498602  | 8.716300  |
| ## |           | PDIA3     | FLNB     | PTP4A2    | DDB1      | PCBP1     | EZR       | EIF4G1    |
| ## | GSM875412 | 11.95356  | 9.544212 | 9.951048  | 9.509871  | 9.629711  | 10.795063 | 7.378298  |
| ## | GSM875413 | 11.20947  | 5.755706 | 8.644524  | 9.427559  | 9.720631  | 5.887323  | 6.350365  |
| ## | GSM875414 | 11.03316  | 9.604439 | 8.535639  | 8.729644  | 9.711239  | 9.945657  | 7.607554  |
| ## |           | VAT1      | YBX1     | HADHA     | ACTN1     | XRCC5     | PARP1     | RPS14     |
| ## | GSM875412 | 8.207860  | 11.62400 | 9.255271  | 10.187197 | 10.73144  | 8.733546  | 13.23427  |
| ## | GSM875413 | 9.557882  | 10.70892 | 7.940040  | 10.807691 | 10.03888  | 7.847041  | 13.32602  |
| ## | GSM875414 | 9.395133  | 10.67819 | 9.306147  | 9.921666  | 10.71458  | 9.002238  | 13.07164  |
| ## |           | FDFT1     | VCP      | CD24      | PPP2CA    | CCNI      | PDIA4     | CLIC1     |
| ## | GSM875412 | 12.63241  | 8.737155 | 11.923625 | 10.04098  | 10.41756  | 9.116907  | 12.00103  |
| ## | GSM875413 | 10.57554  | 8.800020 | 3.876025  | 10.39502  | 11.51027  | 7.705647  | 10.54804  |
| ## | GSM875414 | 9.94111   | 8.650708 | 12.535873 | 9.84863   | 10.97879  | 9.282939  | 11.95681  |
| ## |           | CS        | HMG2     | EID1      | SERINC1   | DDOST     | PA2G4     | BSG       |
| ## | GSM875412 | 9.721082  | 12.02987 | 9.587289  | 10.19619  | 10.183439 | 8.281223  | 9.239758  |
| ## | GSM875413 | 10.699439 | 12.36376 | 10.823528 | 10.63140  | 9.239033  | 8.689632  | 9.425631  |
| ## | GSM875414 | 10.067802 | 11.44864 | 9.640199  | 10.66171  | 10.151730 | 8.537526  | 9.240875  |
| ## |           | ATP6V1E1  | PRDX1    | MAGED2    | CAPN2     | BRD2      | HSPA8     | RPN2      |
| ## | GSM875412 | 9.49622   | 12.41657 | 8.134871  | 11.45738  | 8.785859  | 12.40631  | 11.00155  |
| ## | GSM875413 | 10.02644  | 11.83572 | 11.933367 | 11.00993  | 8.708642  | 12.49442  | 11.27200  |
| ## | GSM875414 | 9.78326   | 12.94156 | 9.108472  | 11.64959  | 9.137988  | 11.69489  | 10.73298  |
| ## |           | PDLIM1    | RPS3     | GARS1     | PRKDC     | RPL39     | CCT5      | EIF3E     |
| ## | GSM875412 | 10.82021  | 12.91544 | 10.08155  | 9.020753  | 13.49756  | 10.85712  | 11.82010  |
| ## | GSM875413 | 10.20036  | 12.39964 | 10.57762  | 9.097851  | 13.55625  | 10.32913  | 11.90734  |
| ## | GSM875414 | 10.21926  | 13.08426 | 10.14533  | 7.236384  | 13.47084  | 10.48489  | 11.64017  |
| ## |           | TKT       | NRDC     | CCND1     | HNRNPUL1  | NDUFV1    | TMC01     | OXA1L     |
| ## | GSM875412 | 10.031736 | 9.218465 | 8.293321  | 8.196030  | 9.796342  | 8.241956  | 8.969582  |
| ## | GSM875413 | 9.347713  | 9.010513 | 9.381719  | 8.593555  | 9.946935  | 8.282871  | 9.111349  |
| ## | GSM875414 | 9.723788  | 8.466157 | 7.609845  | 9.099258  | 9.757171  | 6.939987  | 10.292811 |
| ## |           | USP11     | EIF2S2   | CDC42     | HLA-B     | RAB2A     | ARPC3     | ATP6V1G1  |
| ## | GSM875412 | 7.930112  | 6.449995 | 9.652701  | 12.76954  | 8.959704  | 10.46946  | 10.99348  |
| ## | GSM875413 | 10.557065 | 7.269091 | 8.516087  | 11.40543  | 8.765195  | 10.49357  | 10.23496  |
| ## | GSM875414 | 8.369114  | 6.115436 | 11.241945 | 11.74727  | 8.679804  | 10.55665  | 11.20728  |
| ## |           | SUMO2     | SAP18    | YWHAB     | FLOT1     | EIF3I     | TMED9     | ATIC      |
| ## | GSM875412 | 10.89786  | 7.748222 | 10.33065  | 6.996124  | 10.239862 | 9.390117  | 9.725152  |
| ## | GSM875413 | 10.84938  | 8.534761 | 10.14769  | 6.335378  | 9.744229  | 10.296685 | 8.366131  |

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## GSM875414 10.79921 6.547693 10.03588 6.921917 10.299474 10.092907 9.325319
##          NCSTN      SUM01      HNRNPR      RPL22      LTA4H      XPO1      PSMD11
## GSM875412 8.637492 10.123809 10.255643 12.63167  9.463162 10.79874 7.025927
## GSM875413 7.908136 9.459549  9.262381 11.78003 10.670978 10.44068 6.568334
## GSM875414 9.046384 10.223592 10.043611 12.47454  9.676928 10.13814 5.701689
##          TCP1       VAPA       FSTL1      KLHDC3  MAP1LC3B      MRPL3      MCM7
## GSM875412 10.399794 10.97863 10.562544 7.282381 9.249090 11.140722 8.702660
## GSM875413 10.008137 11.69285 10.550499 8.090929 8.189369  9.906431 8.083845
## GSM875414  9.358036 11.53958  9.699891 7.790040 9.867103 10.770844 7.567778
##          CCNG1     GOLGA8A      PSMB5      CHD3      HMGB2  C6orf62      HLA-C
## GSM875412  9.569467 6.974999  9.021697 6.243628 10.09142 9.213464 13.00773
## GSM875413 11.333557 6.080557  9.299644 9.320582 10.09382 9.110317 12.39358
## GSM875414 10.467044 6.229393 10.493526 6.693729 11.29054 8.951953 12.32429
##          GOT1      HSPA4      ANXA2P2      COMT      RAB8A      SNRPB      DAP3
## GSM875412 8.51867 7.062483 10.853165  7.991837 9.782511 9.527818 9.977108
## GSM875413 7.95647 7.963873  6.832348  8.358524 9.395686 9.761490 9.311629
## GSM875414 8.21897 5.193047 11.083001 10.291097 8.901841 8.972043 8.778500
##          PSMB6     POLE3     ATXN10     ATP1B3     TMED3     VDAC3      ADH5
## GSM875412 9.663915 8.690043 6.120432 11.53333 8.314712 5.606268  9.522814
## GSM875413 9.841722 8.188445 7.234645 10.54075 7.964980 5.179271  9.528019
## GSM875414 9.346316 7.835356 4.988474 11.82393 8.576629 4.606342 10.003459
##          THY1      ESYT1      ATRX       TXN  GABARAPL1      REEP5      PRPF6
## GSM875412  8.763472 7.838307 8.873066 12.31318  7.374092 9.583433 7.031887
## GSM875413 10.775433 9.799608 8.386205 10.06234  9.052570 10.155516 6.915931
## GSM875414  8.724461 7.836925 7.342497 10.87047  6.868771 9.552126 7.978082
##          UBR5      LCP1       H1-0      EIF3G      PLXNB2      DUSP6      HLA-DRA
## GSM875412 8.211846 8.083683 8.023385 10.038139 8.466506  9.131851 12.13185
## GSM875413 8.976244 7.337397 8.518509 10.158558 10.152686 12.129455 11.77151
## GSM875414 7.378855 8.463668 8.926202  9.890158 10.047541 9.963566 11.76244
##          ATP6V1D     TOP1      RPS28      CYCS      MRPS18B  UQCRCF1      C1QBP
## GSM875412 8.638712 8.459700 6.014813 11.73361 8.284953 10.73999 9.771127
## GSM875413 9.303531 6.897740 5.836014 12.07726 7.548020 10.85017 9.077251
## GSM875414 8.980566 8.248925 6.063546 11.44327 8.592823 11.10914 9.281556
##          PDHB      GGA2      SLC1A5      NADK      SRI       NXF1      CYFIP1
## GSM875412 8.806238 6.773325 7.323912 6.911021 6.822298 8.413645 10.60933
## GSM875413 8.402286 6.188719 7.020361 6.354783 8.286675 8.719912 10.06255
## GSM875414 8.644071 6.464768 8.622976 7.368332 4.357968 8.447879 10.39690
##          RNF11      NEU1      POR       ILF3      PPP4C      LGALS8      ID1
## GSM875412 8.887108 8.183953 7.987972 7.599769 9.848658 7.725074 10.959096
## GSM875413 9.949465 7.591738 9.136862 6.142899 8.426090 8.083209  6.546794
## GSM875414 9.048517 7.105537 7.520084 6.792849 10.031512 5.680895 10.153320
##          PRCC      SEPHS1     UPF1      ALDH7A1     LARP4B      DUT       ERP44
## GSM875412 6.345722 7.666470 6.557298 7.421196 8.858193 6.339800 6.513221
## GSM875413 6.522019 8.237293 6.356936 9.979243 6.267838 7.033799 6.659942
## GSM875414 6.666820 7.826640 7.602987 7.983785 7.878680 5.883328 6.790154
##          FADS1      NDUFA9     UROD      ATP5MC1     ERI3      KPNB1      TUBB4B
## GSM875412 5.108228  9.469968 8.873934 9.400453 6.896886  9.896667 10.61406
## GSM875413 7.263862 10.181064 9.488922 8.644563 7.413826  9.699559 10.29385
## GSM875414 5.864128  9.128828 8.839954 9.441983 7.286692 10.372093 10.43272
##          CRIP2      UBC       RBM10      TCF12      KDM2A      STAT3      PP1G
## GSM875412 6.884602 12.99416 7.281964 9.757241 7.762865 9.800698 8.792897
## GSM875413 8.519357 13.40363 8.487110 9.320012 7.471520 9.764564 8.229261
## GSM875414 7.988536 13.06956 7.468858 7.810737 7.817008 8.876858 8.438789
##          POLR2C      UCP2      SEPTIN8     ANAPC13  CALCOC01     FBXL5      RSRP1

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|    |           |           |           |           |           |           |           |           |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875412 | 8.621243  | 7.632409  | 8.701623  | 9.956866  | 7.559795  | 9.075124  | 9.883608  |
| ## | GSM875413 | 9.100836  | 8.167547  | 9.265005  | 10.548647 | 8.893385  | 9.668745  | 7.674836  |
| ## | GSM875414 | 9.227395  | 8.354651  | 8.573425  | 9.624721  | 7.277242  | 9.001392  | 8.648876  |
| ## |           | KRT8      | ESD       | MAGED1    | DNAJB6    | KRT7      | LONP1     | PINK1     |
| ## | GSM875412 | 11.745484 | 10.39368  | 9.779772  | 7.729146  | 9.274526  | 7.487110  | 8.016840  |
| ## | GSM875413 | 6.605808  | 10.35329  | 12.760389 | 10.200990 | 4.836988  | 8.221462  | 8.697776  |
| ## | GSM875414 | 12.608449 | 10.73471  | 11.431242 | 7.812882  | 8.029177  | 8.006145  | 8.591544  |
| ## |           | OSER1     | TUBB      | COPS7A    | CADM1     | DYRK1A    | PNRC1     | MDK       |
| ## | GSM875412 | 8.329476  | 10.67083  | 7.640930  | 7.629075  | 9.464511  | 10.174728 | 9.319244  |
| ## | GSM875413 | 8.552671  | 10.50507  | 9.384793  | 10.459774 | 9.540002  | 10.537363 | 6.445232  |
| ## | GSM875414 | 7.960672  | 11.45721  | 7.143720  | 8.116645  | 9.926780  | 9.727326  | 6.459596  |
| ## |           | MDH2      | PSMB8     | PAPSS1    | SF3B4     | GABARAPL2 | RALGDS    | NSD2      |
| ## | GSM875412 | 10.72582  | 9.944498  | 9.885661  | 7.866436  | 10.385548 | 9.329665  | 6.413850  |
| ## | GSM875413 | 10.89023  | 7.779969  | 9.351357  | 7.818519  | 10.716296 | 8.914393  | 4.822001  |
| ## | GSM875414 | 9.64941   | 7.488401  | 10.402076 | 8.990835  | 9.549549  | 7.896201  | 6.373848  |
| ## |           | CDC5L     | EDF1      | H3-3B     | ISCU      | WDR45B    | TXN2      | COL18A1   |
| ## | GSM875412 | 8.509479  | 10.36028  | 12.06611  | 10.49841  | 9.877654  | 7.938156  | 7.629106  |
| ## | GSM875413 | 6.919632  | 10.29716  | 12.17351  | 12.90212  | 8.996580  | 8.596670  | 6.309677  |
| ## | GSM875414 | 8.059267  | 10.12077  | 11.77577  | 10.67705  | 10.122037 | 7.897406  | 7.963494  |
| ## |           | CORO1A    | SH3GLB1   | GLOD4     | DLD       | UBE2V2    | JAG1      | IFRD2     |
| ## | GSM875412 | 7.153200  | 9.124445  | 8.493549  | 10.370088 | 8.963937  | 4.404369  | 8.217232  |
| ## | GSM875413 | 7.775648  | 9.196462  | 8.435330  | 10.486717 | 9.924885  | 4.251565  | 7.727166  |
| ## | GSM875414 | 8.227922  | 8.072174  | 8.399470  | 8.841222  | 7.947831  | 4.525545  | 8.828441  |
| ## |           | CCN2      | UFD1      | NHP2      | NCOA1     | TSPAN6    | RGL2      | CDKN1B    |
| ## | GSM875412 | 10.60572  | 9.559163  | 9.967097  | 7.035113  | 7.221705  | 7.854706  | 9.334143  |
| ## | GSM875413 | 10.96568  | 9.539403  | 10.980790 | 6.367837  | 11.603728 | 8.521162  | 10.070211 |
| ## | GSM875414 | 10.58472  | 9.513263  | 10.553527 | 5.511541  | 7.824550  | 8.421699  | 9.034645  |
| ## |           | HMG20B    | TSPAN1    | UBA3      | WBP2      | TUBA1A    | NR2F2     | PLIN2     |
| ## | GSM875412 | 6.355374  | 10.851333 | 9.920937  | 6.639174  | 10.43014  | 5.561117  | 8.554038  |
| ## | GSM875413 | 7.252426  | 6.276358  | 8.801371  | 8.587665  | 12.76444  | 5.110877  | 8.198534  |
| ## | GSM875414 | 8.650026  | 11.276426 | 9.460803  | 6.775018  | 10.64290  | 5.638087  | 9.158018  |
| ## |           | QDPR      | MYD88     | KRT6A     | KRT6B     | TRIP6     | SNAP23    | USP10     |
| ## | GSM875412 | 7.968904  | 10.172932 | 3.639050  | 6.263953  | 8.327366  | 9.817784  | 7.928309  |
| ## | GSM875413 | 9.088390  | 8.471883  | 3.462066  | 6.184935  | 9.322435  | 9.254667  | 5.982439  |
| ## | GSM875414 | 8.214028  | 8.964884  | 3.343640  | 7.267550  | 8.548887  | 9.566923  | 7.766945  |
| ## |           | PRKRA     | UBE2G1    | CLNS1A    | MSM01     | PLPP1     | RXRB      | TM9SF1    |
| ## | GSM875412 | 8.889803  | 7.811785  | 9.603792  | 10.194252 | 8.191380  | 7.558606  | 6.853406  |
| ## | GSM875413 | 8.623748  | 7.790533  | 9.093556  | 8.531587  | 9.105913  | 8.375978  | 7.802697  |
| ## | GSM875414 | 9.146419  | 8.095497  | 9.662603  | 10.571129 | 9.683753  | 7.900921  | 8.886181  |
| ## |           | TCF3      | NT5C2     | COL6A2    | DNAJA2    | NDRG4     | AKR1C3    | PRPF4     |
| ## | GSM875412 | 4.131660  | 9.267259  | 8.737623  | 8.670521  | 4.767368  | 11.756216 | 8.749219  |
| ## | GSM875413 | 4.100838  | 8.097083  | 11.709531 | 8.507816  | 5.006695  | 6.659728  | 7.670703  |
| ## | GSM875414 | 5.165867  | 9.717676  | 9.288929  | 9.165169  | 5.205885  | 12.567328 | 7.338486  |
| ## |           | AATF      | MAN2B1    | GPM6B     | ITPA      | AGR2      | QRICH1    | NDUFAF3   |
| ## | GSM875412 | 10.331049 | 7.743876  | 4.707271  | 8.647512  | 12.606441 | 8.647700  | 8.352498  |
| ## | GSM875413 | 8.716827  | 7.466016  | 5.732039  | 8.347900  | 7.149265  | 8.167243  | 9.294507  |
| ## | GSM875414 | 8.141253  | 8.084109  | 4.044459  | 7.872974  | 13.831433 | 8.165147  | 8.539504  |
| ## |           | DHX38     | MBOAT7    | RABGGTB   | DEPP1     | IRS2      | ATP2A2    | FOS       |
| ## | GSM875412 | 7.449976  | 7.970073  | 9.127853  | 8.627518  | 7.686494  | 10.416449 | 11.041669 |
| ## | GSM875413 | 7.843564  | 8.549915  | 8.465758  | 6.386409  | 7.288350  | 9.803224  | 9.337149  |
| ## | GSM875414 | 8.152136  | 7.287584  | 8.927700  | 7.176078  | 5.852694  | 10.188085 | 11.160720 |
| ## |           | TUBB6     | PIM1      | CETN2     | ADCY6     | WDR46     | SYT11     | CXCR4     |
| ## | GSM875412 | 8.953541  | 7.273154  | 8.878348  | 7.551730  | 7.864384  | 4.320324  | 9.228515  |
| ## | GSM875413 | 9.993869  | 7.288824  | 11.226213 | 8.136123  | 7.506399  | 6.593174  | 7.806574  |

|    |           |           |           |           |           |           |           |           |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875414 | 8.145841  | 6.827144  | 9.280669  | 6.282495  | 7.916999  | 4.272822  | 9.930566  |
| ## |           | EXTL3     | LM04      | FERMT2    | KLF5      | CBR1      | EWSR1     | MFSD10    |
| ## | GSM875412 | 5.934653  | 5.689749  | 7.341987  | 9.736723  | 8.253392  | 9.481223  | 7.082440  |
| ## | GSM875413 | 7.785537  | 5.761045  | 7.648010  | 3.634508  | 8.712266  | 9.185202  | 7.167887  |
| ## | GSM875414 | 5.811288  | 6.347431  | 6.117629  | 10.182643 | 8.579844  | 9.455249  | 7.127057  |
| ## |           | WDR45     | NELFE     | GPC3      | OSBPL2    | NDUFA2    | TUSC3     | PPP6R1    |
| ## | GSM875412 | 7.650883  | 8.870223  | 4.645671  | 6.907854  | 5.011021  | 3.745674  | 7.613814  |
| ## | GSM875413 | 8.884580  | 9.088993  | 11.966265 | 7.444252  | 5.117071  | 8.548507  | 7.430725  |
| ## | GSM875414 | 7.602568  | 9.690625  | 8.931609  | 7.106523  | 4.958185  | 3.842004  | 7.510735  |
| ## |           | NUPR1     | EMG1      | KIF1B     | CLCN7     | STX3      | NFKB1     | MINK1     |
| ## | GSM875412 | 8.227478  | 8.277433  | 7.648007  | 7.313176  | 9.023537  | 7.757996  | 6.029237  |
| ## | GSM875413 | 10.040786 | 10.156802 | 7.267667  | 7.337610  | 6.714026  | 7.937575  | 5.577304  |
| ## | GSM875414 | 7.286784  | 8.584913  | 6.400585  | 7.395810  | 8.077085  | 8.224893  | 5.688002  |
| ## |           | PEG3      | KIF1C     | ABCF2     | TUBA1C    | HARS2     | KLHDC10   | SFN       |
| ## | GSM875412 | 4.206973  | 6.829866  | 6.151121  | 12.17127  | 8.328327  | 8.156400  | 7.685941  |
| ## | GSM875413 | 9.647640  | 7.761767  | 7.050205  | 13.10783  | 9.271442  | 6.917536  | 5.172551  |
| ## | GSM875414 | 3.510536  | 7.092575  | 6.116072  | 12.71366  | 8.217466  | 7.680749  | 7.590055  |
| ## |           | NR2F6     | TSPAN4    | METTL3    | SLC39A8   | LAMB3     | ISCA1     | CLN3      |
| ## | GSM875412 | 6.382717  | 7.490916  | 8.807430  | 5.045987  | 9.633967  | 8.368640  | 7.718823  |
| ## | GSM875413 | 6.192968  | 8.533766  | 8.381018  | 4.689238  | 6.516097  | 7.578505  | 7.956647  |
| ## | GSM875414 | 6.517307  | 7.786562  | 8.642787  | 4.024978  | 10.005333 | 7.223687  | 8.844285  |
| ## |           | TFPI2     | NSDHL     | MRC2      | ATP2B1    | PRKD2     | CRYAB     | TASOR     |
| ## | GSM875412 | 3.540036  | 6.405313  | 6.925326  | 8.842240  | 6.380163  | 7.518972  | 8.820526  |
| ## | GSM875413 | 4.420731  | 6.864304  | 7.475293  | 8.454017  | 7.164518  | 7.463261  | 7.726089  |
| ## | GSM875414 | 4.258457  | 6.900904  | 6.218585  | 9.422491  | 7.128207  | 6.964297  | 9.094712  |
| ## |           | CDC42EP3  | NFIB      | ID4       | PPM1B     | NECAP1    | CA2       | POLR2H    |
| ## | GSM875412 | 6.312905  | 8.694163  | 8.166859  | 8.754204  | 7.608707  | 9.822438  | 9.067542  |
| ## | GSM875413 | 5.277950  | 8.691991  | 4.756858  | 8.818136  | 8.346231  | 12.836751 | 8.558482  |
| ## | GSM875414 | 5.058593  | 8.091945  | 6.974079  | 7.829211  | 7.622627  | 12.515023 | 9.279204  |
| ## |           | SWAP70    | BNIP2     | AZGP1     | CASP4     | GPN1      | HBS1L     | ADCY3     |
| ## | GSM875412 | 8.515712  | 8.322226  | 4.915574  | 7.684944  | 8.691203  | 7.133239  | 6.369508  |
| ## | GSM875413 | 6.680378  | 8.125778  | 4.281902  | 6.518019  | 8.103750  | 6.644451  | 5.927792  |
| ## | GSM875414 | 8.136101  | 7.772659  | 6.187239  | 6.414913  | 8.589348  | 6.594016  | 5.398636  |
| ## |           | SH2B1     | THAP12    | RGS16     | HIGD2A    | ULK1      | SIAH2     | UAP1      |
| ## | GSM875412 | 7.187742  | 9.365053  | 6.222656  | 6.925118  | 6.745322  | 7.795888  | 9.572110  |
| ## | GSM875413 | 7.315143  | 8.548383  | 8.731219  | 7.807724  | 8.637645  | 7.229462  | 9.123587  |
| ## | GSM875414 | 6.889136  | 9.179389  | 5.788760  | 7.534814  | 6.596506  | 8.727631  | 11.371739 |
| ## |           | IKBKB     | EFHD1     | PI4K2A    | GPS2      | KRT14     | SIN3B     | FAM163A   |
| ## | GSM875412 | 9.084859  | 6.546702  | 7.211565  | 7.913370  | 3.864780  | 6.261725  | 3.658653  |
| ## | GSM875413 | 9.001437  | 5.082800  | 7.865369  | 7.953805  | 4.305441  | 7.718439  | 4.512771  |
| ## | GSM875414 | 7.004488  | 7.982861  | 7.127744  | 8.005495  | 5.009710  | 5.791877  | 4.216984  |
| ## |           | TNFRSF14  | PLPP3     | PCBP4     | MED21     | ECM1      | EPHX2     | ANXA3     |
| ## | GSM875412 | 7.812931  | 7.989542  | 7.226705  | 7.852789  | 8.591240  | 4.676038  | 9.739428  |
| ## | GSM875413 | 7.437610  | 8.705172  | 7.360286  | 9.160639  | 7.841161  | 7.866321  | 10.320575 |
| ## | GSM875414 | 8.058608  | 8.472956  | 6.608571  | 8.219018  | 8.066516  | 5.530009  | 10.836031 |
| ## |           | SH3BP2    | MALL      | IGHM      | XPC       | HMG3      | SF3A2     | POLR3C    |
| ## | GSM875412 | 6.190712  | 9.137885  | 10.433507 | 8.078258  | 11.72792  | 5.563327  | 7.216556  |
| ## | GSM875413 | 5.856862  | 5.801084  | 8.068116  | 9.115736  | 10.83856  | 6.248885  | 7.182725  |
| ## | GSM875414 | 6.259037  | 8.209570  | 11.497421 | 7.324783  | 10.83541  | 6.706937  | 6.741244  |
| ## |           | DDIT3     | PLPBP     | TM4SF1    | PAPOLA    | TSC1      | DPM2      | ENPP2     |
| ## | GSM875412 | 8.011137  | 7.828160  | 11.965526 | 8.180306  | 7.466503  | 7.640886  | 7.904206  |
| ## | GSM875413 | 9.628334  | 10.426250 | 8.465826  | 8.013360  | 7.516318  | 7.166802  | 7.345302  |
| ## | GSM875414 | 7.755104  | 8.391074  | 11.069174 | 8.614378  | 6.405028  | 7.622914  | 8.274206  |
| ## |           | EIF4E2    | ASMTL     | CHI3L1    | ME2       | H1-2      | SLC12A4   | TMED7     |

|    |           |           |           |           |          |          |           |          |
|----|-----------|-----------|-----------|-----------|----------|----------|-----------|----------|
| ## | GSM875412 | 8.442387  | 6.537416  | 7.444453  | 9.208271 | 7.844472 | 4.443231  | 8.958227 |
| ## | GSM875413 | 7.187134  | 8.332424  | 4.518619  | 9.769197 | 5.409707 | 4.790071  | 9.126179 |
| ## | GSM875414 | 8.724831  | 7.157760  | 8.612320  | 8.606444 | 9.506499 | 5.252437  | 8.481804 |
| ## |           | FAM3A     | BAG2      | DEAF1     | KIF2C    | GRB10    | GGA3      | B4GALT2  |
| ## | GSM875412 | 5.577902  | 7.565369  | 5.684829  | 7.744154 | 8.389557 | 6.556798  | 6.865495 |
| ## | GSM875413 | 7.186820  | 8.028445  | 7.233234  | 4.856483 | 8.296686 | 6.879879  | 6.793092 |
| ## | GSM875414 | 5.614884  | 4.771654  | 5.862932  | 7.294146 | 6.703495 | 7.219100  | 5.927657 |
| ## |           | FZR1      | IFI35     | THOC5     | SMPD1    | MSH2     | ZFPL1     | EIF2B4   |
| ## | GSM875412 | 4.651131  | 7.649509  | 6.882286  | 5.930353 | 7.837612 | 7.115165  | 8.332952 |
| ## | GSM875413 | 4.795832  | 7.997697  | 8.374930  | 7.613888 | 6.805446 | 7.706669  | 8.631149 |
| ## | GSM875414 | 4.327929  | 7.350737  | 7.357918  | 6.441808 | 6.865859 | 8.059052  | 8.769219 |
| ## |           | BTAF1     | PATZ1     | CREB3     | PPAT     | SPON1    | SERPINA5  | RAP1GDS1 |
| ## | GSM875412 | 8.262148  | 6.675494  | 7.933868  | 7.303944 | 8.859936 | 6.119366  | 8.197666 |
| ## | GSM875413 | 8.650729  | 6.813350  | 8.829423  | 4.352455 | 7.882676 | 5.522304  | 8.216548 |
| ## | GSM875414 | 7.286784  | 7.370395  | 9.172137  | 7.528268 | 8.513007 | 6.218763  | 8.085389 |
| ## |           | SYNE1     | LSM2      | OSGEP     | VTI1B    | TEAD3    | FBXW11    | DUSP5    |
| ## | GSM875412 | 6.923150  | 7.743075  | 6.949593  | 8.687910 | 6.403141 | 8.183645  | 7.285965 |
| ## | GSM875413 | 8.639191  | 7.219933  | 7.691745  | 9.619922 | 6.830576 | 9.423692  | 8.687712 |
| ## | GSM875414 | 6.529239  | 8.408433  | 7.839375  | 9.135241 | 6.764128 | 8.075175  | 8.424072 |
| ## |           | WDR18     | APLP1     | TAF12     | AURKB    | LRP5     | GPM6A     | KYAT3    |
| ## | GSM875412 | 6.958047  | 5.500960  | 7.318695  | 5.866601 | 6.517083 | 3.668913  | 8.696155 |
| ## | GSM875413 | 6.349637  | 7.090534  | 6.914265  | 4.504599 | 5.459197 | 3.777778  | 8.261844 |
| ## | GSM875414 | 7.241303  | 5.421578  | 6.664113  | 6.089198 | 7.605095 | 2.988473  | 7.428317 |
| ## |           | USP15     | EMD       | CENPX     | CCDC28A  | HLA-DQB1 | POP7      | NSL1     |
| ## | GSM875412 | 6.740056  | 7.034104  | 9.279119  | 8.256939 | 3.337669 | 7.841430  | 3.692078 |
| ## | GSM875413 | 8.074574  | 8.201265  | 9.002456  | 7.474073 | 7.755330 | 8.270466  | 3.758866 |
| ## | GSM875414 | 6.552583  | 6.481983  | 9.608624  | 7.264886 | 7.148777 | 7.897035  | 3.633856 |
| ## |           | UTP3      | PPT2      | PDZD2     | CEP250   | RARRES2  | RBM4B     | CDR2     |
| ## | GSM875412 | 8.168440  | 7.259547  | 8.116189  | 5.985194 | 8.686579 | 6.528733  | 8.363571 |
| ## | GSM875413 | 8.457061  | 8.041528  | 11.313242 | 6.856468 | 8.610316 | 7.329333  | 8.127975 |
| ## | GSM875414 | 8.524718  | 6.836210  | 4.573943  | 6.459641 | 8.931527 | 6.726249  | 8.566015 |
| ## |           | PSMC5     | PLEKHB1   | NR2F1     | RPA3     | DPAGT1   | RNF139    | POLR2F   |
| ## | GSM875412 | 9.725489  | 8.600727  | 7.931187  | 9.223001 | 8.470734 | 8.221439  | 8.116193 |
| ## | GSM875413 | 10.435144 | 4.285445  | 5.825926  | 9.481278 | 8.041701 | 9.572562  | 8.551184 |
| ## | GSM875414 | 10.170736 | 6.996588  | 7.165142  | 8.141720 | 7.461976 | 8.874743  | 8.103076 |
| ## |           | RAB27A    | SMYD5     | ASH2L     | NCBP1    | AMOT     | EXOSC2    | TELO2    |
| ## | GSM875412 | 7.701584  | 6.135426  | 8.267130  | 3.848930 | 3.802179 | 6.902537  | 6.631765 |
| ## | GSM875413 | 5.756461  | 7.218617  | 9.845766  | 3.277619 | 4.290431 | 6.094676  | 6.636891 |
| ## | GSM875414 | 9.096252  | 6.265653  | 8.604108  | 3.413871 | 3.579818 | 5.824514  | 6.771122 |
| ## |           | PLPP2     | CACNB3    | GSTZ1     | PLAA     | EXTL2    | ZNF32     | ARHGEF6  |
| ## | GSM875412 | 8.416406  | 6.032543  | 6.169524  | 4.819818 | 6.785990 | 7.307670  | 7.579828 |
| ## | GSM875413 | 3.576025  | 7.765853  | 6.423303  | 5.131099 | 7.390390 | 7.946832  | 8.023908 |
| ## | GSM875414 | 8.861054  | 5.955049  | 7.154557  | 4.300670 | 6.672675 | 7.573018  | 7.171947 |
| ## |           | IGF1      | CD34      | RIPK2     | APOL1    | SUGP1    | NDN       | YIPF4    |
| ## | GSM875412 | 6.107871  | 6.410028  | 5.452254  | 9.385308 | 6.949799 | 7.101235  | 6.149868 |
| ## | GSM875413 | 5.476127  | 12.422308 | 5.195487  | 9.121669 | 7.153469 | 11.433519 | 5.328996 |
| ## | GSM875414 | 5.040417  | 6.395719  | 5.235700  | 7.065629 | 6.886596 | 6.328886  | 5.796673 |
| ## |           | NCDN      | HIP1R     | DLK1      | THBS3    | RNF113A  | INSIG2    | RRS1     |
| ## | GSM875412 | 5.497852  | 7.314883  | 3.700865  | 7.167276 | 7.096816 | 8.681907  | 8.366080 |
| ## | GSM875413 | 7.210386  | 6.313486  | 6.856348  | 7.855933 | 8.441565 | 7.358989  | 8.242005 |
| ## | GSM875414 | 6.271879  | 8.493493  | 3.789056  | 6.620507 | 7.576851 | 8.951016  | 8.002414 |
| ## |           | RGL1      | NSG1      | CIR1      | EED      | IL10RB   | GNAI1     | PCYT2    |
| ## | GSM875412 | 7.064179  | 4.995709  | 5.962528  | 8.999287 | 7.850561 | 5.548505  | 6.878203 |
| ## | GSM875413 | 9.007318  | 5.583407  | 6.262828  | 8.239520 | 6.336926 | 6.824816  | 6.525977 |

```

## GSM875414 6.733710 5.026014 7.106257 8.585323 7.179803 6.548221 7.455127
##          MBD4   PLAAT3   CD200 APOBEC3C   MINPP1   PRUNE1   EPHB2
## GSM875412 10.052894 9.898872 5.026623 5.922054 6.090886 7.763908 7.721466
## GSM875413 9.071896 8.629755 6.087491 6.157934 5.649828 8.333611 6.923304
## GSM875414 8.469765 9.316046 4.419302 5.852955 6.959383 8.851850 6.771779
##          BMP7   DCAF7   TOR1B   GTF2F2   MXRA5   PNMA2   GATA3
## GSM875412 4.845045 7.190992 7.612805 7.143876 10.764300 4.233719 3.357101
## GSM875413 4.786027 6.032253 7.889114 6.156881 10.245423 4.486132 3.299783
## GSM875414 5.988727 8.190319 7.719968 6.854210 7.805195 4.787328 3.403768
##          TST   CYTIP   ACAT2   MRPL9   SLC1A4   ADH1B   ABCB7
## GSM875412 8.691359 7.353678 8.047665 9.279138 7.599273 5.690784 8.492229
## GSM875413 8.082864 6.822130 7.215771 8.982994 6.730350 4.706560 8.236021
## GSM875414 9.220442 7.228637 7.195424 9.531521 6.297158 4.546535 7.454731
##          PDLIM3   STK16   PIGH   OSBPL3   NXT2   GPR37   BUB1
## GSM875412 8.487484 7.030147 4.895592 8.467406 6.631774 3.304286 7.195849
## GSM875413 10.314872 6.691683 6.729273 5.446675 6.391240 9.123789 4.077803
## GSM875414 7.360044 6.152202 5.987842 8.602846 6.775802 3.742187 5.822038
##          PLD2   ALDH1B1 TBC1D22A TGFBI1I   PGF   ICE1   TMEM47
## GSM875412 7.182447 7.255874 6.735682 7.776280 5.223771 8.398181 7.817031
## GSM875413 7.317921 6.193095 7.076076 9.321318 5.133548 9.125036 10.693828
## GSM875414 7.137872 6.746029 6.621257 7.852232 5.369694 8.215592 7.026486
##          HSF2   TTR   CETN3   ITGA7 CYB561D2   CHUK   CES2
## GSM875412 7.355728 5.361280 7.822454 5.372623 7.654080 7.533958 10.663580
## GSM875413 7.933263 4.600436 9.634163 6.826656 6.984242 7.216155 8.751453
## GSM875414 7.366861 5.622266 7.650285 6.220571 7.999887 6.961195 9.152669
##          SERBP1   TRAC   CRY1   TFPI   PRKCI   SMAGP   KIFC1
## GSM875412 10.200889 7.891995 8.900240 8.992362 6.084381 8.332188 7.628620
## GSM875413 9.250062 6.278508 9.039530 6.299610 4.049092 4.717746 6.561562
## GSM875414 9.806943 7.521755 8.563219 5.367963 6.750081 8.638862 7.779193
##          SLC19A2   RIN2   CCDC93   EYA2   PTS   FBP1   CCHCR1
## GSM875412 7.623345 9.511737 7.813779 5.659547 9.283253 9.792213 7.093450
## GSM875413 6.489913 10.228993 7.463393 4.398369 8.868285 5.746223 6.933598
## GSM875414 6.342407 8.458848 6.370833 6.126542 8.990073 8.642170 6.623699
##          AKR1C2   FTO   NKX3-1   SLC35D1   CBX5 SERPINB3   IFFO1
## GSM875412 10.671530 8.261015 4.488770 8.130968 4.718327 3.698776 6.500774
## GSM875413 7.728521 9.422810 6.443418 6.676488 6.957951 3.731224 8.739830
## GSM875414 7.461964 8.605944 3.999282 10.036518 5.120422 3.884666 6.853648
##          SERPINB9   UTP20   CA11   GM2A HLA-DRB4   NTHL1 NCKAP1L
## GSM875412 5.039997 6.809518 5.379657 6.841095 9.968077 6.950363 7.308849
## GSM875413 4.580967 6.799976 10.038809 6.729582 9.998122 6.870746 7.141680
## GSM875414 5.088025 7.662481 5.518793 7.329360 9.685305 6.631267 7.155979
##          ABCG2   PNPLA4   SCAPER   MYL2   ITCH   COQ7   ACE
## GSM875412 7.005830 6.644758 6.033991 3.740370 5.947573 6.703202 3.915662
## GSM875413 4.483866 6.981264 7.397711 3.838780 4.680584 6.830580 4.002332
## GSM875414 4.128774 7.602661 4.717898 3.958315 5.318713 6.001642 5.112475
##          NR1D2   REG1A   MYCN   MFAP5   ECI1 TMEM131L   CHRDL1
## GSM875412 8.321460 10.969589 5.472489 8.282416 8.197817 6.585165 6.639922
## GSM875413 5.407795 6.422900 5.549713 4.665697 7.469447 7.299215 6.069536
## GSM875414 6.981579 5.734148 5.789682 6.045991 8.414666 6.728109 4.859948
##          ADAM19 SEPT5-GP1BB   TRIP11   LLPH   KHDRBS3   DBP   JAG2
## GSM875412 6.921308 4.329941 5.427666 4.092765 7.134990 5.358161 6.362218
## GSM875413 8.758020 5.147264 5.030446 4.068762 9.855608 6.023685 6.080828
## GSM875414 6.679501 4.743154 5.984877 4.697970 7.105708 6.169634 7.092187
##          CORO2B   CASP6   KLK10   GRIA1   CD69   NPAT   KRT16

```

|    |           |           |          |           |          |          |          |           |
|----|-----------|-----------|----------|-----------|----------|----------|----------|-----------|
| ## | GSM875412 | 3.737439  | 8.661876 | 11.598616 | 3.541536 | 5.415139 | 7.771950 | 4.575109  |
| ## | GSM875413 | 3.956401  | 6.687084 | 4.657323  | 4.912899 | 8.023945 | 7.408058 | 4.469015  |
| ## | GSM875414 | 3.998613  | 8.390589 | 4.971652  | 4.347563 | 6.057669 | 7.672530 | 4.888491  |
| ## |           | PHLDA2    | DCLRE1A  | H2BC12    | NFIX     | SFTPb    | ZNF330   | HABP4     |
| ## | GSM875412 | 4.847775  | 5.435029 | 9.427253  | 4.948545 | 4.734057 | 8.111943 | 6.494046  |
| ## | GSM875413 | 5.001726  | 5.933112 | 7.090228  | 5.475670 | 5.366120 | 8.357900 | 7.587688  |
| ## | GSM875414 | 5.063057  | 6.208216 | 12.233276 | 5.828415 | 5.176349 | 9.130449 | 6.211039  |
| ## |           | IL33      | VLDLR    | BMAL1     | UCK2     | SLC9A3R2 | DNASE2   | CDT1      |
| ## | GSM875412 | 5.140488  | 4.668699 | 6.577335  | 8.331344 | 4.027906 | 8.135723 | 4.764852  |
| ## | GSM875413 | 3.657432  | 8.122357 | 6.324889  | 5.948261 | 4.243157 | 8.038832 | 4.984871  |
| ## | GSM875414 | 8.125905  | 4.448696 | 7.636499  | 7.973981 | 4.309610 | 7.634745 | 5.226480  |
| ## |           | CRADD     | AP4M1    | LRRN3     | SOX10    | HOXB13   | BTN3A2   | CDH17     |
| ## | GSM875412 | 6.691423  | 6.627308 | 4.188457  | 4.178596 | 4.387025 | 9.271745 | 10.660433 |
| ## | GSM875413 | 8.508930  | 7.780937 | 4.862735  | 4.920507 | 4.851061 | 7.262859 | 4.135133  |
| ## | GSM875414 | 6.861225  | 6.617950 | 4.417776  | 4.989249 | 6.580664 | 5.819317 | 8.420472  |
| ## |           | PMEL      | CDC42EP2 | ZC3H13    | SPHK2    | TRIM9    | FRAT2    | ADGRL3    |
| ## | GSM875412 | 5.771560  | 7.377126 | 4.449834  | 5.676344 | 4.122659 | 7.325079 | 4.307976  |
| ## | GSM875413 | 6.180822  | 7.937389 | 4.138501  | 6.302267 | 5.709537 | 5.445964 | 4.926646  |
| ## | GSM875414 | 5.875245  | 7.470108 | 4.289307  | 6.364268 | 4.039909 | 7.567737 | 4.420676  |
| ## |           | ADRA2A    | APBA2    | PKP3      | SELPLG   | LAT      | RIT1     | COLGALT2  |
| ## | GSM875412 | 7.996821  | 6.348836 | 7.474099  | 6.794206 | 6.154194 | 7.400157 | 4.500383  |
| ## | GSM875413 | 4.070890  | 5.837354 | 5.114694  | 7.346978 | 6.584021 | 6.832355 | 7.444551  |
| ## | GSM875414 | 3.712000  | 6.414800 | 6.930156  | 6.465592 | 6.679125 | 6.268550 | 4.932136  |
| ## |           | RHOD      | MYL1     | SEC31B    | TSPAN5   | SPC25    | FUT4     | SLIT2     |
| ## | GSM875412 | 6.485721  | 3.598817 | 6.254018  | 5.481016 | 5.206909 | 8.962874 | 7.285102  |
| ## | GSM875413 | 6.445417  | 3.825036 | 6.653584  | 4.923204 | 3.920626 | 6.388844 | 7.085390  |
| ## | GSM875414 | 7.473019  | 3.841499 | 4.611486  | 5.534369 | 5.687181 | 8.806819 | 6.034947  |
| ## |           | ITSN2     | PUF60    | ATR       | TNNC1    | C3AR1    | TGFB2    | SLC25A16  |
| ## | GSM875412 | 9.622660  | 9.210051 | 6.939631  | 6.586818 | 8.072167 | 3.691629 | 4.053828  |
| ## | GSM875413 | 9.356753  | 9.699270 | 6.196764  | 4.388692 | 8.386379 | 3.726758 | 3.706001  |
| ## | GSM875414 | 8.779625  | 9.483437 | 6.161225  | 4.552637 | 7.895156 | 3.703285 | 4.264416  |
| ## |           | H2BC5     | AP5Z1    | DHTKD1    | TP53TG1  | BMPR2    | BRAP     | CCL18     |
| ## | GSM875412 | 8.635185  | 6.465792 | 5.321856  | 6.128371 | 6.633206 | 4.535165 | 8.400271  |
| ## | GSM875413 | 6.431784  | 7.212108 | 5.473786  | 8.826754 | 5.562888 | 5.089760 | 4.722777  |
| ## | GSM875414 | 10.094067 | 6.377335 | 5.329840  | 6.023719 | 6.051307 | 4.168780 | 8.211501  |
| ## |           | OCLN      | MSC      | IKBKG     | NFE2     | CD300A   | ATP2C1   | TM4SF4    |
| ## | GSM875412 | 7.475690  | 4.475466 | 7.701440  | 3.854097 | 7.494546 | 7.051528 | 8.840676  |
| ## | GSM875413 | 3.945735  | 4.768777 | 8.561880  | 4.054543 | 7.375357 | 6.949459 | 4.757427  |
| ## | GSM875414 | 8.332782  | 4.857378 | 7.816119  | 4.236144 | 7.339847 | 5.374700 | 6.330860  |
| ## |           | TADA2A    | PARP3    | RIPK1     | MAGEA3   | FBXL4    | GSK3B    | VEGFC     |
| ## | GSM875412 | 5.414414  | 6.256393 | 7.206124  | 4.705890 | 6.226536 | 7.779073 | 5.105379  |
| ## | GSM875413 | 4.856906  | 6.194306 | 6.515763  | 3.682061 | 5.081314 | 6.497805 | 5.404529  |
| ## | GSM875414 | 5.058883  | 6.496232 | 7.295409  | 3.708764 | 5.989106 | 6.849614 | 4.591615  |
| ## |           | NCF2      | VILL     | MAP2K7    | CDC37    | FAP      | CAMK2B   | NPPA      |
| ## | GSM875412 | 6.417183  | 8.578277 | 4.123343  | 8.997419 | 8.603056 | 3.318528 | 6.089295  |
| ## | GSM875413 | 6.158825  | 6.049723 | 4.441477  | 8.553739 | 6.919011 | 3.459965 | 6.930769  |
| ## | GSM875414 | 6.328320  | 8.078121 | 4.914036  | 9.160714 | 7.081226 | 3.409836 | 5.461101  |
| ## |           | HGF       | EPOR     | RAD51D    | NCAM1    | NFKBIL1  | PLG      | SHMT1     |
| ## | GSM875412 | 4.275996  | 4.862121 | 5.298885  | 4.828097 | 6.469754 | 4.130936 | 7.254047  |
| ## | GSM875413 | 4.358354  | 5.240232 | 6.094592  | 5.614005 | 6.777162 | 4.261741 | 5.214230  |
| ## | GSM875414 | 4.271534  | 4.923645 | 5.891129  | 6.336414 | 7.142507 | 5.143371 | 6.718118  |
| ## |           | CSDC2     | NRXN2    | ASCL1     | ZNF268   | GABBR2   | ABCB1    | TCL1A     |
| ## | GSM875412 | 4.939603  | 4.175045 | 4.311425  | 4.539413 | 3.297775 | 6.044285 | 5.671846  |
| ## | GSM875413 | 5.501949  | 6.431022 | 4.265729  | 6.692784 | 4.455455 | 9.057717 | 5.635002  |



|    |           |           |           |           |          |          |          |          |
|----|-----------|-----------|-----------|-----------|----------|----------|----------|----------|
| ## | GSM875414 | 5.499724  | 5.306361  | 4.466065  | 4.818656 | 3.578807 | 4.525972 | 6.403933 |
| ## |           | PIGO      | SOCS1     | GATA6     | OLR1     | GART     | ABHD14A  | GPD2     |
| ## | GSM875412 | 6.986045  | 4.573266  | 8.063928  | 6.368304 | 5.368940 | 6.196837 | 6.707451 |
| ## | GSM875413 | 7.437618  | 5.473250  | 5.989861  | 6.889971 | 5.206241 | 7.416521 | 4.461456 |
| ## | GSM875414 | 6.885201  | 5.651419  | 10.228668 | 3.759316 | 5.590745 | 7.243432 | 5.962906 |
| ## |           | GOSR2     | SLC25A1   | HPX       | MAP2     | CALML3   | CCNO     | PCGF1    |
| ## | GSM875412 | 6.485451  | 7.039453  | 5.447893  | 4.060687 | 4.331579 | 6.576752 | 7.215980 |
| ## | GSM875413 | 6.795554  | 7.751138  | 5.713984  | 4.625012 | 4.352296 | 5.369741 | 6.694185 |
| ## | GSM875414 | 8.290294  | 7.922716  | 6.108402  | 4.414422 | 4.361012 | 6.730266 | 6.893780 |
| ## |           | UBE2E3    | CARD10    | APEX1     | ORC3     | IDO1     | CD247    | SPAG6    |
| ## | GSM875412 | 9.934014  | 5.727905  | 10.294245 | 7.688728 | 7.207618 | 6.052389 | 3.658653 |
| ## | GSM875413 | 9.057308  | 6.034325  | 9.774858  | 7.700749 | 4.681539 | 4.608939 | 3.869024 |
| ## | GSM875414 | 10.489759 | 6.255825  | 11.664922 | 6.633462 | 6.958794 | 6.574842 | 3.945639 |
| ## |           | NOS2      | PRKCQ     | SLC12A5   | PGM3     | CTS2     | LYL1     | IDH2     |
| ## | GSM875412 | 5.621267  | 5.010491  | 3.554158  | 8.024192 | 6.763162 | 6.391441 | 5.561752 |
| ## | GSM875413 | 5.221451  | 10.467320 | 3.666412  | 5.365122 | 5.699688 | 6.946820 | 4.709086 |
| ## | GSM875414 | 4.942464  | 4.712459  | 4.002301  | 7.625935 | 6.795134 | 7.475544 | 4.030688 |
| ## |           | NAPG      | RAPGEF3   | TPX2      | HAUS3    | TSHR     | RND1     | SMG1     |
| ## | GSM875412 | 7.135977  | 5.812006  | 7.978999  | 7.416793 | 3.244915 | 5.811844 | 6.542768 |
| ## | GSM875413 | 6.402774  | 6.211813  | 5.674098  | 6.830580 | 3.277454 | 5.840845 | 3.407081 |
| ## | GSM875414 | 8.130247  | 6.858555  | 7.893634  | 7.393892 | 3.413637 | 7.310146 | 5.167884 |
| ## |           | MAPK13    | PDE6G     | UPK1B     | AQP4     | CCL19    | CTSV     | MARCHF2  |
| ## | GSM875412 | 9.036733  | 5.971972  | 3.885292  | 3.272517 | 6.945204 | 7.690114 | 6.018647 |
| ## | GSM875413 | 4.615436  | 6.495698  | 3.853910  | 3.288649 | 5.688305 | 6.854654 | 8.161746 |
| ## | GSM875414 | 9.312605  | 6.379587  | 4.482072  | 3.207401 | 6.893000 | 8.139382 | 6.483199 |
| ## |           | CELA3A    | AGER      | SEMA7A    | ANXA9    | HR       | MYL4     | ARC      |
| ## | GSM875412 | 3.809171  | 4.099089  | 5.038960  | 6.776332 | 5.465249 | 4.793271 | 4.201551 |
| ## | GSM875413 | 4.659798  | 4.678469  | 5.050143  | 5.263106 | 5.860575 | 5.079593 | 4.938988 |
| ## | GSM875414 | 4.947040  | 4.711542  | 4.948577  | 5.863227 | 6.000069 | 5.198884 | 4.942464 |
| ## |           | MAGOH     | PARD3     | IGFBP3    | ABCA2    | FOXA2    | FYN      | CLCA1    |
| ## | GSM875412 | 8.053514  | 8.573088  | 12.755765 | 4.500749 | 5.55114  | 8.075927 | 4.312220 |
| ## | GSM875413 | 6.904624  | 7.811552  | 8.126232  | 4.622959 | 5.00971  | 9.042915 | 6.132998 |
| ## | GSM875414 | 8.262653  | 8.061918  | 10.443213 | 5.683870 | 7.20348  | 8.462851 | 3.941298 |
| ## |           | INVS      | RPL39L    | SH2D1A    | SPAG1    | KCNJ15   | B3GALT2  | PRM2     |
| ## | GSM875412 | 5.557308  | 6.372526  | 4.451247  | 6.766243 | 3.579872 | 3.299549 | 4.583207 |
| ## | GSM875413 | 5.064257  | 6.369909  | 3.826506  | 5.644128 | 3.956890 | 3.765329 | 5.130551 |
| ## | GSM875414 | 5.862398  | 6.392714  | 4.837305  | 7.234304 | 4.257662 | 3.519199 | 5.078075 |
| ## |           | BANF1     | RAB6B     | LTB4R     | TM7SF2   | EFNA3    | CCL11    | CST7     |
| ## | GSM875412 | 10.08089  | 4.387615  | 5.535980  | 6.447465 | 7.241303 | 6.138806 | 6.145033 |
| ## | GSM875413 | 10.67524  | 5.980583  | 5.899103  | 6.145700 | 6.006931 | 5.828067 | 5.961745 |
| ## | GSM875414 | 10.17174  | 4.603475  | 5.603979  | 6.401882 | 5.543338 | 8.898210 | 6.682086 |
| ## |           | INHA      | ANXA10    | PLA2G4A   | ART3     | LAMA5    | MYOC     | ERCC4    |
| ## | GSM875412 | 4.065702  | 9.806168  | 8.469838  | 3.239084 | 7.598079 | 5.052060 | 4.918493 |
| ## | GSM875413 | 4.309368  | 4.955967  | 6.278663  | 3.449199 | 9.934834 | 5.924114 | 4.477448 |
| ## | GSM875414 | 4.845417  | 9.851491  | 6.020318  | 3.330936 | 7.679236 | 4.937168 | 4.745422 |
| ## |           | CXCL11    | GZMB      | TLR5      | TEF      | C6       | SEC14L5  | PTPRJ    |
| ## | GSM875412 | 4.043624  | 5.407034  | 6.038454  | 3.871730 | 4.134534 | 3.905205 | 4.280827 |
| ## | GSM875413 | 4.050554  | 5.191637  | 6.714026  | 4.335055 | 3.854729 | 4.228238 | 3.421432 |
| ## | GSM875414 | 3.491672  | 6.559048  | 5.601525  | 5.240132 | 4.134583 | 4.502018 | 4.437199 |
| ## |           | GCFC2     | TLR1      | TRIM15    | KCNJ13   | CORT     | GABPA    | HSPA1L   |
| ## | GSM875412 | 6.084279  | 5.056843  | 7.585834  | 3.801582 | 4.503389 | 6.340587 | 4.327390 |
| ## | GSM875413 | 4.907607  | 6.307583  | 6.286796  | 3.721988 | 5.236708 | 5.113109 | 5.239611 |
| ## | GSM875414 | 5.237680  | 4.983707  | 8.315593  | 3.742219 | 5.154655 | 6.646185 | 5.121129 |
| ## |           | STX11     | ITPK1     | PLP1      | B3GALT4  | HSP90AA1 | CMC4     | EIF6     |

|    |           |           |          |          |           |           |          |           |
|----|-----------|-----------|----------|----------|-----------|-----------|----------|-----------|
| ## | GSM875412 | 4.591925  | 4.548790 | 3.768552 | 6.928056  | 11.82874  | 6.921250 | 10.225117 |
| ## | GSM875413 | 4.662773  | 4.143111 | 4.002047 | 6.876224  | 12.52892  | 8.510602 | 9.717202  |
| ## | GSM875414 | 4.712931  | 4.517858 | 3.740418 | 6.840370  | 13.01608  | 7.697129 | 9.935267  |
| ## |           | FZD2      | CHRNA3   | CSF2     | GRM4      | IRX5      | CDKN2D   | ST20      |
| ## | GSM875412 | 6.042535  | 4.626845 | 5.534535 | 6.448563  | 4.265103  | 5.690981 | 6.839885  |
| ## | GSM875413 | 4.511717  | 5.309154 | 5.333687 | 6.360955  | 4.128550  | 5.687023 | 7.628449  |
| ## | GSM875414 | 7.824490  | 5.360830 | 5.084355 | 6.575168  | 4.580339  | 5.545310 | 7.256164  |
| ## |           | B4GALT3   | CAMP     | ABCC8    | WNT7A     | MADD      | KCNK2    | CRISP2    |
| ## | GSM875412 | 7.780949  | 5.998778 | 5.339535 | 5.526935  | 7.392405  | 3.877880 | 3.439296  |
| ## | GSM875413 | 7.806584  | 5.783804 | 5.191637 | 4.920883  | 7.487319  | 3.995699 | 3.260717  |
| ## | GSM875414 | 8.050481  | 6.469555 | 5.745702 | 4.765614  | 7.229937  | 3.587939 | 3.474567  |
| ## |           | KCNF1     | GPR35    | POU5F1P3 | TRIM33    | NIPAL3    | RGS6     | CYP2B7P   |
| ## | GSM875412 | 5.828644  | 7.853260 | 6.587944 | 8.735778  | 4.000180  | 5.266485 | 4.409959  |
| ## | GSM875413 | 6.091622  | 5.404316 | 5.126407 | 8.038566  | 3.675640  | 5.198492 | 4.139389  |
| ## | GSM875414 | 6.303675  | 7.267512 | 5.502980 | 7.684220  | 3.931559  | 6.167730 | 4.046106  |
| ## |           | MAGEA8    | ZFAND5   | AP4S1    | GPR18     | MPZ       | KLRG1    | NAT8      |
| ## | GSM875412 | 3.694683  | 10.54323 | 5.695636 | 4.374142  | 4.680429  | 5.262648 | 4.162212  |
| ## | GSM875413 | 3.685541  | 10.18596 | 5.728764 | 3.708048  | 4.822001  | 5.399276 | 4.063491  |
| ## | GSM875414 | 3.767214  | 10.44996 | 5.570905 | 3.695700  | 5.078095  | 5.553009 | 4.509353  |
| ## |           | MAGEA10   | REM1     | XDH      | MAB21L2   | KLHL25    | IFT20    | LILRA4    |
| ## | GSM875412 | 3.972288  | 5.528471 | 6.568136 | 3.860313  | 6.470467  | 10.19960 | 5.570694  |
| ## | GSM875413 | 4.215631  | 9.961365 | 5.157713 | 3.448713  | 6.554821  | 9.61947  | 5.629726  |
| ## | GSM875414 | 4.073673  | 5.702424 | 5.603011 | 3.690994  | 6.103390  | 10.19507 | 5.891990  |
| ## |           | TNFSF13   | FLT4     | YWHAE    | RBP3      | GZMH      | TEKT2    | C8G       |
| ## | GSM875412 | 7.754221  | 4.460981 | 7.575979 | 4.781254  | 5.114629  | 4.473798 | 4.086794  |
| ## | GSM875413 | 6.948890  | 4.923349 | 7.091156 | 5.055002  | 5.035675  | 4.939280 | 4.218663  |
| ## | GSM875414 | 7.813393  | 5.175078 | 8.165680 | 4.905861  | 5.320653  | 5.174957 | 4.570789  |
| ## |           | CD1A      | GNMT     | SGCD     | HECW1     | NR5A1     | RASSF9   | TPO       |
| ## | GSM875412 | 4.609236  | 4.318932 | 4.751971 | 3.942128  | 4.176398  | 3.784142 | 3.903064  |
| ## | GSM875413 | 4.541106  | 4.540763 | 5.703212 | 4.142196  | 4.081632  | 4.016641 | 4.846787  |
| ## | GSM875414 | 5.029935  | 4.416292 | 5.685162 | 3.862161  | 4.395939  | 3.788330 | 4.348217  |
| ## |           | SLC22A6   | CAMK4    | SLC6A2   | IFNG      | MS4A1     | SCN2B    | SLC01B1   |
| ## | GSM875412 | 4.867820  | 3.656789 | 3.669774 | 4.317149  | 5.746119  | 3.947734 | 3.700559  |
| ## | GSM875413 | 4.930572  | 3.965470 | 3.883344 | 4.595473  | 4.116168  | 4.052063 | 3.735054  |
| ## | GSM875414 | 5.800296  | 4.069856 | 3.921815 | 4.602568  | 4.766481  | 5.331746 | 3.499441  |
| ## |           | PCDHGA8   | LY9      | RBBP4    | SSNA1     | CCKBR     | MTX1     | TUBD1     |
| ## | GSM875412 | 4.847091  | 4.390346 | 9.608877 | 7.502581  | 5.033133  | 8.420473 | 6.257852  |
| ## | GSM875413 | 5.623048  | 4.014007 | 9.115494 | 7.345210  | 12.913550 | 8.189620 | 7.417961  |
| ## | GSM875414 | 4.887766  | 4.556258 | 8.809855 | 7.180716  | 5.283790  | 8.845231 | 6.707236  |
| ## |           | LGR5      | DEFB1    | P2RX1    | KCNJ1     | CPNE6     | AFDN-DT  | GRIN2B    |
| ## | GSM875412 | 5.214775  | 6.161608 | 5.691639 | 3.580069  | 4.090452  | 3.954683 | 4.208590  |
| ## | GSM875413 | 3.957041  | 4.348069 | 5.687589 | 3.704019  | 4.368387  | 3.527185 | 4.042684  |
| ## | GSM875414 | 3.993722  | 6.831556 | 6.429876 | 3.622960  | 4.526245  | 4.015467 | 4.373924  |
| ## |           | FLRT1     | ODF2     | CHEK2    | BARX2     | RORA      | HGS      | RHD       |
| ## | GSM875412 | 4.349479  | 5.709950 | 6.615822 | 4.924806  | 4.836975  | 8.335444 | 3.751158  |
| ## | GSM875413 | 5.023896  | 5.599466 | 5.131461 | 5.633973  | 4.200010  | 8.453188 | 3.564061  |
| ## | GSM875414 | 4.879429  | 6.310382 | 6.022573 | 6.048547  | 4.497329  | 8.996442 | 3.530330  |
| ## |           | ALPG      | SCN3A    | POFUT1   | ICOS      | NPY6R     | GLUD2    | P2RX5     |
| ## | GSM875412 | 9.150627  | 3.410280 | 3.902219 | 5.519206  | 4.244720  | 3.296277 | 6.210432  |
| ## | GSM875413 | 6.356726  | 3.653239 | 4.210110 | 4.659798  | 4.235263  | 3.371300 | 6.141472  |
| ## | GSM875414 | 11.360720 | 3.419226 | 4.156054 | 5.975200  | 4.617898  | 3.385720 | 6.642624  |
| ## |           | CYP4F2    | KCNJ6    | R3HCC1L  | LINC00588 | MAGEA12   | MAPK8    | EIF3K     |
| ## | GSM875412 | 5.144202  | 4.361112 | 5.009551 | 3.107249  | 3.585258  | 6.183483 | 10.59917  |
| ## | GSM875413 | 5.073043  | 4.671813 | 4.218393 | 3.468038  | 3.525171  | 5.062004 | 10.73300  |

|    |           |          |           |          |           |           |           |           |
|----|-----------|----------|-----------|----------|-----------|-----------|-----------|-----------|
| ## | GSM875414 | 5.300357 | 4.602431  | 4.722279 | 3.414386  | 3.756839  | 5.718662  | 10.75080  |
| ## |           | MAGEA11  | KLF1      | ADH7     | FUT7      | VEGFA     | HLA-G     | HNF1A     |
| ## | GSM875412 | 3.827297 | 4.007048  | 3.544592 | 3.890793  | 10.849164 | 10.636655 | 5.927162  |
| ## | GSM875413 | 3.698304 | 4.028849  | 3.315579 | 3.973744  | 7.955282  | 9.407897  | 6.160376  |
| ## | GSM875414 | 3.623867 | 4.683885  | 3.426730 | 4.511860  | 11.136541 | 9.855054  | 6.407329  |
| ## |           | CDH8     | FETUB     | BMPR1B   | EFCAB11   | TUBA3C    | MSH4      | SPAM1     |
| ## | GSM875412 | 3.902578 | 3.244931  | 3.757198 | 3.339325  | 6.790140  | 3.210511  | 3.620511  |
| ## | GSM875413 | 4.101037 | 3.265199  | 4.259425 | 3.347879  | 7.443349  | 3.356734  | 3.853350  |
| ## | GSM875414 | 4.480001 | 3.327807  | 4.811171 | 3.331325  | 7.197139  | 3.527613  | 4.286563  |
| ## |           | BIRC3    | B4GALT4   | TRIM27   | SLC03A1   | CCL23     | AKR1C4    | GBX2      |
| ## | GSM875412 | 9.124181 | 7.712727  | 7.864701 | 6.301843  | 3.610964  | 5.616166  | 4.287307  |
| ## | GSM875413 | 7.411399 | 6.882992  | 7.067348 | 6.098745  | 3.386371  | 3.584230  | 4.698074  |
| ## | GSM875414 | 8.752745 | 9.543482  | 8.880797 | 5.645329  | 3.372201  | 4.029930  | 5.802470  |
| ## |           | GCGR     | SIGLEC9   | CYP4F8   | CASR      | TRIM10    | POLDIP3   | TNP02     |
| ## | GSM875412 | 4.818996 | 4.463941  | 3.941134 | 4.781282  | 3.779596  | 4.876136  | 4.916494  |
| ## | GSM875413 | 4.892811 | 4.968411  | 4.004064 | 4.564059  | 3.709633  | 5.098236  | 4.644756  |
| ## | GSM875414 | 5.646998 | 5.184432  | 4.317192 | 4.709583  | 3.891560  | 5.071087  | 4.444676  |
| ## |           | INHBE    | GBAP1     | ZNF235   | MAGT1     | ZNF614    | NAA11     | GNAT2     |
| ## | GSM875412 | 3.299693 | 8.211846  | 4.235384 | 7.592383  | 3.790050  | 3.993056  | 3.932134  |
| ## | GSM875413 | 3.311405 | 8.138104  | 4.237598 | 7.026291  | 3.833154  | 3.885117  | 3.932881  |
| ## | GSM875414 | 3.512102 | 8.425601  | 4.280600 | 6.396715  | 4.191309  | 3.969086  | 4.287541  |
| ## |           | TP53I3   | TTPA      | PHEX     | HYAL1     | MOGS      | LST1      | SGCA      |
| ## | GSM875412 | 8.870413 | 3.835181  | 3.943219 | 6.070013  | 7.360071  | 6.952594  | 4.926957  |
| ## | GSM875413 | 5.582850 | 3.775436  | 3.873724 | 4.918480  | 6.420562  | 7.091801  | 5.363186  |
| ## | GSM875414 | 8.444947 | 3.762260  | 3.807120 | 7.351234  | 7.181481  | 6.742855  | 5.038153  |
| ## |           | GPER1    | CCIN      | TNFSF11  | PCL0      | TTC39A    | BCKDHB    | TNFRSF10D |
| ## | GSM875412 | 5.533172 | 4.551044  | 4.382115 | 3.521539  | 6.035607  | 6.933216  | 4.254630  |
| ## | GSM875413 | 5.863826 | 4.701666  | 3.751817 | 3.942941  | 4.085539  | 3.844982  | 4.516415  |
| ## | GSM875414 | 5.836096 | 5.289078  | 4.182618 | 3.755434  | 9.617047  | 4.242321  | 4.753813  |
| ## |           | PPY      | NKX2-1    | SOAT2    | AGPAT2    | MORN3     | LPO       | NRTN      |
| ## | GSM875412 | 3.724718 | 4.431349  | 4.779101 | 7.734343  | 7.656217  | 4.263823  | 3.961773  |
| ## | GSM875413 | 3.713952 | 4.620607  | 4.781843 | 6.670230  | 7.647365  | 4.168302  | 6.333284  |
| ## | GSM875414 | 4.367962 | 5.012379  | 5.485919 | 7.686919  | 7.873642  | 4.568401  | 3.941411  |
| ## |           | CLDN14   | KLRC4     | SLC43A3  | SPPL2B    | ZNF514    | WVOX      | ZNF257    |
| ## | GSM875412 | 4.223547 | 3.195489  | 6.855889 | 6.162694  | 6.554754  | 6.499497  | 3.296552  |
| ## | GSM875413 | 4.300536 | 3.193450  | 5.914050 | 5.524072  | 6.025299  | 7.044585  | 3.493626  |
| ## | GSM875414 | 4.267914 | 3.175387  | 6.913617 | 7.754142  | 5.263516  | 6.945515  | 3.554905  |
| ## |           | TRIM5    | LINC00260 | LDHAL6B  | SPINT2    | NECAB3    | PAK5      | ADGRE3    |
| ## | GSM875412 | 6.027936 | 4.691740  | 3.272126 | 10.845580 | 6.467916  | 3.353401  | 3.872142  |
| ## | GSM875413 | 6.202608 | 5.629044  | 3.365267 | 6.089948  | 7.525854  | 3.338836  | 3.786299  |
| ## | GSM875414 | 5.064339 | 4.483982  | 3.591646 | 10.833301 | 6.546206  | 3.171486  | 4.086231  |
| ## |           | CALCA    | ONECUT1   | EPB42    | RGN       | EPHB1     | GRB7      | DLC1      |
| ## | GSM875412 | 4.349501 | 3.715283  | 3.936227 | 5.570007  | 6.052616  | 9.903251  | 8.493225  |
| ## | GSM875413 | 4.507135 | 3.742053  | 4.065382 | 7.659473  | 4.954880  | 5.735574  | 9.845735  |
| ## | GSM875414 | 5.291908 | 3.814927  | 4.059336 | 5.142124  | 4.558728  | 7.391120  | 7.885698  |
| ## |           | NCR3     | FPR2      | NCOA4    | MXD4      | DHRS7     | HTR1B     | TXNRD2    |
| ## | GSM875412 | 5.647303 | 4.312220  | 10.74608 | 6.561468  | 9.263594  | 3.993381  | 4.826247  |
| ## | GSM875413 | 5.334258 | 4.561775  | 10.83949 | 7.352709  | 10.245613 | 4.203968  | 4.583327  |
| ## | GSM875414 | 5.363271 | 4.330640  | 11.39442 | 6.179535  | 9.644226  | 4.377534  | 4.847802  |
| ## |           | SLC6A5   | DDX49     | RPL13P5  | ARNT      | ACVRL1    | PLAUR     | TNFRSF25  |
| ## | GSM875412 | 4.312220 | 6.028804  | 5.890675 | 5.187341  | 5.355495  | 8.868602  | 5.838430  |
| ## | GSM875413 | 4.127917 | 6.002466  | 6.872490 | 4.424107  | 7.543834  | 7.899651  | 5.428711  |
| ## | GSM875414 | 4.407465 | 6.846940  | 6.216070 | 4.993316  | 5.371602  | 10.013019 | 5.977535  |
| ## |           | AASS     | SCN11A    | CCN6     | FASLG     | NAA80     | ZEB1      | ANXA2P1   |

```

## GSM875412 4.706133 3.458078 3.707906 4.675170 6.163420 6.070013 5.313191
## GSM875413 5.642923 3.469239 8.331082 4.685310 6.418165 7.434359 4.541469
## GSM875414 4.290274 3.398231 3.326939 4.460774 6.114037 4.803946 5.953020
## RAB11FIP5 SPAG11A EVC ITIH1 FCGR2B GTF2I POU5F1P4
## GSM875412 7.816251 4.560642 5.838430 4.139991 5.421239 7.734788 6.812148
## GSM875413 7.805411 4.794902 6.102024 4.588216 5.357069 6.232445 5.494297
## GSM875414 7.032595 5.126711 6.487360 4.369832 4.759716 7.059334 6.085048
## PDCD10 POMZP3 ID2B CDH20 TXNDC16 PHLPP1 ERBB2
## GSM875412 11.034231 4.979772 3.715016 3.475578 3.400807 3.126442 8.612422
## GSM875413 9.544074 5.898395 3.720405 3.709633 3.315616 3.182173 4.284873
## GSM875414 9.996807 5.807211 4.146923 3.714671 3.651291 3.239724 5.081823
## ST3GAL6 CAPN3 COL4A6 LEF1 ADRA1D GYG2 LARP1
## GSM875412 5.486970 6.161670 3.527373 4.411503 4.316853 5.640998 7.481331
## GSM875413 6.556117 7.448893 5.352886 3.456203 4.393440 4.693904 8.180631
## GSM875414 4.552451 5.209843 3.753297 3.843950 4.306913 5.210104 6.919358
## PKN2 IBTK PFKM HSF4 FCGR2C SMAD1 KCNB1
## GSM875412 5.772850 9.590145 7.143563 6.519959 6.708575 7.534107 3.865595
## GSM875413 3.564057 8.244115 10.979928 6.541385 6.610611 7.328409 5.776291
## GSM875414 4.265617 8.789302 8.172262 6.835170 7.096207 6.683562 4.018505
## ZNF271P COL19A1 GCNT2 MGLL CLIP2 KCNH6 KCNG1
## GSM875412 6.688367 3.948977 4.246666 9.634994 6.816750 4.077495 5.594079
## GSM875413 8.042336 4.541346 4.079570 10.726376 8.496154 4.289049 5.607845
## GSM875414 5.720080 4.360405 3.904855 8.319216 6.747281 4.571217 5.486471
## WASHC2C MLLT11 CD47 NEK3 PDE6C AURKC AR
## GSM875412 8.949459 5.825789 10.267375 6.487195 3.133937 5.092405 4.882417
## GSM875413 9.034049 10.700805 9.904183 3.667983 3.028423 4.979876 5.041046
## GSM875414 9.239695 5.761532 10.054239 4.476322 3.154855 5.434363 4.833325
## HGC6.3 DOK1 SLC5A5 IFNA21 IGKC DLAT THPO
## GSM875412 4.759628 5.897358 6.144046 3.903802 4.166178 8.150254 3.457602
## GSM875413 5.055773 6.097851 6.389029 3.995430 4.235030 6.626782 3.411906
## GSM875414 5.261014 6.599057 6.561015 4.602143 4.252884 6.743733 3.418903
## FAM153A GCK CCKAR GPR45 PSTPIP1 FSHR ACSL6
## GSM875412 5.478415 5.072793 4.660840 4.785504 4.958589 3.868566 3.332863
## GSM875413 5.744652 4.998054 4.569514 4.680550 9.607253 3.866030 3.609377
## GSM875414 5.918236 5.194152 3.976241 4.378111 5.998220 4.128012 3.212276
## TADA3 HAP1 PROP1 FUT5 GALR2 ADAM7 ANXA2P3
## GSM875412 4.033052 5.459899 4.685108 5.709096 3.602256 3.910405 6.892155
## GSM875413 4.171639 5.682772 4.830911 5.716495 3.950563 3.864709 6.315065
## GSM875414 4.697175 5.991597 4.742247 5.865229 4.482755 4.327282 7.259883
## CHR1 GPR68 PTCRA HESX1 TCEAL2 UBE3A CDK7
## GSM875412 5.417726 3.824926 6.646035 4.959065 5.149137 9.362788 7.967080
## GSM875413 5.566861 4.030281 6.638101 4.573028 9.544854 9.627674 8.048012
## GSM875414 5.670421 4.238417 6.620518 4.765160 4.021507 9.267010 7.870569
## KCND3 FOLH1B PTPRU DSTNP2 TUBGCP4 IFNA2 ITK
## GSM875412 4.620698 3.948977 6.798626 6.178261 6.490825 3.362180 6.543201
## GSM875413 5.010513 4.223833 5.868050 6.771665 5.654487 3.408987 5.479267
## GSM875414 4.872821 3.682305 6.466386 6.428164 5.719058 3.446439 5.559058
## LRIT1 SERPINB13 PCDHA2 NSMCE4A B3GALNT1 KIR3DS1 N4BP2L1
## GSM875412 3.600283 3.142367 3.658339 8.174605 6.656267 4.173410 3.443334
## GSM875413 3.747490 3.004116 4.236930 8.332950 6.469328 4.270631 3.333203
## GSM875414 4.131485 3.050855 4.242065 7.780513 3.901218 4.559511 3.255622
## KIR2DL2 IFNA17 IER3IP1 PADI4 GGTLC1 CHN2 SC5D
## GSM875412 4.465533 4.746318 5.551097 3.140109 5.813632 4.644416 8.522634
## GSM875413 4.563315 4.502034 6.107714 3.217231 5.915664 7.925215 9.537993

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## GSM875414 4.548395 4.850423 5.456459 3.124709 6.754067 5.616811 9.944101
## TYR03 CCRL2 TRHR NACA4P RGSL1 FKSG49 MT1HL1
## GSM875412 4.594136 6.753298 3.797720 11.55257 4.710309 9.548406 9.808261
## GSM875413 5.071908 5.448127 3.989014 11.67906 4.662244 8.475443 10.636654
## GSM875414 5.308515 6.316325 4.277011 11.60519 4.482364 9.458792 9.237475
## GABARAPL3 CSPG4P1Y TBL1Y ZIC4 RAB36 DSCAM ADRA1A
## GSM875412 4.131171 4.766315 4.219239 3.791623 5.722775 4.867875 3.693191
## GSM875413 4.016348 4.750211 4.646036 3.683078 6.517613 5.323098 3.624542
## GSM875414 3.920450 5.424289 4.127962 3.877986 5.786284 5.428254 3.869961
## PDC DSTYK BMP4 GNRHR KIR2DS2 HSPA2 ALAS2
## GSM875412 3.305107 4.152419 6.860181 3.215075 3.852361 5.486605 5.040432
## GSM875413 3.288649 3.812936 6.864253 3.068943 3.812088 5.001824 5.180808
## GSM875414 3.255704 4.157952 6.604218 3.095705 3.863053 7.411665 5.333269
## PDLIM4 RAPSN MAST2 MRPS11 LRIG1 TRBV10-2 ALDOAP2
## GSM875412 5.484870 3.576063 6.887247 8.102830 9.374979 4.075543 3.864650
## GSM875413 8.345236 3.873067 7.075912 8.294193 10.000168 3.983829 4.151738
## GSM875414 4.411776 3.974050 7.228650 8.512310 8.744783 4.502596 4.413394
## FBL DRD3 ERG FTH1P5 IGHG1 IGHV1-69 IGHV3-73
## GSM875412 9.798182 3.519138 5.079154 12.52960 6.666579 7.554040 4.145567
## GSM875413 9.602936 3.836648 5.630808 12.15031 6.301329 6.993145 3.826699
## GSM875414 9.960266 4.153215 5.246694 12.61704 7.996066 8.329699 4.613046
## IGKV1-17 IGK LBP IGLC1 GPR135 POU2F2 VDAC2
## GSM875412 9.296213 7.203509 5.082908 4.273988 3.952227 5.496755 10.93449
## GSM875413 7.559059 6.617823 5.345922 4.265046 4.709560 5.421578 10.35584
## GSM875414 9.986832 8.704816 5.639111 4.635296 4.417776 5.310895 11.06326
## PTGDS SOS2 TRAV12-2 CADM3 UGT2B28 DYNC1I2 MAK16
## GSM875412 6.333070 6.170692 3.534897 5.416433 4.252022 10.36862 6.614739
## GSM875413 6.345004 5.114230 3.819319 5.732964 3.990264 10.16509 8.170292
## GSM875414 7.602029 5.120118 3.810890 5.663146 4.298240 10.61364 6.420325
## KIR3DL1 BBC3 IGH TSSK1B USP32 CDK19 ANKRD40
## GSM875412 4.104757 6.633042 6.288534 3.632107 6.135842 4.828316 6.923606
## GSM875413 4.301266 6.861280 6.800019 3.991991 5.542911 4.515740 5.755312
## GSM875414 4.383180 6.483468 7.104254 4.398599 5.904285 4.679889 6.208455
## MGC2889 ZNF551 FMO2 HYAL3 EVI2B PRG2 NDUFS7
## GSM875412 3.755489 5.485918 7.684530 4.693775 7.563087 4.593553 7.749610
## GSM875413 3.797422 4.839578 6.990597 4.593022 7.097199 4.282655 8.916980
## GSM875414 3.770527 5.698772 6.926314 4.460814 7.098375 4.661570 8.233627
## RLN1 SLC25A17 ATP5PB UBE2D1 PNLIPRP2 LAT2 SERINC3
## GSM875412 4.103116 6.696907 11.74605 8.174922 4.438916 5.010491 10.137522
## GSM875413 4.417098 6.391860 11.00314 7.186293 4.257957 4.774319 10.525300
## GSM875414 4.403788 6.154547 11.92466 7.625767 4.973328 5.104666 9.626368
## MMACHC AP2A2 TREX2 KMT2D IGLJ3 PCDHGB5 PCDHA6
## GSM875412 5.582362 8.291589 4.274680 3.524350 8.170609 4.467231 3.638248
## GSM875413 5.477538 8.808790 4.494139 4.077610 7.645500 4.294316 3.591109
## GSM875414 5.697409 8.603668 4.564067 4.906667 9.562707 4.301361 3.584011
## TNIK IGKV1-5 PCDHA5 CYP3A7-CYP3A51P ATRN PCDHA10 PCDHA3
## GSM875412 9.319889 5.637384 4.798087 7.043150 6.955520 5.352933 4.256172
## GSM875413 7.656145 5.620025 5.417897 6.960790 6.780370 5.174774 4.905823
## GSM875414 4.588410 5.882523 5.266136 6.035314 6.106487 5.554625 4.708225
## PCDHGA9 PCDHGA10 PCDHGA11 PCDHGA3 PCDHGA1 SERPINB4 PARD6B
## GSM875412 4.367128 4.980788 4.469951 4.891205 4.162659 3.194524 3.917315
## GSM875413 4.591739 5.403269 5.912441 5.090972 5.041046 3.300055 3.781748
## GSM875414 4.919209 4.808582 4.918702 5.091596 4.571443 3.374174 4.061644
## TUBB7P MYO1A PAPP2 ZNF471 PLCB1 MYH9 HNRNPA3

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```

## GSM875412 3.972820 6.251917 5.157404 3.443006 4.116284 8.773486 10.045610
## GSM875413 4.348531 4.999201 5.098554 3.391710 3.985080 8.291623 9.775382
## GSM875414 5.170350 8.159605 5.901781 3.464702 4.342346 8.757125 9.043944
##          GANAB  ARL6IP1  HSPA5  EIF4B  TPT1  PRRC2C  IP05
## GSM875412 9.917655 11.61129 12.06984 10.26101 13.64757 8.412322 5.666905
## GSM875413 10.069633 10.29190 11.14759 10.36531 13.53480 6.632015 5.660126
## GSM875414 9.655674 11.06718 11.69085 10.72275 13.79830 7.195727 4.548826
##          ZFP36L1  COL4A2  TMEM123  ARFGAP2  GPR107  COL4A1  XP06
## GSM875412 9.416255 9.725869 10.805508 8.573244 5.585064 10.307243 9.032520
## GSM875413 10.926010 8.767577 8.884268 9.016940 5.966433 8.518298 8.482772
## GSM875414 10.086198 10.638997 10.564406 8.635871 4.970844 11.083094 8.755198
##          TOP2B  SMARCE1  HLA-DPA1  SUGP2  SZRD1  UBXN4  STIP1
## GSM875412 9.632797 9.629144 11.76120 5.644553 7.124306 9.552223 8.932552
## GSM875413 9.494567 9.645197 12.62509 5.830907 6.961718 8.398110 7.450528
## GSM875414 8.475834 9.045061 12.46207 5.900789 8.015688 8.471572 7.939067
##          CDV3  PXDN  FAM168B  RSL1D1  MKI67  FLII  EXOC7
## GSM875412 11.08672 7.994886 8.902971 9.094364 6.718648 8.617156 6.065859
## GSM875413 10.51095 7.249143 9.605208 8.605914 4.702576 8.191637 8.084132
## GSM875414 10.77135 8.216320 8.253887 9.668453 6.091692 8.515531 6.230025
##          PTOV1  VDAC1  ATP6VOD1  MAPK3  RNF167  YARS1  WIPF2
## GSM875412 7.477589 11.11662 9.694852 8.510250 8.434936 9.687437 7.338893
## GSM875413 9.001826 10.70928 9.939482 9.108971 8.621120 8.885498 8.011633
## GSM875414 8.149243 11.24451 10.480084 9.704670 7.980859 8.027982 6.674454
##          TPGS2  GSE1  U2SURP  TRPC4AP  ATP9A  C1R  PRRC2B
## GSM875412 8.316351 6.823757 10.109596 7.301189 8.777129 9.432411 8.340784
## GSM875413 9.534455 7.702040 9.444482 7.748222 10.961619 11.027823 9.639488
## GSM875414 7.542649 8.618938 9.961829 7.529228 9.163388 9.068986 7.256633
##          MYL6  TEX261  SLC25A6  ERAL1  PMPCA  GRINA  COL6A1
## GSM875412 12.15107 8.328419 11.58359 8.251572 8.483000 6.618353 6.784136
## GSM875413 12.66933 9.249151 11.83604 6.966521 8.568660 8.351645 10.171069
## GSM875414 12.38453 7.839990 11.75098 6.848144 8.155129 6.662679 7.404404
##          PEG10  MTUS1  KPNA6  RBFOX2  FAF2  JPT2  STX12
## GSM875412 4.778952 7.375480 7.430641 8.549422 7.320787 7.747277 8.526823
## GSM875413 4.728287 6.845843 7.452699 9.196440 7.029715 6.148763 8.379051
## GSM875414 8.824051 4.582008 7.065620 7.796853 7.379516 6.238709 7.608291
##          ATXN7L3B  TCTN3  ZMIZ1  NIPA2  LSM14A  PHLDB1  PDS5A
## GSM875412 6.880551 8.517252 9.339030 9.788892 9.038749 7.130977 8.858152
## GSM875413 6.451644 9.176047 9.917716 9.084043 9.578611 7.873333 7.992315
## GSM875414 7.879726 7.791393 9.703410 10.080737 9.038226 6.966704 8.321247
##          GCN1  MCM4  SUN2  PLEKHM2  SMG5  EFR3A  POGZ
## GSM875412 8.124554 7.805532 8.068789 6.335581 7.183454 10.194500 8.724383
## GSM875413 8.641637 6.232135 8.421846 6.599744 7.491348 11.591158 9.070648
## GSM875414 7.415575 6.907240 7.765758 6.662656 6.742971 9.399731 8.708889
##          SDC2  VPS39  XPOT  RBM12  FKBP9  PNISR  NUDT4
## GSM875412 7.790550 7.325571 9.396669 8.724892 9.308481 9.272180 9.133482
## GSM875413 8.666782 7.929411 9.593006 8.702420 9.536629 9.246070 12.619119
## GSM875414 7.157602 6.945900 9.205583 9.025690 9.402377 8.309769 10.170320
##          MT2A  ACACA  KCTD12  COG4  SERPINE2  TM9SF4  MPRIP
## GSM875412 9.916347 8.145956 9.660432 7.903659 8.229710 7.903087 9.068692
## GSM875413 10.766265 8.281299 12.491407 7.552465 12.024591 8.706271 10.350919
## GSM875414 8.915523 6.613768 8.790745 7.950114 8.269047 8.319780 8.803547
##          MRFAP1L1  ANKLE2  TMEM87A  IFITM3  MED13L  INTS1  ANKRD17
## GSM875412 8.853076 6.616590 8.340059 11.99956 7.009014 4.554687 8.242187
## GSM875413 9.389873 8.042041 9.141766 11.79959 8.137125 5.123881 7.931305

```

|    |           |           |           |           |           |           |          |           |
|----|-----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|
| ## | GSM875414 | 9.848584  | 4.766491  | 7.524332  | 10.63361  | 6.026241  | 5.643519 | 8.540056  |
| ## |           | OPA1      | PREPL     | FASN      | PSME4     | ALDH1A1   | COQ9     | FBX021    |
| ## | GSM875412 | 8.258267  | 8.328502  | 7.004938  | 9.177626  | 9.397072  | 8.811331 | 9.216857  |
| ## | GSM875413 | 8.531352  | 9.977651  | 7.636053  | 7.175005  | 6.227192  | 9.229194 | 10.462016 |
| ## | GSM875414 | 7.379812  | 7.020415  | 7.591543  | 7.415272  | 11.569406 | 9.039625 | 8.545665  |
| ## |           | FNBP4     | MAP1B     | ASXL1     | PIK3R1    | TUBA4A    | NUP205   | SERPINB1  |
| ## | GSM875412 | 9.194724  | 7.477674  | 6.804803  | 7.541332  | 8.516250  | 8.249439 | 11.42046  |
| ## | GSM875413 | 8.739378  | 11.585312 | 8.058800  | 8.982870  | 8.694398  | 8.541880 | 8.57620   |
| ## | GSM875414 | 9.091643  | 6.462048  | 6.655163  | 7.417787  | 8.957438  | 7.444432 | 10.22183  |
| ## |           | MCM3AP    | LPIN1     | MTMR4     | TMEM97    | AGRN      | ANKRD12  | FNBP1     |
| ## | GSM875412 | 7.576545  | 5.470308  | 6.682205  | 9.532559  | 5.775794  | 8.251575 | 7.800538  |
| ## | GSM875413 | 8.382923  | 4.271938  | 7.259738  | 6.776029  | 6.225139  | 8.433223 | 10.373147 |
| ## | GSM875414 | 8.143916  | 4.432201  | 7.672544  | 10.659885 | 6.386381  | 7.579691 | 7.264719  |
| ## |           | PSMD14    | ATP13A3   | NEK9      | RTF1      | SEL1L3    | CHMP7    | NUP210    |
| ## | GSM875412 | 11.066180 | 8.971161  | 7.781469  | 7.879381  | 8.993931  | 6.570956 | 5.242216  |
| ## | GSM875413 | 9.560297  | 7.965350  | 9.118504  | 8.424195  | 6.254566  | 8.664709 | 5.284662  |
| ## | GSM875414 | 10.438179 | 8.657297  | 7.234910  | 7.375568  | 9.383829  | 7.252609 | 5.749281  |
| ## |           | TNP03     | SGSM2     | LIMCH1    | SCAP      | RBL2      | FAM98A   | EPB41L1   |
| ## | GSM875412 | 7.297418  | 5.688687  | 5.942783  | 7.757140  | 9.216581  | 9.016791 | 5.606268  |
| ## | GSM875413 | 7.308112  | 6.564636  | 7.026291  | 8.179095  | 8.729989  | 9.940563 | 7.143694  |
| ## | GSM875414 | 7.088780  | 6.282647  | 4.515964  | 7.663780  | 9.028296  | 7.594195 | 6.402410  |
| ## |           | TUG1      | YIPF6     | SULF1     | CREB3L2   | KDM1A     | KHNYN    | FAM168A   |
| ## | GSM875412 | 8.961953  | 6.270478  | 10.011352 | 8.211846  | 8.870629  | 6.607646 | 7.314290  |
| ## | GSM875413 | 9.320131  | 7.288486  | 7.277969  | 10.273210 | 8.470381  | 7.488427 | 8.451684  |
| ## | GSM875414 | 8.973440  | 6.029592  | 8.463037  | 8.880474  | 8.077730  | 7.735825 | 6.851523  |
| ## |           | CLIP3     | ZSWIM8    | AMPD2     | MYO1B     | FEM1B     | ZNF384   | MYH10     |
| ## | GSM875412 | 6.120684  | 7.547406  | 7.887846  | 7.866035  | 7.192595  | 7.662412 | 8.214379  |
| ## | GSM875413 | 8.684785  | 8.812179  | 8.246282  | 4.092075  | 7.633961  | 8.652505 | 10.107747 |
| ## | GSM875414 | 6.721048  | 8.846932  | 7.490773  | 6.780809  | 7.620854  | 7.605575 | 7.922967  |
| ## |           | EP400     | CMTR1     | USP24     | SBF1      | VGLL4     | EEIG1    | UBE3B     |
| ## | GSM875412 | 7.188491  | 7.709754  | 7.800231  | 5.362995  | 8.826112  | 8.567198 | 6.756396  |
| ## | GSM875413 | 8.958809  | 8.362075  | 6.222897  | 5.613095  | 8.870968  | 8.937455 | 7.960457  |
| ## | GSM875414 | 6.865491  | 7.853862  | 6.838170  | 5.868150  | 7.574538  | 8.100910 | 6.780787  |
| ## |           | PCMTD2    | MICU2     | IMP4      | ELF1      | ZCCHC24   | KIAA0930 | PDCD11    |
| ## | GSM875412 | 9.008090  | 9.712044  | 8.978350  | 9.364783  | 7.765435  | 5.990328 | 7.193580  |
| ## | GSM875413 | 9.216184  | 8.964416  | 8.513863  | 7.360983  | 9.065315  | 7.195313 | 6.786758  |
| ## | GSM875414 | 8.960722  | 9.439491  | 8.651447  | 9.638305  | 7.634745  | 5.420159 | 7.203940  |
| ## |           | ECPAS     | RBM38     | HMGXB3    | GRPEL1    | CENPB     | SNRNP27  | IP6K1     |
| ## | GSM875412 | 5.332089  | 6.921260  | 7.484427  | 8.463446  | 6.146437  | 8.554194 | 7.149932  |
| ## | GSM875413 | 5.994135  | 6.728109  | 7.939877  | 7.872535  | 8.157667  | 8.268593 | 7.770301  |
| ## | GSM875414 | 3.696968  | 6.605733  | 7.032959  | 8.803468  | 6.561415  | 8.088748 | 6.534993  |
| ## |           | KIAA0232  | CERS6     | NEDD4L    | KBTBD2    | SECISBP2L | KIFBP    | YTHDC1    |
| ## | GSM875412 | 8.731577  | 10.29765  | 7.953840  | 8.203892  | 7.356613  | 7.349314 | 9.888404  |
| ## | GSM875413 | 9.546034  | 8.08179   | 5.579563  | 8.829913  | 8.299002  | 8.476175 | 10.032135 |
| ## | GSM875414 | 8.441477  | 10.27534  | 8.397643  | 8.526732  | 6.632134  | 7.514908 | 9.999070  |
| ## |           | CLUH      | SPRED2    | SUCLG2    | SPTSSA    | SETD3     | RMND5A   | SPECC1L   |
| ## | GSM875412 | 7.856302  | 7.892972  | 9.176021  | 9.640109  | 8.364614  | 6.694123 | 6.694176  |
| ## | GSM875413 | 8.100059  | 9.631635  | 8.713446  | 8.082141  | 8.930761  | 5.073043 | 8.204316  |
| ## | GSM875414 | 7.212636  | 6.137130  | 9.752450  | 8.262865  | 8.919608  | 5.806377 | 6.988561  |
| ## |           | FAM89B    | GPATCH8   | SETD2     | TNS2      | MAPK1IP1L | ADO      | CEBPB     |
| ## | GSM875412 | 6.486398  | 8.191551  | 9.018915  | 5.886318  | 6.070013  | 6.797791 | 10.50320  |
| ## | GSM875413 | 7.784045  | 8.101306  | 7.912796  | 10.598627 | 5.072628  | 7.418276 | 10.86232  |
| ## | GSM875414 | 6.558042  | 7.688716  | 6.722336  | 6.663681  | 5.255837  | 6.113206 | 10.58390  |
| ## |           | MAU2      | TMEM131   | MOAP1     | MXRA7     | GPD1L     | CARM1    | USP33     |

|    |           |           |           |           |          |           |          |           |
|----|-----------|-----------|-----------|-----------|----------|-----------|----------|-----------|
| ## | GSM875412 | 7.179184  | 9.385404  | 7.684110  | 10.39211 | 8.773648  | 6.618255 | 10.014276 |
| ## | GSM875413 | 6.917997  | 9.585471  | 9.173322  | 12.59689 | 9.280258  | 6.754528 | 9.488977  |
| ## | GSM875414 | 7.752918  | 9.847911  | 8.791097  | 10.05752 | 7.112206  | 6.022264 | 9.098821  |
| ## |           | ARAP1     | PIP5K1C   | UBE2E1    | SPIDR    | SPART     | DESI1    | LSM12     |
| ## | GSM875412 | 6.961597  | 7.069778  | 10.570743 | 6.855748 | 5.936097  | 6.120555 | 7.733617  |
| ## | GSM875413 | 7.642018  | 8.208842  | 10.412113 | 7.242523 | 8.362634  | 5.463600 | 5.403599  |
| ## | GSM875414 | 6.345947  | 7.352493  | 9.907337  | 5.413122 | 6.239489  | 6.180809 | 7.404928  |
| ## |           | NEK7      | LCN2      | WEE1      | DOCK9    | CDC34     | PHIP     | CRYBG1    |
| ## | GSM875412 | 9.917256  | 12.336041 | 9.193900  | 8.319097 | 7.753417  | 8.689677 | 8.517056  |
| ## | GSM875413 | 9.958914  | 5.267226  | 8.960802  | 7.510955 | 8.779542  | 8.693946 | 4.610193  |
| ## | GSM875414 | 9.794304  | 8.135082  | 9.239905  | 8.545865 | 7.995603  | 8.561405 | 4.969106  |
| ## |           | ZNHIT3    | ZHX3      | CAP2      | RPRD2    | PRKAR1B   | SCRIB    | SPRY1     |
| ## | GSM875412 | 8.044703  | 5.129208  | 7.065179  | 7.684944 | 5.494346  | 8.029783 | 7.321817  |
| ## | GSM875413 | 8.653385  | 6.012281  | 8.532997  | 8.366962 | 6.231211  | 7.848911 | 10.412737 |
| ## | GSM875414 | 8.586003  | 5.594834  | 6.074832  | 8.066903 | 6.057553  | 7.517333 | 9.022102  |
| ## |           | DENND5A   | BOP1      | KCTD2     | STK38L   | ENDOD1    | CHD8     | TMEM259   |
| ## | GSM875412 | 7.235896  | 6.010874  | 6.441750  | 7.559533 | 5.829925  | 7.505740 | 6.870305  |
| ## | GSM875413 | 9.161059  | 8.110360  | 7.724394  | 7.955261 | 5.699490  | 7.788098 | 6.023685  |
| ## | GSM875414 | 7.284146  | 6.632184  | 6.039654  | 6.499973 | 6.915828  | 7.865675 | 7.263770  |
| ## |           | MGRN1     | GAPDH     | OSBPL8    | AQR      | JCHAIN    | HMGXB4   | WDFY3     |
| ## | GSM875412 | 8.003147  | 13.14687  | 9.760413  | 5.214140 | 11.98235  | 8.008943 | 6.179210  |
| ## | GSM875413 | 8.487183  | 13.61518  | 10.849428 | 5.783035 | 10.78410  | 7.552319 | 6.175923  |
| ## | GSM875414 | 8.658778  | 12.65340  | 10.680266 | 5.078439 | 12.31821  | 4.829415 | 5.794370  |
| ## |           | AUTS2     | MRPS31    | AKT3      | DTX4     | RCOR1     | CHD9     | ZNF609    |
| ## | GSM875412 | 6.986143  | 8.528989  | 7.026013  | 9.125556 | 7.727286  | 7.044511 | 5.304046  |
| ## | GSM875413 | 10.105599 | 8.206620  | 9.001311  | 8.215323 | 7.684557  | 8.172686 | 6.083750  |
| ## | GSM875414 | 6.177648  | 8.206194  | 6.182819  | 8.187630 | 8.333460  | 6.801288 | 5.345164  |
| ## |           | NEMP1     | TMEM41B   | CHN1      | STX10    | EXOSC7    | EXOC3    | UFL1      |
| ## | GSM875412 | 5.136209  | 9.499770  | 7.609393  | 8.219163 | 8.654037  | 7.889517 | 8.466852  |
| ## | GSM875413 | 4.362974  | 8.194146  | 9.361561  | 8.417208 | 8.724275  | 9.286823 | 8.548876  |
| ## | GSM875414 | 5.425965  | 9.502729  | 6.440406  | 8.347697 | 7.790407  | 7.559808 | 8.215787  |
| ## |           | WWP1      | HACD2     | HIVEP2    | RRAS     | DHX29     | EHBP1    | RHOBTB1   |
| ## | GSM875412 | 7.241092  | 9.186849  | 6.556919  | 7.708408 | 8.102830  | 7.635263 | 6.302303  |
| ## | GSM875413 | 6.881809  | 7.969255  | 6.685322  | 9.136493 | 9.063029  | 6.677952 | 7.873172  |
| ## | GSM875414 | 6.812117  | 10.032039 | 5.381548  | 8.397673 | 8.292728  | 5.984626 | 5.290642  |
| ## |           | ZCCHC14   | TSFM      | IL1RN     | LHFPL2   | TUBB4A    | TIPARP   | SMURF1    |
| ## | GSM875412 | 7.436480  | 7.440489  | 8.924223  | 8.257938 | 3.864719  | 9.675276 | 7.660414  |
| ## | GSM875413 | 8.046077  | 8.394448  | 6.535107  | 8.969405 | 3.740926  | 7.240875 | 8.212086  |
| ## | GSM875414 | 6.695363  | 7.958661  | 9.532641  | 7.273619 | 3.789400  | 9.014843 | 7.876484  |
| ## |           | CAMK2G    | ELN       | METAP1    | TBL2     | PPP1R14B  | LMF2     | SLC25A44  |
| ## | GSM875412 | 6.883502  | 7.555080  | 8.828649  | 3.775338 | 8.514099  | 7.537909 | 6.538510  |
| ## | GSM875413 | 6.708633  | 9.001934  | 7.178207  | 3.656417 | 7.747842  | 8.580893 | 7.166066  |
| ## | GSM875414 | 6.313514  | 7.688075  | 9.041868  | 3.761832 | 8.143768  | 8.045822 | 6.772290  |
| ## |           | ZNF3      | PIK3CB    | KDM3A     | DDHD2    | NUP188    | LRBA     | CRY2      |
| ## | GSM875412 | 6.854130  | 8.729458  | 9.397503  | 7.065160 | 7.436258  | 9.653143 | 6.619241  |
| ## | GSM875413 | 7.310697  | 7.582653  | 8.467712  | 8.919481 | 7.418662  | 8.345177 | 7.955735  |
| ## | GSM875414 | 5.252957  | 8.090868  | 8.284730  | 5.715360 | 7.390004  | 7.889874 | 7.115818  |
| ## |           | RNF4      | RETREG3   | SEPTIN10  | SCAMP5   | TLN2      | TUT4     | PNPLA2    |
| ## | GSM875412 | 9.105601  | 8.525797  | 9.921692  | 5.808131 | 5.802169  | 7.035014 | 6.600757  |
| ## | GSM875413 | 9.046646  | 9.681359  | 9.880389  | 7.067686 | 7.569892  | 8.278043 | 6.373779  |
| ## | GSM875414 | 9.814099  | 9.221441  | 8.837090  | 5.678255 | 5.101843  | 6.864800 | 6.968862  |
| ## |           | RASA4     | MSL1      | NUP160    | CAMSAP1  | MFAP4     | MICAL3   | PLEKHM1   |
| ## | GSM875412 | 6.185790  | 10.793851 | 7.885455  | 6.342169 | 7.116718  | 5.121914 | 7.931897  |
| ## | GSM875413 | 5.662062  | 9.656016  | 6.590448  | 6.840366 | 12.041889 | 5.359905 | 7.921891  |



|    |           |           |            |           |           |           |           |          |
|----|-----------|-----------|------------|-----------|-----------|-----------|-----------|----------|
| ## | GSM875414 | 5.613849  | 8.281809   | 7.785963  | 5.672598  | 7.310161  | 5.208622  | 8.667136 |
| ## |           | RND3      | SYNM       | ANKRD46   | ARHGAP19  | NME4      | PIK3R4    | RNF115   |
| ## | GSM875412 | 9.121144  | 8.360497   | 7.144591  | 6.030841  | 7.529893  | 8.001850  | 8.388287 |
| ## | GSM875413 | 9.198665  | 13.198449  | 9.390564  | 7.240364  | 10.013740 | 7.954672  | 7.457868 |
| ## | GSM875414 | 8.901474  | 7.006577   | 7.341806  | 5.902729  | 7.980114  | 7.681818  | 7.831141 |
| ## |           | RCHY1     | BBS4       | ANKS1A    | PPP1R16B  | CLASP1    | MON2      | TCF7L2   |
| ## | GSM875412 | 4.286235  | 6.409268   | 8.742979  | 6.034381  | 8.156704  | 7.932818  | 6.491286 |
| ## | GSM875413 | 3.993778  | 7.250459   | 10.485970 | 6.341487  | 8.801835  | 8.740894  | 6.634376 |
| ## | GSM875414 | 4.033203  | 6.608571   | 8.329047  | 5.902978  | 6.827593  | 8.244298  | 7.495487 |
| ## |           | CAMSAP2   | MTG1       | OLFM4     | FAM171A1  | OBSL1     | POLR2J    | CIC      |
| ## | GSM875412 | 5.871126  | 7.050268   | 13.244389 | 8.387416  | 4.752913  | 10.16544  | 6.343007 |
| ## | GSM875413 | 5.009710  | 6.448680   | 5.569478  | 8.114430  | 7.536552  | 10.82677  | 7.371364 |
| ## | GSM875414 | 5.103048  | 7.334554   | 4.532386  | 5.676738  | 5.701885  | 10.05370  | 6.501691 |
| ## |           | LARP7     | CLEC16A    | FTL       | NCAPD3    | C1orf216  | DAAM2     | WASHC4   |
| ## | GSM875412 | 8.466267  | 6.516247   | 13.41695  | 8.387940  | 6.260415  | 6.576752  | 8.790389 |
| ## | GSM875413 | 8.682295  | 5.775993   | 13.45475  | 6.348284  | 7.966775  | 8.889805  | 9.034414 |
| ## | GSM875414 | 8.513436  | 6.455338   | 13.68966  | 7.479492  | 6.219026  | 6.292868  | 9.401916 |
| ## |           | TBC1D2B   | SORT1      | ANKMY2    | CIT       | GAPVD1    | NAB2      | NFATC2IP |
| ## | GSM875412 | 7.838112  | 6.322140   | 9.839877  | 6.495337  | 8.859216  | 5.881335  | 7.387334 |
| ## | GSM875413 | 9.266894  | 3.863959   | 10.564938 | 7.276493  | 8.779290  | 8.335984  | 5.847760 |
| ## | GSM875414 | 7.877749  | 4.354906   | 9.789583  | 5.885348  | 7.593555  | 6.250415  | 7.364550 |
| ## |           | SERINC5   | JAM3       | AHCYL2    | ASCC3     | ASB1      | DMXL2     | PLEKHG3  |
| ## | GSM875412 | 9.969974  | 8.103243   | 8.328235  | 8.352357  | 6.839985  | 8.388881  | 5.784299 |
| ## | GSM875413 | 9.875870  | 10.276045  | 7.505951  | 7.126887  | 7.584480  | 8.449311  | 5.789488 |
| ## | GSM875414 | 7.556528  | 7.593583   | 6.687553  | 8.080587  | 6.315954  | 7.555786  | 5.522482 |
| ## |           | HEG1      | FUBP3      | PAXIP1    | MEGF9     | SLC25A46  | ABRAXAS2  | POLD3    |
| ## | GSM875412 | 7.198627  | 8.578083   | 7.924325  | 6.341821  | 8.592416  | 6.789631  | 7.571967 |
| ## | GSM875413 | 7.344269  | 8.468280   | 7.919278  | 6.217686  | 8.912349  | 5.850851  | 6.171536 |
| ## | GSM875414 | 7.046635  | 7.827678   | 7.628749  | 8.388521  | 8.602846  | 7.735151  | 8.171529 |
| ## |           | UBXN7     | PPFIBP2    | RRP1B     | SAMD4A    | AXIN1     | LRP4      | DCUN1D4  |
| ## | GSM875412 | 7.808116  | 8.236257   | 5.651746  | 8.091663  | 6.590931  | 9.288465  | 7.501446 |
| ## | GSM875413 | 7.332661  | 5.983196   | 5.074702  | 7.749622  | 6.237668  | 5.503252  | 7.669587 |
| ## | GSM875414 | 7.752069  | 9.295077   | 5.887061  | 6.783239  | 6.558249  | 4.877683  | 6.005757 |
| ## |           | NBPF1     | SUB1       | PAQR4     | MT1E      | MFSD5     | CDS2      | COL14A1  |
| ## | GSM875412 | 10.102918 | 11.73850   | 7.101600  | 9.873139  | 7.015564  | 7.039027  | 7.595533 |
| ## | GSM875413 | 10.899736 | 11.68112   | 6.166997  | 10.489383 | 8.249029  | 9.012618  | 5.059461 |
| ## | GSM875414 | 9.976475  | 11.56418   | 7.193518  | 7.943685  | 8.117250  | 6.912730  | 5.427126 |
| ## |           | R3HCC1    | MAPKAPK5   | ARHGAP45  | C2CD2     | KLC1      | PIAS4     | WDR7     |
| ## | GSM875412 | 5.604789  | 6.874672   | 7.568776  | 7.937542  | 5.516839  | 6.105060  | 6.569812 |
| ## | GSM875413 | 8.845150  | 8.024572   | 7.089537  | 8.415862  | 6.795243  | 6.330572  | 8.478564 |
| ## | GSM875414 | 6.244303  | 6.656321   | 6.444616  | 7.005304  | 7.682878  | 6.657532  | 5.469427 |
| ## |           | MPHOSPH10 | GADD45GIP1 | ZNF282    | ZZZ3      | SUPV3L1   | TTI1      | SEC24A   |
| ## | GSM875412 | 8.110709  | 4.270321   | 6.061746  | 8.156704  | 7.097978  | 6.879467  | 9.090729 |
| ## | GSM875413 | 7.780421  | 4.406400   | 7.159976  | 7.751389  | 7.007269  | 7.612985  | 9.498550 |
| ## | GSM875414 | 8.160968  | 4.351017   | 6.706332  | 7.491779  | 6.659838  | 7.131727  | 9.399832 |
| ## |           | CSTF2T    | LRRC47     | GRAMD1B   | SLC30A1   | DNAJC16   | LYPD1     | THAP11   |
| ## | GSM875412 | 5.952450  | 9.290968   | 7.833749  | 9.501292  | 8.038234  | 4.197935  | 6.84032  |
| ## | GSM875413 | 5.682772  | 9.693289   | 7.580370  | 9.580312  | 7.428251  | 4.361975  | 7.33142  |
| ## | GSM875414 | 6.108606  | 9.662042   | 5.516506  | 9.569888  | 6.388789  | 4.622724  | 8.11395  |
| ## |           | CBX7      | PHF8       | DCP2      | SMYD2     | PXDC1     | MISP      | SMC5     |
| ## | GSM875412 | 7.051485  | 5.900489   | 8.117395  | 5.876969  | 7.970743  | 9.536444  | 7.755077 |
| ## | GSM875413 | 9.845850  | 7.453747   | 9.672575  | 4.884031  | 7.845478  | 6.900490  | 5.194860 |
| ## | GSM875414 | 6.681042  | 5.761482   | 7.344660  | 5.494465  | 8.622819  | 10.024023 | 5.833487 |
| ## |           | TSPYL4    | TCF20      | RAB3GAP1  | UBXN2B    | FAM172A   | C2CD5     | VWA8     |

|    |           |          |          |          |           |          |          |           |
|----|-----------|----------|----------|----------|-----------|----------|----------|-----------|
| ## | GSM875412 | 8.088600 | 8.355793 | 7.625829 | 7.790707  | 7.293207 | 9.004905 | 8.219895  |
| ## | GSM875413 | 9.149528 | 7.901764 | 6.545775 | 8.720850  | 9.217296 | 9.615330 | 7.934571  |
| ## | GSM875414 | 7.087928 | 7.681550 | 7.195120 | 6.982026  | 6.043369 | 8.045285 | 6.120156  |
| ## | SLC9A8    | CAMTA2   | NCAPH    | ADGRF5   | DYRK4     | POLR2I   | TBC1D9   |           |
| ## | GSM875412 | 6.232350 | 5.763758 | 6.197655 | 6.424202  | 6.614141 | 8.313365 | 7.552009  |
| ## | GSM875413 | 6.666955 | 6.731942 | 4.179949 | 6.470862  | 9.083367 | 9.428353 | 7.774526  |
| ## | GSM875414 | 5.479652 | 5.565732 | 5.076575 | 7.414120  | 6.455921 | 9.153914 | 6.774115  |
| ## | LINC01278 | GNPTAB   | EOLA2    | SYDE1    | RFNG      | APBB2    | RP1A     |           |
| ## | GSM875412 | 4.752187 | 8.107919 | 7.845830 | 4.984633  | 5.912986 | 7.204481 | 8.808764  |
| ## | GSM875413 | 7.421128 | 8.500468 | 8.989626 | 5.192713  | 6.900973 | 7.285059 | 6.953712  |
| ## | GSM875414 | 5.587606 | 9.206201 | 8.951774 | 5.129222  | 6.838603 | 5.749211 | 7.400998  |
| ## | DENND3    | LRRC8B   | ACKR3    | ZDHHC17  | HRAS      | TLK2     | SGMS1    |           |
| ## | GSM875412 | 6.126870 | 4.600615 | 7.376532 | 7.837519  | 6.898317 | 6.992315 | 7.380749  |
| ## | GSM875413 | 5.454231 | 2.960826 | 6.639650 | 10.725639 | 7.326412 | 6.355684 | 7.138023  |
| ## | GSM875414 | 5.815248 | 3.614168 | 7.510396 | 8.104766  | 7.724097 | 7.517484 | 6.483263  |
| ## | NACC2     | THOC2    | MORC3    | ANGPTL2  | FANCI     | CAVIN3   | NEDD4    |           |
| ## | GSM875412 | 7.573843 | 7.394899 | 7.220198 | 7.344966  | 7.381276 | 6.554933 | 5.372002  |
| ## | GSM875413 | 9.149654 | 7.208685 | 6.962721 | 8.433617  | 6.020087 | 9.443404 | 7.885721  |
| ## | GSM875414 | 5.395854 | 6.349668 | 8.362401 | 7.825832  | 6.292007 | 7.560334 | 5.984710  |
| ## | MAPK8IP1  | ABHD3    | RANBP6   | UTRN     | TMF1      | WDR73    | RNF19B   |           |
| ## | GSM875412 | 4.100970 | 8.458200 | 7.441809 | 8.029916  | 8.436125 | 7.988607 | 7.317185  |
| ## | GSM875413 | 4.502427 | 7.432894 | 7.813543 | 6.861384  | 5.869132 | 8.030593 | 6.885074  |
| ## | GSM875414 | 4.952703 | 8.824119 | 7.569440 | 6.877307  | 7.824179 | 8.200587 | 7.377956  |
| ## | ARHGEF18  | NPTXR    | MED24    | MAST3    | PABPN1    | ZC3HAV1  | HAUS5    |           |
| ## | GSM875412 | 8.446409 | 4.149832 | 9.884504 | 6.410477  | 6.457561 | 8.882978 | 6.085403  |
| ## | GSM875413 | 8.144711 | 5.825926 | 6.673233 | 7.240956  | 7.010795 | 9.916791 | 6.236651  |
| ## | GSM875414 | 8.433394 | 4.265210 | 6.448668 | 6.458506  | 6.648571 | 7.571588 | 6.606306  |
| ## | FRMD4B    | ATPAF2   | TTC28    | CREB3L1  | CHI3L2    | NTAN1    | RUSC2    |           |
| ## | GSM875412 | 8.038930 | 5.974002 | 5.842630 | 8.959267  | 4.952710 | 7.673049 | 6.295514  |
| ## | GSM875413 | 4.601168 | 6.246660 | 7.439457 | 7.378180  | 5.079052 | 7.843059 | 7.357981  |
| ## | GSM875414 | 7.611437 | 6.181959 | 5.443464 | 9.705829  | 4.869559 | 7.902284 | 6.506820  |
| ## | ZFTRAF1   | ZFYVE26  | OLFML2A  | ITPKC    | LPCAT4    | TSR2     | ZBTB22   |           |
| ## | GSM875412 | 5.554017 | 6.312807 | 6.372428 | 5.728846  | 5.661605 | 7.794008 | 5.994811  |
| ## | GSM875413 | 7.071593 | 6.791281 | 5.593110 | 6.718016  | 4.375822 | 9.799687 | 6.304901  |
| ## | GSM875414 | 5.750532 | 5.842321 | 7.224692 | 7.086929  | 6.670642 | 8.148238 | 5.735300  |
| ## | SLC35D2   | DNAJC9   | ANGEL1   | UNC5B    | STARD13   | TSR3     | COL4A5   |           |
| ## | GSM875412 | 7.710565 | 8.803569 | 6.384073 | 6.246174  | 6.463755 | 7.330065 | 6.091932  |
| ## | GSM875413 | 6.484130 | 8.382348 | 7.318279 | 6.855933  | 7.344269 | 7.735327 | 10.887162 |
| ## | GSM875414 | 8.134334 | 9.156525 | 6.568078 | 6.133256  | 6.125381 | 7.308043 | 4.589931  |
| ## | ATG4A     | KLHL9    | TSPYL5   | ZNF473   | OLFML2B   | MED8     | GCSH     |           |
| ## | GSM875412 | 6.679550 | 6.948214 | 5.740256 | 4.788495  | 7.957519 | 7.257282 | 8.218250  |
| ## | GSM875413 | 7.509991 | 7.729094 | 9.151962 | 5.150369  | 7.095784 | 6.771363 | 8.332334  |
| ## | GSM875414 | 6.893015 | 7.144014 | 8.053190 | 5.279645  | 7.606805 | 6.738442 | 8.877684  |
| ## | MCAT      | ARID5A   | SNAI2    | SS18L1   | PSKH1     | GSAP     | HOXA10   |           |
| ## | GSM875412 | 6.593028 | 6.343124 | 6.556919 | 7.386828  | 6.296956 | 8.312237 | 7.491894  |
| ## | GSM875413 | 6.792234 | 6.682910 | 7.645614 | 8.237817  | 6.986064 | 9.693030 | 5.937869  |
| ## | GSM875414 | 6.866612 | 6.444616 | 6.972633 | 7.104529  | 6.735133 | 8.326882 | 5.880886  |
| ## | SRSF8     | SETD1B   | PCNX1    | MZT2A    | SP3       | GPX7     | TTC9     |           |
| ## | GSM875412 | 7.780185 | 8.627353 | 5.537719 | 9.051863  | 9.347878 | 5.193971 | 3.816525  |
| ## | GSM875413 | 7.159976 | 9.646866 | 5.328956 | 9.029638  | 8.833172 | 5.934568 | 3.564061  |
| ## | GSM875414 | 8.208677 | 7.959720 | 5.678914 | 9.520340  | 9.751974 | 4.827605 | 3.693164  |
| ## | MAPK8IP3  | CDKN1C   | SENP5    | KATNIP   | COG7      | TICAM1   | THAP3    |           |
| ## | GSM875412 | 6.072428 | 5.888947 | 7.792115 | 7.330632  | 7.736698 | 6.611837 | 5.897358  |
| ## | GSM875413 | 6.623591 | 5.286441 | 7.638182 | 6.947030  | 7.781221 | 5.918738 | 6.355085  |

|    |           |          |          |           |          |          |          |           |
|----|-----------|----------|----------|-----------|----------|----------|----------|-----------|
| ## | GSM875414 | 7.174030 | 5.820318 | 7.359265  | 7.207891 | 8.216408 | 6.420344 | 6.287377  |
| ## |           | ROB01    | ZNF629   | SYP       | TNNT1    | SETD1A   | CUL9     | BICRAL    |
| ## | GSM875412 | 7.899907 | 7.142067 | 4.995575  | 4.162741 | 6.026576 | 6.912337 | 7.424154  |
| ## | GSM875413 | 7.230711 | 7.427198 | 5.417024  | 4.534216 | 5.907652 | 7.300840 | 7.724225  |
| ## | GSM875414 | 6.930340 | 6.740357 | 5.598446  | 5.868483 | 5.702554 | 6.641290 | 7.125948  |
| ## |           | TAF6L    | DID01    | OTUD3     | ADCY2    | ZSCAN26  | BBIP1    | CDR2L     |
| ## | GSM875412 | 5.042413 | 6.649071 | 7.849744  | 5.182688 | 5.670637 | 7.837268 | 7.297167  |
| ## | GSM875413 | 4.567094 | 6.684791 | 6.835526  | 7.597390 | 6.371101 | 8.295204 | 7.937575  |
| ## | GSM875414 | 4.721066 | 6.003875 | 6.041681  | 5.558739 | 5.497223 | 8.166265 | 6.470048  |
| ## |           | KNOP1    | SASH1    | ATP10D    | PIBF1    | KRT4     | CEP170B  | SCAMP4    |
| ## | GSM875412 | 6.982687 | 7.884611 | 7.512324  | 7.284807 | 3.974677 | 7.532356 | 6.184374  |
| ## | GSM875413 | 6.436270 | 8.709708 | 7.741720  | 4.950163 | 4.001062 | 7.695732 | 7.919945  |
| ## | GSM875414 | 7.721704 | 6.723574 | 5.794202  | 6.812097 | 4.282117 | 8.673066 | 7.700577  |
| ## |           | ADCY1    | LYSET    | LOC730101 | FBXL7    | MARCHF3  | SARM1    | TRANK1    |
| ## | GSM875412 | 4.441456 | 7.359431 | 5.406458  | 5.313838 | 6.307562 | 6.093087 | 6.603904  |
| ## | GSM875413 | 7.198253 | 7.809000 | 4.311441  | 8.341067 | 4.802486 | 6.295598 | 6.799357  |
| ## | GSM875414 | 4.289629 | 8.916064 | 4.743154  | 5.311846 | 6.209234 | 5.453958 | 5.424905  |
| ## |           | SACS     | LDAF1    | TENM4     | DHRS1    | RAP1GAP2 | AP00L    | SALL2     |
| ## | GSM875412 | 6.362674 | 6.326499 | 5.032322  | 8.002616 | 7.477925 | 7.178747 | 5.460735  |
| ## | GSM875413 | 7.831686 | 6.552666 | 4.720721  | 7.905210 | 6.235592 | 8.191593 | 8.163780  |
| ## | GSM875414 | 4.879521 | 5.926033 | 4.664029  | 8.384217 | 6.437726 | 5.086465 | 5.090158  |
| ## |           | TMEM30B  | MBOAT2   | TRIM22    | CYLD     | RMND5B   | ZBTB7A   | ATG2A     |
| ## | GSM875412 | 8.869955 | 9.067185 | 9.155989  | 6.299635 | 5.605999 | 4.926827 | 7.654896  |
| ## | GSM875413 | 7.049690 | 7.628961 | 10.381207 | 8.030922 | 6.286494 | 4.711937 | 7.607126  |
| ## | GSM875414 | 9.255150 | 6.709561 | 8.228824  | 6.538235 | 5.958584 | 5.420005 | 7.548125  |
| ## |           | PFAS     | TOGARAM1 | PLCL2     | TCF25    | EOLA1    | JCAD     | CLIC5     |
| ## | GSM875412 | 6.674068 | 7.052360 | 7.097027  | 9.145909 | 8.102830 | 4.176949 | 7.107550  |
| ## | GSM875413 | 6.467341 | 7.103242 | 8.085930  | 9.052613 | 8.929716 | 4.076650 | 3.474760  |
| ## | GSM875414 | 5.684173 | 6.483900 | 7.679527  | 9.373877 | 8.982269 | 4.288035 | 3.378995  |
| ## |           | PRMT3    | OARD1    | NECTIN3   | USP12    | HAUS7    | TMEM158  | FEM1C     |
| ## | GSM875412 | 7.449500 | 8.340784 | 8.109359  | 7.855346 | 6.429593 | 5.957589 | 7.708565  |
| ## | GSM875413 | 6.201078 | 7.889042 | 5.661418  | 7.155727 | 7.738838 | 4.791984 | 6.925232  |
| ## | GSM875414 | 6.214514 | 8.623440 | 3.721087  | 6.932204 | 7.110214 | 6.910545 | 6.385807  |
| ## |           | YAP1     | GDPD5    | TEX30     | TMCC1    | ABCA5    | MTCL1    | TDRD7     |
| ## | GSM875412 | 8.570828 | 6.371816 | 6.119191  | 6.928439 | 6.724785 | 7.261723 | 8.297708  |
| ## | GSM875413 | 5.887755 | 6.675736 | 6.270439  | 5.831079 | 8.216885 | 7.636141 | 7.793121  |
| ## | GSM875414 | 8.323185 | 7.148325 | 7.348544  | 5.568401 | 6.945646 | 7.972192 | 7.990095  |
| ## |           | CA5BP1   | ERI2     | LOC155060 | PPFIA3   | SFMBT1   | LDB3     | RPS12     |
| ## | GSM875412 | 5.792905 | 7.742904 | 6.852597  | 5.333470 | 8.016358 | 4.149005 | 13.27648  |
| ## | GSM875413 | 6.566319 | 6.071405 | 7.716044  | 5.625225 | 5.630420 | 3.793173 | 13.04479  |
| ## | GSM875414 | 6.318738 | 7.303516 | 6.116405  | 5.993913 | 7.575756 | 3.720238 | 13.27279  |
| ## |           | COQ2     | MST1L    | PLCB3     | PGAP4    | ZC3H4    | IQCK     | MFSD9     |
| ## | GSM875412 | 7.616645 | 3.531121 | 7.356613  | 5.971577 | 8.592649 | 7.889301 | 6.759700  |
| ## | GSM875413 | 6.251389 | 3.309248 | 6.560265  | 4.898317 | 8.295234 | 7.083553 | 4.202363  |
| ## | GSM875414 | 6.039396 | 3.731174 | 6.537894  | 7.227966 | 8.956735 | 8.689503 | 5.059129  |
| ## |           | MLC1     | SDR39U1  | RAB22A    | PHLPP2   | TJP3     | STON1    | CLIC2     |
| ## | GSM875412 | 4.154974 | 7.581053 | 9.322977  | 6.459705 | 7.741092 | 6.945155 | 6.050080  |
| ## | GSM875413 | 4.201949 | 9.374280 | 9.242179  | 7.183364 | 5.653453 | 6.915931 | 8.913725  |
| ## | GSM875414 | 4.202363 | 7.818899 | 7.846266  | 5.075842 | 8.131504 | 5.759983 | 5.730508  |
| ## |           | DHX57    | MXRA8    | MATCAP2   | RPP40    | BICC1    | SFI1     | MUC5B     |
| ## | GSM875412 | 6.138015 | 7.912766 | 4.784238  | 7.434806 | 6.026476 | 6.808130 | 5.485648  |
| ## | GSM875413 | 7.047764 | 9.911501 | 5.863233  | 5.372630 | 5.586950 | 6.982592 | 5.347730  |
| ## | GSM875414 | 5.120422 | 7.784320 | 4.666920  | 6.961391 | 4.391788 | 7.042758 | 10.590652 |
| ## |           | SATB2    | NFASC    | SPDEF     | ZNF862   | ZC3H3    | IPW      | POP1      |

```

## GSM875412 5.458732 5.439119 7.285271 6.025744 6.253285 5.563737 4.911171
## GSM875413 4.079050 10.513235 7.770605 7.785614 6.671447 8.793503 5.273012
## GSM875414 5.358453 5.559718 9.280625 6.958687 6.458963 5.975294 4.996550
## ICOSLG ZNF184 CENPS FAM114A1 SOSTDC1 MFHAS1 FAM149B1
## GSM875412 5.879924 6.556919 7.174587 8.665906 4.850705 7.043553 3.556739
## GSM875413 5.649210 5.510750 6.076846 9.376340 6.083493 6.292653 3.659767
## GSM875414 5.564560 6.338356 6.626249 9.322321 4.426616 4.317192 3.441115
## SHC2 RAB40C RND2 ERCC2 PGAP1 NPHP4 KAZN
## GSM875412 6.928097 5.903276 4.184645 5.638209 6.918342 5.821024 8.181187
## GSM875413 8.577866 5.664166 6.093431 6.620693 6.658965 5.311529 6.560265
## GSM875414 6.838438 6.228255 4.649340 6.379176 4.262134 5.643118 7.146668
## NPTX2 DOCK3 PPWD1 ABCC10 COPG2IT1 COL2A1 PLPPR4
## GSM875412 3.620923 4.081005 7.943126 8.558270 4.902490 3.809856 6.421777
## GSM875413 4.329427 6.381688 9.205862 6.943125 8.432047 3.643821 3.285989
## GSM875414 5.942614 3.924730 7.107151 7.427778 5.481715 3.779843 4.120131
## ABTB2 CLCN2 GUSBP11 MTMR1 CLBA1 CCNE1 GOS2
## GSM875412 6.687387 5.427500 9.553252 7.635721 6.028432 6.989319 6.628259
## GSM875413 6.944834 5.553486 9.276043 8.591923 6.508553 6.791363 8.087137
## GSM875414 6.344569 5.961957 10.077858 7.964192 6.310262 6.698168 7.906597
## LIN37 ZNF688 METTL18 CD3D HSD17B8 ZNF710 DKFZP586I1420
## GSM875412 5.859328 6.003760 6.544637 8.045001 7.221488 6.721535 8.359139
## GSM875413 7.069243 6.628691 6.781387 7.004084 6.646066 6.915931 8.552224
## GSM875414 6.074953 6.841747 4.912218 7.910757 7.775498 6.750689 7.887844
## CAND2 PDZD8 GLCE RWDD2A PINLYP ZNF467 RNASE6
## GSM875412 5.056646 8.045313 6.504701 6.262964 5.661412 4.741450 7.859341
## GSM875413 7.206958 7.223601 6.610073 5.485147 5.836433 5.224586 8.005219
## GSM875414 4.515763 8.310258 4.987343 5.268533 5.681556 5.239950 6.664333
## OSR2 VASH1-AS1 ATP11A ATP6V0E2 B3GNTL1 APLNR OIP5
## GSM875412 5.470005 5.185807 4.471496 4.944089 5.243448 6.061175 6.581753
## GSM875413 3.685102 5.422223 3.243226 9.281127 6.245033 6.230791 3.854616
## GSM875414 3.664830 5.231909 4.542870 6.675308 5.836935 7.242251 4.770833
## SIPA1L3 SRRD AQP5 COL9A2 KIF3A ZKSCAN4 MT1F
## GSM875412 6.324345 6.752550 5.190074 5.607989 5.663683 5.969199 7.755487
## GSM875413 5.317780 7.322032 4.649825 4.699989 6.874452 6.301494 8.506454
## GSM875414 6.925465 7.427992 8.128870 5.942401 5.166658 7.022949 7.441962
## NACAD DHODH SH3BP1 TRMU PHF24 PHACTR1 ZNF500
## GSM875412 5.064857 3.827695 6.191261 5.985760 5.126737 4.715969 5.650140
## GSM875413 5.855637 3.778361 6.328893 6.872599 5.986396 4.492972 5.863035
## GSM875414 5.747710 3.560749 5.776425 5.986718 5.890200 5.092213 5.983931
## DNA2 INPP5J TOP3B PAMR1 RETREG1 TMEM265 FCH01
## GSM875412 6.634915 6.012037 5.677122 6.758813 3.672101 5.807520 5.573611
## GSM875413 5.262582 6.297697 6.084736 6.019733 3.883018 5.445868 5.686642
## GSM875414 5.062019 5.730379 6.324314 6.682099 4.689786 5.847858 6.533089
## NSUN5P1 NENF IGHD TTC30A NUP50 ELOA-AS1 VPS13A
## GSM875412 8.648080 5.010491 4.806893 5.230708 8.004814 6.713821 6.633042
## GSM875413 8.681630 5.009710 5.070062 4.260048 8.041910 6.753206 6.070825
## GSM875414 6.877969 5.148509 6.028468 4.597914 8.816201 6.135580 5.105706
## RPL35A PTOV1-AS2 RSNB1 PON3 TMEM35B C12orf29 DLX5
## GSM875412 12.27720 5.797368 7.684944 4.837155 8.430293 7.275144 4.054337
## GSM875413 11.86854 6.061704 8.429766 5.017410 8.154683 8.653920 4.030439
## GSM875414 12.54483 5.807492 7.951865 7.185386 7.687165 6.552019 4.396000
## GPRASP3 CALM1 KRT81 ELOVL2 GLB1L2 KANK3 SECTM1
## GSM875412 4.334070 6.978122 5.906177 3.533003 8.443320 5.047959 6.188912
## GSM875413 6.916659 6.776518 6.025093 4.046392 7.058716 5.332208 6.360045

```

|    |           |          |              |           |           |           |          |          |
|----|-----------|----------|--------------|-----------|-----------|-----------|----------|----------|
| ## | GSM875414 | 4.201311 | 7.419057     | 6.108190  | 3.599659  | 7.283076  | 5.297984 | 8.103919 |
| ## |           | RBM4     | SOX2         | XYLT1     | PRPF40A   | MYO1F     | GOLGA8N  | TMEM262  |
| ## | GSM875412 | 6.364660 | 4.740886     | 7.481278  | 10.384603 | 6.177840  | 9.129115 | 4.812846 |
| ## | GSM875413 | 6.446535 | 4.615119     | 7.549251  | 8.482014  | 6.505225  | 9.786329 | 5.024082 |
| ## | GSM875414 | 6.561489 | 5.092783     | 4.905094  | 10.641881 | 5.967038  | 8.347905 | 5.176329 |
| ## |           | TRIM66   | PPP1R37      | MDM1      | HIPK2     | KSR1      | IRF2BP1  | ZNF276   |
| ## | GSM875412 | 7.120155 | 4.709158     | 5.646271  | 4.832310  | 4.766065  | 6.642019 | 5.954674 |
| ## | GSM875413 | 6.297842 | 4.995517     | 6.846144  | 5.250661  | 4.397589  | 7.226765 | 5.974011 |
| ## | GSM875414 | 5.032958 | 5.817480     | 5.272197  | 4.908613  | 5.108627  | 7.470976 | 6.337287 |
| ## |           | TCHH     | IPO9         | PENK      | HOMER1    | NGDN      | PTPRA    | SPRR1A   |
| ## | GSM875412 | 3.357101 | 6.168353     | 4.303360  | 6.416835  | 7.425349  | 6.882130 | 3.621329 |
| ## | GSM875413 | 3.543156 | 5.022600     | 13.041979 | 7.027429  | 8.607589  | 8.745802 | 3.617742 |
| ## | GSM875414 | 3.478588 | 5.689407     | 3.857395  | 5.216924  | 9.259613  | 6.709921 | 3.712349 |
| ## |           | RSAD2    | CFH          | RPSA      | ABHD5     | CACTIN    | TMEM223  | STARD5   |
| ## | GSM875412 | 6.136061 | 6.738692     | 12.83038  | 5.920190  | 6.169456  | 5.269326 | 6.091007 |
| ## | GSM875413 | 7.383568 | 6.591924     | 12.41710  | 4.437462  | 6.697378  | 4.980232 | 5.101522 |
| ## | GSM875414 | 6.692644 | 5.561833     | 12.06768  | 5.106281  | 6.552694  | 5.108682 | 5.864017 |
| ## |           | OLIG2    | H3-3A        | ARHGAP33  | CLMN      | HOXA5     | PRPH     | DUSP7    |
| ## | GSM875412 | 4.012215 | 6.394400     | 6.213597  | 7.549538  | 6.684929  | 6.056099 | 6.871714 |
| ## | GSM875413 | 3.997049 | 5.936979     | 6.870715  | 4.404521  | 10.967795 | 6.459055 | 7.596987 |
| ## | GSM875414 | 4.448426 | 5.591602     | 6.092451  | 7.138708  | 5.926481  | 8.426524 | 5.987308 |
| ## |           | STIMATE  | ZNF250       | EEF1AKMT3 | OAZ3      | DCBLD2    | COL11A2  | SERPINA4 |
| ## | GSM875412 | 6.171663 | 5.262648     | 5.652366  | 4.188620  | 4.461530  | 4.839183 | 5.750268 |
| ## | GSM875413 | 7.159976 | 5.706886     | 6.878460  | 4.406027  | 4.377773  | 4.872622 | 5.157962 |
| ## | GSM875414 | 6.260850 | 5.599668     | 5.683859  | 4.127817  | 5.224629  | 6.206270 | 5.317875 |
| ## |           | PYROXD1  | POLR2E       | PMS2P5    | THSD7A    | ENTREP1   | MYBL1    | TBC1D30  |
| ## | GSM875412 | 8.387733 | 8.285728     | 8.192091  | 4.126572  | 5.142889  | 4.006145 | 4.804502 |
| ## | GSM875413 | 9.137320 | 8.248275     | 7.841595  | 5.292538  | 5.453092  | 5.204555 | 4.096528 |
| ## | GSM875414 | 6.568359 | 9.107815     | 7.616524  | 4.076683  | 5.069199  | 3.587459 | 5.444555 |
| ## |           | NKG7     | SST          | RAP2B     | STUM      | AGFG1     | MAP3K9   | EXPH5    |
| ## | GSM875412 | 5.674563 | 5.924652     | 9.239796  | 4.877673  | 7.149279  | 4.779501 | 6.250130 |
| ## | GSM875413 | 5.222989 | 4.756858     | 7.926605  | 4.843999  | 4.784186  | 4.324598 | 4.236561 |
| ## | GSM875414 | 5.983931 | 5.531309     | 10.059365 | 4.560281  | 7.296853  | 3.704517 | 6.250428 |
| ## |           | HLA-A    | ZNF23        | ERC2      | MEGF6     | TWIST1    | KRT20    | FAM169A  |
| ## | GSM875412 | 13.31849 | 5.544818     | 3.848903  | 5.904525  | 5.334683  | 8.225341 | 3.597790 |
| ## | GSM875413 | 12.34442 | 5.579563     | 4.308952  | 4.831486  | 8.131967  | 5.186163 | 3.881021 |
| ## | GSM875414 | 12.36914 | 5.106784     | 3.865394  | 5.684860  | 4.694939  | 5.119228 | 3.524762 |
| ## |           | RPGRIP1L | C10orf95-AS1 | CHD5      | RALYL     | RABL3     | SETD4    | YPEL1    |
| ## | GSM875412 | 3.757468 | 3.544199     | 4.681007  | 3.721306  | 6.786444  | 6.920696 | 4.815656 |
| ## | GSM875413 | 3.896212 | 3.291329     | 5.029707  | 3.836648  | 7.986989  | 6.245787 | 4.955433 |
| ## | GSM875414 | 3.434132 | 3.634503     | 5.028902  | 3.859637  | 5.773158  | 7.166885 | 4.936623 |
| ## |           | ENTREP2  | SOCS7        | SFPQ      | GRIP1     | IFITM1    | TUBB2B   | DGCR6L   |
| ## | GSM875412 | 3.812568 | 4.591588     | 9.154349  | 3.720722  | 11.496446 | 3.644056 | 4.589700 |
| ## | GSM875413 | 4.731440 | 4.578029     | 9.868837  | 4.239484  | 8.482558  | 3.743632 | 4.629510 |
| ## | GSM875414 | 4.075921 | 4.604142     | 9.244620  | 4.722057  | 9.118961  | 3.673012 | 5.585963 |
| ## |           | SLC25A42 | CRYBG3       | CCL8      | LIAS      | CD7       | TMSB15B  | DOK2     |
| ## | GSM875412 | 3.507569 | 8.045164     | 5.729894  | 5.675997  | 5.896676  | 5.254832 | 5.774298 |
| ## | GSM875413 | 3.927428 | 7.334474     | 6.485954  | 5.805727  | 6.660940  | 7.812514 | 5.981304 |
| ## | GSM875414 | 3.719291 | 7.066558     | 5.816833  | 5.066113  | 7.127590  | 4.935453 | 6.253859 |
| ## |           | MYCL     | IFI44        | NFKBIB    | BEAN1     | ATP10B    | GFOD2    | MEIS3P1  |
| ## | GSM875412 | 6.387843 | 5.676980     | 6.929041  | 3.684144  | 9.806634  | 6.675486 | 7.662081 |
| ## | GSM875413 | 5.411513 | 6.989595     | 6.766589  | 3.778025  | 5.307231  | 7.160524 | 8.798925 |
| ## | GSM875414 | 5.190326 | 4.126973     | 7.311183  | 3.861556  | 5.884521  | 5.915304 | 5.876287 |
| ## |           | PAK3     | PLXDC1       | NCF1      | MYBPC1    | FUT3      | SHMT2    | NPEPPSP1 |

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## GSM875412 3.701688 7.251344 5.584282 3.974898 8.708117 5.604179 8.385316
## GSM875413 5.266928 5.547540 5.453855 3.742058 5.914284 5.671332 7.007913
## GSM875414 3.338579 6.728373 5.468393 3.928597 5.940100 6.038028 8.190120
## RFPL1S NOP14-AS1 DAGLA TXLNGY CRACDL CLDN18 ZNF79
## GSM875412 3.107823 4.339174 5.250088 5.913099 4.215727 10.027772 4.597285
## GSM875413 3.402607 5.043545 5.299144 4.304773 4.504599 6.572476 5.457412
## GSM875414 3.195112 4.789835 5.494613 3.874900 4.943801 12.116903 6.000820
## ARID4B ZG16 PPBP MROH7 ITFG2 MYRIP PRDM10
## GSM875412 4.055219 4.596304 3.541536 5.084798 6.295514 4.006312 4.978828
## GSM875413 3.923918 4.819040 3.477201 6.563783 6.741478 3.751747 4.663522
## GSM875414 4.037372 4.932363 3.855654 5.326856 5.943474 4.054380 5.398175
## ASXL3 U2AF2 MAN1C1 TKTL1 HCG26 DIS3 SFTPD
## GSM875412 3.894379 5.163627 6.431416 3.675132 6.558824 6.167233 3.753253
## GSM875413 5.529234 5.282047 6.892155 3.681180 6.213218 6.387954 3.944222
## GSM875414 4.011845 4.881273 5.295285 6.366142 5.914588 5.943024 4.786001
## PACRG XIST ALMS1 DNAH7 PRSS53 GDF7 DTNB
## GSM875412 3.494230 3.325497 6.945185 4.324451 5.937408 4.834618 6.373245
## GSM875413 5.536009 3.349340 6.702024 4.210075 6.239250 4.939975 6.076341
## GSM875414 3.728185 9.443162 5.530366 4.633863 6.051307 4.829804 6.070608
## MAGEA4 SEC22B ITGA8 CADM4 SLC49A3 IZUM04 MUC5AC
## GSM875412 3.622813 10.105897 7.222208 4.700213 4.319818 5.099772 7.393354
## GSM875413 3.138017 9.724451 5.726776 4.922949 4.059414 5.527350 6.207545
## GSM875414 3.205922 10.980446 5.667635 4.998424 4.048787 5.603040 8.753165
## ALOX12P2 ATXN7L1 TACR2 C1orf105 TPM3 TSSK2 ERN2
## GSM875412 5.191540 4.328580 5.748941 3.923000 4.354982 3.993056 9.874077
## GSM875413 5.097707 4.148379 4.774452 4.770573 4.113608 4.380521 8.949453
## GSM875414 5.655348 4.650799 6.056785 4.853733 4.035637 6.177726 10.097193
## CTRL SEPTIN7P11 UNC93A BCAT1 IRGC RFPL3S LOC105370752
## GSM875412 4.404874 4.818278 5.169644 5.235256 4.124884 3.245452 3.315505
## GSM875413 4.856180 4.725358 3.755025 4.352296 4.622906 3.445906 3.401671
## GSM875414 4.560632 4.882640 4.357533 5.171196 4.765692 3.108459 3.577453
## CTRB2 HRG-AS1 CT62 CYP2C9 NOP2 MTMR6 GLA
## GSM875412 5.353143 3.718926 3.688637 5.309353 7.779697 8.383515 8.109567
## GSM875413 5.993511 3.544912 4.079266 4.227067 7.738865 8.406997 9.065832
## GSM875414 6.103415 3.831362 3.886741 3.984000 7.618476 7.795836 7.961542
## GMPS ATP1A3 SELENBP1 HSPA12A RALA FBXL2 HLX
## GSM875412 8.726297 4.149851 7.402320 4.930249 9.602961 6.674865 6.332155
## GSM875413 7.691611 4.822001 7.506405 8.448132 6.949941 7.496190 6.008679
## GSM875414 8.498560 4.979573 8.928380 4.479785 8.832348 5.645012 6.179338
## NAT1 ELL2 CTSW ADAMTS2 H2BC4 HOXA2 TRAF3IP1
## GSM875412 7.508990 3.818465 5.668597 5.697570 4.431818 3.970152 5.072868
## GSM875413 6.887699 3.752436 5.934102 5.419169 3.611768 7.615895 5.170706
## GSM875414 7.767868 4.080906 5.879630 6.398890 4.562792 4.163574 4.894702
## GJA5 GPR65 MYH6 H2AC8 KLRB1 LHB PMS2P3
## GSM875412 3.903802 6.345094 4.717139 4.280047 6.403682 5.904760 8.633017
## GSM875413 4.006327 6.813919 4.958425 4.391400 5.753296 5.600217 8.191815
## GSM875414 4.564381 5.704710 5.736257 4.326445 6.120331 4.977139 7.873355
## TFF2 MLLT1 SPP2 GFRA3 ZBTB25 ARFIP1 ODF1
## GSM875412 10.836749 3.698776 4.597046 4.947277 4.897776 7.260360 4.756653
## GSM875413 8.012865 4.409124 4.622241 5.290142 5.088405 5.682694 5.448938
## GSM875414 12.990154 4.522530 4.886365 5.728335 5.717496 8.120373 5.502482
## FSHB ARSF PATJ CACNG2 NHLH2 ASIP ABO
## GSM875412 4.305297 4.594058 5.778738 4.427183 4.098932 3.956305 4.797348
## GSM875413 4.243698 5.568279 4.690646 4.603613 4.440671 4.457316 5.392530

```

|    |           |          |               |           |          |          |           |           |
|----|-----------|----------|---------------|-----------|----------|----------|-----------|-----------|
| ## | GSM875414 | 4.370959 | 4.797943      | 5.549705  | 5.217755 | 4.544727 | 4.571437  | 5.542738  |
| ## |           | H3C11    | GPR20         | FCGR1BP   | OR1E1    | H4C2     | KRTAP5-9  | PDHA2     |
| ## | GSM875412 | 3.592506 | 5.180556      | 6.418149  | 3.300000 | 4.188019 | 5.127328  | 3.796319  |
| ## | GSM875413 | 3.492203 | 12.228402     | 7.418577  | 3.138226 | 4.033395 | 4.985703  | 3.915565  |
| ## | GSM875414 | 3.591670 | 5.717507      | 5.274214  | 3.196472 | 3.971226 | 4.808582  | 4.829412  |
| ## |           | RLN2     | FOXC2         | HES2      | CEBPE    | GHRH     | PMS2P1    | TSHB      |
| ## | GSM875412 | 3.813343 | 3.937060      | 4.071862  | 5.053765 | 4.212850 | 8.120926  | 3.736980  |
| ## | GSM875413 | 3.921374 | 4.065239      | 4.031234  | 5.413930 | 4.398456 | 7.932312  | 3.942894  |
| ## | GSM875414 | 3.764522 | 4.221715      | 4.506004  | 5.345642 | 4.834737 | 7.332228  | 3.932837  |
| ## |           | POU5F1B  | CMA1          | H1-5      | SLURP1   | H1-3     | SERPINB10 | H2BC17    |
| ## | GSM875412 | 8.258760 | 4.001645      | 3.589236  | 4.741523 | 4.934530 | 3.666525  | 3.359326  |
| ## | GSM875413 | 7.303138 | 4.232149      | 3.760628  | 4.892996 | 4.446093 | 3.594841  | 3.509799  |
| ## | GSM875414 | 7.526418 | 4.387945      | 3.710975  | 5.548909 | 5.763304 | 3.909324  | 3.536936  |
| ## |           | H2AC13   | ADCY10        | ARPP19    | H2AC16   | SSTR5    | SSTR4     | PTTG2     |
| ## | GSM875412 | 5.375231 | 3.389270      | 7.487853  | 3.392075 | 4.491198 | 4.312220  | 3.467574  |
| ## | GSM875413 | 5.345175 | 3.456213      | 6.236189  | 3.439101 | 5.099654 | 4.445800  | 3.457635  |
| ## | GSM875414 | 6.013760 | 3.552691      | 7.477055  | 3.317644 | 5.357113 | 4.167431  | 3.852817  |
| ## |           | FPR3     | LILRP2        | H4C13     | PCDHGC3  | SMR3A    | TPSD1     | IFNA5     |
| ## | GSM875412 | 6.637499 | 3.710641      | 4.415302  | 4.116242 | 3.462238 | 5.399634  | 3.232168  |
| ## | GSM875413 | 4.994714 | 4.150885      | 4.227703  | 4.397611 | 3.357464 | 5.418227  | 3.109044  |
| ## | GSM875414 | 6.830537 | 5.188371      | 4.487844  | 4.126973 | 3.363935 | 6.143411  | 3.228671  |
| ## |           | FGF3     | AZU1          | KRT36     | TNFRSF21 | DDI2     | VPS52     | COL8A1    |
| ## | GSM875412 | 4.264758 | 3.959442      | 3.702278  | 8.301043 | 5.868650 | 8.569879  | 5.488071  |
| ## | GSM875413 | 7.287215 | 4.144796      | 3.669361  | 5.771685 | 4.101077 | 8.790764  | 6.335565  |
| ## | GSM875414 | 4.420729 | 4.129713      | 3.852051  | 8.264864 | 4.879265 | 9.448173  | 4.072276  |
| ## |           | ATP8B1   | SSTR2         | CLDN8     | IVL      | COL4A4   | HOXD11    | CMKLR2    |
| ## | GSM875412 | 9.778743 | 4.114168      | 3.284635  | 4.289540 | 5.218050 | 3.941395  | 3.493608  |
| ## | GSM875413 | 7.878286 | 3.895716      | 3.186493  | 4.374267 | 4.024397 | 3.843243  | 3.408331  |
| ## | GSM875414 | 9.861757 | 4.191340      | 3.346799  | 4.773333 | 4.371688 | 3.803572  | 3.463148  |
| ## |           | TSPAN2   | PHOX2A        | MAGEA6    | GPR3     | MNX1     | H3C6      | GYS2      |
| ## | GSM875412 | 3.864650 | 4.928387      | 4.570382  | 5.062881 | 6.587277 | 4.115686  | 3.392426  |
| ## | GSM875413 | 3.173939 | 5.312334      | 3.564647  | 5.195381 | 6.221661 | 3.725182  | 3.186148  |
| ## | GSM875414 | 3.274721 | 5.815353      | 3.648245  | 5.119885 | 7.206691 | 4.137113  | 3.065106  |
| ## |           | FBXW4P1  | UPK1A         | EPX       | NHLH1    | CYP11B2  | ZBTB33    | H4C9      |
| ## | GSM875412 | 5.437858 | 4.045183      | 4.398861  | 4.924560 | 5.832154 | 3.361423  | 5.216801  |
| ## | GSM875413 | 5.320444 | 3.809290      | 4.703090  | 5.098219 | 5.995750 | 3.138017  | 5.177504  |
| ## | GSM875414 | 5.383710 | 3.846534      | 4.868258  | 5.008097 | 5.156432 | 3.243114  | 5.462986  |
| ## |           | CLDN9    | CALCB         | OSM       | HOXA1    | COL4A3   | H2AC15    | H3C12     |
| ## | GSM875412 | 5.126811 | 3.578954      | 5.070858  | 5.186783 | 4.548790 | 4.107992  | 3.808007  |
| ## | GSM875413 | 5.512090 | 3.685541      | 5.151435  | 5.256340 | 4.139493 | 3.831646  | 4.106476  |
| ## | GSM875414 | 6.637362 | 3.582089      | 5.522204  | 5.055601 | 4.965561 | 4.130576  | 4.416720  |
| ## |           | DRD1     | MYO1C         | NEAT1     | NOP14    | WDR43    | SPRYD7    | USP19     |
| ## | GSM875412 | 3.214546 | 8.044655      | 10.729794 | 7.338946 | 7.792866 | 4.043631  | 6.189116  |
| ## | GSM875413 | 3.360828 | 8.134406      | 5.581858  | 6.949941 | 6.048662 | 3.947630  | 6.138981  |
| ## | GSM875414 | 3.387461 | 8.316663      | 9.756196  | 7.276755 | 6.898568 | 3.814975  | 5.625282  |
| ## |           | MUC3B    | PKD1P6-NPIPP1 | CLK1      | ZNF266   | TAF1B    | MINDY2    | MIR22HG   |
| ## | GSM875412 | 6.059286 | 6.092943      | 8.940819  | 8.319961 | 4.066524 | 5.854331  | 7.336083  |
| ## | GSM875413 | 6.016007 | 6.432886      | 9.209843  | 8.499217 | 3.347383 | 5.356901  | 8.957937  |
| ## | GSM875414 | 6.222302 | 6.524205      | 9.085709  | 8.254220 | 3.314795 | 6.083736  | 7.759801  |
| ## |           | RIF1     | MAN2B2        | CCNB1     | GATC     | ZNF394   | BMP2K     | LINC01963 |
| ## | GSM875412 | 7.823522 | 7.726017      | 7.714143  | 6.858069 | 7.398846 | 3.886542  | 4.884812  |
| ## | GSM875413 | 5.914867 | 7.606783      | 5.914622  | 6.628811 | 8.411841 | 3.836648  | 6.268613  |
| ## | GSM875414 | 7.203747 | 7.482408      | 6.581798  | 6.207876 | 8.391288 | 4.094069  | 5.944124  |
| ## |           | SLC46A3  | CDC42EP4      | NOTCH2NLA | SBSPON   | POLR1F   | YIPF1     | IPCEF1    |

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## GSM875412 8.556192 6.921226 9.326124 3.531432 3.892152 7.944005 5.151825
## GSM875413 8.807461 6.887662 10.695081 3.181623 3.568628 7.900760 4.787654
## GSM875414 6.200489 7.849421 9.657601 3.116193 3.483136 8.481123 4.440213
## POLR2J3 CEP131 PLCH1 ARMCX6 PLAC4 ZNF468 UAP1L1
## GSM875412 5.876341 8.074600 5.670090 8.384203 4.741523 7.519440 5.721510
## GSM875413 5.319752 5.750925 5.244618 10.892831 5.245113 6.567486 4.589446
## GSM875414 5.801578 6.211984 4.892350 8.970698 5.995662 7.454183 5.859733
## PMS2P2 DCAF4 ZNF337 ZNF423 ATP6V1G2 RRP15 NAAA
## GSM875412 5.545573 4.504737 7.372452 6.539554 4.219239 4.889543 6.270478
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## GSM875414 5.359242 4.814420 6.740943 5.534197 4.099735 3.769096 7.864909
## AHCTF1 HSPB6 KIAA1549L TOX3 N4BP3 IGKV4-1 MEGF8
## GSM875412 7.625829 4.478367 3.846835 7.217197 3.829904 9.675880 4.686545
## GSM875413 6.650791 6.825020 3.362520 3.635036 4.813920 7.880319 5.689664
## GSM875414 7.071451 5.482263 3.361490 10.666647 3.946455 10.308290 4.890082
## SHANK1 MAP3K1 DDN CDK18 EIF4A1 PLXDC2 TRIM56
## GSM875412 4.550064 4.577372 5.980968 6.387843 8.005293 7.422965 6.755300
## GSM875413 4.951255 3.866030 6.292380 6.180673 7.389039 6.481446 8.366049
## GSM875414 4.621469 5.501949 6.110608 7.031970 7.250712 5.124052 6.607657
## LOC100294145 RIMBP2 FAAP24 UNC13A IQSEC2 BRINP2 ZNF204P
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## GSM875414 4.256428 3.819655 5.810194 5.690355 5.034719 4.110008 5.223208
## NALF1 SLC38A6 PWAR5 SFT2D2 TOM1L2 CNIH3 ALPK3
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## GSM875413 5.238334 7.672581 3.546078 6.429350 7.132999 7.058716 7.612168
## GSM875414 4.153244 5.643118 3.544514 5.274186 6.985459 4.079903 6.162438
## KCTD20 GPC1-AS1 TET1 DOT1L PIWIL1 LRP5L TUBGCP5
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## GSM875413 5.007762 3.797881 5.225920 4.231377 3.704653 5.438557 5.363186
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## ZNF37A KAT8 FAM149A CTXND1 ZNF780B ZNF8 SYT2
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## GSM875413 3.572231 6.114792 7.578036 5.432020 2.971337 5.593718 5.941195
## GSM875414 3.723673 5.652055 4.974043 5.235585 3.298450 5.761433 5.739930
## CEACAM21 ADAMTS3 ZNF362 KCNMA1 ZNF484 SLITRK5 LRCH1
## GSM875412 4.369199 3.377850 3.744270 3.748358 3.832768 3.844620 5.370106
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## GSM875414 4.757356 3.416456 4.583077 3.688221 4.290048 5.665005 4.093021
## SMG6 RBM34 OTULINL SLC26A10P SUSD5 TMPRSS6 ACTL8
## GSM875412 5.562302 3.446992 4.516874 5.344013 3.235225 5.718615 5.839559
## GSM875413 6.979101 3.397657 4.789442 5.856906 3.381832 5.905974 5.529591
## GSM875414 6.098268 3.211234 4.107954 5.563787 3.314839 5.819187 5.448218
## SPATA2L PPFIA4 TTTY15 APOBEC3F SCAI NECAB2 THAP9-AS1
## GSM875412 7.223532 3.790399 3.880283 5.345052 3.624202 5.930456 9.197268
## GSM875413 7.117075 4.003218 3.700080 6.222623 3.335049 6.019546 7.013346
## GSM875414 8.166162 4.136432 3.446324 5.358539 3.280971 6.389705 6.795134
## BRSK2 SNHG3 BICDL1 FBNP1L ZNF528 CCZ1B AKIRIN1
## GSM875412 4.276178 4.635379 4.497474 8.588357 4.658712 6.764082 7.118642
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## LINC01140 RNASEH2B TRIM58 ZNF280B FRMPD4 PGBD5 DENND5B
## GSM875412 5.279801 6.487295 3.204391 4.487934 3.739207 3.698776 4.242135
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## GSM875414 5.205117 5.933261 3.013737 4.887466 3.734854 3.989979 3.642507
## EEF1AKMT2 LRRC40 H2AC6 GRB2 MINAR1 LRRC42 SPICE1
## GSM875412 4.921794 6.924431 8.837510 8.415994 3.831060 8.212939 3.397843
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## GSM875414 4.997968 6.928247 9.013627 7.996201 3.786704 7.704390 3.423440
## ADTRP DPY19L1P1 NRIP2 N4BP2L2-IT2 TTC22 RC3H1 TSC22D1
## GSM875412 6.635293 4.691497 5.017903 4.392655 4.794768 5.225154 11.29624
## GSM875413 4.317815 4.610800 4.840291 4.183950 4.396272 4.380504 12.43848
## GSM875414 4.403330 4.255132 5.874142 4.283791 5.026018 4.272018 10.47224
## MCF2L2 DNM1 RAG2 ZNF550 PIK3C2G EXOSC8 H2AP
## GSM875412 3.121340 5.574297 3.097430 3.885478 5.218852 8.734795 4.009882
## GSM875413 3.083703 6.662708 3.071038 3.820074 4.634526 7.966406 3.872993
## GSM875414 2.963744 5.686958 3.429862 4.360929 4.807565 8.193713 4.256900
## DPY19L2P2 CNTNAP2 YOD1 DOCK10 SKIC8 FRG1CP CAMK1G
## GSM875412 3.295320 4.587223 6.143539 4.312734 6.446910 8.122279 4.036924
## GSM875413 7.206758 4.805690 3.997770 3.790348 7.027418 8.233832 4.197950
## GSM875414 3.372098 6.351434 5.020236 4.134985 6.025560 7.378904 4.508481
## IGSF9B SLC35E2A CEP152 PTPN20 DNAAF1 FMO6P LINC00963
## GSM875412 3.851385 5.226685 5.882075 3.413408 4.841143 3.763436 4.532207
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## GSM875412 3.150842 4.774255 3.555206 6.535562 4.054900 3.580069 8.104281
## GSM875413 3.235818 4.883629 3.930197 5.728642 4.296051 3.275813 7.597343
## GSM875414 3.493365 5.278230 3.896228 5.156534 5.193081 3.257201 9.578811
## SNORA21 CERNA1 PRKAG2 ZNF273 ANO3 LOC100288570 EMC3
## GSM875412 5.582072 3.403454 3.547993 4.808743 3.416535 4.664940 5.283442
## GSM875413 4.596015 3.315808 3.450140 3.910034 3.324693 4.877274 4.931822
## GSM875414 4.668831 3.361661 3.627332 4.232868 3.481350 5.465649 4.753829
## EMX1 SLC8A2 LFNG TNN LINC00667 TRPC2 ZNF749
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## PGAP2 LINC02981 LINC02172 ZNF529 ZNF674 ZNF549 MICOS10P1
## GSM875412 7.291757 3.536320 3.738184 3.836735 3.210049 3.328062 4.987551
## GSM875413 7.300993 3.659767 3.854047 5.238565 3.149334 3.496351 7.187512
## GSM875414 7.605224 3.473501 3.878161 3.586848 3.007012 3.778334 4.509470
## SPATA31C2 RUNDC3B LONRF1 LUZP2 SEMA3D EFR3B MYH15
## GSM875412 3.665545 4.126572 4.694720 4.281066 3.602471 4.730719 3.791426
## GSM875413 4.235769 5.994937 5.849609 4.057966 3.800733 5.370680 3.716529
## GSM875414 3.778212 4.062248 4.840404 4.611486 4.223292 5.625235 3.973650
## TRGV7 BTBD18 GIMAP5 PELP1 TDRD12 ZNF37BP KIAA1614
## GSM875412 4.198526 3.596009 3.423800 6.654021 3.980778 5.063677 5.321567
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## MED27 GGCT SPG21 PRSS3P2 ADGRV1 STOML2 EXOC6B
## GSM875412 4.883981 10.652542 7.729278 8.342810 3.397593 8.691196 3.840517
## GSM875413 5.199272 9.493882 7.535867 7.272571 3.308187 8.546247 3.702308
## GSM875414 5.229707 10.937336 7.642769 7.880704 3.421111 9.124722 3.497926
## ZFR2 IHH ZNF428 GK2 ACSM1 BEX4 TSP02
## GSM875412 4.894858 6.536529 6.425651 3.423275 3.984701 6.574616 4.593780
## GSM875413 4.926346 6.711672 7.238572 3.415067 4.108620 10.169692 4.245094
## GSM875414 4.884690 6.544005 6.743636 4.093488 4.663282 7.904579 5.009710
## SUMO4 ZNR4 OR7E24 ABCA12 GTF2H2B PRPS1L1 FAM182B

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|    |           |           |           |             |              |              |            |           |
|----|-----------|-----------|-----------|-------------|--------------|--------------|------------|-----------|
| ## | GSM875412 | 8.495186  | 4.953542  | 3.498721    | 3.520372     | 5.923183     | 3.580069   | 4.229975  |
| ## | GSM875413 | 8.073447  | 5.398234  | 3.457312    | 3.301269     | 6.234673     | 3.627799   | 4.344996  |
| ## | GSM875414 | 7.684691  | 6.145178  | 3.568785    | 3.467228     | 5.574617     | 3.878967   | 4.403173  |
| ## | WDC1      | DUSP10    | SPINT3    | ANKRD10-IT1 | DIRAS3       | ETV2         | HYMAI      |           |
| ## | GSM875412 | 6.108082  | 7.300925  | 3.603893    | 8.752823     | 5.852713     | 4.034384   | 5.605261  |
| ## | GSM875413 | 6.946279  | 4.696906  | 3.469730    | 8.318167     | 5.801807     | 4.512199   | 10.136272 |
| ## | GSM875414 | 6.025309  | 6.275886  | 3.737085    | 8.505884     | 3.749316     | 4.691491   | 3.878873  |
| ## | LAMB4     | PYG01     | SORCS3    | KHDRBS2     | ZNF492       | AGPAT1       | HLA-DQB2   |           |
| ## | GSM875412 | 3.319178  | 4.037692  | 3.385793    | 4.523788     | 3.263558     | 7.129668   | 6.900800  |
| ## | GSM875413 | 3.352076  | 4.581247  | 3.325978    | 4.639681     | 3.115653     | 8.322984   | 6.299707  |
| ## | GSM875414 | 3.727590  | 4.561167  | 3.448149    | 5.621847     | 3.100084     | 8.218027   | 6.307871  |
| ## | C14orf93  | SCFD1     | CTAGE9    | MTRF1L      | DTNB-AS1     | FCF1         | ACVR2B-AS1 |           |
| ## | GSM875412 | 3.177048  | 8.978660  | 8.411026    | 5.050440     | 4.483868     | 5.605555   | 4.395781  |
| ## | GSM875413 | 3.199802  | 8.433881  | 5.403829    | 5.045406     | 4.342730     | 4.476697   | 4.317429  |
| ## | GSM875414 | 3.426924  | 8.438166  | 7.674427    | 5.052376     | 5.334717     | 3.848184   | 4.486964  |
| ## | ERV9-1    | LTN1      | SPATS2L   | PHF7        | TSC2         | ERICH2-DT    | BRMS1      |           |
| ## | GSM875412 | 4.946029  | 8.572200  | 4.767469    | 5.184238     | 4.257767     | 3.431772   | 8.006505  |
| ## | GSM875413 | 5.389737  | 8.562143  | 4.686191    | 5.421578     | 4.265791     | 3.338098   | 7.141331  |
| ## | GSM875414 | 5.910131  | 7.152773  | 4.661150    | 4.844488     | 4.942464     | 3.432818   | 8.737687  |
| ## | NEUROG2   | TMEM238L  | GSDMB     | EPHA5       | PLXNB1       | PRODHLP      | LUNAR1     |           |
| ## | GSM875412 | 3.819299  | 4.852578  | 9.204795    | 3.498441     | 5.449578     | 4.283089   | 3.318377  |
| ## | GSM875413 | 3.771065  | 4.369329  | 4.773267    | 3.655402     | 4.756858     | 4.428113   | 3.350776  |
| ## | GSM875414 | 5.740350  | 4.824310  | 4.611486    | 3.920936     | 5.311318     | 4.610111   | 3.520954  |
| ## | ASCC2     | SHBG      | DDX27     | SPATA5L1    | SEC16A       | FLG          | IGFALS     |           |
| ## | GSM875412 | 6.660067  | 5.149753  | 8.915441    | 4.107667     | 8.825454     | 3.287602   | 6.638440  |
| ## | GSM875413 | 6.902228  | 5.512893  | 8.820099    | 3.995198     | 8.789030     | 3.096798   | 6.734208  |
| ## | GSM875414 | 7.295029  | 5.298559  | 8.653172    | 4.182034     | 9.019683     | 3.184924   | 7.156087  |
| ## | PHF3      | DGCR11    | DTX2      | KCNV1       | LINC00563    | AKAP8L       | GORASP1    |           |
| ## | GSM875412 | 6.953412  | 5.852673  | 6.062094    | 3.960063     | 3.691934     | 6.695739   | 7.479238  |
| ## | GSM875413 | 6.739268  | 5.129285  | 6.382270    | 3.774509     | 3.993881     | 6.526791   | 7.525700  |
| ## | GSM875414 | 7.126988  | 6.123170  | 7.051258    | 3.774872     | 3.796405     | 6.293920   | 7.375170  |
| ## | BTG2-DT   | ANKRD53   | ZNF804A   | TRAV16      | OR7E2P       | INSRR        | IGLV4-60   |           |
| ## | GSM875412 | 4.443220  | 3.697928  | 3.635043    | 3.614163     | 3.369321     | 4.585911   | 4.958750  |
| ## | GSM875413 | 4.295207  | 4.083275  | 6.313144    | 3.579859     | 3.282974     | 4.530842   | 5.089943  |
| ## | GSM875414 | 4.389231  | 4.654868  | 3.485294    | 3.860559     | 3.362204     | 5.064796   | 5.828447  |
| ## | H2BC8     | RAB40AL   | CYFIP2    | MTMR7       | MYH7B        | TRAV13-2     | RADX       |           |
| ## | GSM875412 | 6.170195  | 4.558486  | 6.347376    | 3.355440     | 4.081005     | 3.467710   | 2.975690  |
| ## | GSM875413 | 4.086645  | 4.589696  | 7.955450    | 3.282320     | 3.973771     | 3.439116   | 3.111369  |
| ## | GSM875414 | 6.056704  | 4.757966  | 7.086275    | 3.404948     | 3.923248     | 3.626682   | 3.019912  |
| ## | CYP2D7    | NUDT7     | ZNF835    | CROCCP3     | DNAH2        | GUCA1B       | HERC2P3    |           |
| ## | GSM875412 | 6.078035  | 4.449959  | 3.922644    | 5.390332     | 3.974574     | 4.791319   | 4.910278  |
| ## | GSM875413 | 6.036682  | 4.537476  | 3.782568    | 5.732039     | 4.190056     | 4.672655   | 3.716680  |
| ## | GSM875414 | 6.637760  | 4.653382  | 3.762147    | 5.957178     | 4.308311     | 5.042309   | 3.846377  |
| ## | CFAP70    | SIGLEC15  | NCLN      | SYT12       | LOC101927770 | LOC105376196 |            |           |
| ## | GSM875412 | 4.653673  | 6.124961  | 4.744083    | 4.523797     | 4.124826     | 3.925257   |           |
| ## | GSM875413 | 4.653915  | 5.862292  | 5.000924    | 4.402889     | 3.974758     | 4.337571   |           |
| ## | GSM875414 | 4.380136  | 6.294170  | 4.826841    | 4.435512     | 4.000339     | 4.325001   |           |
| ## | UBQLN2    | SSX2B     | ZNF440    | PTGDR       | SNRNP40      | LOC105375582 | RAD21L1    |           |
| ## | GSM875412 | 8.582126  | 3.761274  | 4.068701    | 3.749007     | 8.111827     | 4.043308   | 3.255447  |
| ## | GSM875413 | 10.137380 | 3.754502  | 3.827415    | 3.749229     | 7.605302     | 4.223790   | 3.484567  |
| ## | GSM875414 | 8.645901  | 3.820101  | 4.015424    | 3.912946     | 7.776485     | 4.612452   | 3.540588  |
| ## | CD72      | ARFGEF2   | LINC00837 | MAGEC2      | LINC01361    | IGLL3P       | SMG7-AS1   |           |
| ## | GSM875412 | 4.974195  | 5.010491  | 3.196836    | 3.978212     | 3.616821     | 10.56076   | 3.771605  |
| ## | GSM875413 | 4.836154  | 4.611631  | 3.195687    | 4.271574     | 3.570746     | 10.25885   | 3.950133  |

|    |           |            |           |              |                |           |           |           |
|----|-----------|------------|-----------|--------------|----------------|-----------|-----------|-----------|
| ## | GSM875414 | 5.059421   | 5.003607  | 3.106154     | 4.137851       | 3.682234  | 11.09264  | 4.077255  |
| ## |           | SLC5A4     | GK3P      | LOC100130331 | HCG4B          | ZNF721    | IGHMBP2   | GPR176-DT |
| ## | GSM875412 | 3.564330   | 5.555560  | 3.848860     | 3.641584       | 10.39170  | 5.904075  | 3.392949  |
| ## | GSM875413 | 3.662381   | 4.950028  | 3.763260     | 3.719277       | 10.51089  | 6.083590  | 3.393616  |
| ## | GSM875414 | 4.048270   | 5.014777  | 3.947385     | 3.656039       | 10.76841  | 5.927670  | 3.509708  |
| ## |           | UBXN8      | POLR1HASP | CBX2         | PRAMEF12       | SLC39A9   | ZXDB      | RNF5      |
| ## | GSM875412 | 6.623613   | 5.060130  | 4.443130     | 4.540358       | 4.233975  | 3.895968  | 4.528892  |
| ## | GSM875413 | 7.996458   | 5.437887  | 4.746487     | 4.896761       | 4.161163  | 4.016726  | 4.467251  |
| ## | GSM875414 | 6.526349   | 4.426404  | 6.176372     | 5.712173       | 4.130052  | 3.883252  | 4.440347  |
| ## |           | POLE       | SEMG2     | ZNF280A      | CCDC144A       | PRINS     | CYP2C19   | HBBP1     |
| ## | GSM875412 | 6.512651   | 3.357101  | 3.993056     | 3.312745       | 6.119837  | 4.631313  | 3.779596  |
| ## | GSM875413 | 7.055742   | 3.218651  | 4.113778     | 3.228965       | 6.089339  | 4.595290  | 4.159310  |
| ## | GSM875414 | 6.697771   | 3.610778  | 4.080572     | 3.300527       | 6.068891  | 4.745330  | 3.847349  |
| ## |           | ANKRD34C   | FAM205BP  | OBSCN        | HTR7P1         | NCKIPSD   | SPEF1     | TRAV21    |
| ## | GSM875412 | 3.361462   | 3.520067  | 4.344459     | 3.738184       | 5.389014  | 4.691807  | 3.970408  |
| ## | GSM875413 | 3.428602   | 3.391267  | 4.000157     | 4.095041       | 5.579142  | 4.893361  | 3.900249  |
| ## | GSM875414 | 3.495050   | 3.435120  | 4.064932     | 4.370805       | 5.051097  | 5.410560  | 4.263678  |
| ## |           | LRR37BP1   | SBN01     | TRDV3        | HERC2P8        | IGKV1D-13 | LINC00939 | CPN2      |
| ## | GSM875412 | 3.853180   | 4.829719  | 3.919030     | 4.373006       | 10.070116 | 3.625607  | 3.550084  |
| ## | GSM875413 | 3.785944   | 4.935769  | 6.953226     | 3.945735       | 8.811183  | 3.973771  | 3.501897  |
| ## | GSM875414 | 3.872449   | 4.496456  | 4.298834     | 3.839721       | 10.483047 | 4.176356  | 4.181970  |
| ## |           | TAF4B      | LPXN      | GRM8         | TGIF2          | LAMB2     | MYH7      | TMEM115   |
| ## | GSM875412 | 4.584639   | 7.752421  | 3.775902     | 6.146279       | 7.792746  | 4.252945  | 6.323778  |
| ## | GSM875413 | 4.172227   | 7.108616  | 3.601336     | 6.400265       | 8.474269  | 4.170027  | 6.722193  |
| ## | GSM875414 | 4.130180   | 6.877561  | 3.907018     | 6.161363       | 7.759432  | 4.156779  | 6.822034  |
| ## |           | ZNF460     | ADAM3A    | CYSLTR1      | ADGRD2         | XRCC3     | TAOK1     | OVOL3     |
| ## | GSM875412 | 5.322329   | 3.320347  | 3.541536     | 6.449508       | 4.921794  | 7.922108  | 4.540942  |
| ## | GSM875413 | 4.995686   | 3.608169  | 3.685541     | 6.314375       | 5.520626  | 7.194106  | 4.495752  |
| ## | GSM875414 | 5.092605   | 3.915075  | 3.625776     | 6.386839       | 5.511706  | 7.238354  | 4.856711  |
| ## |           | PCDHB17P   | RHCE      | TUBA3D       | RTKL1-TNFRSF6B | HDAC3     | YIPF3     | CYP2A7P1  |
| ## | GSM875412 | 3.218770   | 4.897300  | 6.662450     | 6.273439       | 7.860154  | 7.648062  | 4.548790  |
| ## | GSM875413 | 3.180934   | 4.744122  | 7.027170     | 6.256637       | 8.907978  | 7.974453  | 4.737739  |
| ## | GSM875414 | 3.434765   | 4.631604  | 7.001735     | 6.436685       | 7.319152  | 8.278055  | 4.695896  |
| ## |           | SEC14L3    | PPP1R13B  | ZNF10        | MUC7           | TAPT1     | ANOS2P    | LOC220077 |
| ## | GSM875412 | 3.556189   | 5.612648  | 5.270226     | 3.749203       | 3.457928  | 4.167237  | 4.605799  |
| ## | GSM875413 | 4.078961   | 6.745291  | 6.484130     | 3.621977       | 3.149002  | 3.905617  | 4.972977  |
| ## | GSM875414 | 4.541733   | 7.398573  | 4.680346     | 3.669961       | 3.272533  | 4.025029  | 5.404149  |
| ## |           | LCOR       | SEC14L4   | SP3P         | ATXN80S        | VAC14     | OR2B2     | HOXB9     |
| ## | GSM875412 | 3.713094   | 4.563015  | 3.855061     | 4.439520       | 5.683417  | 3.428385  | 5.106148  |
| ## | GSM875413 | 3.680345   | 4.714152  | 3.840907     | 4.394520       | 5.491468  | 3.311405  | 4.597350  |
| ## | GSM875414 | 3.639001   | 4.896286  | 3.996916     | 4.600397       | 5.902923  | 3.407081  | 5.185989  |
| ## |           | TMEM92-AS1 | KIR3DX1   | TTC38        | TMSB4X         | ZNF287    | CHST12    | SLC66A3   |
| ## | GSM875412 | 4.581113   | 3.526658  | 6.615540     | 13.20598       | 3.580069  | 5.183660  | 5.606275  |
| ## | GSM875413 | 4.458440   | 3.425801  | 6.661680     | 13.77916       | 3.393133  | 5.077188  | 5.698908  |
| ## | GSM875414 | 4.518855   | 3.694418  | 6.792338     | 13.55408       | 3.649077  | 5.042049  | 5.734920  |
| ## |           | DDR1-DT    | ZNF682    | ZNF355P      | GRIP2          | MYDGF     | RPLP2P1   | IGKV1D-8  |
| ## | GSM875412 | 3.528139   | 3.183787  | 3.268028     | 5.533042       | 9.047812  | 4.866137  | 4.738284  |
| ## | GSM875413 | 3.572503   | 3.495460  | 3.061392     | 5.858443       | 8.202869  | 4.843876  | 4.911275  |
| ## | GSM875414 | 3.702715   | 3.424818  | 3.319398     | 5.318652       | 9.908803  | 5.593663  | 5.260478  |
| ## |           | BRCC3      | OR2B6     | OR7E19P      | ATXN3L         | HMGB3P1   | TBC1D22B  | KIR2DS4   |
| ## | GSM875412 | 7.385129   | 3.694083  | 3.903930     | 3.213852       | 5.653069  | 4.059190  | 4.613619  |
| ## | GSM875413 | 5.132862   | 3.611768  | 3.848800     | 3.270880       | 5.557392  | 3.692724  | 4.659798  |
| ## | GSM875414 | 7.283690   | 3.642395  | 4.256778     | 3.803115       | 6.332472  | 4.538815  | 4.684209  |
| ## |           | IGLV3-10   | FOXL1     | GJB4         | POM121L2       | H2AC10P   | FZD8      | GNAT3     |

```

## GSM875412 8.118438 3.993056 4.520321 4.548352 3.820433 4.161360 3.306819
## GSM875413 7.254434 4.273083 4.604677 4.567800 3.786299 4.910709 3.420612
## GSM875414 9.949228 4.367302 4.857417 4.758852 4.118088 4.955448 3.315311
##          MAGEC3      CCL2      AOC4P DKFZP434A062      HTR3A      MAG      DSCC1
## GSM875412 3.428934 8.006898 5.328158      5.310637 4.524918 4.210124 6.007080
## GSM875413 3.674659 10.900562 5.250823      5.599625 4.196988 4.430076 5.953527
## GSM875414 3.667957 8.019092 4.997355      5.652488 4.597814 5.480719 6.089145
##          DHFRP3      MY07B LOC101929148      MGAM2 RNASE2CP      MUC8      KIR3DL3
## GSM875412 3.227473 3.683568      4.005811 4.030419 4.479127 7.238267 4.988452
## GSM875413 3.180539 3.463457      4.235214 3.702943 4.475786 7.369978 5.008939
## GSM875414 3.446064 3.242650      4.134515 4.232253 4.889620 7.236309 5.159011
##          ZNF154      SUPT20H      OR7C1      PRODH2      OR7E12P      KLK1      C1orf68
## GSM875412 4.146325 6.420868 4.197983 5.047127 5.844773 7.449252 4.503628
## GSM875413 4.032095 6.002312 4.189683 5.387415 5.321939 6.470587 4.893306
## GSM875414 4.228025 5.965068 4.297955 5.275580 7.388081 10.428861 4.947829
##          TAF1      LINC00302 RAB11FIP4 TMEM132A VENTXP1      DCLK2      TM6SF2
## GSM875412 6.377124 3.719424 3.430611 3.788319 3.142209 4.313965 4.966337
## GSM875413 5.856565 3.611768 3.343311 3.713504 3.171829 6.058738 5.259761
## GSM875414 5.522204 3.974382 3.533868 4.011487 3.202618 4.238801 5.479166
##          LOC105375061      PYHIN1      OSBPL10      PLAAT2      USP53      CYLC1      FAM224A
## GSM875412      3.535676 4.038676 6.387427 4.702561 3.556557 3.372345 3.545242
## GSM875413      3.480442 3.709633 5.607957 4.789027 3.117196 3.253208 3.346237
## GSM875414      3.497902 3.682527 5.892484 5.338856 3.109067 3.565543 3.438563
##          LOC100289518      MIR622      MLLT10P1      GDF11      TRBV21-1      ATP8B2
## GSM875412      3.320347 3.922481 3.822214 5.831594 3.816759 6.075936
## GSM875413      3.284895 4.029020 4.000784 5.870319 3.989963 6.947790
## GSM875414      3.374623 4.882228 4.213434 5.882119 4.134219 6.298356
##          LOC100505498      PRB4      FAM76A      MICU1      KRT35      FCGR1A      LMNB2
## GSM875412      3.343856 4.628604 4.594903 8.059898 3.383492 3.423787 6.718289
## GSM875413      3.436152 4.926093 4.039889 8.264488 4.055386 3.447956 5.456087
## GSM875414      3.691412 5.854479 4.235969 8.813491 3.797878 3.376755 6.941337
##          ZNF133      ZNF224      RUNX2      MKRN2      ADAM5      PGK2      GBX1
## GSM875412 6.326906 7.322229 3.948977 5.523601 4.036516 3.879834 5.344013
## GSM875413 7.460148 6.709238 3.929019 5.341157 3.843866 3.993499 5.513827
## GSM875414 5.834556 6.613816 4.087673 5.476365 4.336596 3.912693 5.548597
##          AZGP1P1      TMEM212 LOC101929550      KRT84      ELK2AP      RDH11      NCR2
## GSM875412 3.933267 4.339817      3.974182 3.995685 5.760314 4.678086 6.702306
## GSM875413 3.972892 4.271582      3.918641 4.032900 6.466674 4.473288 6.464893
## GSM875414 4.098364 4.320271      3.665451 4.012512 5.878208 3.862297 7.223974
##          DIAPH2-AS1      MUC3A      TRBV16      DMPK      ZCWPW2      AMACR      MKRN7P
## GSM875412 3.580069 5.926256 3.510827 4.769525 3.314589 4.459229 4.256651
## GSM875413 3.762529 6.006432 3.616118 5.120266 3.620861 4.254446 4.721597
## GSM875414 4.178605 5.836819 4.413751 4.941078 4.174896 4.588816 5.446980
##          PMCHL1      PP1AL4A      TRDC      TRAT1      IGLV2-14 PTGER4P2-CDK2AP2P2
## GSM875412 3.381434 3.377897 5.070218 4.343180 9.611591      4.676908
## GSM875413 3.395693 3.417314 8.400840 3.664330 8.707929      4.796464
## GSM875414 3.365964 3.702656 5.155646 3.941777 11.170068      4.807859
##          TSPY1      TRAV8-6      ZPR1P1      PRDM1      BTNL3 LOC100287387      OR1E3
## GSM875412 4.307132 4.294149 3.580665 6.182575 7.136627      3.392426 5.083126
## GSM875413 4.298289 4.020809 3.777174 5.224927 6.636625      3.382181 4.953137
## GSM875414 4.891253 4.458534 4.385013 6.744963 8.248142      3.085340 5.192247
##          MAST1      IGLV@      ADAM3B IGHV3-47 COX7A2P2      RPL15 PRAMEF10
## GSM875412 5.274580 8.905115 3.407087 4.424265 9.685828 8.177163 4.572929
## GSM875413 5.153780 8.030968 3.601277 4.217692 9.161365 7.572816 4.702974

```

```

## GSM875414 5.159662 9.737473 3.725485 5.306689 9.458603 8.043625 4.801448
## SERHL2 NDRG3 OR2F2 OR1F2P CDC37P1 OR7A10 IGHV3-72
## GSM875412 5.224773 8.855874 3.180500 4.831035 4.731666 3.514717 3.548657
## GSM875413 5.301551 9.330792 3.265199 4.809654 5.094335 3.643378 3.575502
## GSM875414 5.224305 7.948941 3.437291 4.573504 5.592582 3.487400 5.397147
## HLA-DRB6 KRT3 IL23A CTAGE11P OR2J3 KRT19P2 PRICKLE3
## GSM875412 3.988719 4.135370 4.743651 4.008400 3.698694 4.047609 5.108805
## GSM875413 3.829727 4.482948 4.716908 3.876138 3.732995 3.829127 5.013348
## GSM875414 4.102330 4.956602 5.252957 4.433511 3.755415 3.812896 5.312869
## PRAMEF11 TRGV5 IGKV10R2-108 ADD3-AS1 UBE2NL TRAV13-1 MT4
## GSM875412 4.722411 4.785651 10.292831 3.853712 9.076653 4.079650 4.903026
## GSM875413 5.000864 4.239972 8.944875 4.803625 9.463097 3.957827 5.174182
## GSM875414 6.045543 4.671366 10.685278 3.658296 9.269334 4.268108 5.163189
## TRAV10 ZNF227 TRAV9-2 HBA2 PIWIL2 HLA-J IGFBP-AS1
## GSM875412 4.272029 5.797080 4.036014 7.843880 4.309348 10.775927 3.864650
## GSM875413 4.205708 5.529586 3.882557 10.118354 4.704749 9.327643 4.098745
## GSM875414 4.361618 5.950821 4.419251 8.297387 5.221288 9.491562 4.084420
## CADM3-AS1 DYNC1LI2-DT LOC729815 CYP2D6 LINC01482 HLA-DMA SHISA6
## GSM875412 4.136139 3.286429 5.241050 4.659049 4.268433 9.159576 3.225767
## GSM875413 4.255429 3.226172 5.387240 5.332570 4.408929 8.644100 3.233268
## GSM875414 4.822569 3.244201 5.048501 4.890804 4.492274 8.919014 3.649077
## FOLH1 PTENP1 OR7E37P IFIT2 ABCA6 CRX MILR1
## GSM875412 3.866605 3.882307 7.400296 5.992957 3.963108 4.137133 5.148949
## GSM875413 3.879824 3.751904 7.035972 5.755389 3.697365 4.473713 5.032753
## GSM875414 3.780750 3.742629 9.073593 5.356980 3.644708 4.324617 5.150410
## CACNA1S LOC283683 KCNV2 OLFML1 PWWP2A CYRIB NXPE3
## GSM875412 4.923505 4.423764 3.446894 6.383444 3.533010 5.804486 3.985885
## GSM875413 5.183232 4.990176 3.303049 4.716375 3.364165 5.333127 4.358531
## GSM875414 5.239808 6.489759 3.587939 5.617456 3.413152 4.967763 3.835445
## ZNF816 MYH14 MT1M ZNF675 ARPIN OR7E14P STEAP1B
## GSM875412 4.785651 6.058826 5.100011 4.006373 5.493443 5.929202 5.088289
## GSM875413 4.414274 5.780168 6.709544 3.111087 5.496840 3.321216 4.841867
## GSM875414 4.765816 5.476003 4.419316 3.455546 4.906169 8.957814 5.922105
## RPL10L BRINP3 RAB40A ZSWIM1 ZSCAN18 CINP SCUBE3
## GSM875412 4.139406 3.263191 4.183538 4.100210 5.984902 3.581200 3.964329
## GSM875413 4.580472 3.135916 4.511738 4.143111 6.474990 4.591944 4.213400
## GSM875414 4.923627 3.135455 4.707696 3.881012 5.320851 3.998184 4.270058
## USP27X SPDYE2 TIMM50 ZNF573 ANGEL2 GTPBP4 SKA1
## GSM875412 4.316810 7.321302 5.366724 4.240797 3.609505 5.945109 3.919869
## GSM875413 4.327378 7.216247 5.567415 5.610174 3.524114 5.870906 3.698623
## GSM875414 4.878031 6.616406 5.624051 4.508922 3.613390 6.009451 4.102816
## FXYD5 SIX5 ZNF234 ZNF813 SEC14L1P1 LRRC75B ZBTB7C
## GSM875412 4.820536 4.736705 3.442227 4.193491 3.555390 4.030986 4.095332
## GSM875413 4.740907 4.851061 3.625695 4.171639 3.785583 4.351471 3.886636
## GSM875414 4.460384 4.470937 3.257277 4.073686 3.810630 4.429849 4.274791
## PLEKHA2 WNT7B MAGOH2P CNPY4 SEC61A1 EIF3L CHCHD2
## GSM875412 4.007375 4.423612 3.743049 5.416472 9.662462 12.14370 11.65907
## GSM875413 3.832968 4.780647 3.726664 5.715225 9.731020 11.67080 12.32517
## GSM875414 3.700530 4.963912 3.495737 4.942464 9.417936 11.36197 11.83813
## NGRN COPZ1 S100A6 TLE5 TMBIM1 ITM2B TMSB10
## GSM875412 9.635977 9.328695 12.84645 8.159746 10.708771 11.97705 13.42849
## GSM875413 10.792091 9.900917 10.24536 9.876562 9.445341 11.97602 12.19483
## GSM875414 9.905514 9.636215 13.32056 8.380270 10.547436 11.40918 13.19183
## WDR6 EIF2AK1 RTF2 RPL7A WAC NAA50 PDCD6IP

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|    |           |          |           |           |           |           |           |           |
|----|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875412 | 8.306690 | 6.862943  | 8.876484  | 13.42918  | 8.973813  | 10.209313 | 10.908535 |
| ## | GSM875413 | 9.472432 | 6.443011  | 9.495966  | 13.00477  | 9.349436  | 9.152198  | 8.755123  |
| ## | GSM875414 | 8.442212 | 5.844664  | 8.299588  | 12.86379  | 9.179403  | 9.927501  | 10.020096 |
| ## | ADIPOR1   | COPG1    | UBE2Z     | GSTK1     | RPS26     | DDX56     | JPT1      |           |
| ## | GSM875412 | 8.564859 | 8.990459  | 8.973584  | 10.425123 | 11.74054  | 7.827576  | 9.794676  |
| ## | GSM875413 | 8.277395 | 8.336656  | 9.664159  | 9.647499  | 12.54174  | 8.263848  | 7.028936  |
| ## | GSM875414 | 9.406919 | 9.304881  | 9.680502  | 8.908121  | 12.52950  | 7.608819  | 10.449838 |
| ## | SERF2     | TM9SF3   | ADI1      | RAB31     | NRBP1     | TMEM50A   | C3        |           |
| ## | GSM875412 | 11.19552 | 10.340183 | 9.691707  | 9.123270  | 7.688690  | 9.733494  | 10.480856 |
| ## | GSM875413 | 11.28383 | 9.299112  | 9.065161  | 11.621230 | 8.567950  | 8.873932  | 10.596447 |
| ## | GSM875414 | 11.03080 | 10.811859 | 11.309540 | 8.365483  | 7.611687  | 9.488500  | 9.322004  |
| ## | RTRAF     | POMP     | MTCH2     | NDUFA4    | TRMT112   | HACD3     | SLC39A1   |           |
| ## | GSM875412 | 10.58631 | 11.93498  | 10.581196 | 11.50037  | 10.61986  | 8.509116  | 7.592780  |
| ## | GSM875413 | 10.70417 | 11.35975  | 8.681199  | 11.96015  | 11.61183  | 7.218119  | 7.432370  |
| ## | GSM875414 | 10.37305 | 11.61962  | 9.977390  | 11.44067  | 10.47885  | 8.077730  | 7.686305  |
| ## | PNRC2     | WDR830S  | ZNF106    | GPS1      | YPEL5     | YKT6      | GALNT2    |           |
| ## | GSM875412 | 10.52036 | 8.866438  | 7.917094  | 7.488195  | 9.531842  | 7.836554  | 7.472773  |
| ## | GSM875413 | 10.52143 | 9.667572  | 8.802357  | 7.928251  | 10.696514 | 8.617618  | 6.330278  |
| ## | GSM875414 | 10.56014 | 9.003056  | 6.618012  | 8.511519  | 9.057530  | 7.226823  | 6.840035  |
| ## | SSR3      | ALDH18A1 | SNX5      | RAB11B    | PRR13     | TMEM43    | NPLOC4    |           |
| ## | GSM875412 | 6.970287 | 9.802220  | 8.536002  | 5.855193  | 10.04469  | 8.824185  | 9.466248  |
| ## | GSM875413 | 5.935593 | 8.555792  | 9.007246  | 6.494722  | 10.39173  | 8.892402  | 8.687637  |
| ## | GSM875414 | 8.346360 | 9.114400  | 8.998851  | 6.465897  | 10.51677  | 7.955413  | 8.056070  |
| ## | UFC1      | CNOT2    | UBE2H     | NDFIP1    | ATP5F1E   | NUCKS1    | GOLPH3    |           |
| ## | GSM875412 | 10.31708 | 8.504529  | 9.272783  | 9.205154  | 12.82967  | 10.07762  | 11.07761  |
| ## | GSM875413 | 10.58334 | 9.212724  | 8.161304  | 10.556126 | 12.56222  | 10.45120  | 10.15503  |
| ## | GSM875414 | 10.27687 | 8.647921  | 8.986938  | 8.887318  | 12.16097  | 10.08666  | 10.59127  |
| ## | POLDIP2   | NOP53    | MAPKAP1   | BZW2      | LARS1     | SELENOT   | YTHDF2    |           |
| ## | GSM875412 | 8.961449 | 11.58137  | 7.920294  | 10.564509 | 8.144653  | 10.111550 | 9.221648  |
| ## | GSM875413 | 8.242716 | 11.94591  | 7.399889  | 9.953661  | 9.239301  | 9.696057  | 8.356973  |
| ## | GSM875414 | 8.381565 | 12.17844  | 7.286212  | 10.927268 | 7.599843  | 10.620269 | 9.023380  |
| ## | SPIN1     | CCDC47   | SUPT16H   | ARPC4     | WBP11     | UBE2J1    | SLTM      |           |
| ## | GSM875412 | 8.542629 | 8.853355  | 8.785565  | 8.840638  | 7.469768  | 8.464614  | 8.766540  |
| ## | GSM875413 | 6.897239 | 9.032180  | 8.769026  | 9.383368  | 8.651058  | 8.171187  | 9.115180  |
| ## | GSM875414 | 6.610594 | 9.017718  | 9.089241  | 9.115066  | 8.088600  | 8.313933  | 8.845664  |
| ## | USP39     | NSFL1C   | YY1AP1    | EVL       | TFG       | DDX41     | PPME1     |           |
| ## | GSM875412 | 7.993251 | 6.749989  | 9.279561  | 6.997161  | 10.826978 | 8.268821  | 8.174199  |
| ## | GSM875413 | 7.749104 | 9.360445  | 9.345912  | 8.031295  | 9.879581  | 9.236340  | 8.526898  |
| ## | GSM875414 | 7.120250 | 6.315076  | 8.778435  | 7.374233  | 10.515476 | 8.861054  | 8.322815  |
| ## | MED4      | CTDSP1   | HIGD1A    | QARS1     | THRAP3    | PPA1      | GNL3      |           |
| ## | GSM875412 | 8.087111 | 8.492102  | 11.64925  | 11.047279 | 6.426823  | 11.70580  | 10.354757 |
| ## | GSM875413 | 7.217628 | 9.516332  | 11.13396  | 9.925316  | 6.049345  | 10.11538  | 8.467432  |
| ## | GSM875414 | 7.889973 | 8.571352  | 10.88080  | 10.343578 | 6.556848  | 11.47297  | 9.735994  |
| ## | PRELID3B  | ARL8B    | TNS3      | SDF4      | ARMCX3    | PREB      | PIAS1     |           |
| ## | GSM875412 | 9.766755 | 10.29522  | 9.638207  | 8.724158  | 7.143837  | 7.973626  | 7.977722  |
| ## | GSM875413 | 7.532113 | 10.34412  | 10.369633 | 8.596137  | 9.327737  | 7.830452  | 7.947732  |
| ## | GSM875414 | 8.228739 | 9.77060   | 9.318808  | 9.024410  | 8.239696  | 8.436283  | 6.341317  |
| ## | CPSF7     | BACE2    | METTL9    | MIF       | PIH1D1    | CAB39     | SUCLG1    |           |
| ## | GSM875412 | 7.652052 | 9.089620  | 10.20569  | 11.45588  | 8.588784  | 10.140410 | 10.111197 |
| ## | GSM875413 | 8.426538 | 6.811871  | 10.22624  | 11.87277  | 7.269853  | 9.723461  | 10.280187 |
| ## | GSM875414 | 7.672290 | 10.538103 | 10.48338  | 11.64820  | 9.024534  | 9.319831  | 9.892989  |
| ## | PMEPA1    | GTF3C5   | CDC27     | MMADHC    | NAT10     | EPS15     | ARFGAP1   |           |
| ## | GSM875412 | 6.393661 | 5.614162  | 6.990080  | 11.26624  | 8.447502  | 7.471990  | 7.291729  |
| ## | GSM875413 | 7.634409 | 5.501949  | 5.600949  | 10.61439  | 7.883475  | 7.130224  | 8.435553  |

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## GSM875414 6.311602 5.481834 7.167024 11.63682 8.210075 7.435675 8.144989
##          CYBRD1      RUSF1      LIMA1      KCTD3      PTC3 PSME3IP1      FXYD6
## GSM875412 7.197522 6.967985 10.116945 8.651900 9.016202 6.999739 6.770954
## GSM875413 6.583390 8.203973 8.688503 7.775305 8.007993 7.344638 11.804839
## GSM875414 6.216796 6.949748 10.235520 8.534661 8.063060 6.962850 7.283219
##          EMC7      TMEM214      IARS2      HERC2      STRN4      BACE1      MCMBP
## GSM875412 9.050507 8.509658 9.894565 7.595805 6.011460 6.291671 5.904549
## GSM875413 9.444791 8.804148 9.131342 7.731743 6.500325 8.212340 5.463595
## GSM875414 9.712958 9.063991 9.865752 7.267283 6.464134 5.274186 5.447229
##          KLHDC2      MRPL18      DCAF6      BAG3      DUS1L      VPS4A      RSL24D1
## GSM875412 9.311532 9.676658 8.658086 8.776486 8.436973 7.763781 9.461551
## GSM875413 9.086791 9.071518 8.537119 9.145896 8.311993 8.669120 9.412405
## GSM875414 9.366964 9.015461 8.480397 8.050774 9.203506 8.602846 9.268688
##          MRPL42      PEF1      C19orf53      SPCS1      PPP6R3      KIAA0319L      TOLLIP
## GSM875412 9.204236 7.951162 9.215751 11.19902 8.051281 7.292662 6.344477
## GSM875413 9.304818 9.255414 10.237469 10.99141 8.186597 7.377845 7.325518
## GSM875414 9.312037 9.014453 9.448945 11.73320 7.721339 8.437129 7.658286
##          MRPS7      LAP3      STUB1      UQC1      HDAC7      KCMF1      AFTPH
## GSM875412 8.306696 9.929485 9.155241 8.330694 6.949792 10.474535 8.983408
## GSM875413 8.486767 9.449395 9.533785 9.054039 7.717666 9.338991 8.304776
## GSM875414 7.987452 9.510854 9.111362 7.998337 6.195674 9.519583 9.266691
##          NAXD      ERBIN      MRPS35      MAP7D1      POMGNT1      BTBD1      RTL8A
## GSM875412 9.244917 9.479047 9.753147 7.488128 7.347174 9.405393 6.469325
## GSM875413 9.428557 9.499762 9.239769 8.257621 6.617823 9.458181 8.030439
## GSM875414 9.391457 9.196413 9.456672 7.685482 6.207289 9.202850 7.807124
##          VKORC1      NOSIP      ENOPH1      CFAP20      TRAPPC4      TOMM22      SLC25A38
## GSM875412 8.676492 8.057537 9.275834 9.021237 8.818417 8.471282 7.234375
## GSM875413 9.997818 8.306374 8.525802 8.599376 9.335659 8.089878 7.656082
## GSM875414 9.118988 8.724652 9.020302 9.419527 8.953294 7.857005 7.567177
##          NOP10      BEX3      TTC19      SAP30BP      NIBAN1      EIPR1      VPS51
## GSM875412 10.555293 9.911637 9.411399 7.128075 7.795847 8.037878 8.643158
## GSM875413 9.984629 12.842220 8.452107 7.629831 7.927392 6.739823 9.195167
## GSM875414 11.334437 10.379644 8.332782 7.253061 6.415679 7.787225 8.752447
##          CNOT6      LAMTOR3      CHCHD3      DCXR      TM7SF3      TCEAL9      DYNC1LI1
## GSM875412 8.015842 9.000744 8.796172 7.676442 5.299689 9.710074 7.507857
## GSM875413 7.910915 8.829075 8.778362 8.180687 6.220296 10.980571 7.543516
## GSM875414 7.926455 10.287246 6.510078 9.671057 4.678690 10.257086 7.232784
##          MSRB1      UBE2Q1      TSPAN13      MRPL16      TIMM10B      MORF4L1      BAZ1A
## GSM875412 8.367884 9.500688 11.160793 8.894020 7.742935 11.95469 8.834248
## GSM875413 7.744605 9.364972 7.787083 8.596242 7.886644 12.61849 6.131790
## GSM875414 8.955897 9.666609 12.580241 8.425204 8.462513 11.83037 8.076990
##          ASNSD1      CCNB1IP1      HSD17B11      GMPR2      SSBP3      EFHD2      MAT2B
## GSM875412 8.456650 8.322617 9.430617 7.713326 5.792317 8.863405 10.51914
## GSM875413 8.949055 8.127806 8.388099 8.503652 6.032509 7.771532 11.39232
## GSM875414 8.986302 8.688512 9.906424 8.171554 7.088866 8.519569 10.39737
##          INTS11      SQOR      PHLDA1      MRPS2      CXCL14      FKBP3      ZNF22
## GSM875412 7.942552 9.852166 8.090035 6.995099 9.203964 9.039789 7.635263
## GSM875413 7.559838 10.191115 9.562687 7.117258 4.789557 9.073310 7.669180
## GSM875414 8.095237 10.349568 9.463750 6.772290 9.674214 9.110816 8.474481
##          RPS27L      TMEM248      PRC1      PPDPF      UBL5      TSPYL2      DCTN4
## GSM875412 11.00539 10.292916 8.720048 6.842925 9.784342 6.964887 7.389423
## GSM875413 11.95062 9.219227 6.754237 7.921171 10.425723 9.836315 8.282609
## GSM875414 11.64953 9.433821 7.312732 8.100195 9.975293 6.797328 7.072488
##          NUP85      WRNIP1      POLR3E      ZFAND3      FAM53C      MPC1      ECI2

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```

## GSM875412 8.109359 3.969692 8.649345 7.952711 7.086996 9.470139 9.034165
## GSM875413 7.662667 4.011259 7.901485 8.716539 8.748761 9.085973 9.336788
## GSM875414 7.702886 4.196168 8.973814 7.897325 7.265804 8.739863 8.939120
##          COA3   MRPL15   ELOVL1   RIPOR1   GIT1   SNN   FIS1
## GSM875412 10.279033 9.549871 8.626773 6.560269 7.523844 7.375517 9.370687
## GSM875413 9.444297 9.495812 7.828617 7.785473 7.018108 8.303534 10.950518
## GSM875414 10.362809 8.812769 8.499845 7.014593 6.780961 6.628519 9.117810
##          RBM47   NMD3   RETREG2   NUSAP1   PRPF38B   SLC38A2   COPS4
## GSM875412 10.283020 8.636917 7.890529 8.481439 7.273503 10.67501 8.783896
## GSM875413 6.469897 7.876836 8.468822 5.350453 6.934033 11.07410 9.490673
## GSM875414 10.772472 7.707146 7.491779 7.098171 7.537717 10.74123 8.581116
##          AZI2   PTMS   MRPS16   OSBPL9   COMMD3   MRPL13   UFM1
## GSM875412 6.617116 4.982110 8.025242 9.672204 9.903310 8.670782 9.782783
## GSM875413 7.043806 5.398126 7.999019 8.792472 9.307637 9.082977 9.113979
## GSM875414 6.224514 5.460964 9.313865 9.182412 9.320266 9.272843 9.920670
##          ATP13A1   WDR41   BFAR   EMC8   CXXC1   ZNF706   MEA1
## GSM875412 7.846907 6.947289 8.821180 9.050875 6.920859 10.58731 9.052729
## GSM875413 8.508468 7.036969 7.874220 8.212172 8.314966 10.17115 9.816658
## GSM875414 9.076173 5.860588 8.823292 9.673913 7.456455 10.54244 9.640807
##          TMEM9B   SLC12A7   ARGLU1   ZNF672   DCTPP1   GMPPA   COMMD9
## GSM875412 9.318623 9.316074 10.558067 6.864051 9.467378 7.168585 7.565813
## GSM875413 7.723521 9.304782 9.998271 7.169767 7.591367 6.355337 7.451741
## GSM875414 9.242976 8.498361 9.895921 6.853917 9.303473 7.445547 8.313479
##          NDC1   CIAO2B   AAAS   ARHGAP17   ZDHHC3   FAF1   C20orf27
## GSM875412 7.851304 9.749281 6.497917 8.286771 6.993664 8.478102 6.124880
## GSM875413 4.787417 9.378529 7.669119 8.124041 5.606087 8.791430 6.921975
## GSM875414 6.725890 10.140812 7.408632 9.137204 6.430939 7.950039 6.670987
##          UBP1   PTGES2   CHMP5   NPDC1   RRAGC   AAR2   WDR11
## GSM875412 8.265023 8.024786 9.485755 8.666206 9.180828 7.469786 8.004300
## GSM875413 8.713917 8.013551 9.022042 8.164718 9.054198 8.614779 7.734008
## GSM875414 8.155249 7.333575 8.958838 8.041295 8.624646 7.740075 7.905946
##          ANKRD10   TMEM165   AGPAT5   CUEDC2   TEX2   IFT57   NDUFC2
## GSM875412 9.864461 9.717319 11.148214 7.969348 6.653473 8.394801 11.11283
## GSM875413 8.283286 8.675728 8.925571 9.163585 8.461044 9.361041 10.71769
## GSM875414 9.067925 9.051238 7.105632 8.438954 7.161874 8.072223 11.57701
##          DERA   FTSJ3   MRPL4   MRPS10   WDR26   UBR7   MFSD1
## GSM875412 8.971043 7.588238 7.620163 8.652233 9.655152 6.839808 10.149493
## GSM875413 7.602401 8.047660 7.376047 8.633454 9.009458 7.294785 9.874378
## GSM875414 7.703128 8.030391 6.950971 8.449602 9.571722 7.511155 10.434893
##          XAB2   CMAS   MRPS34   CEMIP2   ASF1B   C9orf78   RBX1
## GSM875412 4.944877 7.795902 8.185983 9.180870 6.503627 7.290712 9.705484
## GSM875413 5.256795 8.324618 7.998348 10.116876 6.117313 7.557867 9.509580
## GSM875414 5.938310 5.837293 8.503374 8.316824 7.016863 7.201332 9.477296
##          TIMM23   HMOX2   SENP2   CFAP298   CCDC25   RMDN3   NFYB
## GSM875412 8.701820 8.245166 7.306461 8.723802 6.265934 7.688011 7.285059
## GSM875413 8.335958 7.321338 6.926814 8.389800 8.471411 7.694370 8.698127
## GSM875414 9.144766 8.866829 7.193013 8.456236 5.740812 7.409696 7.374638
##          CYBC1   GATAD2A   TSEN34   NIF3L1   RBM22   ERGIC2   SLC25A37
## GSM875412 6.820113 8.321340 8.207565 8.094175 8.576568 7.746194 6.990871
## GSM875413 6.959367 7.752149 8.539788 7.802288 9.174696 8.825196 7.582653
## GSM875414 7.477576 8.712873 8.677714 8.467298 7.882308 7.635809 6.194735
##          SMAP1   MKKS   SRPRB   CRBN   SCAMP2   INF2   GLT8D1
## GSM875412 9.675862 7.632772 8.862329 8.485061 8.372198 6.816829 9.234517
## GSM875413 8.992856 8.866896 9.421335 8.658817 8.368446 6.770549 9.335127

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|    |           |           |          |           |           |           |           |          |
|----|-----------|-----------|----------|-----------|-----------|-----------|-----------|----------|
| ## | GSM875414 | 9.900436  | 6.884476 | 9.678774  | 7.730345  | 8.922596  | 7.029619  | 9.602997 |
| ## |           | CENPT     | ZNF395   | ARL5A     | SLC52A2   | HMG20A    | CARS2     | GSDMD    |
| ## | GSM875412 | 5.573193  | 7.297732 | 9.095875  | 8.245692  | 7.746807  | 8.083846  | 6.985224 |
| ## | GSM875413 | 6.172915  | 8.148287 | 8.747027  | 7.849665  | 8.521935  | 7.380611  | 7.182582 |
| ## | GSM875414 | 5.876484  | 6.552918 | 9.270289  | 8.238725  | 7.272833  | 7.689529  | 6.705239 |
| ## |           | TSR1      | CDC42SE1 | APPL1     | DDRKG1    | NDUFA8    | OLFML3    | SPATA20  |
| ## | GSM875412 | 7.645069  | 8.518404 | 7.478318  | 7.867956  | 9.772402  | 6.760767  | 7.335663 |
| ## | GSM875413 | 7.615683  | 8.717633 | 7.264007  | 9.185993  | 9.744179  | 11.095020 | 8.421151 |
| ## | GSM875414 | 7.651533  | 8.155603 | 7.229147  | 8.215080  | 8.911386  | 5.960563  | 8.552126 |
| ## |           | MEAF6     | RSF1     | AMZ2      | COQ8A     | ISOC1     | VPS4B     | DERL1    |
| ## | GSM875412 | 8.693449  | 6.331674 | 8.386481  | 8.232760  | 8.764188  | 9.210568  | 8.573536 |
| ## | GSM875413 | 9.209084  | 5.002291 | 9.405429  | 7.467656  | 9.257103  | 9.342305  | 9.010107 |
| ## | GSM875414 | 8.600671  | 5.049429 | 9.326492  | 8.864450  | 7.940034  | 8.966380  | 8.158283 |
| ## |           | NSD3      | TMEM254  | CCDC92    | MAGEF1    | CHMP1B    | TRAPPC11  | EPS8L2   |
| ## | GSM875412 | 4.091055  | 5.716940 | 7.252515  | 6.194613  | 7.916417  | 6.338529  | 8.443969 |
| ## | GSM875413 | 4.796108  | 6.283349 | 9.860374  | 6.104179  | 7.866709  | 6.949130  | 5.114890 |
| ## | GSM875414 | 4.320761  | 4.512191 | 7.160861  | 6.669522  | 7.320941  | 6.483900  | 8.380623 |
| ## |           | CLDN1     | CDIP1    | TULP4     | ARMC1     | RAB25     | C8orf33   | TIMM13   |
| ## | GSM875412 | 7.854706  | 6.340830 | 7.506545  | 8.455457  | 10.069614 | 7.859551  | 8.928781 |
| ## | GSM875413 | 5.111183  | 8.516248 | 7.513771  | 9.503510  | 4.890769  | 9.042580  | 7.972190 |
| ## | GSM875414 | 5.904269  | 6.758395 | 5.866680  | 8.099084  | 8.684998  | 7.892963  | 9.182405 |
| ## |           | NANS      | UQCR10   | LMBRD1    | IP6K2     | GOLT1B    | REXO2     | ARMT1    |
| ## | GSM875412 | 9.449606  | 11.08829 | 10.034165 | 7.541414  | 8.408660  | 10.102817 | 8.636501 |
| ## | GSM875413 | 8.162842  | 11.02396 | 10.384125 | 7.612145  | 9.142665  | 10.108982 | 6.958814 |
| ## | GSM875414 | 10.241001 | 10.91828 | 9.578008  | 7.007761  | 8.500329  | 9.254712  | 6.846805 |
| ## |           | OSTM1     | OXR1     | DHX32     | NOL6      | NDUFB2    | MRPL44    | MKNK2    |
| ## | GSM875412 | 7.229878  | 7.242093 | 8.705358  | 6.962684  | 11.15979  | 5.087861  | 9.971825 |
| ## | GSM875413 | 8.232160  | 7.966406 | 8.018119  | 7.007326  | 12.28871  | 4.814676  | 9.756042 |
| ## | GSM875414 | 6.082657  | 7.179079 | 8.462588  | 6.632095  | 10.46015  | 5.016361  | 9.908195 |
| ## |           | SCAND1    | STMN3    | SLC66A2   | FN3KRP    | MLPH      | MOCS2     | TMEM258  |
| ## | GSM875412 | 8.343983  | 3.863211 | 6.866811  | 9.367324  | 10.038686 | 7.187171  | 10.66708 |
| ## | GSM875413 | 9.812884  | 5.773497 | 8.600710  | 9.073312  | 5.162115  | 9.882922  | 10.50725 |
| ## | GSM875414 | 8.872119  | 4.064700 | 6.731305  | 9.265482  | 11.011869 | 6.788255  | 10.35854 |
| ## |           | ATG101    | NR1H2    | ARL6IP4   | APPL2     | LANCL2    | MYG1      | PLEKH01  |
| ## | GSM875412 | 7.684944  | 6.566287 | 8.392318  | 8.440039  | 7.114764  | 6.467808  | 6.999034 |
| ## | GSM875413 | 9.142113  | 7.613120 | 10.325611 | 7.078467  | 8.250964  | 8.214918  | 7.630603 |
| ## | GSM875414 | 8.701277  | 6.912709 | 8.505355  | 8.169447  | 7.318925  | 6.669522  | 7.397570 |
| ## |           | PNMA1     | ECSIT    | NDUFB4    | NUBP2     | TNKS2     | POGK      | NACK     |
| ## | GSM875412 | 8.224914  | 6.574911 | 11.60947  | 7.544075  | 8.549480  | 8.112574  | 8.886726 |
| ## | GSM875413 | 10.261344 | 6.989953 | 11.71052  | 7.645438  | 8.409143  | 7.687308  | 9.620643 |
| ## | GSM875414 | 7.833955  | 6.898403 | 11.27957  | 7.598738  | 8.412229  | 7.991603  | 9.343782 |
| ## |           | C1QA      | ING4     | UTP11     | SLC38A1   | NKIRAS2   | GOLGA5    | KMT5B    |
| ## | GSM875412 | 8.963840  | 7.007273 | 8.603323  | 8.539851  | 6.764617  | 8.881024  | 9.063324 |
| ## | GSM875413 | 8.999841  | 7.929271 | 7.635612  | 10.509359 | 7.676840  | 8.147640  | 8.361784 |
| ## | GSM875414 | 9.248173  | 6.247667 | 8.835668  | 7.904483  | 7.858605  | 9.868305  | 9.088303 |
| ## |           | RUFY1     | NOL8     | TSKU      | MUL1      | FAM111A   | ZDHHC6    | MID1IP1  |
| ## | GSM875412 | 7.961200  | 8.359397 | 7.692637  | 7.633801  | 9.072267  | 9.178122  | 5.613123 |
| ## | GSM875413 | 8.733192  | 7.617704 | 7.088189  | 7.651538  | 7.384087  | 8.336768  | 7.493470 |
| ## | GSM875414 | 8.011215  | 7.381691 | 6.565887  | 7.581495  | 7.863678  | 8.785376  | 7.300665 |
| ## |           | EIF2D     | FBRS     | UGGT1     | POLR1D    | DDA1      | AP1M2     | ZBED5    |
| ## | GSM875412 | 8.453041  | 6.463954 | 7.071287  | 10.195720 | 7.390528  | 8.073205  | 8.612966 |
| ## | GSM875413 | 8.482444  | 6.749253 | 6.502863  | 8.091494  | 6.724956  | 5.267008  | 8.926368 |
| ## | GSM875414 | 8.606102  | 6.452215 | 6.747700  | 10.897610 | 7.521574  | 7.315161  | 8.902321 |
| ## |           | BCCIP     | SECISBP2 | NCS1      | TBC1D15   | DROSHA    | MRPL24    | PARL     |

|    |           |          |           |           |          |           |           |           |
|----|-----------|----------|-----------|-----------|----------|-----------|-----------|-----------|
| ## | GSM875412 | 6.585262 | 7.594161  | 4.859426  | 8.537666 | 9.909470  | 8.340597  | 9.137747  |
| ## | GSM875413 | 7.443214 | 7.489286  | 5.573896  | 8.466291 | 9.399675  | 8.580429  | 9.606826  |
| ## | GSM875414 | 6.391517 | 5.849161  | 4.843548  | 9.022970 | 8.410102  | 7.820266  | 8.965458  |
| ## |           | PDP1     | ANKZF1    | SLC25A10  | SAV1     | DHX40     | WDR74     | H2AC18    |
| ## | GSM875412 | 8.177191 | 7.991573  | 5.915260  | 7.476526 | 8.509555  | 7.089550  | 4.302476  |
| ## | GSM875413 | 6.787444 | 7.266261  | 5.363186  | 7.932561 | 8.299954  | 7.280955  | 4.451066  |
| ## | GSM875414 | 7.718332 | 7.185724  | 5.809438  | 5.942543 | 9.621362  | 7.589565  | 5.207190  |
| ## |           | MRPL48   | EDEM2     | SS18L2    | BDH2     | RNF7      | UBA5      | PLEKHJ1   |
| ## | GSM875412 | 8.636879 | 7.074828  | 8.910992  | 8.732668 | 8.303849  | 8.163457  | 8.115893  |
| ## | GSM875413 | 8.117624 | 7.053355  | 7.453953  | 9.648499 | 8.285827  | 7.966406  | 7.966116  |
| ## | GSM875414 | 8.393649 | 7.447648  | 8.978510  | 7.845253 | 8.709505  | 8.457419  | 7.614258  |
| ## |           | LAMTOR2  | C11orf24  | PAGR1     | RNPEPL1  | PSENEN    | KRCC1     | OSBPL11   |
| ## | GSM875412 | 8.713726 | 7.252597  | 7.428998  | 6.687484 | 8.199875  | 8.739284  | 7.352251  |
| ## | GSM875413 | 8.575883 | 7.301839  | 8.794604  | 6.352211 | 7.149604  | 9.097907  | 7.047412  |
| ## | GSM875414 | 8.052534 | 8.496399  | 7.983549  | 6.423438 | 8.944054  | 8.369049  | 6.349498  |
| ## |           | IPO4     | HERC1     | RSAD1     | CAMK2N1  | RABGEF1   | MAP4K3    | GALNT7    |
| ## | GSM875412 | 6.335195 | 7.857799  | 7.700046  | 10.52435 | 8.233730  | 8.126216  | 9.694713  |
| ## | GSM875413 | 6.334234 | 8.749199  | 7.966081  | 10.31298 | 9.062695  | 6.962494  | 8.857729  |
| ## | GSM875414 | 7.645405 | 7.268898  | 6.735586  | 11.01181 | 7.619285  | 5.380410  | 11.451987 |
| ## |           | CDK5RAP1 | TIMM9     | NLK       | PELI1    | NDUFB11   | STYXL1    | ACSL5     |
| ## | GSM875412 | 7.763725 | 7.456197  | 6.689114  | 9.851208 | 9.563056  | 7.881536  | 8.521838  |
| ## | GSM875413 | 8.492408 | 6.402795  | 5.455802  | 8.216402 | 10.688745 | 8.594311  | 5.488014  |
| ## | GSM875414 | 8.258760 | 6.910649  | 5.828727  | 9.497601 | 10.086426 | 7.391716  | 4.789633  |
| ## |           | RHOT1    | LGR4      | SNAP29    | COQ4     | PRDM4     | BEX1      | DERL2     |
| ## | GSM875412 | 7.858368 | 8.413318  | 7.474078  | 7.188101 | 7.849789  | 4.832310  | 8.861994  |
| ## | GSM875413 | 8.527287 | 4.596771  | 7.476533  | 7.529498 | 8.513362  | 10.448651 | 8.655309  |
| ## | GSM875414 | 6.889136 | 9.151446  | 8.997801  | 7.362585 | 7.717393  | 9.968875  | 8.371701  |
| ## |           | THOC7    | TNIP2     | PFDN2     | FHIP2B   | PHC1      | MRPL22    | PPCS      |
| ## | GSM875412 | 9.987255 | 7.761997  | 9.130323  | 7.398816 | 6.198055  | 8.074999  | 8.947422  |
| ## | GSM875413 | 9.250304 | 7.877081  | 8.836288  | 8.498743 | 8.344214  | 9.048230  | 8.251847  |
| ## | GSM875414 | 8.363401 | 7.891199  | 9.364720  | 7.152427 | 6.133916  | 8.075332  | 8.134311  |
| ## |           | ERMP1    | RCOR3     | TMEM176A  | SESN1    | TYW1      | ZC3H7A    | ZWILCH    |
| ## | GSM875412 | 8.459823 | 7.707315  | 10.195731 | 7.970073 | 7.756284  | 7.930927  | 7.791152  |
| ## | GSM875413 | 6.009971 | 6.269149  | 7.612022  | 9.822215 | 8.442467  | 8.039050  | 4.418973  |
| ## | GSM875414 | 7.339659 | 7.796591  | 8.981404  | 6.570688 | 7.856833  | 8.452964  | 6.156633  |
| ## |           | GMNN     | COMMD8    | TRAPPC2L  | KIF4A    | MRM2      | TIMM8B    | CRELD2    |
| ## | GSM875412 | 8.117969 | 8.460042  | 9.215067  | 7.198851 | 7.790358  | 10.614120 | 8.748337  |
| ## | GSM875413 | 6.101234 | 7.883475  | 9.381997  | 4.165260 | 8.670976  | 10.195779 | 8.907555  |
| ## | GSM875414 | 9.082378 | 8.273358  | 9.483709  | 6.096457 | 7.476406  | 9.957096  | 9.463875  |
| ## |           | NRSN2    | GOLPH3L   | LRRFIP2   | DARS2    | USP21     | TNFRSF12A | S100PBP   |
| ## | GSM875412 | 6.090409 | 8.874754  | 8.103554  | 6.257924 | 6.923606  | 8.777738  | 7.535698  |
| ## | GSM875413 | 8.251607 | 8.530758  | 7.402493  | 5.476127 | 7.472137  | 7.552748  | 7.352709  |
| ## | GSM875414 | 6.142725 | 9.008885  | 6.945914  | 5.565738 | 7.592831  | 7.879292  | 6.203488  |
| ## |           | PSPC1    | MED9      | AKTIP     | C12orf4  | NUDT9     | MICAL1    | RWDD2B    |
| ## | GSM875412 | 7.985027 | 5.586509  | 7.411957  | 6.438014 | 7.873095  | 7.848012  | 6.978544  |
| ## | GSM875413 | 7.584485 | 6.525709  | 9.199850  | 7.588917 | 8.508734  | 7.007562  | 7.272571  |
| ## | GSM875414 | 7.414972 | 5.870626  | 7.640520  | 5.862884 | 8.627803  | 7.797018  | 6.693179  |
| ## |           | RBM7     | LOC728392 | HAUS4     | MRPS18A  | USP16     | FAM204A   | SNF8      |
| ## | GSM875412 | 9.253630 | 5.777953  | 7.126542  | 7.794008 | 8.308602  | 3.764098  | 8.503519  |
| ## | GSM875413 | 8.286731 | 9.081068  | 8.111391  | 7.215124 | 8.728506  | 3.818143  | 9.253176  |
| ## | GSM875414 | 8.326195 | 6.407215  | 8.428356  | 8.142176 | 7.724323  | 3.685750  | 9.653694  |
| ## |           | SFXN1    | SMU1      | ROGDI     | ACTR6    | VPS13C    | FANCL     | MRPS30    |
| ## | GSM875412 | 7.186146 | 7.070514  | 5.897358  | 7.798927 | 9.099644  | 8.750569  | 11.260041 |
| ## | GSM875413 | 6.793092 | 7.123743  | 7.506520  | 9.126962 | 9.924795  | 8.068261  | 7.613109  |

|    |           |           |          |           |           |          |           |           |
|----|-----------|-----------|----------|-----------|-----------|----------|-----------|-----------|
| ## | GSM875414 | 7.097257  | 7.219361 | 6.012312  | 7.486815  | 8.264613 | 7.708667  | 7.888843  |
| ## |           | CDCA4     | ZNF281   | TRIAP1    | SNX10     | ABT1     | DNAJC1    | MBIP      |
| ## | GSM875412 | 6.802658  | 5.206691 | 8.340784  | 8.265121  | 8.362048 | 8.305137  | 6.287870  |
| ## | GSM875413 | 6.775507  | 4.428880 | 9.456789  | 7.154181  | 7.382800 | 9.096248  | 6.280350  |
| ## | GSM875414 | 7.855661  | 4.803876 | 8.188772  | 7.244759  | 8.656829 | 8.259114  | 6.073389  |
| ## |           | GTF2IRD1  | ZNF639   | NDE1      | VPS33B    | SLC48A1  | TMUB2     | PROSER1   |
| ## | GSM875412 | 8.652233  | 5.154960 | 7.533029  | 6.693636  | 5.766850 | 7.319718  | 7.309037  |
| ## | GSM875413 | 8.453475  | 4.978004 | 7.101150  | 6.617823  | 7.490995 | 7.047749  | 5.877654  |
| ## | GSM875414 | 7.310161  | 5.018789 | 6.989497  | 5.949639  | 6.219472 | 6.601201  | 6.705290  |
| ## |           | CERK      | VPS54    | ENTR1     | REV1      | RFX7     | VIPAS39   | FBX03     |
| ## | GSM875412 | 7.124815  | 7.968732 | 7.097665  | 8.133298  | 4.772612 | 6.649566  | 7.846305  |
| ## | GSM875413 | 7.658892  | 7.638037 | 6.977074  | 7.794233  | 3.815888 | 7.115717  | 8.028537  |
| ## | GSM875414 | 6.394491  | 6.781486 | 6.601840  | 7.540913  | 4.066311 | 5.864019  | 8.183979  |
| ## |           | PANK3     | AACS     | DNAJC15   | SIL1      | LZTFL1   | MED28     | COMMD10   |
| ## | GSM875412 | 5.985760  | 7.250949 | 10.970704 | 7.456398  | 7.937063 | 7.829751  | 7.947875  |
| ## | GSM875413 | 5.473182  | 7.295922 | 9.547846  | 8.680872  | 8.000339 | 7.168547  | 9.313133  |
| ## | GSM875414 | 5.948498  | 7.357290 | 9.708257  | 7.623170  | 5.924800 | 7.702985  | 7.722358  |
| ## |           | MCCC1     | RPAP1    | TTC4      | DAZAP1    | ALG12    | MACROH2A2 | TVP23B    |
| ## | GSM875412 | 8.140191  | 6.126961 | 7.329286  | 7.389900  | 6.042355 | 6.438970  | 9.138209  |
| ## | GSM875413 | 7.566287  | 6.632416 | 6.793092  | 6.904920  | 6.911256 | 7.997696  | 7.971240  |
| ## | GSM875414 | 7.031374  | 5.548178 | 6.769351  | 7.376603  | 7.242360 | 7.150142  | 8.855170  |
| ## |           | CMC2      | GID8     | UFSP2     | HEBP1     | SMARCAL1 | TMEM242   | PLBD1     |
| ## | GSM875412 | 9.213529  | 7.962066 | 7.073616  | 8.866134  | 7.152083 | 5.205546  | 10.049364 |
| ## | GSM875413 | 9.354293  | 8.511157 | 8.208188  | 10.208692 | 6.756448 | 5.981432  | 9.697416  |
| ## | GSM875414 | 9.485286  | 8.195195 | 7.349228  | 7.750672  | 7.004280 | 5.255622  | 9.603056  |
| ## |           | DNMT3A    | TOR3A    | GPN3      | RPF1      | MUS81    | FAM222B   | TMEM33    |
| ## | GSM875412 | 5.198694  | 7.261233 | 7.411004  | 10.118329 | 7.204453 | 8.398843  | 7.673833  |
| ## | GSM875413 | 4.963107  | 7.096897 | 8.993185  | 9.245434  | 7.361145 | 7.099286  | 6.608492  |
| ## | GSM875414 | 5.438111  | 6.715690 | 7.106646  | 10.108400 | 7.907613 | 7.514603  | 7.412476  |
| ## |           | TBC1D17   | PSMG2    | GREM1     | YARS2     | BBS1     | COLGALT1  | KCTD5     |
| ## | GSM875412 | 5.932908  | 10.64577 | 10.953567 | 6.939631  | 7.067439 | 8.304845  | 8.579531  |
| ## | GSM875413 | 6.584420  | 10.78440 | 12.624031 | 7.407028  | 8.169130 | 8.380895  | 6.159337  |
| ## | GSM875414 | 6.146460  | 10.48856 | 9.903451  | 7.142780  | 7.768089 | 7.599930  | 8.415572  |
| ## |           | TRMT2A    | POMT1    | TMEM14A   | ZCCHC8    | XPO4     | AGBL5     | EXOSC5    |
| ## | GSM875412 | 6.159882  | 6.458198 | 9.581325  | 8.767729  | 6.214668 | 6.718108  | 7.449607  |
| ## | GSM875413 | 6.703291  | 7.535402 | 8.872110  | 8.758129  | 4.589035 | 6.788290  | 6.993145  |
| ## | GSM875414 | 6.753866  | 6.446510 | 9.871029  | 7.681613  | 5.575222 | 6.592824  | 7.530727  |
| ## |           | ENY2      | IFT46    | NDUFA4L2  | SLC35C1   | ALAD     | EIF2B3    | ZNF302    |
| ## | GSM875412 | 9.699002  | 6.319433 | 6.173784  | 7.328248  | 7.810354 | 7.682681  | 7.021444  |
| ## | GSM875413 | 10.606896 | 7.662770 | 6.554196  | 6.481978  | 7.616867 | 7.753152  | 7.186140  |
| ## | GSM875414 | 9.854150  | 5.454298 | 6.808701  | 7.635457  | 7.688606 | 7.545292  | 6.677753  |
| ## |           | THYN1     | THAP7    | SNRNP25   | UXT       | RNASEH1  | ERO1A     | STK26     |
| ## | GSM875412 | 8.294893  | 7.365662 | 8.604332  | 9.359167  | 8.343297 | 8.811867  | 8.880081  |
| ## | GSM875413 | 9.891729  | 8.002707 | 9.382178  | 10.276401 | 7.685577 | 6.211776  | 6.832172  |
| ## | GSM875414 | 8.295642  | 7.644518 | 8.799759  | 10.009212 | 7.664172 | 7.204471  | 7.882615  |
| ## |           | THEM6     | ARHGEF3  | TRPS1     | FOCAD     | FAHD2A   | WDR59     | GLYR1     |
| ## | GSM875412 | 6.311529  | 8.334511 | 6.495900  | 7.151264  | 7.490745 | 7.930983  | 7.633513  |
| ## | GSM875413 | 6.331141  | 8.104065 | 9.397312  | 7.038667  | 8.077030 | 8.356762  | 8.157521  |
| ## | GSM875414 | 6.688664  | 8.890026 | 4.723926  | 5.773959  | 7.171957 | 7.743130  | 8.458010  |
| ## |           | DCP1A     | PLPPR2   | PNPO      | WDR12     | TMA16    | SMG8      | BPNT2     |
| ## | GSM875412 | 7.338710  | 5.682320 | 7.410625  | 9.038049  | 4.288840 | 6.758477  | 7.401913  |
| ## | GSM875413 | 7.105508  | 6.702677 | 6.570614  | 7.015202  | 4.171639 | 7.290007  | 7.624444  |
| ## | GSM875414 | 7.270601  | 5.412198 | 7.898678  | 8.988634  | 4.051089 | 7.936758  | 7.430958  |
| ## |           | JADE1     | FAM13B   | SLC35A5   | TBK1      | MAP1S    | LHPP      | E4F1      |

|    |           |          |          |           |           |           |           |          |
|----|-----------|----------|----------|-----------|-----------|-----------|-----------|----------|
| ## | GSM875412 | 6.717238 | 8.224945 | 8.042519  | 8.462132  | 5.669817  | 6.529447  | 6.706215 |
| ## | GSM875413 | 8.103089 | 9.850391 | 8.361784  | 9.010371  | 6.705671  | 7.008835  | 6.956148 |
| ## | GSM875414 | 6.834673 | 6.494322 | 7.510592  | 8.338137  | 6.992588  | 6.280530  | 7.425110 |
| ## |           | HIF1AN   | RANGRF   | APTX      | RNF38     | CD320     | FHOD1     | UCKL1    |
| ## | GSM875412 | 6.188702 | 7.016233 | 7.698289  | 8.417706  | 6.515597  | 6.219501  | 7.634228 |
| ## | GSM875413 | 6.840074 | 7.809626 | 7.159654  | 9.501987  | 7.865318  | 7.436006  | 8.260643 |
| ## | GSM875414 | 5.458147 | 6.823778 | 6.476110  | 8.746662  | 7.130706  | 7.362370  | 8.161543 |
| ## |           | RIOK2    | MRS2     | HCFC1R1   | FBX034    | THTPA     | TCIM      | CEP55    |
| ## | GSM875412 | 7.385904 | 7.712019 | 7.271072  | 9.493565  | 6.591333  | 9.291275  | 7.207015 |
| ## | GSM875413 | 8.131508 | 7.725729 | 7.801469  | 7.885914  | 8.867528  | 4.907551  | 3.647207 |
| ## | GSM875414 | 7.221099 | 6.462231 | 7.419878  | 7.848235  | 8.467312  | 7.989152  | 6.064596 |
| ## |           | PARP12   | RCL1     | C1orf115  | DHDDS     | TEX264    | RMDN1     | LRRC20   |
| ## | GSM875412 | 9.186847 | 7.134631 | 6.985477  | 7.453999  | 7.382585  | 8.074600  | 5.610063 |
| ## | GSM875413 | 7.650034 | 6.993417 | 4.186163  | 7.604292  | 7.828745  | 8.384912  | 6.651725 |
| ## | GSM875414 | 7.647990 | 6.231402 | 8.247309  | 6.496232  | 7.286784  | 7.981632  | 5.624669 |
| ## |           | MIIP     | ECHDC2   | KCTD15    | ASH1L     | ANAPC2    | ORMDL2    | NIT2     |
| ## | GSM875412 | 6.971544 | 9.309139 | 6.347053  | 5.151530  | 6.766173  | 9.249751  | 9.187215 |
| ## | GSM875413 | 6.528782 | 9.565307 | 5.869986  | 4.411709  | 7.507219  | 9.248627  | 8.792875 |
| ## | GSM875414 | 6.950985 | 8.892124 | 7.163538  | 4.670138  | 7.612006  | 10.046559 | 8.940971 |
| ## |           | MRPL39   | MAFB     | JMJD4     | LYRM4     | MACO1     | NDUFA3    | RFWD3    |
| ## | GSM875412 | 7.954168 | 9.577998 | 4.990868  | 8.431928  | 7.347372  | 9.422061  | 5.714980 |
| ## | GSM875413 | 7.651380 | 9.666665 | 5.985838  | 7.956493  | 6.937515  | 10.373040 | 5.258849 |
| ## | GSM875414 | 8.494583 | 9.040856 | 5.919887  | 8.202891  | 7.514618  | 10.217473 | 4.709408 |
| ## |           | SPOUT1   | CHORDC1  | DPP3      | KBTBD4    | CHMP4A    | MAGEH1    | LMCD1    |
| ## | GSM875412 | 5.953623 | 8.800547 | 8.464725  | 7.165607  | 8.476080  | 7.145150  | 7.299508 |
| ## | GSM875413 | 6.700452 | 8.460025 | 6.384545  | 7.358327  | 9.742674  | 9.876340  | 5.734993 |
| ## | GSM875414 | 5.781424 | 8.952468 | 8.083504  | 6.906580  | 9.690486  | 7.665223  | 7.794417 |
| ## |           | DUSP12   | CDC73    | AURKAIP1  | ABHD4     | MARCHF5   | DCUN1D1   | DTL      |
| ## | GSM875412 | 8.070618 | 8.305681 | 9.657678  | 7.811415  | 7.526903  | 8.624810  | 7.320787 |
| ## | GSM875413 | 7.842715 | 6.659368 | 9.391845  | 8.996518  | 6.854761  | 8.037112  | 6.236846 |
| ## | GSM875414 | 8.034707 | 8.041708 | 9.995544  | 8.414194  | 7.591093  | 7.897949  | 7.359316 |
| ## |           | MRGBP    | POGLUT1  | FAM114A2  | TWINK     | NOL10     | HDHD5     | RBM28    |
| ## | GSM875412 | 5.980274 | 6.655529 | 6.042110  | 5.893755  | 3.873482  | 7.922595  | 7.961310 |
| ## | GSM875413 | 6.438871 | 6.593088 | 7.727557  | 5.918735  | 4.160446  | 7.206443  | 8.001572 |
| ## | GSM875414 | 6.215683 | 6.176372 | 6.130814  | 6.300299  | 3.918711  | 7.434827  | 8.380126 |
| ## |           | TBC1D13  | CISD1    | RINT1     | REC8      | LIMD2     | URGCP     | HAUS6    |
| ## | GSM875412 | 6.180646 | 8.260458 | 6.987350  | 6.720749  | 5.422236  | 8.076743  | 4.785651 |
| ## | GSM875413 | 7.519629 | 7.613886 | 6.817582  | 7.001612  | 6.013979  | 8.574822  | 3.491653 |
| ## | GSM875414 | 6.033224 | 7.085461 | 5.928192  | 9.375761  | 6.391893  | 7.083798  | 3.671955 |
| ## |           | HECA     | LEMD3    | ZDHHC7    | SDAD1     | ATP13A2   | NUDT2     | CPPED1   |
| ## | GSM875412 | 8.832869 | 8.054386 | 9.409884  | 6.982194  | 6.544625  | 6.971544  | 4.954131 |
| ## | GSM875413 | 8.418305 | 9.391781 | 8.754444  | 7.487580  | 6.751405  | 6.821448  | 4.550115 |
| ## | GSM875414 | 7.691175 | 9.081290 | 10.362433 | 7.387898  | 7.152374  | 5.720036  | 4.567009 |
| ## |           | TSSC4    | RESF1    | TMEM39A   | INTS12    | TRIT1     | SUV39H1   | NUP37    |
| ## | GSM875412 | 6.165381 | 9.326642 | 7.191145  | 7.552491  | 8.068166  | 5.438160  | 9.032762 |
| ## | GSM875413 | 6.670384 | 7.968556 | 6.950864  | 8.033830  | 7.394088  | 6.212733  | 8.621682 |
| ## | GSM875414 | 7.163091 | 7.873121 | 7.564094  | 7.675575  | 6.914416  | 6.345978  | 8.674943 |
| ## |           | NSG2     | CENPBD2P | NRN1      | EIF4ENIF1 | DRAM1     | WASHC3    | SMO      |
| ## | GSM875412 | 4.597381 | 5.558996 | 5.150772  | 7.019839  | 7.274051  | 8.401924  | 5.813471 |
| ## | GSM875413 | 4.703577 | 5.986969 | 3.818844  | 7.975643  | 8.290895  | 9.095509  | 6.700073 |
| ## | GSM875414 | 5.061593 | 6.269309 | 3.956890  | 7.455812  | 10.582774 | 8.601228  | 5.488745 |
| ## |           | AVPI1    | HECTD3   | ABHD10    | PHLDA3    | MAN1B1    | IMPACT    | SPON2    |
| ## | GSM875412 | 7.923148 | 7.565462 | 7.104925  | 7.306376  | 7.704642  | 5.866443  | 8.614162 |
| ## | GSM875413 | 6.700397 | 7.012409 | 8.517318  | 7.855076  | 7.676880  | 6.993145  | 8.814731 |

|    |           |           |           |           |          |           |           |          |
|----|-----------|-----------|-----------|-----------|----------|-----------|-----------|----------|
| ## | GSM875414 | 8.064927  | 7.958580  | 7.549392  | 7.428532 | 7.110978  | 5.922320  | 8.315020 |
| ## |           | ZXDC      | PLEKHF2   | ZFTA      | CHCHD7   | CRIP1     | PLEK2     | YRDC     |
| ## | GSM875412 | 7.070295  | 7.982990  | 6.790009  | 7.984635 | 6.564968  | 8.042233  | 8.329012 |
| ## | GSM875413 | 6.864377  | 8.451737  | 9.119992  | 9.301160 | 6.880264  | 5.935104  | 7.121572 |
| ## | GSM875414 | 6.844786  | 8.091769  | 4.933114  | 6.657532 | 6.265570  | 8.532516  | 8.041956 |
| ## |           | CRTC3     | DGCR8     | LARP6     | SLC25A15 | MRPS33    | CWC25     | LHFPL6   |
| ## | GSM875412 | 8.652636  | 6.198870  | 5.253572  | 7.812615 | 9.175132  | 6.517595  | 7.920664 |
| ## | GSM875413 | 9.243386  | 6.076611  | 7.668238  | 5.799487 | 10.335901 | 6.410398  | 9.484765 |
| ## | GSM875414 | 7.790383  | 6.885147  | 4.994418  | 8.925715 | 9.112176  | 6.242647  | 7.336067 |
| ## |           | RAPGEFL1  | ACTR8     | DYSF      | NAA60    | NCAPG     | MECR      | FZD4     |
| ## | GSM875412 | 9.619737  | 5.527608  | 6.969530  | 6.487875 | 6.638490  | 6.659921  | 6.460102 |
| ## | GSM875413 | 5.175504  | 5.176247  | 6.913018  | 7.195831 | 4.857725  | 6.720669  | 6.802876 |
| ## | GSM875414 | 6.005219  | 5.320513  | 7.342235  | 7.414625 | 6.336966  | 6.067276  | 6.284484 |
| ## |           | STX17     | PJA1      | RAP2C     | PUS1     | ATP5IF1   | SLC22A17  | PCTP     |
| ## | GSM875412 | 6.440360  | 7.413776  | 6.300556  | 7.388502 | 10.274874 | 4.780897  | 7.515644 |
| ## | GSM875413 | 5.964842  | 9.952057  | 8.411804  | 6.996392 | 9.588643  | 8.004893  | 8.426880 |
| ## | GSM875414 | 5.714948  | 7.964189  | 6.816952  | 6.505591 | 8.868869  | 5.334336  | 8.262824 |
| ## |           | S100A14   | NES       | VPS28     | SDF2L1   | LRRC8D    | SMUG1     | RHBDF1   |
| ## | GSM875412 | 9.954188  | 6.259446  | 9.295599  | 8.578444 | 9.226132  | 5.512431  | 7.985670 |
| ## | GSM875413 | 4.500184  | 12.450222 | 10.359377 | 7.865216 | 7.805429  | 5.854212  | 7.238476 |
| ## | GSM875414 | 10.805139 | 6.679669  | 8.961888  | 8.938616 | 8.410667  | 6.329354  | 7.681085 |
| ## |           | MUC13     | TKFC      | FANCF     | SYBU     | TSPAN15   | ARMCX1    | EXOSC4   |
| ## | GSM875412 | 9.493709  | 5.767985  | 7.791248  | 7.494386 | 6.938531  | 7.156228  | 7.915566 |
| ## | GSM875413 | 5.914622  | 5.665957  | 6.689223  | 3.749145 | 5.360094  | 10.566627 | 9.246156 |
| ## | GSM875414 | 9.062554  | 5.362179  | 7.660489  | 5.160878 | 7.378731  | 9.099459  | 8.492716 |
| ## |           | EIF2AK3   | APIP      | RAB29     | LACTB2   | SARS2     | SEC22A    | RNF43    |
| ## | GSM875412 | 8.364553  | 8.772969  | 7.506006  | 8.093786 | 5.787753  | 6.277296  | 6.621474 |
| ## | GSM875413 | 7.491034  | 8.269059  | 7.682154  | 6.826721 | 5.483912  | 5.910129  | 5.980569 |
| ## | GSM875414 | 9.545177  | 8.354588  | 6.903873  | 6.002690 | 6.017034  | 5.655986  | 8.148991 |
| ## |           | SNX24     | GRAMD2B   | ZNF444    | NXT1     | IFT52     | TTC27     | CAVIN2   |
| ## | GSM875412 | 6.315741  | 7.169419  | 5.863536  | 7.984159 | 7.690339  | 7.581278  | 5.598141 |
| ## | GSM875413 | 6.422364  | 11.448096 | 6.173490  | 8.773789 | 8.538181  | 6.680448  | 6.355684 |
| ## | GSM875414 | 5.983931  | 6.451045  | 5.760629  | 7.781615 | 7.216565  | 5.836872  | 5.401042 |
| ## |           | C1orf109  | ICE2      | UTP6      | MT01     | P3H2      | PDGFC     | GIN53    |
| ## | GSM875412 | 5.589881  | 7.116782  | 8.842410  | 7.702768 | 7.831322  | 9.319244  | 5.002360 |
| ## | GSM875413 | 5.417625  | 6.158171  | 8.782411  | 7.408714 | 6.484041  | 8.528237  | 5.346259 |
| ## | GSM875414 | 5.346376  | 6.626195  | 8.883514  | 7.652528 | 5.615172  | 8.334843  | 6.433672 |
| ## |           | SEZ6L2    | ODR4      | CCDC51    | RGCC     | SLC25A22  | HJURP     | SLC38A7  |
| ## | GSM875412 | 6.105095  | 8.522359  | 7.919067  | 8.318922 | 6.478996  | 6.138583  | 5.329424 |
| ## | GSM875413 | 5.009302  | 7.258042  | 6.977711  | 7.556467 | 6.570357  | 4.572512  | 5.184484 |
| ## | GSM875414 | 6.811330  | 8.720325  | 7.194525  | 8.680801 | 6.980050  | 6.192494  | 5.677018 |
| ## |           | CNIH4     | LXN       | OGN       | VWA1     | PTRH2     | MSL2      | NAA40    |
| ## | GSM875412 | 7.641721  | 8.255838  | 5.574589  | 6.785256 | 8.217324  | 7.360933  | 7.038676 |
| ## | GSM875413 | 7.616762  | 6.329459  | 4.451721  | 6.521403 | 8.133305  | 7.996315  | 6.417279 |
| ## | GSM875414 | 8.099924  | 8.528162  | 3.405031  | 7.646944 | 8.761030  | 7.166105  | 6.089514 |
| ## |           | ZNF544    | PALMD     | RNF138    | CDK5RAP3 | CENPM     | CIA03     | CHMP6    |
| ## | GSM875412 | 7.739366  | 5.549244  | 9.259958  | 9.461569 | 6.703050  | 6.721707  | 8.191487 |
| ## | GSM875413 | 6.718254  | 4.629557  | 8.896124  | 8.924068 | 6.361477  | 6.763778  | 7.262859 |
| ## | GSM875414 | 7.821660  | 6.097955  | 8.611110  | 9.442653 | 7.170074  | 7.185446  | 7.122412 |
| ## |           | PAC5IN3   | TMEM161A  | TAPBPL    | EXOC5    | SLC8B1    | TAF1D     | FBXW7    |
| ## | GSM875412 | 5.221422  | 7.273328  | 7.005987  | 6.836571 | 7.070465  | 9.041237  | 6.480351 |
| ## | GSM875413 | 5.323050  | 7.641859  | 8.583509  | 5.724260 | 7.280629  | 6.882730  | 7.201860 |
| ## | GSM875414 | 5.407885  | 7.238995  | 7.062754  | 5.747092 | 6.970114  | 8.931401  | 6.305078 |
| ## |           | ZMAT5     | XKR8      | KIF20A    | DHRS11   | UPF3B     | RRP1      | DVL2     |

|    |           |          |           |            |          |           |          |          |
|----|-----------|----------|-----------|------------|----------|-----------|----------|----------|
| ## | GSM875412 | 5.953501 | 7.652695  | 6.235697   | 9.569879 | 7.956289  | 7.233665 | 5.883441 |
| ## | GSM875413 | 6.538364 | 8.000027  | 4.617544   | 5.297614 | 8.474852  | 7.459183 | 6.396862 |
| ## | GSM875414 | 5.953589 | 7.540898  | 5.538356   | 4.792412 | 7.498563  | 7.063366 | 5.993239 |
| ## |           | COQ6     | RNF111    | ZNF574     | STX18    | SIDT2     | REX04    | NUP107   |
| ## | GSM875412 | 5.646084 | 7.794974  | 6.365213   | 8.708452 | 7.002920  | 6.613671 | 8.814294 |
| ## | GSM875413 | 6.476541 | 8.153958  | 6.604113   | 7.876304 | 7.402493  | 6.611630 | 9.418928 |
| ## | GSM875414 | 5.637107 | 7.883316  | 6.903447   | 9.231041 | 7.449220  | 6.353161 | 8.608250 |
| ## |           | ANKRA2   | TMEM39B   | PANK4      | TMEM38B  | MSRB2     | DCPS     | TMEM62   |
| ## | GSM875412 | 7.441824 | 5.643247  | 6.850749   | 3.966110 | 8.919926  | 7.666441 | 7.169078 |
| ## | GSM875413 | 8.703149 | 6.565317  | 7.230726   | 7.344269 | 10.124132 | 6.795683 | 6.095681 |
| ## | GSM875414 | 6.593951 | 5.773391  | 6.669522   | 5.377138 | 8.732491  | 7.624603 | 7.196552 |
| ## |           | REEP4    | EPS8L1    | H00K2      | SMC6     | ATAD2     | SAYSD1   | IFT22    |
| ## | GSM875412 | 6.473545 | 6.136071  | 7.517914   | 8.715141 | 7.758853  | 6.331625 | 4.397831 |
| ## | GSM875413 | 6.335838 | 5.658884  | 6.325422   | 7.289962 | 6.900069  | 6.692074 | 4.816246 |
| ## | GSM875414 | 6.114931 | 6.295006  | 6.837614   | 8.300472 | 7.015805  | 5.358024 | 4.526135 |
| ## |           | NT5DC3   | CWF19L1   | SMYD3      | C11orf71 | BSPRY     | TXNL4B   | ACP6     |
| ## | GSM875412 | 5.462798 | 7.273088  | 7.840144   | 5.630554 | 7.136812  | 6.387252 | 7.841411 |
| ## | GSM875413 | 5.761195 | 7.108388  | 9.118153   | 6.861055 | 4.689046  | 6.233993 | 8.537858 |
| ## | GSM875414 | 5.472455 | 7.111196  | 8.228578   | 4.389603 | 6.023318  | 6.587991 | 7.938318 |
| ## |           | FERMT1   | SIRT7     | KRI1       | GPN2     | SRD5A3    | MCUB     | VAV3     |
| ## | GSM875412 | 9.090003 | 8.195739  | 6.714618   | 6.894565 | 4.383031  | 7.192882 | 6.455389 |
| ## | GSM875413 | 4.538851 | 7.036677  | 6.933177   | 6.413838 | 3.710432  | 7.113513 | 5.332208 |
| ## | GSM875414 | 7.433645 | 9.062021  | 7.316589   | 6.357451 | 3.837097  | 6.436164 | 3.854681 |
| ## |           | DALRD3   | PANK2     | ZC3H12A    | SH3GLB2  | PACC1     | TMEM51   | SPCS3    |
| ## | GSM875412 | 5.211173 | 8.114520  | 7.580519   | 7.350137 | 4.138283  | 7.607324 | 6.292606 |
| ## | GSM875413 | 4.871275 | 8.600091  | 6.140831   | 6.171122 | 4.058324  | 6.590047 | 4.902940 |
| ## | GSM875414 | 5.383524 | 6.952005  | 8.399162   | 5.889660 | 4.786001  | 6.956203 | 7.536052 |
| ## |           | FHL3     | C14orf132 | KCTD9      | PNMA8A   | EGFL7     | SLC35F2  | CEP192   |
| ## | GSM875412 | 5.954852 | 6.197045  | 7.044699   | 4.993118 | 6.111215  | 7.683160 | 7.328055 |
| ## | GSM875413 | 5.860595 | 6.072470  | 8.504404   | 9.629474 | 6.026486  | 5.491021 | 7.639443 |
| ## | GSM875414 | 6.235925 | 5.321332  | 5.920249   | 4.377611 | 5.976958  | 7.145065 | 6.930685 |
| ## |           | CHD7     | RPL26L1   | FCGRT      | ARRB1    | SFTPA2    | UBE2D4   | TTC31    |
| ## | GSM875412 | 7.972566 | 9.028731  | 8.387940   | 6.323352 | 4.931582  | 7.030147 | 7.368263 |
| ## | GSM875413 | 6.533472 | 9.982029  | 8.687784   | 7.104216 | 4.789761  | 8.429559 | 7.512115 |
| ## | GSM875414 | 4.885880 | 9.715546  | 9.079150   | 6.695217 | 5.074114  | 6.608598 | 6.768733 |
| ## |           | HEY1     | ASB8      | FNDC4      | ACSF2    | DUSP22    | MED23    | IGF2BP2  |
| ## | GSM875412 | 5.676344 | 4.974872  | 6.789113   | 7.803206 | 8.792473  | 7.732054 | 7.348524 |
| ## | GSM875413 | 5.804725 | 6.606478  | 7.367885   | 6.843804 | 9.197976  | 7.552465 | 4.991440 |
| ## | GSM875414 | 6.807297 | 5.743549  | 6.453453   | 7.524520 | 8.307555  | 7.880045 | 6.771003 |
| ## |           | THOC6    | PPP1R13L  | LIMD1      | WDR33    | TPRA1     | ASRGL1   | DEPTOR   |
| ## | GSM875412 | 5.926007 | 6.343822  | 6.045754   | 5.380783 | 6.918635  | 6.576701 | 8.801788 |
| ## | GSM875413 | 5.866070 | 5.117210  | 6.126674   | 4.516999 | 6.484130  | 6.902979 | 6.227360 |
| ## | GSM875414 | 6.517236 | 6.039922  | 5.073919   | 4.810320 | 6.334683  | 8.964648 | 8.341942 |
| ## |           | ESF1     | NOC4L     | RNF25      | ASB13    | TNS1      | MTARC1   | POLR3K   |
| ## | GSM875412 | 7.684372 | 6.419014  | 6.326536   | 7.907996 | 4.217027  | 7.256433 | 8.584699 |
| ## | GSM875413 | 7.550983 | 7.618640  | 7.121704   | 7.539463 | 4.960826  | 6.181863 | 8.046316 |
| ## | GSM875414 | 6.320867 | 6.765968  | 6.904704   | 6.726128 | 4.448761  | 7.462394 | 8.148667 |
| ## |           | MLYCD    | ARHGAP15  | CSGALNACT2 | TESC     | ATAT1     | FBX05    | TPPP3    |
| ## | GSM875412 | 6.316560 | 7.392267  | 8.938297   | 8.291777 | 5.346574  | 5.183870 | 6.923606 |
| ## | GSM875413 | 6.874686 | 6.495426  | 7.554722   | 7.913809 | 5.971988  | 4.156188 | 5.574878 |
| ## | GSM875414 | 6.249155 | 6.902325  | 7.526527   | 9.432871 | 6.139922  | 4.606336 | 7.259256 |
| ## |           | TRMT11   | SIRT1     | CENPU      | GUF1     | GALNT12   | PAK1IP1  | MRPL2    |
| ## | GSM875412 | 9.083189 | 6.639442  | 8.415337   | 5.624319 | 9.753476  | 8.002722 | 6.970194 |
| ## | GSM875413 | 7.334103 | 7.745614  | 5.953191   | 3.659767 | 4.964704  | 6.958203 | 6.754528 |

|    |           |          |          |          |          |           |          |          |
|----|-----------|----------|----------|----------|----------|-----------|----------|----------|
| ## | GSM875414 | 8.139382 | 6.873397 | 8.963526 | 4.982861 | 10.819707 | 7.717432 | 7.155139 |
| ## |           | NETO2    | NOC3L    | MRPL35   | DCHS1    | ISOC2     | MAGOHB   | GPATCH3  |
| ## | GSM875412 | 6.942965 | 8.229773 | 8.301260 | 4.573929 | 7.392168  | 5.774401 | 6.658692 |
| ## | GSM875413 | 3.901786 | 7.829112 | 7.344269 | 7.418038 | 7.632280  | 7.308112 | 6.526677 |
| ## | GSM875414 | 8.306467 | 7.405318 | 7.112964 | 6.114942 | 7.502176  | 5.662097 | 6.389668 |
| ## |           | NCBP3    | TMEM177  | TLCD3A   | BAALC    | CNNM4     | PLSCR4   | NOTCH1   |
| ## | GSM875412 | 6.457580 | 6.576752 | 6.597141 | 3.612914 | 7.516341  | 8.117562 | 7.600796 |
| ## | GSM875413 | 6.697627 | 5.050479 | 6.076894 | 3.746809 | 5.546202  | 8.295158 | 6.704001 |
| ## | GSM875414 | 5.599303 | 6.707088 | 8.128802 | 3.639854 | 7.531000  | 7.964745 | 7.604688 |
| ## |           | NABP2    | C9orf40  | INTS8    | KLC2     | LRRC61    | ASPSCR1  | RPS6KC1  |
| ## | GSM875412 | 5.809473 | 4.581261 | 9.212658 | 6.685857 | 6.323781  | 5.647779 | 6.625119 |
| ## | GSM875413 | 7.708655 | 4.901503 | 9.149479 | 7.186940 | 5.756204  | 6.342665 | 6.633364 |
| ## | GSM875414 | 7.026049 | 3.948860 | 8.591832 | 6.088285 | 6.399770  | 7.063789 | 4.878946 |
| ## |           | ANO10    | YEATS4   | GCC1     | GMIP     | METTL25B  | ZNF768   | ZFAND1   |
| ## | GSM875412 | 7.866867 | 6.148718 | 7.419721 | 6.748796 | 6.706344  | 5.801830 | 8.602965 |
| ## | GSM875413 | 7.654771 | 5.995627 | 7.727993 | 6.937515 | 6.904624  | 6.201899 | 8.317722 |
| ## | GSM875414 | 7.545825 | 5.596827 | 7.658901 | 7.486698 | 5.753211  | 6.975017 | 7.851568 |
| ## |           | FAM193B  | SIGIRR   | CERS4    | CTBS     | C11orf1   | SLC37A1  | CDKN2AIP |
| ## | GSM875412 | 7.528597 | 6.810660 | 4.497311 | 6.751307 | 3.365005  | 8.157118 | 6.774795 |
| ## | GSM875413 | 8.377455 | 6.080225 | 5.502131 | 5.842797 | 3.159785  | 5.707358 | 6.827516 |
| ## | GSM875414 | 8.646098 | 7.243718 | 4.944019 | 6.666211 | 3.259975  | 8.189682 | 6.992875 |
| ## |           | TMEM106B | RAB17    | ZNHIT6   | HSPB7    | EHD3      | CCDC59   | ZSCAN32  |
| ## | GSM875412 | 9.249766 | 6.827120 | 7.811415 | 5.04306  | 5.142124  | 7.835994 | 6.622548 |
| ## | GSM875413 | 9.130903 | 5.262323 | 7.679402 | 7.67315  | 6.553625  | 8.649844 | 6.086683 |
| ## | GSM875414 | 9.171590 | 6.221904 | 7.510403 | 4.75503  | 4.566739  | 8.348336 | 6.818719 |
| ## |           | FBXL15   | LETM1    | VCPKMT   | PIP4K2C  | RIGI      | PYCR3    | METTL22  |
| ## | GSM875412 | 6.363985 | 6.143665 | 7.292417 | 8.462066 | 6.515885  | 5.487092 | 6.801465 |
| ## | GSM875413 | 7.647778 | 5.783930 | 6.849915 | 8.933972 | 5.221183  | 6.012977 | 7.729692 |
| ## | GSM875414 | 6.951040 | 6.037373 | 6.956038 | 8.954056 | 6.255372  | 6.786942 | 7.517674 |
| ## |           | NFU1     | MTPAP    | QRSL1    | ARAP3    | PLCXD1    | PCSK1N   | PCYOX1L  |
| ## | GSM875412 | 8.333022 | 7.881241 | 6.594589 | 5.627314 | 7.474532  | 5.736752 | 5.904028 |
| ## | GSM875413 | 8.823443 | 6.361603 | 4.387730 | 6.144336 | 7.996610  | 6.839764 | 6.917715 |
| ## | GSM875414 | 6.793992 | 6.666517 | 5.142124 | 6.815535 | 10.092036 | 8.359307 | 5.552006 |
| ## |           | BRF2     | REX1BD   | HOXC10   | TMPRSS4  | PNKP      | TMEM168  | KRT23    |
| ## | GSM875412 | 5.503432 | 6.095792 | 5.921203 | 9.420276 | 6.341281  | 9.159337 | 5.184238 |
| ## | GSM875413 | 7.706626 | 6.808111 | 4.267510 | 5.732039 | 7.109732  | 9.767321 | 4.677765 |
| ## | GSM875414 | 5.957156 | 6.224769 | 8.513026 | 8.051005 | 7.623603  | 7.932223 | 5.610377 |
| ## |           | ARID3B   | TUT1     | MYO5C    | PTER     | ZFP64     | PAM16    | CUTC     |
| ## | GSM875412 | 6.439026 | 5.709253 | 8.616840 | 8.516970 | 7.754577  | 7.467250 | 7.029270 |
| ## | GSM875413 | 6.718696 | 6.128307 | 4.811985 | 4.927450 | 8.526815  | 7.345060 | 7.757753 |
| ## | GSM875414 | 7.158379 | 6.322290 | 9.407200 | 9.349751 | 8.300541  | 8.071038 | 6.101261 |
| ## |           | WDR91    | TTC17    | EFL1     | COL5A3   | DNAJC12   | TRNAU1AP | RMI1     |
| ## | GSM875412 | 6.764019 | 8.263051 | 7.414318 | 5.418102 | 5.442096  | 6.522222 | 7.396052 |
| ## | GSM875413 | 7.369572 | 6.382158 | 7.821066 | 5.579563 | 8.326846  | 6.863399 | 5.800216 |
| ## | GSM875414 | 7.094216 | 9.071649 | 7.231824 | 6.092941 | 5.193667  | 6.597437 | 6.835822 |
| ## |           | FHOD3    | SDHAF3   | MRPS17   | C1RL     | PUS7      | SLC2A8   | DDX60    |
| ## | GSM875412 | 4.330553 | 6.723956 | 7.961577 | 7.103728 | 8.868652  | 6.556919 | 8.991083 |
| ## | GSM875413 | 5.650797 | 6.838604 | 8.324897 | 7.591647 | 6.738711  | 6.818794 | 8.025327 |
| ## | GSM875414 | 4.314818 | 5.970437 | 8.451355 | 5.798112 | 6.884194  | 6.505383 | 7.742673 |
| ## |           | SLC35E3  | SPRR3    | PLGRKT   | MRM3     | STAG3L4   | TFPT     | ABITRAM  |
| ## | GSM875412 | 7.182369 | 5.579732 | 8.625502 | 6.078483 | 4.300694  | 6.644491 | 8.598472 |
| ## | GSM875413 | 7.606056 | 4.271963 | 7.270671 | 7.101953 | 5.776105  | 7.239366 | 8.085056 |
| ## | GSM875414 | 7.352663 | 4.848986 | 7.379699 | 6.994511 | 4.027282  | 7.880940 | 8.170265 |
| ## |           | TMEM140  | DCAF10   | FASTKD1  | MIS18A   | TMEM59L   | NDUFAF4  | NUP43    |

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## GSM875412 6.442975 6.236556 8.859677 6.409268 6.256897 8.069019 9.457371
## GSM875413 8.028229 7.185497 7.578386 6.626976 6.068536 8.422094 8.974813
## GSM875414 6.686796 5.910927 8.226476 5.737022 6.082521 7.510093 8.357761
##          LDAH          INAVA PLEKHA4 GALNT11          PLAC8 FASTKD5          ETNK1
## GSM875412 6.570630 9.469627 6.172114 8.162824 11.124655 6.453929 8.331668
## GSM875413 6.576920 4.333546 6.834077 9.701013 5.466166 7.483547 6.385280
## GSM875414 5.522204 10.333294 5.849277 8.099009 8.846078 7.362282 9.927024
##          CCDC85C          PIDD1 RNF121 C12orf43          AP1AR PLEKHA1          CD248
## GSM875412 6.441245 6.545782 5.999169 5.855177 6.618611 8.349360 7.853949
## GSM875413 6.437100 7.439717 6.098706 6.854008 5.574497 6.917479 7.648818
## GSM875414 6.185481 6.679185 5.643783 6.266276 7.874162 7.018413 7.903533
##          MYO9A          TPRKB          NIP7          OPN3          PARP8          PARP16          RNF34
## GSM875412 5.808013 9.233859 7.845830 7.309867 8.072515 7.042594 8.392658
## GSM875413 6.212619 8.278043 6.239008 6.383066 7.638929 6.885941 8.932975
## GSM875414 5.737801 8.507792 8.452093 6.933273 6.759957 6.922237 8.061779
##          MORC4          SEMA4C          CORO7          REPIN1          THNSL2          PKNX2          ZNF668
## GSM875412 7.545409 7.183278 5.918899 10.002275 5.957227 5.985760 5.482027
## GSM875413 7.276574 7.263132 5.963176 9.818871 7.298566 6.848579 4.965754
## GSM875414 5.972736 6.308976 5.279985 9.650737 6.444616 5.772511 5.443355
##          PIGN          ZNHIT2          METRN          HPS6          NPR3          SRBD1          RABEP2
## GSM875412 6.872073 5.498987 6.081477 6.658838 5.476549 6.827141 5.660876
## GSM875413 7.282059 6.197054 6.011895 6.953559 5.970144 6.338838 6.273726
## GSM875414 6.464490 6.638045 5.550518 7.745272 5.847589 5.212395 5.827513
##          TINAGL1          LYVE1          NTAQ1          LAGE3          ZCCHC2          C1orf35          PPCDC
## GSM875412 7.772704 4.903341 7.794008 6.637986 7.003055 6.541566 5.532217
## GSM875413 6.322278 5.108037 7.256873 9.108340 7.429503 6.899796 5.959249
## GSM875414 7.100430 5.196690 7.218759 7.998315 5.972929 7.311708 5.403713
##          ATAD3A          ANKRD49          MOSPD3          HGH1          BCL7C          TMEM184C          YIPF2
## GSM875412 6.991312 8.664342 7.161073 6.729362 7.170435 8.448161 5.422236
## GSM875413 6.995965 7.782127 7.982191 7.322976 7.904694 7.674041 5.665930
## GSM875414 6.903698 8.467259 7.499927 7.358851 8.077730 8.003068 5.708953
##          PXMP2          CYB5R4          CTPS2          ANKHD1          AMDHD2          SHQ1          NSD1
## GSM875412 7.067964 8.194343 6.983223 7.479171 5.546375 8.136385 6.207160
## GSM875413 6.143553 6.286494 6.062166 6.699598 6.435235 7.541565 6.255511
## GSM875414 6.993401 6.940223 5.995644 7.435257 6.610746 8.846423 6.951123
##          ZNF839          ASPN          ZNF576          SLC24A3          MMRN2          IPPK          PID1
## GSM875412 4.120424 9.695647 6.212196 6.897331 5.572363 6.277749 5.349561
## GSM875413 4.512744 10.683860 6.801144 9.546240 5.810356 5.981732 9.944328
## GSM875414 4.103318 9.998298 7.230613 6.713266 5.770624 5.905868 6.865154
##          ARMC7          MYBBP1A          TIGAR          STN1          ABHD8          RCN3          ASAP3
## GSM875412 6.646949 6.860375 8.149008 6.787303 4.806103 6.352699 6.219248
## GSM875413 6.741850 7.140971 8.622803 7.261810 5.793360 6.292665 6.657807
## GSM875414 7.067323 6.838093 7.566340 6.818858 5.541974 7.065432 6.972382
##          ORC6          KLHL41          BCAN          GAR1          DDX54          HSD17B14          C3orf18
## GSM875412 7.752271 3.539587 5.353252 8.200079 6.371076 5.586762 5.644630
## GSM875413 6.928282 3.422147 7.872125 8.174905 6.901854 5.993501 7.031037
## GSM875414 7.504442 3.269619 5.975025 8.697042 5.933261 5.472002 5.549112
##          IL2ORA          DCUN1D2          FKBP11          LSM8          WDCP          ESRP1          THG1L
## GSM875412 5.307442 6.922687 9.851682 9.171623 5.145537 9.544002 6.310339
## GSM875413 4.352296 6.601235 9.302972 9.335537 5.140476 4.279490 6.984649
## GSM875414 4.814959 7.166393 9.767178 8.608075 4.998389 9.526373 6.779990
##          ZNF232          TT12          SLC50A1          PHF10          PRR15L          C2orf42          SAP30L
## GSM875412 7.367584 5.343383 8.185706 9.149964 8.953370 6.361467 6.111596
## GSM875413 6.975240 7.001078 6.512547 8.125856 3.691689 7.203759 7.048216

```



|    |           |           |          |          |          |          |          |          |
|----|-----------|-----------|----------|----------|----------|----------|----------|----------|
| ## | GSM875414 | 6.620356  | 6.132946 | 7.960457 | 8.452093 | 9.811100 | 5.205673 | 6.319627 |
| ## |           | TRMT13    | UBIAD1   | PELI2    | OXSM     | ADGRL4   | MFF      | RBP4     |
| ## | GSM875412 | 7.575262  | 6.168567 | 7.253859 | 7.574769 | 6.319433 | 8.554529 | 6.495530 |
| ## | GSM875413 | 7.348216  | 5.666907 | 5.986709 | 6.875016 | 5.416850 | 8.780392 | 4.960777 |
| ## | GSM875414 | 7.154055  | 6.717037 | 5.736257 | 6.627856 | 6.300803 | 7.715834 | 7.847329 |
| ## |           | AMBRA1    | RASL11B  | RPP25    | DUSP26   | TEFM     | PBK      | DBR1     |
| ## | GSM875412 | 7.836309  | 5.958305 | 6.464371 | 4.968047 | 7.346195 | 7.102423 | 6.957023 |
| ## | GSM875413 | 7.721494  | 5.648070 | 5.330064 | 7.546761 | 6.897549 | 4.099278 | 6.373803 |
| ## | GSM875414 | 8.066155  | 5.830067 | 7.518732 | 5.199763 | 7.507904 | 6.538466 | 7.455514 |
| ## |           | ADAP1     | PODXL2   | TMEM120B | SYNJ2BP  | KLHL2    | SLAMF7   | MRPL11   |
| ## | GSM875412 | 7.484815  | 5.972686 | 4.930675 | 7.402311 | 9.049292 | 6.197045 | 8.100815 |
| ## | GSM875413 | 6.101234  | 5.975725 | 6.387649 | 7.515556 | 7.078782 | 4.502205 | 7.843277 |
| ## | GSM875414 | 6.479467  | 5.477370 | 5.067534 | 7.212787 | 7.443412 | 6.857806 | 8.411198 |
| ## |           | ZNF562    | PDLIM2   | DNAAF2   | RASL12   | PRR5     | TFB1M    | FSD1     |
| ## | GSM875412 | 8.026918  | 6.497876 | 7.002902 | 6.129924 | 5.397015 | 7.723764 | 4.806203 |
| ## | GSM875413 | 7.237200  | 8.464154 | 6.134570 | 6.011336 | 5.714699 | 7.704472 | 5.262729 |
| ## | GSM875414 | 7.551363  | 6.566560 | 6.950185 | 6.390142 | 5.946381 | 6.718560 | 5.551791 |
| ## |           | ZNF236    | UBTD1    | MYO15B   | IFT74    | SLC41A3  | MAIP1    | BRIX1    |
| ## | GSM875412 | 3.847130  | 4.946507 | 5.927162 | 5.889389 | 7.926961 | 8.525539 | 8.375985 |
| ## | GSM875413 | 3.870399  | 5.384132 | 7.052721 | 5.898680 | 7.565643 | 7.865391 | 6.999861 |
| ## | GSM875414 | 3.037024  | 5.702505 | 7.455737 | 4.072977 | 6.091720 | 9.378626 | 7.013902 |
| ## |           | DACT1     | PEX26    | LIPG     | TIMM22   | FKBPL    | FBXL6    | BIN2     |
| ## | GSM875412 | 7.286304  | 6.041804 | 6.789654 | 5.311494 | 5.960304 | 6.459841 | 6.242497 |
| ## | GSM875413 | 10.062411 | 5.493317 | 3.760057 | 5.812382 | 5.790281 | 6.529003 | 6.457825 |
| ## | GSM875414 | 5.701544  | 5.707400 | 5.847589 | 5.274186 | 6.800936 | 6.886824 | 6.314112 |
| ## |           | UBAP2     | WDR70    | SEMA4G   | SCG3     | SCUBE2   | GTF3C4   | FASTKD3  |
| ## | GSM875412 | 8.972374  | 8.228697 | 6.907313 | 3.287205 | 4.970244 | 6.088503 | 7.641471 |
| ## | GSM875413 | 7.983024  | 8.440858 | 5.672753 | 3.380723 | 7.443431 | 5.242181 | 7.855076 |
| ## | GSM875414 | 8.310773  | 7.887082 | 7.379970 | 3.556755 | 5.051830 | 5.703759 | 8.426556 |
| ## |           | TWSG1     | RHBDF2   | EMC9     | SRR      | EDC3     | RAB8B    | USP18    |
| ## | GSM875412 | 7.300164  | 7.075278 | 6.354531 | 4.603751 | 5.508481 | 6.469669 | 5.782104 |
| ## | GSM875413 | 7.604952  | 6.659368 | 6.886235 | 6.052049 | 6.158825 | 6.027257 | 5.159968 |
| ## | GSM875414 | 7.001256  | 6.726794 | 7.053707 | 3.964077 | 6.204561 | 7.038163 | 4.600107 |
| ## |           | HSPA14    | JAM2     | SLC39A4  | ETAA1    | NARS2    | TMEM160  | MRPS22   |
| ## | GSM875412 | 8.693346  | 5.660001 | 8.841417 | 6.481402 | 8.577253 | 6.663232 | 8.867035 |
| ## | GSM875413 | 7.428326  | 8.281407 | 6.511669 | 6.395107 | 8.008777 | 6.973114 | 8.269059 |
| ## | GSM875414 | 7.623697  | 6.700373 | 8.201841 | 5.876163 | 8.553072 | 6.938032 | 8.683230 |
| ## |           | RBKS      | CACFD1   | ZNF408   | CCNJL    | ZNF331   | TMEM100  | TGS1     |
| ## | GSM875412 | 6.747299  | 6.600506 | 7.275042 | 4.426568 | 8.186827 | 5.459899 | 6.706441 |
| ## | GSM875413 | 6.669613  | 6.947340 | 7.399387 | 5.853080 | 8.819470 | 8.791407 | 6.471748 |
| ## | GSM875414 | 6.369811  | 6.558240 | 8.205086 | 4.463490 | 8.373820 | 4.771429 | 5.014172 |
| ## |           | EGLN3     | PHACTR4  | PAQR6    | DNAJB14  | PIGV     | ZNF654   | C10orf88 |
| ## | GSM875412 | 8.282079  | 5.755894 | 6.351973 | 8.341908 | 7.177279 | 4.921794 | 5.541276 |
| ## | GSM875413 | 5.355129  | 5.140890 | 5.747289 | 7.851743 | 7.257757 | 4.596791 | 5.371828 |
| ## | GSM875414 | 5.000471  | 4.894501 | 5.377031 | 8.175967 | 5.562218 | 5.109165 | 5.149852 |
| ## |           | SSH3      | CEP63    | GIMAP4   | MRPL46   | OGFOD2   | THUMPD2  | FKBP10   |
| ## | GSM875412 | 7.643067  | 7.425480 | 6.789717 | 6.942961 | 5.733183 | 7.045037 | 6.010144 |
| ## | GSM875413 | 6.178948  | 7.520197 | 6.696669 | 8.175662 | 7.581013 | 6.282409 | 8.906230 |
| ## | GSM875414 | 7.856195  | 6.981243 | 6.828050 | 7.445068 | 6.703837 | 5.445343 | 6.041652 |
| ## |           | FLRT3     | GEMIN8   | TMEM185B | OGFOD3   | IL17RB   | SH3TC1   | SPHK1    |
| ## | GSM875412 | 5.563475  | 4.812467 | 7.473112 | 5.321150 | 7.552997 | 5.984433 | 5.914704 |
| ## | GSM875413 | 4.212641  | 5.524238 | 6.575630 | 6.498319 | 5.425769 | 7.070635 | 5.858799 |
| ## | GSM875414 | 6.999291  | 5.220327 | 7.499412 | 5.457086 | 9.196581 | 7.228988 | 5.741812 |
| ## |           | TIPIN     | SEMA4A   | ELP5     | INTS15   | RNF128   | ZNF350   | GLTP     |

```

## GSM875412 5.535467 6.629899 6.693542 7.129693 9.989480 4.418614 5.783921
## GSM875413 4.947488 6.518529 7.939342 8.339285 3.222887 5.436734 7.313172
## GSM875414 4.328163 7.093679 6.195492 6.831204 9.429917 5.593231 5.469989
##      ETNK2      HMBX1      CHAC1      TRIM62      CCNK      TSPAN12      PDCD5
## GSM875412 4.588511 6.561217 6.068499 5.992893 4.133371 7.634276 7.595533
## GSM875413 5.557392 7.876864 5.025712 5.925428 4.242642 7.825180 7.579491
## GSM875414 4.858053 6.579127 5.744427 6.346397 4.718993 6.577065 8.327906
##      CAAP1      OGDHL      MSRA      TRPV2      C1GALT1C1      HSPBAP1      NIN
## GSM875412 8.718993 4.524482 8.365278 6.538885 8.774598 7.391870 3.701964
## GSM875413 8.096359 6.531828 9.087485 6.535643 9.114439 5.964726 3.355327
## GSM875414 8.020242 4.535253 6.468859 7.384793 8.499490 4.965050 3.428049
##      KCNMB4      C3orf14      DAPP1      THAP1      OLA1      CENPQ      PCOLCE2
## GSM875412 5.120030 7.875856 6.250395 5.603612 10.797025 3.873208 3.892738
## GSM875413 4.421643 8.326085 6.131214 7.254054 9.328382 3.968025 4.067425
## GSM875414 4.476804 7.235229 6.296256 4.765183 10.224206 3.916092 3.763233
##      ZDHHC13      WDR44      ECHDC3      TRMT12      OBI1      PDGFD      FBXO2
## GSM875412 8.197215 7.625829 4.889411 6.988458 7.919844 5.843075 5.928886
## GSM875413 4.340852 8.288540 5.301087 7.359755 6.849979 5.237890 5.833852
## GSM875414 7.181830 6.569609 7.987697 7.350821 6.048245 5.688669 6.584965
##      KIF15      AK5      C22orf46      SYNDIG1      CEP76      ZBTB10      GRAMD1C
## GSM875412 6.865659 3.976939 4.139870 5.196145 7.483138 4.312220 6.495702
## GSM875413 3.622114 6.606895 5.016260 9.825579 6.732139 5.361842 4.421891
## GSM875414 5.584517 3.891185 4.644251 5.549565 7.311630 3.512285 4.894501
##      TMEM204      POLI      MED31      MYO19      PALS1      WRAP73      IL18BP
## GSM875412 6.742998 6.460956 4.224167 5.232944 6.239852 7.415636 6.316149
## GSM875413 10.626517 6.826278 4.406298 5.193815 5.606567 6.436762 6.578723
## GSM875414 6.618124 4.095352 3.858927 5.377155 5.350368 6.542625 6.745993
##      NOL12      ELAC1      B3GNT2      GPRC5C      ATRAID      VANG11      KLHDC8A
## GSM875412 7.038490 3.631683 9.232388 7.411949 9.858243 6.604208 4.187610
## GSM875413 7.507154 4.923217 5.877318 5.825926 10.560372 4.776273 4.070464
## GSM875414 7.135296 4.418864 7.961601 6.714470 9.353601 6.784706 4.883603
##      CAPN10      NABP1      C1orf159      LRRC49      EHMT1      CLN8      CASD1
## GSM875412 6.684678 3.608735 5.165027 5.167711 5.475599 5.410703 6.338154
## GSM875413 6.969351 3.543086 4.947682 7.402493 4.754004 6.757146 8.410743
## GSM875414 7.336156 3.694007 4.981379 4.630219 5.568888 5.484563 6.701918
##      CDC37L1      SLC29A3      BOLA1      LRFN3      NUDT15      USE1      EXOC2
## GSM875412 6.738709 6.833088 6.181724 4.554760 8.439428 6.036676 6.679703
## GSM875413 6.046142 7.165851 6.260937 5.051197 7.114259 7.467988 5.658352
## GSM875414 6.244782 7.193361 7.070563 4.225536 7.840015 7.169746 5.807110
##      DIABLO      NHLRC2      KLHL26      ADAP2      PGGHG      TRPM4      AEN
## GSM875412 8.835248 7.090010 5.244613 7.093041 8.729474 7.020704 6.623865
## GSM875413 9.905479 7.309133 6.310066 7.507154 6.387914 5.579563 7.942544
## GSM875414 8.646098 6.529458 5.719058 6.623859 6.794321 6.970080 6.632125
##      MTERF3      DHX58      CAMKV      AVEN      NAP1L2      RPRM      KLF2
## GSM875412 7.822495 5.881641 4.444466 7.026740 3.736879 4.688739 8.481755
## GSM875413 8.175777 6.284701 5.269991 7.007049 9.644612 8.722014 9.194214
## GSM875414 7.286253 6.130613 4.838088 7.114673 3.434266 4.384677 9.708815
##      IFT81      DPM3      ALG9      ZNF322      GAREM1      ZNF358      SERTAD3
## GSM875412 7.170464 8.151636 7.180228 6.222770 8.290346 6.668026 6.719331
## GSM875413 8.072004 8.273453 7.700998 5.542143 8.210504 7.306803 7.560786
## GSM875414 6.530744 7.615937 6.139860 6.935560 7.901148 6.232295 7.723101
##      ADAT1      SLAMF8      GRHL2      SUSP4      FKBP14      PRR11      PGS1
## GSM875412 5.672017 5.807171 7.704254 5.605013 7.511742 9.656877 8.476898
## GSM875413 5.883212 5.322464 5.249791 5.597587 7.676206 9.613590 7.546665

```

|    |           |          |           |          |          |           |          |          |
|----|-----------|----------|-----------|----------|----------|-----------|----------|----------|
| ## | GSM875414 | 4.887000 | 6.218085  | 7.592622 | 5.612847 | 6.648627  | 9.737783 | 7.871565 |
| ## |           | ESRP2    | NEIL1     | CIDEC    | LIN7C    | CNTNAP1   | HPSE     | EPS8L3   |
| ## | GSM875412 | 8.024196 | 5.948668  | 6.836416 | 8.090574 | 6.088479  | 5.520975 | 9.996539 |
| ## | GSM875413 | 6.504840 | 5.571765  | 6.443631 | 6.485919 | 6.901730  | 4.395687 | 5.652312 |
| ## | GSM875414 | 9.890802 | 5.913755  | 6.874133 | 8.794875 | 6.161113  | 5.716552 | 9.505898 |
| ## |           | TRIM68   | C1orf50   | LAMC3    | PRMT7    | SNIP1     | TMEM45A  | ELMO3    |
| ## | GSM875412 | 6.576752 | 5.948596  | 4.743495 | 6.209719 | 6.044429  | 6.929600 | 6.881845 |
| ## | GSM875413 | 7.707902 | 6.487437  | 5.122986 | 6.474011 | 5.893317  | 9.534616 | 5.037612 |
| ## | GSM875414 | 6.390562 | 5.684290  | 5.876393 | 6.625545 | 6.370615  | 6.432005 | 8.066926 |
| ## |           | RAB38    | ACBD4     | CLSTN2   | TTYH1    | SCARA3    | BORCS6   | NHEJ1    |
| ## | GSM875412 | 6.047465 | 6.466910  | 3.580069 | 4.500383 | 6.284762  | 5.775794 | 6.233977 |
| ## | GSM875413 | 6.688759 | 7.078352  | 3.611768 | 4.483709 | 10.007188 | 6.429649 | 5.864913 |
| ## | GSM875414 | 5.846202 | 6.481930  | 3.441073 | 5.948498 | 5.435999  | 6.110039 | 5.763289 |
| ## |           | RBFA     | COA7      | TTC33    | EBI3     | SULT4A1   | AGO3     | FAT4     |
| ## | GSM875412 | 7.212714 | 6.603504  | 8.298125 | 5.393709 | 5.654718  | 7.820207 | 5.917439 |
| ## | GSM875413 | 7.918443 | 6.354531  | 7.788324 | 5.742069 | 5.936049  | 7.276957 | 5.936650 |
| ## | GSM875414 | 6.900146 | 7.562821  | 6.805322 | 5.955282 | 5.660448  | 6.638087 | 5.263952 |
| ## |           | PXMP4    | FA2H      | GPR137   | ARHGAP10 | BCOR      | TREM1    | CTC1     |
| ## | GSM875412 | 6.463697 | 7.727960  | 4.052165 | 6.353533 | 5.967999  | 6.239334 | 5.764987 |
| ## | GSM875413 | 6.873358 | 4.352296  | 4.436805 | 6.012851 | 6.638997  | 6.101811 | 7.250280 |
| ## | GSM875414 | 7.473233 | 7.794888  | 4.497181 | 6.167454 | 5.897358  | 6.493878 | 5.978763 |
| ## |           | EMCN     | ANKRD11   | NKAIN1   | C1GALT1  | RAI2      | CLUHP3   | TASP1    |
| ## | GSM875412 | 5.830367 | 7.046950  | 4.241148 | 9.052729 | 5.685768  | 7.273503 | 8.349866 |
| ## | GSM875413 | 4.857263 | 6.951935  | 4.291553 | 6.304549 | 9.031391  | 6.857267 | 6.940304 |
| ## | GSM875414 | 5.886148 | 7.578131  | 4.243456 | 8.109033 | 6.031457  | 7.006267 | 5.400546 |
| ## |           | BCORL1   | BICRA     | RIC8B    | SLC35C2  | TMEM70    | C4orf19  | DPEP2    |
| ## | GSM875412 | 6.179524 | 6.562313  | 6.812026 | 7.404969 | 5.084473  | 7.175456 | 5.099772 |
| ## | GSM875413 | 6.802210 | 6.834017  | 7.643599 | 7.735144 | 5.561316  | 4.340287 | 5.268477 |
| ## | GSM875414 | 6.653022 | 6.939169  | 6.257437 | 7.380378 | 5.643118  | 8.246925 | 5.602990 |
| ## |           | KLHL36   | EGFL6     | TMEM127  | LAMP5    | CA14      | APOA2    | CUEDC1   |
| ## | GSM875412 | 5.262648 | 4.710602  | 7.894117 | 5.903438 | 5.478101  | 4.007926 | 6.244068 |
| ## | GSM875413 | 5.113287 | 4.450512  | 8.273665 | 4.489805 | 5.807370  | 4.262059 | 6.635492 |
| ## | GSM875414 | 6.217158 | 4.933975  | 7.935399 | 4.761791 | 5.756444  | 5.081003 | 6.820122 |
| ## |           | CCNJ     | RUBCNL    | CENPO    | OSGIN1   | C1orf116  | WFDC1    | POGLUT2  |
| ## | GSM875412 | 5.960944 | 6.122915  | 5.574686 | 5.835467 | 8.762169  | 7.783115 | 6.232036 |
| ## | GSM875413 | 5.335291 | 6.872052  | 5.421578 | 5.934920 | 3.840267  | 5.896850 | 6.816995 |
| ## | GSM875414 | 4.535042 | 5.541564  | 5.570378 | 6.271307 | 9.244155  | 8.149637 | 6.237067 |
| ## |           | SNAI1    | TTC13     | PORCN    | HCFC2    | DUS2      | BBS10    | A4GALT   |
| ## | GSM875412 | 4.953639 | 8.304928  | 5.733527 | 5.856528 | 6.669763  | 4.896969 | 6.488396 |
| ## | GSM875413 | 4.957356 | 7.002499  | 6.774548 | 6.829536 | 6.814299  | 7.108716 | 6.482908 |
| ## | GSM875414 | 5.678117 | 7.458852  | 5.939438 | 6.827120 | 7.489063  | 4.565294 | 6.686357 |
| ## |           | DCLRE1B  | LRFN4     | CHIC2    | SHCBP1   | RAD54B    | ZNF180   | SOWAHC   |
| ## | GSM875412 | 5.404271 | 6.932207  | 8.383143 | 5.263629 | 6.376987  | 4.829646 | 7.940589 |
| ## | GSM875413 | 5.041046 | 5.855168  | 7.444551 | 4.320624 | 5.837302  | 4.750170 | 8.560521 |
| ## | GSM875414 | 5.410981 | 7.011369  | 8.330775 | 5.408715 | 5.109969  | 4.942872 | 7.624818 |
| ## |           | SEC61A2  | CLCF1     | ENOX1    | NEIL3    | TMEM40    | RPAP2    | ADA2     |
| ## | GSM875412 | 5.937767 | 6.270607  | 4.666830 | 4.098918 | 4.738284  | 6.284995 | 8.263327 |
| ## | GSM875413 | 5.930092 | 7.019791  | 8.658865 | 3.808688 | 4.421404  | 5.554375 | 8.701249 |
| ## | GSM875414 | 6.627576 | 7.189266  | 4.348666 | 4.208026 | 4.556046  | 5.833969 | 8.319621 |
| ## |           | C1orf54  | GCNT3     | MYOZ1    | SNCAIP   | DSN1      | SH2D3A   | TRPV4    |
| ## | GSM875412 | 8.602744 | 11.280470 | 5.433920 | 5.161798 | 6.536104  | 5.134768 | 5.478909 |
| ## | GSM875413 | 9.907733 | 4.635383  | 5.130771 | 8.961214 | 6.845535  | 3.918651 | 5.687359 |
| ## | GSM875414 | 8.670561 | 11.677479 | 5.653417 | 5.714783 | 6.377707  | 5.950328 | 6.258237 |
| ## |           | ELL3     | SIGLEC1   | WWC3     | B3GAT1   | FJX1      | NDUFAF5  | SLC47A1  |

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## GSM875412 7.148183 5.567138 6.918642 5.258211 5.655041 3.794033 4.734389
## GSM875413 5.353117 6.130047 10.579225 5.120898 8.456301 3.697270 3.960617
## GSM875414 7.107934 5.915538 7.038344 5.107554 5.312096 3.825828 4.521536
## RIOX1 MTARC2 BCL11B CLIC3 PALB2 ELOVL4 DLL3
## GSM875412 6.799628 6.771865 6.004456 6.310668 7.829607 3.936180 3.992944
## GSM875413 6.976984 5.001645 4.501049 4.583495 6.430805 6.355684 4.337523
## GSM875414 6.819085 8.008968 6.108461 5.548605 7.884610 3.756848 4.047547
## WDR5B GEMIN6 ZNF267 LIME1 BORA COX15 ZNF16
## GSM875412 6.418062 7.548090 7.469768 6.172114 7.497016 7.498075 6.068287
## GSM875413 6.264388 6.971709 6.269149 6.543230 4.517265 8.020942 6.874159
## GSM875414 4.872786 6.452189 7.667249 6.438554 7.014290 5.951968 6.175790
## RTN3 ROB3 NME7 RHCG CENPN TEDC2 NRIP3
## GSM875412 9.992600 5.956477 7.091518 4.307307 7.342791 6.316218 5.159339
## GSM875413 9.618385 5.557392 8.470825 4.458417 6.261123 5.788707 4.935510
## GSM875414 8.677794 5.454635 5.870380 4.581918 7.557041 6.216481 4.531301
## SLC17A9 RTL10 COPZ2 RAB26 KCNJ16 CYP20A1 PLEKHF1
## GSM875412 6.297523 6.037635 6.889062 5.656574 4.125749 6.961667 6.374395
## GSM875413 5.849609 5.849609 6.600513 5.214325 3.709633 5.707151 6.689601
## GSM875414 7.982321 6.086210 6.723713 5.088383 3.880745 7.045814 7.182955
## EXO5 SOX18 KIF16B CADPS2 MAP7D3 ABCA7 CPEB1
## GSM875412 3.802637 3.510742 6.085468 7.804582 4.428775 6.543523 4.289016
## GSM875413 3.802107 3.912198 7.363933 7.809045 5.067036 6.278490 5.642940
## GSM875414 3.587939 3.566182 4.935355 7.308764 4.546909 6.219121 4.381415
## RAB3IL1 TMC5 OGFRL1 SPATA7 PLA1A CCDC28B NCAPG2
## GSM875412 6.761316 10.494081 5.606268 5.775794 7.368813 4.063999 7.236116
## GSM875413 7.181521 4.346508 5.662043 7.150366 4.889243 4.370228 5.689567
## GSM875414 7.520656 9.206699 6.120786 6.120560 5.623889 4.207329 5.939527
## TMEM143 DPH5 CEND1 SLC15A3 NINJ2 THAP10 RWDD1
## GSM875412 4.945539 8.631797 6.337843 7.411476 6.075476 4.878988 9.151362
## GSM875413 5.075142 8.393923 7.212285 7.348327 4.969907 7.291282 9.657331
## GSM875414 5.387863 8.151710 6.214381 6.986445 6.249614 4.653382 8.977880
## TMEM50B ZNF226 FBX038 WDR25 CEP85 FGG SIRT6
## GSM875412 9.332611 6.559716 5.676344 4.518720 6.430850 3.828740 5.766786
## GSM875413 9.060561 7.728521 5.197857 5.530013 5.707483 3.696580 5.759911
## GSM875414 8.739624 5.009398 5.330047 5.541644 6.296267 3.868042 6.534394
## SLC6A20 KCNK5 ACSS3 IRAK4 DIRAS2 TOR4A RAB20
## GSM875412 6.738858 6.963372 4.891085 7.130456 2.981902 7.154171 9.311510
## GSM875413 3.949246 5.041046 5.113045 6.976269 3.299511 6.667119 8.305682
## GSM875414 4.588977 9.428357 4.880475 6.878864 3.174452 6.477970 9.217317
## ACTR5 BAG4 CERT1 ZNF767P FAM118A LRP12 TRPV1
## GSM875412 6.844801 4.163147 8.303859 6.337590 5.641907 5.048984 4.912564
## GSM875413 7.215479 3.685118 8.245437 7.897219 5.446001 6.637032 4.628821
## GSM875414 7.328721 3.997010 7.493461 6.027186 7.107934 4.615818 3.919771
## TTPAL CHST11 ZNF606 PARP6 DET1 PEX5L LRP1B
## GSM875412 6.431416 5.374786 4.915729 8.170620 6.512105 3.481593 3.083377
## GSM875413 6.075485 5.478649 5.874452 8.249689 8.273933 3.420808 5.183118
## GSM875414 6.024697 4.865991 5.490037 8.360891 4.870657 3.618973 3.025076
## CEP83 CASQ1 DEF8 POPDC2 MREG ALG6 ERCC6L
## GSM875412 6.336343 3.387111 6.821016 4.112493 6.822025 8.225858 5.303052
## GSM875413 6.491119 3.558967 7.273485 4.174786 3.492203 7.212238 4.390159
## GSM875414 5.542249 3.472466 8.070152 4.689540 6.456670 8.208126 4.463357
## DPPA4 SUGCT PCDH12 KLF3 ATP8A2 RANBP17 C2orf49
## GSM875412 3.254932 5.643172 5.720277 7.626146 3.933852 6.373584 7.045508
## GSM875413 3.208427 6.365151 6.632211 5.782226 7.524274 6.277753 6.137447

```

|    |           |          |           |          |          |           |           |          |
|----|-----------|----------|-----------|----------|----------|-----------|-----------|----------|
| ## | GSM875414 | 3.186922 | 4.957756  | 6.583764 | 9.484191 | 4.131658  | 6.133116  | 7.129976 |
| ## |           | TMEM121  | DECR2     | NUDT18   | MS4A6A   | GDAP1L1   | CD177     | HPCAL4   |
| ## | GSM875412 | 4.760478 | 8.323421  | 4.748160 | 8.895974 | 4.343819  | 5.147100  | 3.614825 |
| ## | GSM875413 | 4.878045 | 7.654154  | 5.755592 | 8.448668 | 4.753941  | 5.285300  | 4.099433 |
| ## | GSM875414 | 4.905654 | 8.186826  | 5.287039 | 8.334870 | 4.044088  | 5.191009  | 3.558786 |
| ## |           | AHSP     | UXS1      | ZSCAN16  | SPSB1    | DCLRE1C   | RAB11FIP1 | TBX3     |
| ## | GSM875412 | 4.373775 | 8.063842  | 5.960919 | 6.758754 | 7.059025  | 8.734874  | 6.550725 |
| ## | GSM875413 | 4.269157 | 7.797957  | 4.196303 | 5.756818 | 6.411821  | 5.347444  | 7.809820 |
| ## | GSM875414 | 4.304060 | 8.156577  | 6.167670 | 6.501753 | 6.795264  | 8.072864  | 4.910966 |
| ## |           | FZD3     | RTP4      | TMEM35A  | STK32B   | HHAT      | BBS7      | SEMA3G   |
| ## | GSM875412 | 4.223123 | 7.775783  | 3.836660 | 5.069967 | 4.993561  | 4.876118  | 5.300166 |
| ## | GSM875413 | 5.439683 | 6.641914  | 8.601216 | 7.077760 | 6.061647  | 3.820658  | 5.801084 |
| ## | GSM875414 | 3.835445 | 5.757491  | 3.585933 | 4.865589 | 4.576938  | 4.343343  | 5.999206 |
| ## |           | IGFLR1   | SAMD9     | KREMEN2  | AGPAT4   | SMPD3     | HS3ST2    | METTL4   |
| ## | GSM875412 | 6.386059 | 8.124798  | 5.799492 | 5.091560 | 6.413370  | 6.034092  | 6.750565 |
| ## | GSM875413 | 5.778396 | 5.796181  | 5.592355 | 6.449200 | 5.499327  | 4.904756  | 6.934853 |
| ## | GSM875414 | 6.819623 | 5.290046  | 5.816050 | 4.950128 | 6.257840  | 5.807416  | 5.719112 |
| ## |           | LGI2     | TMOD2     | PLAC1    | MNS1     | YBX2      | QSER1     | AP5S1    |
| ## | GSM875412 | 6.117570 | 3.434491  | 4.120080 | 5.865121 | 6.290739  | 4.666869  | 5.985760 |
| ## | GSM875413 | 7.118636 | 3.500195  | 4.338817 | 4.916931 | 5.935608  | 3.778591  | 7.577293 |
| ## | GSM875414 | 5.824953 | 3.424818  | 4.371130 | 5.036221 | 6.106378  | 3.944040  | 6.411804 |
| ## |           | CPNE7    | NT5M      | ANTKMT   | SH3TC2   | SHPK      | CACNA2D3  | TDP1     |
| ## | GSM875412 | 6.245951 | 4.897924  | 6.794206 | 3.904592 | 5.850399  | 4.124984  | 7.182848 |
| ## | GSM875413 | 6.282305 | 5.138133  | 6.961926 | 3.644267 | 5.833522  | 5.735258  | 6.808917 |
| ## | GSM875414 | 6.396493 | 4.736978  | 7.897325 | 4.061490 | 5.890158  | 3.804036  | 7.296287 |
| ## |           | DCAF16   | FGGY      | HIGD1B   | GPATCH2L | GDPD3     | AGPAT3    | TESPA1   |
| ## | GSM875412 | 5.514816 | 6.196911  | 5.327931 | 4.350574 | 7.279353  | 6.150885  | 3.784226 |
| ## | GSM875413 | 4.375142 | 6.560265  | 5.397202 | 4.213684 | 5.309477  | 5.225839  | 3.812088 |
| ## | GSM875414 | 5.689107 | 5.521858  | 5.230239 | 4.482755 | 11.255463 | 5.435843  | 3.879487 |
| ## |           | TREM2    | NLGN3     | DUOX2    | MYOT     | PRRX2     | MED18     | SLC27A5  |
| ## | GSM875412 | 7.642352 | 4.330412  | 9.576894 | 3.267993 | 6.621119  | 3.960998  | 5.421282 |
| ## | GSM875413 | 7.705741 | 5.109068  | 4.069679 | 3.685148 | 6.867712  | 3.479968  | 5.886391 |
| ## | GSM875414 | 7.579935 | 5.006141  | 6.368588 | 3.481602 | 7.139253  | 3.725485  | 6.364824 |
| ## |           | SIDT1    | TFCP2L1   | RNF186   | ZNF552   | PRR7      | HEY2      | FN3K     |
| ## | GSM875412 | 4.759950 | 6.171931  | 6.000863 | 6.802946 | 4.842892  | 5.156252  | 3.906319 |
| ## | GSM875413 | 4.683074 | 4.273751  | 4.794183 | 5.896676 | 5.216023  | 6.519733  | 4.441230 |
| ## | GSM875414 | 5.177614 | 5.631361  | 5.186814 | 6.426473 | 5.141892  | 5.284474  | 4.424027 |
| ## |           | MFS13A   | DPF3      | NDNF     | TREML2   | SH2D4A    | RASAL1    | STAG3    |
| ## | GSM875412 | 6.131685 | 4.559536  | 7.053193 | 5.389177 | 6.428793  | 6.915197  | 5.438667 |
| ## | GSM875413 | 5.379304 | 4.346197  | 5.789011 | 5.754617 | 5.974472  | 5.279106  | 5.498576 |
| ## | GSM875414 | 5.974296 | 4.495399  | 7.052387 | 5.926272 | 6.786461  | 6.995789  | 6.337897 |
| ## |           | RBM41    | CBX8      | TMEM260  | LIN7B    | CLEC1A    | RPL36     | DENND1A  |
| ## | GSM875412 | 6.990868 | 4.852036  | 7.859452 | 4.848662 | 4.585583  | 10.55600  | 6.169173 |
| ## | GSM875413 | 6.236600 | 4.865383  | 6.856633 | 5.678095 | 5.248722  | 10.93475  | 4.888612 |
| ## | GSM875414 | 6.134978 | 5.405869  | 6.618488 | 5.680828 | 4.237592  | 10.61344  | 5.150210 |
| ## |           | FZD10    | ZNF329    | B9D2     | VTCN1    | INCENP    | GTDC1     | SMPX     |
| ## | GSM875412 | 5.042145 | 5.250271  | 5.757403 | 5.869580 | 5.171948  | 7.378358  | 4.355514 |
| ## | GSM875413 | 7.419873 | 6.092556  | 6.114029 | 3.881330 | 5.027611  | 6.219612  | 4.126665 |
| ## | GSM875414 | 3.734537 | 5.555322  | 5.771116 | 4.469689 | 5.205458  | 6.153219  | 3.812188 |
| ## |           | NOX4     | CPLX3     | GIMAP6   | ZFPM2    | ZNF771    | TESMIN    | ECT2     |
| ## | GSM875412 | 5.649510 | 5.677657  | 6.085154 | 5.674285 | 3.599741  | 4.063182  | 9.092282 |
| ## | GSM875413 | 4.028440 | 5.607718  | 5.794772 | 8.602793 | 3.820775  | 3.920626  | 5.220660 |
| ## | GSM875414 | 4.089761 | 5.852138  | 5.756444 | 4.089950 | 3.770936  | 4.201006  | 9.497685 |
| ## |           | PILRA    | HAND2-AS1 | AGMAT    | SNX16    | SLC6A14   | CDHR5     | MEPCE    |

|    |           |           |              |          |           |          |           |           |
|----|-----------|-----------|--------------|----------|-----------|----------|-----------|-----------|
| ## | GSM875412 | 4.640549  | 3.686588     | 3.865062 | 4.408029  | 6.811844 | 6.227986  | 7.558583  |
| ## | GSM875413 | 4.982636  | 8.027251     | 3.799712 | 4.599394  | 3.327530 | 5.461469  | 9.070876  |
| ## | GSM875414 | 4.936313  | 3.728139     | 3.731291 | 3.697236  | 3.679256 | 7.900299  | 7.514290  |
| ## |           | DHRS9     | THNSL1       | ZNF34    | ANGPTL3   | SYNP02L  | STEEP1    | SMC04     |
| ## | GSM875412 | 6.578283  | 3.852648     | 4.866277 | 3.342419  | 3.326194 | 4.395197  | 9.610166  |
| ## | GSM875413 | 6.273182  | 3.613212     | 5.363186 | 3.514095  | 3.564061 | 5.332208  | 7.856140  |
| ## | GSM875414 | 6.971544  | 3.504110     | 5.356390 | 3.595212  | 3.613299 | 4.094608  | 10.153046 |
| ## |           | SCLY      | WDR55        | PVRIG    | MBNL3     | GAL3ST4  | RBM23     | GPATCH1   |
| ## | GSM875412 | 4.686512  | 7.335580     | 6.172714 | 4.404874  | 6.731391 | 7.679315  | 6.921807  |
| ## | GSM875413 | 4.693563  | 6.886827     | 6.272735 | 4.113795  | 7.626438 | 8.773503  | 7.425818  |
| ## | GSM875414 | 4.898695  | 6.730189     | 6.474313 | 4.349274  | 6.686162 | 8.751551  | 7.389061  |
| ## |           | MRPS28    | MTRF1        | LIN28A   | SLC13A4   | CYP26B1  | ZNF419    | RABL6     |
| ## | GSM875412 | 8.577191  | 7.542725     | 3.524240 | 5.256145  | 4.467107 | 5.581215  | 6.371539  |
| ## | GSM875413 | 9.515345  | 5.150972     | 3.416835 | 5.860418  | 4.332892 | 6.152825  | 4.913300  |
| ## | GSM875414 | 9.081823  | 5.625282     | 3.481087 | 6.055813  | 4.307569 | 5.695935  | 7.174692  |
| ## |           | ITGB1BP2  | CDKL3        | HOCX13   | EFHC1     | PRDM8    | ZBED2     | CYTL1     |
| ## | GSM875412 | 4.811634  | 4.791753     | 4.242608 | 7.340242  | 4.989776 | 4.488911  | 3.909650  |
| ## | GSM875413 | 5.310727  | 6.452884     | 4.529633 | 6.919740  | 4.862128 | 3.892052  | 6.758103  |
| ## | GSM875414 | 4.407263  | 4.630094     | 4.509185 | 6.816910  | 5.506761 | 4.266383  | 4.301978  |
| ## |           | AICDA     | ARL15        | CCDC186  | BARX1     | HDAC11   | ZNF432    | ZNF671    |
| ## | GSM875412 | 3.619805  | 3.858847     | 6.285275 | 5.054821  | 6.381556 | 7.472867  | 5.438077  |
| ## | GSM875413 | 3.573595  | 3.979601     | 4.266380 | 8.800757  | 6.473768 | 7.731222  | 6.506183  |
| ## | GSM875414 | 3.486664  | 4.008328     | 4.831195 | 5.847495  | 6.693729 | 6.162608  | 6.197496  |
| ## |           | EHF       | ZNF613       | FKRP     | ZNF14     | NUDT11   | MFSDB     | CLEC4E    |
| ## | GSM875412 | 8.923571  | 3.557394     | 3.822682 | 5.790453  | 4.629667 | 7.567015  | 3.635583  |
| ## | GSM875413 | 4.008067  | 3.304143     | 4.192697 | 6.531815  | 8.512034 | 6.209812  | 3.627953  |
| ## | GSM875414 | 9.100468  | 3.471543     | 3.810643 | 6.237859  | 4.746796 | 7.095954  | 3.512680  |
| ## |           | LY6G5C    | DNAJC17      | NARF     | HERC5     | RCAN3    | LINC00339 | CHODL     |
| ## | GSM875412 | 4.597046  | 6.144603     | 7.990389 | 6.630685  | 4.541038 | 5.288345  | 3.858996  |
| ## | GSM875413 | 4.453944  | 6.262215     | 7.839098 | 7.406778  | 3.853739 | 4.881877  | 4.718445  |
| ## | GSM875414 | 4.469694  | 5.881711     | 9.018887 | 5.378773  | 4.719993 | 4.925004  | 4.000143  |
| ## |           | ATF7IP2   | GASK1B       | COLEC11  | SLC12A8   | GOLGA2P5 | ZMAT4     | KLF13     |
| ## | GSM875412 | 7.057528  | 6.741803     | 5.191635 | 7.214809  | 4.832310 | 4.639697  | 5.395399  |
| ## | GSM875413 | 6.504323  | 5.627608     | 4.698552 | 4.273676  | 4.766841 | 5.127124  | 5.043224  |
| ## | GSM875414 | 7.705587  | 6.674945     | 5.243999 | 6.363951  | 4.990864 | 4.848846  | 6.800166  |
| ## |           | HROB      | CTC-338M12.4 | TTLL7    | LHX6      | SLFN12   | CEP97     | CCDC87    |
| ## | GSM875412 | 5.084885  | 6.351610     | 4.716708 | 5.535443  | 4.371281 | 4.270240  | 5.086468  |
| ## | GSM875413 | 5.366057  | 6.088311     | 4.695752 | 4.879742  | 5.210173 | 3.918211  | 5.108341  |
| ## | GSM875414 | 5.453374  | 6.532856     | 5.301114 | 5.879630  | 4.459376 | 3.960842  | 5.259607  |
| ## |           | SPAG4     | FRAT1        | CLEC5A   | TM6SF1    | CCDC71   | MAGEL2    | TMEM255A  |
| ## | GSM875412 | 5.922702  | 5.498987     | 4.355088 | 5.897358  | 5.541881 | 3.754396  | 5.160014  |
| ## | GSM875413 | 6.830696  | 5.192145     | 4.187581 | 5.903983  | 5.470632 | 6.461481  | 5.785189  |
| ## | GSM875414 | 6.031482  | 6.629012     | 3.983460 | 4.392006  | 5.240234 | 3.561263  | 3.920117  |
| ## |           | RNF122    | GPR85        | NDOR1    | BHMT2     | ERMAP    | EBLN2     | FRS3      |
| ## | GSM875412 | 5.650394  | 3.227144     | 5.580025 | 5.192433  | 5.223771 | 6.799482  | 5.970060  |
| ## | GSM875413 | 5.617275  | 3.525530     | 6.113524 | 10.805555 | 5.603723 | 6.280280  | 6.409256  |
| ## | GSM875414 | 5.260437  | 3.409242     | 6.147613 | 5.031787  | 4.400104 | 6.837433  | 7.008833  |
| ## |           | DKK2      | MMP28        | FICD     | SLC04A1   | ENPP3    | CRNKL1    | ECEL1     |
| ## | GSM875412 | 4.807758  | 4.338958     | 6.360082 | 8.093542  | 3.864650 | 6.880330  | 4.547083  |
| ## | GSM875413 | 11.190489 | 5.720559     | 7.196341 | 4.850707  | 3.923653 | 8.440920  | 4.738248  |
| ## | GSM875414 | 3.545941  | 4.143681     | 6.291699 | 8.404828  | 4.387667 | 6.285306  | 5.044782  |
| ## |           | SLC16A10  | RNF39        | ZCCHC4   | ASPM      | GMPPB    | LTBP3     | TRIM45    |
| ## | GSM875412 | 4.316496  | 5.640997     | 5.082704 | 7.604795  | 7.607085 | 7.855522  | 5.961093  |
| ## | GSM875413 | 3.866030  | 4.811747     | 4.570239 | 3.602548  | 7.311779 | 9.695521  | 6.833976  |

|    |           |          |          |            |          |          |          |          |
|----|-----------|----------|----------|------------|----------|----------|----------|----------|
| ## | GSM875414 | 3.788186 | 8.235359 | 4.597885   | 6.067276 | 8.009868 | 8.961432 | 5.476835 |
| ## |           | POPDC3   | CABYR    | ZFYVE21    | KLF8     | KLHL12   | SLC27A6  | GLRX2    |
| ## | GSM875412 | 3.531194 | 4.064820 | 6.003121   | 3.637451 | 7.169974 | 3.839242 | 8.058389 |
| ## | GSM875413 | 3.294375 | 5.290343 | 7.261888   | 3.798390 | 6.151485 | 4.132082 | 7.670181 |
| ## | GSM875414 | 3.314681 | 3.806858 | 6.768738   | 3.622657 | 6.689266 | 3.613268 | 8.520630 |
| ## |           | SULT1E1  | GPR87    | TRHDE      | PSTPIP2  | PCID2    | TMEM19   | MYL7     |
| ## | GSM875412 | 3.493601 | 3.404451 | 3.811872   | 5.382512 | 8.506879 | 4.330642 | 5.054131 |
| ## | GSM875413 | 3.594726 | 3.529398 | 5.551158   | 5.840354 | 7.918483 | 3.783733 | 5.160679 |
| ## | GSM875414 | 3.653107 | 3.968721 | 3.454206   | 4.635258 | 8.201244 | 3.921234 | 5.133179 |
| ## |           | CLIP4    | DDX25    | CLEC4A     | UGT2A3   | LRR2     | TIAM2    | MCOLN1   |
| ## | GSM875412 | 5.085372 | 3.429574 | 5.438134   | 3.319724 | 3.726579 | 4.095333 | 6.895844 |
| ## | GSM875413 | 4.624398 | 3.997028 | 5.889755   | 3.423812 | 3.174735 | 3.985821 | 8.014252 |
| ## | GSM875414 | 5.242806 | 5.092107 | 5.538433   | 3.142158 | 3.313594 | 3.678625 | 7.497730 |
| ## |           | AKIP1    | GBA3     | L1TD1      | GALNT6   | TMEM74B  | MOCOS    | KIZ      |
| ## | GSM875412 | 7.836984 | 3.990624 | 4.460585   | 7.730310 | 7.267337 | 9.445059 | 7.985670 |
| ## | GSM875413 | 8.517374 | 4.204774 | 4.526228   | 4.980193 | 5.117471 | 5.473997 | 8.641710 |
| ## | GSM875414 | 7.576403 | 4.599095 | 4.829412   | 7.945051 | 5.762560 | 6.031036 | 5.574468 |
| ## |           | ACE2     | DUSP13   | BANP       | MRM1     | GIPC2    | IL21R    | ARSJ     |
| ## | GSM875412 | 3.801733 | 5.317614 | 7.500980   | 6.153477 | 7.389500 | 3.953965 | 4.389991 |
| ## | GSM875413 | 5.786831 | 5.632592 | 7.766047   | 5.538537 | 3.315801 | 3.945621 | 4.549372 |
| ## | GSM875414 | 4.053486 | 5.697633 | 8.215988   | 5.673381 | 3.510848 | 4.221011 | 4.102182 |
| ## |           | ECHDC1   | OLAH     | HOKK1      | AIPL1    | HIKESHI  | ABHD18   | PLAAT1   |
| ## | GSM875412 | 8.786743 | 3.320401 | 5.629590   | 3.806193 | 6.776332 | 5.638224 | 3.583034 |
| ## | GSM875413 | 7.503775 | 3.311405 | 3.988674   | 3.868508 | 7.048889 | 5.268968 | 6.327955 |
| ## | GSM875414 | 9.275713 | 3.217035 | 4.424918   | 3.813322 | 6.256068 | 5.778595 | 4.073686 |
| ## |           | HS3ST3A1 | ACAD10   | ERVMER34-1 | RNF220   | ANKS1B   | E2F8     | SLC2A9   |
| ## | GSM875412 | 4.220911 | 6.208958 | 4.636354   | 8.015424 | 3.492735 | 8.470762 | 5.042917 |
| ## | GSM875413 | 5.758516 | 6.713234 | 4.239258   | 8.163251 | 3.617533 | 3.465950 | 4.875835 |
| ## | GSM875414 | 4.336596 | 4.808582 | 5.276963   | 8.447111 | 3.543864 | 5.365669 | 4.879997 |
| ## |           | TAC3     | SOX17    | ZNF750     | ASB7     | COPS7B   | LGALS1   | SIGLEC5  |
| ## | GSM875412 | 5.428286 | 4.148457 | 3.051676   | 5.659751 | 6.889980 | 5.746800 | 4.435561 |
| ## | GSM875413 | 4.899318 | 4.411709 | 3.079613   | 4.546562 | 7.010799 | 4.723652 | 4.766394 |
| ## | GSM875414 | 5.645146 | 4.751207 | 3.059411   | 5.464621 | 7.085721 | 6.002466 | 4.864474 |
| ## |           | LRR36    | DDX43    | P2RY13     | EFCC1    | PEAK1    | LONRF3   | KCNE5    |
| ## | GSM875412 | 4.801054 | 3.762875 | 4.127313   | 5.375683 | 5.570544 | 4.837347 | 4.004084 |
| ## | GSM875413 | 5.002917 | 3.832528 | 4.718483   | 7.013768 | 5.754777 | 5.147840 | 4.130553 |
| ## | GSM875414 | 5.385211 | 3.897947 | 4.407207   | 6.389244 | 6.246047 | 5.271619 | 4.234642 |
| ## |           | AUNIP    | ERO1B    | EPHX3      | CASZ1    | CBLL1    | XPNPEP3  | ZNF334   |
| ## | GSM875412 | 5.987413 | 4.963051 | 4.785651   | 7.397664 | 4.966337 | 5.725646 | 3.364264 |
| ## | GSM875413 | 4.174320 | 3.934747 | 4.665023   | 7.272571 | 5.216917 | 5.618121 | 3.333203 |
| ## | GSM875414 | 4.297504 | 4.601902 | 5.529495   | 7.160951 | 4.252486 | 5.627974 | 3.891591 |
| ## |           | APOBR    | PRX      | TBR1       | CLCA4    | RASIP1   | STYK1    | CPED1    |
| ## | GSM875412 | 4.766178 | 6.081629 | 3.621993   | 3.371043 | 4.990265 | 5.498987 | 5.941237 |
| ## | GSM875413 | 5.220963 | 6.484130 | 3.688110   | 3.322742 | 5.710698 | 3.265199 | 7.920255 |
| ## | GSM875414 | 5.198607 | 6.402399 | 3.738560   | 3.303917 | 5.397050 | 4.381345 | 6.073713 |
| ## |           | LMBR1L   | ZC4H2    | PIGZ       | HIVEP3   | NEUROD6  | SIRT4    | EDAR     |
| ## | GSM875412 | 7.006314 | 5.906621 | 5.427665   | 6.319433 | 5.039876 | 3.508413 | 7.261233 |
| ## | GSM875413 | 8.736660 | 7.764149 | 4.488219   | 6.390247 | 5.298714 | 3.904446 | 5.333307 |
| ## | GSM875414 | 6.697372 | 5.692845 | 6.331817   | 6.288768 | 5.229499 | 3.645292 | 5.760557 |
| ## |           | PDCD1LG2 | SPACA9   | PRSS21     | TINF2    | GDF3     | IL22RA1  | GID4     |
| ## | GSM875412 | 4.115060 | 4.997731 | 7.808708   | 6.579215 | 4.550366 | 5.852879 | 4.056699 |
| ## | GSM875413 | 3.897299 | 5.870349 | 4.516163   | 7.620129 | 4.783973 | 4.629557 | 4.308254 |
| ## | GSM875414 | 4.494261 | 5.677323 | 8.363214   | 7.993638 | 5.016626 | 6.526386 | 4.169384 |
| ## |           | PARBPB   | TTC21B   | TNMD       | NOD2     | SPTBN5   | VPREB3   | TUBA8    |

|    |           |          |          |           |           |           |          |          |
|----|-----------|----------|----------|-----------|-----------|-----------|----------|----------|
| ## | GSM875412 | 4.263475 | 4.232288 | 3.541536  | 4.084795  | 5.082408  | 4.945196 | 5.031784 |
| ## | GSM875413 | 3.198219 | 3.696034 | 3.624646  | 4.650464  | 5.423732  | 5.238305 | 4.951686 |
| ## | GSM875414 | 4.096324 | 4.171675 | 4.101212  | 4.124341  | 5.428499  | 5.310622 | 5.056168 |
| ## |           | KDM8     | HAUS2    | PLEKHG6   | CCDC134   | USP48     | FBXL8    | HSD17B7  |
| ## | GSM875412 | 5.401655 | 9.323857 | 6.550212  | 4.794636  | 5.934442  | 4.508273 | 8.583804 |
| ## | GSM875413 | 5.724181 | 9.256405 | 6.097236  | 5.460048  | 5.635843  | 4.308467 | 7.956043 |
| ## | GSM875414 | 5.580759 | 9.428597 | 6.064874  | 5.276626  | 5.855264  | 5.700682 | 8.670881 |
| ## |           | PPP1R14D | HELLS    | IKZF5     | BCO1      | C5AR1     | L2HGDH   | CRNN     |
| ## | GSM875412 | 6.873417 | 6.061999 | 6.491685  | 4.103620  | 7.485951  | 5.290811 | 4.326258 |
| ## | GSM875413 | 5.664965 | 4.165364 | 5.421578  | 3.531963  | 8.048949  | 5.042279 | 4.278784 |
| ## | GSM875414 | 6.034249 | 5.085738 | 6.564687  | 3.587866  | 7.300370  | 4.922400 | 4.565094 |
| ## |           | SLC2A6   | ANTXR1   | MCUR1     | TMEM104   | SLC22A11  | FOXL2    | MRPS18C  |
| ## | GSM875412 | 5.785002 | 4.631147 | 8.710615  | 5.962950  | 3.819107  | 3.564229 | 3.435556 |
| ## | GSM875413 | 6.808878 | 4.121228 | 6.818895  | 6.794280  | 4.002332  | 3.851378 | 3.611768 |
| ## | GSM875414 | 5.606006 | 4.916134 | 9.398089  | 6.161113  | 4.504215  | 3.576012 | 3.443482 |
| ## |           | RSPH14   | NPC1L1   | ZC2HC1C   | GNA14     | NXF3      | ANO2     | ANKRD55  |
| ## | GSM875412 | 4.126572 | 5.702836 | 4.608132  | 5.734794  | 5.807958  | 3.917308 | 3.454719 |
| ## | GSM875413 | 4.693109 | 5.270540 | 5.041046  | 3.813914  | 4.539278  | 4.661199 | 3.655775 |
| ## | GSM875414 | 5.204005 | 5.036216 | 4.629223  | 4.396558  | 6.164413  | 3.713793 | 3.473265 |
| ## |           | STAB2    | CDH10    | KCNN2     | ZNF385D   | ZBTB32    | SLC35F5  | GAN      |
| ## | GSM875412 | 4.304130 | 3.720526 | 3.960969  | 5.230549  | 5.169203  | 4.376100 | 3.759091 |
| ## | GSM875413 | 4.350240 | 5.387606 | 7.567620  | 5.180280  | 5.284263  | 3.563583 | 3.417003 |
| ## | GSM875414 | 5.280998 | 3.781112 | 4.147112  | 5.251973  | 5.400213  | 4.178253 | 3.772203 |
| ## |           | DNAI1    | PRSS50   | FBXL12    | NIPAL2    | LTB4R2    | FXYP7    | CLEC2D   |
| ## | GSM875412 | 4.203449 | 4.694649 | 7.543925  | 6.743352  | 5.053761  | 3.956321 | 4.642939 |
| ## | GSM875413 | 4.576062 | 5.056266 | 7.689015  | 6.312891  | 5.084648  | 4.254882 | 4.320624 |
| ## | GSM875414 | 4.930621 | 5.302154 | 8.023405  | 6.605786  | 4.598587  | 5.167076 | 4.112188 |
| ## |           | ODAM     | EVA1B    | SLC7A9    | CRYBA2    | HAND1     | DNMT3L   | SNX11    |
| ## | GSM875412 | 4.986343 | 6.105706 | 5.306413  | 4.330164  | 4.300707  | 3.839708 | 7.618818 |
| ## | GSM875413 | 3.685541 | 7.720195 | 4.439057  | 4.320624  | 3.965716  | 4.107803 | 7.116339 |
| ## | GSM875414 | 4.703601 | 6.006028 | 4.079956  | 4.373717  | 4.116462  | 4.122284 | 7.429446 |
| ## |           | HAPLN2   | ANKEF1   | MAP9      | TLR7      | SINHCAF   | ALDH8A1  | MAB21L4  |
| ## | GSM875412 | 4.795549 | 4.604986 | 3.841131  | 5.142174  | 9.388034  | 3.704220 | 4.081005 |
| ## | GSM875413 | 5.472997 | 4.215578 | 5.611775  | 5.530968  | 6.778604  | 3.419981 | 4.165022 |
| ## | GSM875414 | 5.879630 | 4.957515 | 4.652890  | 4.173587  | 8.421022  | 3.544492 | 4.764184 |
| ## |           | C19orf73 | C10orf95 | ENTPD7    | BRD9      | PLEKHA8P1 | LGALS14  | ABCA11P  |
| ## | GSM875412 | 4.443152 | 4.884386 | 5.990275  | 7.524594  | 5.796469  | 3.858662 | 6.285139 |
| ## | GSM875413 | 4.603268 | 5.032508 | 4.515507  | 8.711800  | 6.617823  | 3.739392 | 5.841298 |
| ## | GSM875414 | 5.044409 | 5.942461 | 6.866404  | 7.486463  | 6.099807  | 4.094308 | 4.856606 |
| ## |           | KPTN     | EPB41L4B | CARD9     | FBX040    | INO80D    | CNNM1    | DNAI7    |
| ## | GSM875412 | 5.273679 | 9.720950 | 5.004404  | 4.368624  | 6.475985  | 4.756607 | 3.420323 |
| ## | GSM875413 | 5.949576 | 5.480869 | 5.271746  | 4.418498  | 6.278436  | 5.367761 | 3.895716 |
| ## | GSM875414 | 5.777161 | 6.599266 | 4.897924  | 4.351998  | 6.513166  | 4.939661 | 3.356821 |
| ## |           | TMEM156  | GPALPP1  | DCAF17    | BBOF1     | LRRC8E    | NUBPL    | TMPRSS3  |
| ## | GSM875412 | 3.743611 | 6.005546 | 4.874450  | 5.656595  | 5.192141  | 8.085059 | 7.109769 |
| ## | GSM875413 | 3.630194 | 4.796109 | 3.422705  | 7.355729  | 4.114392  | 7.232259 | 3.734087 |
| ## | GSM875414 | 3.588573 | 5.410107 | 3.672232  | 5.009425  | 4.499808  | 6.360656 | 7.805438 |
| ## |           | MFSD12   | DPEP3    | CCDC68    | SLC25A23  | NUDT6     | NANOG    | SPTBN4   |
| ## | GSM875412 | 6.466819 | 4.388513 | 7.289248  | 4.997112  | 4.734533  | 3.968541 | 6.054772 |
| ## | GSM875413 | 7.135282 | 4.976120 | 10.127283 | 5.015510  | 5.573654  | 5.853095 | 6.277656 |
| ## | GSM875414 | 5.756461 | 5.481102 | 8.180526  | 5.357361  | 5.315030  | 3.749513 | 6.056333 |
| ## |           | CDHR2    | JPH3     | MGAT4B    | GKN1      | SH3D21    | NSUN7    | MBD5     |
| ## | GSM875412 | 7.351022 | 3.921231 | 8.512546  | 11.028561 | 5.926892  | 3.464800 | 6.106154 |
| ## | GSM875413 | 6.425474 | 3.945735 | 7.097120  | 9.523820  | 5.757772  | 3.323786 | 5.834918 |



|    |           |          |           |            |          |           |           |          |
|----|-----------|----------|-----------|------------|----------|-----------|-----------|----------|
| ## | GSM875414 | 6.657532 | 4.197218  | 9.223515   | 7.059334 | 6.177642  | 3.364565  | 5.019817 |
| ## |           | MUC16    | ATP6VOA4  | EIF5A2     | AIDA     | KMT5A     | RC3H2     | BMP8A    |
| ## | GSM875412 | 5.573611 | 3.914822  | 4.947824   | 8.738513 | 6.041432  | 5.958308  | 6.420934 |
| ## | GSM875413 | 3.870630 | 3.760489  | 4.678708   | 7.993482 | 6.381669  | 5.051143  | 5.769668 |
| ## | GSM875414 | 4.792125 | 4.127138  | 4.382199   | 9.136431 | 6.286641  | 5.197555  | 5.941822 |
| ## |           | TPTE     | ZMYM1     | ADAMTS13   | PYY2     | FLJ13224  | TSHZ2     | ZNF669   |
| ## | GSM875412 | 3.240602 | 6.324261  | 5.891185   | 5.218879 | 3.732352  | 6.103329  | 5.316802 |
| ## | GSM875413 | 3.288649 | 5.654186  | 5.979190   | 6.080728 | 3.730301  | 8.167179  | 5.396050 |
| ## | GSM875414 | 3.471304 | 5.066031  | 6.363520   | 6.931642 | 4.482848  | 5.101899  | 6.302103 |
| ## |           | C8orf44  | LRRC37A4P | RBM12B-AS1 | ATAD5    | HA01      | IRX4      | TRPM8    |
| ## | GSM875412 | 5.511350 | 3.577860  | 4.250100   | 5.458688 | 3.439866  | 3.948977  | 4.776023 |
| ## | GSM875413 | 5.238708 | 3.377463  | 4.812533   | 5.159968 | 3.441882  | 4.393414  | 4.902583 |
| ## | GSM875414 | 4.230019 | 3.705831  | 5.471079   | 5.121534 | 3.297031  | 5.364189  | 4.897979 |
| ## |           | AP4E1    | CYB5R2    | PPP1R17    | SCD5     | FBX017    | LRIF1     | PDPR     |
| ## | GSM875412 | 3.513815 | 7.179098  | 4.031351   | 7.056588 | 4.548790  | 6.410007  | 4.640634 |
| ## | GSM875413 | 3.454870 | 5.609930  | 3.986678   | 6.540713 | 6.685883  | 6.915852  | 4.024860 |
| ## | GSM875414 | 3.435558 | 8.107922  | 4.126096   | 6.413729 | 5.592338  | 6.098997  | 4.056615 |
| ## |           | ATG3     | KLHL7     | TMC03      | ZNF701   | LINC00312 | SLC45A2   | CAMK1D   |
| ## | GSM875412 | 3.839867 | 4.944738  | 6.874720   | 4.662938 | 5.568450  | 5.203543  | 4.862451 |
| ## | GSM875413 | 3.303703 | 4.192423  | 6.189401   | 4.398441 | 4.465875  | 5.089949  | 5.110406 |
| ## | GSM875414 | 3.777461 | 4.503820  | 6.839243   | 4.690145 | 5.114110  | 5.162973  | 4.920070 |
| ## |           | HYAL4    | TASL      | FANCE      | WRAP53   | PLEKHH3   | TBC1D19   | ZDHHC4   |
| ## | GSM875412 | 4.515630 | 6.066528  | 5.838949   | 6.810423 | 3.831585  | 5.262220  | 7.747787 |
| ## | GSM875413 | 4.607685 | 5.905990  | 5.749929   | 6.785497 | 4.147873  | 6.940982  | 9.391305 |
| ## | GSM875414 | 4.848677 | 6.267587  | 5.557837   | 6.891400 | 4.194309  | 3.927523  | 6.889487 |
| ## |           | DLK2     | SMAD5-AS1 | KLF4       | KRT24    | AAMDC     | ZBBX      | BNC2     |
| ## | GSM875412 | 5.101744 | 3.741402  | 7.489897   | 4.106847 | 3.357101  | 3.588838  | 5.639261 |
| ## | GSM875413 | 5.140781 | 4.179979  | 5.303439   | 3.848450 | 3.255312  | 3.685541  | 6.823654 |
| ## | GSM875414 | 5.735652 | 3.881498  | 8.349818   | 4.166548 | 3.353861  | 3.262315  | 4.977357 |
| ## |           | IL17B    | CUZD1     | RERGL      | CXXC4    | KDM4D     | TRIM17    | RIC3     |
| ## | GSM875412 | 5.134175 | 3.951335  | 3.788442   | 4.846098 | 3.724820  | 4.673789  | 4.022176 |
| ## | GSM875413 | 5.960770 | 3.967668  | 4.594005   | 5.931382 | 3.831362  | 5.332208  | 5.668188 |
| ## | GSM875414 | 6.107705 | 3.752686  | 3.924237   | 5.399322 | 3.643393  | 5.330116  | 3.941841 |
| ## |           | HHIPL2   | DKKL1     | ABHD17B    | MTMR10   | MYO15A    | CRYBG2    | GDPD2    |
| ## | GSM875412 | 4.312220 | 5.411689  | 6.542193   | 4.448645 | 4.222575  | 7.059963  | 5.728629 |
| ## | GSM875413 | 4.243344 | 5.943092  | 5.030338   | 4.624544 | 4.376909  | 5.105683  | 5.576103 |
| ## | GSM875414 | 4.678378 | 5.979378  | 5.862464   | 5.113299 | 4.509818  | 5.583588  | 5.687945 |
| ## |           | DEPDC1   | SPATA6    | CCDC102B   | CNGB3    | MAVS      | TENT5C    | CD244    |
| ## | GSM875412 | 5.256442 | 5.062531  | 5.223447   | 4.565193 | 7.534107  | 6.061091  | 4.700151 |
| ## | GSM875413 | 3.445906 | 4.856151  | 4.974059   | 4.631833 | 7.570297  | 5.140257  | 4.806609 |
| ## | GSM875414 | 3.688439 | 3.933539  | 4.465946   | 4.710916 | 5.482263  | 6.235975  | 5.565935 |
| ## |           | CFAP45   | TUBAL3    | N6AMT1     | FAM83E   | GPR88     | LRAT      | EPN3     |
| ## | GSM875412 | 5.099772 | 3.948285  | 5.432142   | 5.956585 | 3.122584  | 3.340130  | 7.813275 |
| ## | GSM875413 | 5.041046 | 3.717054  | 6.015492   | 5.529586 | 3.466138  | 3.453094  | 5.116135 |
| ## | GSM875414 | 5.269115 | 3.854010  | 4.907698   | 7.346058 | 3.346449  | 3.429753  | 6.578298 |
| ## |           | MYLIP    | DOK3      | CCDC121    | IL36G    | CCNP      | LINC00472 | TAF7L    |
| ## | GSM875412 | 7.916588 | 4.935858  | 3.417854   | 3.775645 | 6.533885  | 3.730592  | 3.905437 |
| ## | GSM875413 | 9.257404 | 5.005742  | 3.661569   | 3.869072 | 6.101931  | 4.995284  | 3.836675 |
| ## | GSM875414 | 8.547157 | 4.815025  | 3.255334   | 4.067401 | 6.909585  | 3.555234  | 3.751248 |
| ## |           | ARHGEF40 | VGLL3     | CYP46A1    | CLDN16   | PAQR5     | RGS17     | GP6      |
| ## | GSM875412 | 6.685983 | 3.843891  | 4.178207   | 4.493535 | 3.948977  | 4.181164  | 3.749179 |
| ## | GSM875413 | 8.987224 | 3.610169  | 5.464906   | 4.567680 | 3.743884  | 3.945735  | 3.770892 |
| ## | GSM875414 | 7.040096 | 3.226047  | 4.942464   | 5.296937 | 3.659064  | 4.052071  | 3.672123 |
| ## |           | NGB      | RALGPS2   | TPSG1      | GREB1L   | MRNIP     | EDEM3     | PDE7B    |

|    |           |           |           |          |           |           |             |          |
|----|-----------|-----------|-----------|----------|-----------|-----------|-------------|----------|
| ## | GSM875412 | 5.196917  | 6.684885  | 6.120555 | 4.463990  | 6.211209  | 8.757440    | 4.324665 |
| ## | GSM875413 | 5.480977  | 6.171277  | 6.291344 | 4.518995  | 8.118563  | 6.397880    | 4.393013 |
| ## | GSM875414 | 5.918613  | 5.806435  | 6.620958 | 4.748282  | 6.562808  | 9.287742    | 4.799165 |
| ## | C11orf16  | LRRTM4    | ENGASE    | ACKR4    | FLJ42627  | FAM86C1P  | MCF2L-AS1   |          |
| ## | GSM875412 | 6.635726  | 3.058245  | 8.074581 | 5.940354  | 6.757838  | 5.459869    | 5.010613 |
| ## | GSM875413 | 6.904624  | 3.109959  | 6.963335 | 3.351473  | 7.051164  | 5.337877    | 5.174475 |
| ## | GSM875414 | 6.847314  | 3.041412  | 6.693729 | 3.434266  | 7.040517  | 5.275176    | 5.155684 |
| ## | PBRM1     | CORIN     | SGK2      | BATF3    | THAP9     | PSORS1C1  | EPB41L4A-DT |          |
| ## | GSM875412 | 8.818138  | 6.859688  | 6.774082 | 6.746032  | 3.503555  | 4.292174    | 3.721836 |
| ## | GSM875413 | 8.096286  | 3.592082  | 6.441022 | 6.506206  | 3.407222  | 4.076657    | 5.368482 |
| ## | GSM875414 | 8.208707  | 4.209415  | 6.530535 | 6.461725  | 3.426630  | 4.593452    | 3.921198 |
| ## | ALLC      | ELSPBP1   | SAP130    | PPP4R3A  | SLC12A9   | DNAJC28   | DCHS2       |          |
| ## | GSM875412 | 4.178030  | 4.548204  | 7.309796 | 7.713164  | 6.987994  | 3.541818    | 4.756128 |
| ## | GSM875413 | 4.361893  | 4.626481  | 7.304332 | 7.360114  | 7.340397  | 3.612920    | 5.947875 |
| ## | GSM875414 | 5.225471  | 4.958885  | 7.310089 | 9.098106  | 6.868771  | 3.779596    | 5.151657 |
| ## | KLHL28    | PITX1-AS1 | LRRC19    | TCP11    | FSCN3     | DNASE2B   | ARHGAP28    |          |
| ## | GSM875412 | 5.304046  | 5.830158  | 3.256501 | 4.218365  | 4.475099  | 3.573200    | 3.600649 |
| ## | GSM875413 | 4.220322  | 6.251498  | 3.571473 | 3.949634  | 4.304047  | 3.717635    | 3.945658 |
| ## | GSM875414 | 4.138679  | 6.111750  | 3.306560 | 6.157746  | 4.723015  | 3.890682    | 4.364153 |
| ## | ABCG5     | NME8      | HHLA3     | FER1L4   | CCDC81    | AGBL2     | LGSN        |          |
| ## | GSM875412 | 4.364298  | 4.100369  | 4.486083 | 4.017692  | 4.081005  | 3.957828    | 3.429574 |
| ## | GSM875413 | 3.999389  | 4.170245  | 6.380593 | 4.179830  | 3.889767  | 3.501368    | 3.222653 |
| ## | GSM875414 | 4.278096  | 4.325777  | 3.818263 | 4.333196  | 3.727173  | 3.659064    | 3.342098 |
| ## | FGF20     | LINC00115 | TP53AIP1  | PODNL1   | KCNK7     | SLC39A2   | CALML5      |          |
| ## | GSM875412 | 3.658402  | 5.215305  | 3.429574 | 6.165906  | 4.849411  | 5.179355    | 4.102771 |
| ## | GSM875413 | 3.746956  | 4.939325  | 3.377978 | 6.157030  | 5.042667  | 4.677029    | 4.354545 |
| ## | GSM875414 | 4.078921  | 4.787032  | 3.246806 | 5.982783  | 5.180236  | 5.119728    | 4.278781 |
| ## | ATP8B4    | THAP4     | UBASH3A   | LMAN1L   | BTNL8     | UBQLN3    | PLA2G2D     |          |
| ## | GSM875412 | 3.859257  | 7.736813  | 3.874421 | 5.030766  | 6.183349  | 3.684648    | 5.297313 |
| ## | GSM875413 | 3.813269  | 7.693411  | 4.339049 | 4.960588  | 5.256397  | 3.941227    | 5.414174 |
| ## | GSM875414 | 3.676570  | 7.715681  | 4.172909 | 5.111586  | 5.616908  | 3.708471    | 6.093236 |
| ## | NPHS2     | FNDC11    | CD207     | NDST3    | FAM110D   | TMPRSS11E | PRRG3       |          |
| ## | GSM875412 | 4.342333  | 4.828005  | 4.086473 | 3.361469  | 4.844431  | 3.904854    | 4.620027 |
| ## | GSM875413 | 4.449606  | 5.185489  | 4.134736 | 3.501812  | 4.659798  | 4.075262    | 4.967626 |
| ## | GSM875414 | 4.351135  | 5.523289  | 4.338814 | 3.663432  | 5.049822  | 4.686425    | 5.625282 |
| ## | CQ8B      | SLC30A10  | CNTNAP3P2 | ANGPTL8  | QPCTL     | LGALS13   | DNAJC22     |          |
| ## | GSM875412 | 4.137042  | 6.097147  | 3.812351 | 4.289049  | 4.727158  | 3.648082    | 5.426318 |
| ## | GSM875413 | 4.545204  | 3.399328  | 3.892057 | 4.806259  | 4.627402  | 3.713734    | 5.025399 |
| ## | GSM875414 | 5.261105  | 3.496204  | 3.837287 | 4.622287  | 4.798296  | 3.713414    | 7.836382 |
| ## | VAX2      | ZNF557    | CSAG3     | CHST4    | KCNK12    | BIRC7     | SLC16A8     |          |
| ## | GSM875412 | 4.355537  | 4.468465  | 4.282772 | 6.882972  | 4.124552  | 6.135204    | 5.408177 |
| ## | GSM875413 | 4.926182  | 5.139481  | 4.788807 | 3.918752  | 4.140946  | 6.059763    | 5.619837 |
| ## | GSM875414 | 5.520454  | 5.173946  | 5.810194 | 4.346389  | 4.511688  | 6.085297    | 5.704967 |
| ## | SPTLC3    | SAMD4B    | SLC01C1   | CEBPA-DT | CCDC15    | ARL14     | BET1L       |          |
| ## | GSM875412 | 3.802515  | 5.403759  | 3.812937 | 6.792567  | 4.578036  | 9.661806    | 5.239158 |
| ## | GSM875413 | 3.796191  | 5.940849  | 4.772412 | 6.770485  | 4.233037  | 4.454567    | 5.452378 |
| ## | GSM875414 | 3.809765  | 6.057708  | 3.742122 | 7.463273  | 4.838691  | 8.098331    | 6.653263 |
| ## | MYCT1     | SLC25A21  | SLC28A3   | TMEM230  | APOL5     | CPS1-IT1  | HAND2       |          |
| ## | GSM875412 | 4.587916  | 3.702603  | 5.498987 | 9.135758  | 4.171975  | 4.461175    | 4.597046 |
| ## | GSM875413 | 4.502699  | 3.426961  | 4.724623 | 10.574242 | 4.288920  | 4.416597    | 5.660899 |
| ## | GSM875414 | 4.761099  | 2.902363  | 5.295194 | 9.144163  | 4.451353  | 4.335065    | 5.091151 |
| ## | GPR75     | SERGEF    | RNF19A    | SIRPG    | TMEM164   | BCAS3     | SERINC2     |          |
| ## | GSM875412 | 4.036150  | 5.630446  | 7.197839 | 4.516037  | 8.171446  | 5.886348    | 4.830873 |
| ## | GSM875413 | 4.189192  | 6.703454  | 6.100918 | 4.583104  | 8.326932  | 6.411798    | 4.605670 |

```

## GSM875414 4.278466 6.010935 6.707546 5.458111 7.517186 6.414684 5.291823
##          HAMP      DMRT1    TXNDC15    CLEC1B    ZNF214    ACTL7B    FNDC8
## GSM875412 6.212544 3.564921 8.627956 3.970005 3.375506 4.515035 4.144396
## GSM875413 8.087370 3.449272 10.550456 4.280307 3.319916 4.653144 4.496746
## GSM875414 6.320130 3.792974 8.676271 4.404145 3.283273 5.435710 4.357364
##          ACTL7A    SLC13A1    KERA    CDKN2A-DT    GUCY1B2    UPB1    CCT8L2
## GSM875412 4.360790 3.170085 3.204535 4.832310 4.001520 4.306416 4.126928
## GSM875413 4.597350 3.122151 3.525568 4.841835 4.006438 4.623538 4.130625
## GSM875414 5.310945 3.205256 3.138157 5.152880 5.030221 6.703997 4.316527
##          RHBG      DUSP21    ZSCAN2    LIM2    NUP62CL    ATG16L1    CRB1
## GSM875412 5.381215 3.470482 5.064699 4.381324 4.312220 7.261233 4.171639
## GSM875413 5.888211 3.816845 5.111295 4.710999 4.134388 4.472519 4.135691
## GSM875414 5.858974 3.953489 5.236750 4.490537 5.229707 5.888744 4.685838
##          EFHC2      AUP1      MRPL20    TMEM176B    LOC105376204    TRIM48    FAM90A1
## GSM875412 3.245495 9.263353 10.02739 11.349291      3.977308 3.643690 4.151967
## GSM875413 3.287925 8.739064 10.56992 8.465452      3.874905 3.658258 4.699668
## GSM875414 3.331068 9.150362 10.52953 9.401639      4.330156 3.586617 5.273545
##          VRTN      MTMR8      ADM2      MMP26      BPIFA1    C21orf62    TSKS
## GSM875412 5.536666 3.580808 6.129432 4.183130 4.614383 4.016191 3.980295
## GSM875413 5.678517 3.593891 6.632211 4.398759 5.072664 4.948594 4.073582
## GSM875414 5.290183 3.494474 6.554384 4.154462 5.661718 4.339126 4.579981
##          SHLD2      PKDREJ      FBX04    SLC17A6      TRPC5      PRPF39      PDZD7
## GSM875412 9.749340 4.322039 3.901804 3.238862 3.259701 7.475074 4.355598
## GSM875413 9.320012 4.303625 3.253037 3.188898 3.866030 7.267107 4.329262
## GSM875414 9.904218 4.021059 3.140164 3.497968 3.837735 6.573950 4.229051
##          ATP1B4      PACS1      TSPAN32      EN1      IGF2-AS      CYP2W1      RNLS
## GSM875412 3.320347 4.455279 5.770891 3.393849 4.947628 5.985760 4.114320
## GSM875413 3.392299 4.863334 6.088297 3.598102 6.675302 5.916471 3.898590
## GSM875414 3.704341 5.043682 5.933261 3.565622 5.854486 5.963110 3.962984
##          CCR10      PIK3R5      RETN    ANKRD42-DT      KLK14      SEMA6D    FAM106A
## GSM875412 4.378726 5.195989 5.184238 5.426685 5.512849 4.443098 3.925239
## GSM875413 5.501949 5.001547 5.191921 4.564019 5.877886 4.538851 4.058238
## GSM875414 7.000559 5.186796 5.313361 4.566503 6.086553 4.081923 3.893628
##          ADAMTSL4    CCDC170      PRR36      HKDC1      MLST8      PDZRN4    GPATCH4
## GSM875412 4.915421 5.459218 4.854156 6.197045 6.575117 3.563718 5.446888
## GSM875413 4.934142 4.394791 5.243817 4.667069 6.982384 3.661806 5.440088
## GSM875414 4.693756 4.237622 5.249127 5.055698 7.640034 3.385525 5.314873
##          ELP6      PHAF1      FTCD      ADPRM      NELFCD      ZNF770    LOC202181
## GSM875412 4.608154 4.273144 5.432123 6.004967 10.880400 3.987258 5.790455
## GSM875413 4.657155 4.515684 5.206548 5.893024 10.662279 3.515064 5.387603
## GSM875414 5.239709 4.856533 6.058211 5.801240 9.614408 3.587325 5.395151
##          DAB1      SYTL2      ADGB      ZNF532      ZCWPW1      CRCT1      FOXE3
## GSM875412 4.333158 6.591046 3.335142 7.399731 5.880303 3.510863 4.105453
## GSM875413 4.276282 4.865377 3.291902 9.078516 6.328303 4.342546 4.146769
## GSM875414 5.173164 7.215261 3.463156 7.196331 5.829572 4.457077 4.328361
##          LRRC31      ELF5      SERPINA10      CST8      SDK2      KCNQ1DN      CHIA
## GSM875412 4.011253 4.047316 4.599242 4.989936 5.357131 5.868504 4.581009
## GSM875413 3.709633 4.227970 4.622500 4.764051 5.395267 6.212363 4.868225
## GSM875414 8.414852 4.351190 4.452797 5.480904 5.315817 6.472429 4.847087
##          OSGEPL1      POMT2      TBX4    PSORS1C2      DNAI2      FAM124B      CBLC
## GSM875412 7.547506 5.908171 4.636177 4.781395 3.505433 3.970376 5.866576
## GSM875413 7.134356 6.162520 4.752954 4.738108 3.600438 4.002332 4.482572
## GSM875414 6.504958 6.152117 4.446497 4.985777 4.111145 4.093604 7.218366
##          TM4SF20    CSNK1G1      FAIM      NXPE4      KLRF1      COA4      ADARB2

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## GSM875412 9.919686 4.666447 6.892155 4.285633 3.797917 9.065950 3.950050
## GSM875413 4.546602 4.808206 5.710833 4.473744 3.786299 8.390291 4.233037
## GSM875414 4.609359 5.240089 6.467848 4.884824 3.784740 8.965287 4.370849
##          MCM10      KIF24      ZIM2      PPY2P      TNIP3      KLHL11      BMAL2
## GSM875412 6.009626 3.614748 4.507253 4.036644 3.320347 3.551932 6.947885
## GSM875413 3.844682 3.525349 6.076987 4.496925 3.356180 4.046650 4.086996
## GSM875414 5.727261 3.455716 4.904444 4.245924 3.381817 5.127590 6.715346
##          TRAPPC14    ZNF692      HEYL IL1RAPL1    SPRR2C      LUZP4      DNMT3B
## GSM875412 6.186575 7.394710 5.517132 3.979640 3.492927 4.519857 5.651430
## GSM875413 6.819580 7.586155 6.028080 4.280120 3.834236 4.212803 5.773318
## GSM875414 6.111518 7.139303 6.099579 4.018982 3.681124 4.566503 7.387505
##          PPP4R4      PNPLA3    ADAMTS8 FLJ20712    RAVR2      PRR34      KLHL5
## GSM875412 3.531520 4.304279 4.162824 4.362316 3.649765 5.772181 4.025724
## GSM875413 3.605556 4.648872 4.071865 4.377003 3.333203 5.869225 3.952205
## GSM875414 3.750194 4.489838 4.144946 4.206096 3.157564 6.504362 3.821764
##          RDH8      TBX21    FAM120C LOC101927550    MRT04      NODAL      DHRS7B
## GSM875412 5.398240 4.917585 4.766154      4.227527 8.262971 4.438193 7.752323
## GSM875413 5.160206 4.929004 5.079027      4.481533 7.003863 4.732722 7.968395
## GSM875414 5.282715 5.305257 5.612542      4.478025 8.155305 5.213437 7.771624
##          ASAP1-IT1 LINC01711 IDI2-AS1    ADAMTS7    FOXRED2      ZNF556 ANP32A-IT1
## GSM875412 5.771283 4.899454 4.214289 5.897639 4.398491 3.873609 3.759401
## GSM875413 6.406789 5.160320 3.606113 5.756818 4.569613 4.116569 3.645526
## GSM875414 5.256787 4.956026 3.912202 6.052918 6.000988 4.615988 3.559008
##          DENND6B    PRDM14    HEXA-AS1    MZT2B      SLC5A7      CWH43      NECAP2
## GSM875412 5.390111 4.961762 3.607097 7.568582 4.056233 3.975402 8.198431
## GSM875413 5.336124 5.146983 3.542581 7.472421 3.976964 4.072518 8.096090
## GSM875414 5.886143 5.045212 3.690689 7.636531 3.895711 4.045974 8.245839
##          CPTP      SENP7      SLC19A3    RPS6KA6      CNNM3      SLC12A6      IL19
## GSM875412 7.428043 4.579231 3.617700 3.620923 7.911704 4.782671 4.256751
## GSM875413 6.973867 4.419786 3.758181 3.607045 7.426928 4.523485 4.320624
## GSM875414 7.125948 4.655910 9.524422 3.732143 8.552084 5.327996 4.891367
##          UIMC1    LINC00652    ZNF580      P3H1      FAXDC2    PBX3-DT      CRYL1
## GSM875412 7.689838 4.978893 6.041432 7.206965 5.179167 3.347298 8.796935
## GSM875413 8.719804 5.376059 7.261956 7.559867 8.480583 3.296489 8.160256
## GSM875414 8.094329 5.091322 7.089408 7.300900 5.725951 3.532607 8.569943
##          SNHG32    SLC52A1    UBXN6      ROB04      EDDM3B      ZNF665      TAOX3
## GSM875412 9.651630 4.541577 6.246174 5.346274 3.176790 8.091332 8.433621
## GSM875413 10.071481 5.000059 7.858733 5.433875 3.361319 8.305215 8.964469
## GSM875414 9.524828 5.421922 6.751491 5.813579 3.466538 8.373992 8.167655
##          GNB1L      LIMS2      CSNK1G3      ZBED8 LINC00328    BPESC1      GPHN
## GSM875412 6.491006 6.252303 8.108860 4.081005 3.446207 3.324338 5.650432
## GSM875413 6.780283 7.171336 7.757241 6.840306 3.155792 3.295001 5.372628
## GSM875414 7.093262 6.388698 7.163056 4.078659 3.359886 3.183238 5.595619
##          DYM      KCNJ14    KIF13A      SEMA6B      PADI3      PLA2G3      DELEC1
## GSM875412 5.130382 4.315122 6.172114 5.760174 4.357257 4.103910 3.507812
## GSM875413 5.664790 4.176817 3.929697 6.025827 4.652870 4.138934 3.797267
## GSM875414 5.098777 4.843818 4.152031 6.200270 4.445630 4.655545 3.721345
##          KLK12      MMP27      UTS2      RNF31      TBRG4      MS4A5      PRDM5
## GSM875412 5.944651 3.624475 3.397156 5.014268 8.143393 4.169036 4.313852
## GSM875413 5.782941 3.685541 3.230633 5.951595 7.928125 4.217407 4.059480
## GSM875414 5.974451 3.709633 3.622960 6.660882 7.230531 3.966922 4.339290
##          SAGE1      GREM2      BEGAIN      SLC35E1    METTL16      PLPPR3      GCM2
## GSM875412 3.494615 4.186803 4.433680 9.860725 4.548941 5.374429 3.224239
## GSM875413 3.416816 3.731000 4.120301 9.704103 4.254568 5.736193 3.135311

```

|    |           |            |           |          |          |           |           |           |
|----|-----------|------------|-----------|----------|----------|-----------|-----------|-----------|
| ## | GSM875414 | 3.594135   | 3.681443  | 4.241996 | 9.974522 | 4.661199  | 6.173447  | 3.260907  |
| ## |           | TMOD3      | HAO2      | KCNH4    | HRH2     | GNG13     | HBQ1      | THEG      |
| ## | GSM875412 | 6.640125   | 4.569948  | 5.113726 | 5.091293 | 3.679963  | 4.165235  | 4.536904  |
| ## | GSM875413 | 3.318776   | 4.787367  | 5.018040 | 5.044526 | 3.667639  | 4.707759  | 5.322604  |
| ## | GSM875414 | 6.289013   | 4.400104  | 5.908401 | 5.405118 | 3.532825  | 4.815910  | 5.648026  |
| ## |           | CLCA3P     | PRG3      | CYSLTR2  | SLC30A6  | LPAR3     | TRPC4     | FRMD1     |
| ## | GSM875412 | 3.121290   | 4.020521  | 4.270804 | 4.217770 | 4.674151  | 3.317553  | 6.000485  |
| ## | GSM875413 | 2.974176   | 3.934284  | 4.100507 | 4.048242 | 4.967313  | 3.535026  | 6.321311  |
| ## | GSM875414 | 3.014121   | 4.539518  | 4.280276 | 4.097756 | 5.588068  | 3.257277  | 6.827120  |
| ## |           | GALR1      | KIRREL1   | TCP10L   | B3GALT1  | IMPG2     | GCNT4     | TLR8      |
| ## | GSM875412 | 4.268272   | 4.652058  | 4.112932 | 3.561480 | 4.126476  | 3.660304  | 3.968207  |
| ## | GSM875413 | 4.126719   | 4.479546  | 3.785383 | 3.872764 | 4.365340  | 3.462204  | 4.012174  |
| ## | GSM875414 | 4.358487   | 5.104013  | 4.111141 | 3.995606 | 4.312351  | 4.272571  | 4.388153  |
| ## |           | MS4A12     | ZNF407    | CEP72-DT | METTL5   | C1orf112  | AHI1      | ELOA2     |
| ## | GSM875412 | 3.436768   | 3.738184  | 3.172051 | 4.445961 | 5.398072  | 6.474819  | 3.505433  |
| ## | GSM875413 | 3.551194   | 3.954843  | 3.289230 | 4.172617 | 4.312247  | 5.417932  | 3.779611  |
| ## | GSM875414 | 3.992046   | 4.460024  | 3.337244 | 4.099571 | 3.796442  | 5.769505  | 4.276805  |
| ## |           | ACOXL      | PRKCZ-AS1 | ZNF221   | OBP2A    | GRAPL-AS1 | MORC1     | FOXN3-AS2 |
| ## | GSM875412 | 3.297133   | 4.682357  | 4.234897 | 5.868759 | 5.361667  | 3.117579  | 3.823737  |
| ## | GSM875413 | 3.359778   | 4.976824  | 4.437202 | 5.871706 | 5.160775  | 3.138017  | 3.942976  |
| ## | GSM875414 | 3.598124   | 5.456939  | 4.210882 | 6.253154 | 5.238219  | 3.376154  | 4.240290  |
| ## |           | PURG       | MIP       | NDUFA13  | PDSS1    | SLC24A2   | SLC7A10   | CENPJ     |
| ## | GSM875412 | 3.316810   | 4.011194  | 10.18843 | 7.436583 | 4.599140  | 4.464951  | 5.674868  |
| ## | GSM875413 | 3.409063   | 4.296807  | 10.78750 | 4.657912 | 4.563235  | 4.368329  | 5.403283  |
| ## | GSM875414 | 3.721051   | 4.358667  | 10.85170 | 7.154557 | 4.931945  | 4.286074  | 5.481104  |
| ## |           | GABRQ      | CCDC177   | CA10     | PSAT1    | PRDM12    | USP29     | GPR157    |
| ## | GSM875412 | 4.139510   | 3.715994  | 3.370826 | 5.421932 | 5.559615  | 3.696379  | 4.265103  |
| ## | GSM875413 | 4.320624   | 3.734087  | 3.353451 | 5.559692 | 6.062137  | 3.709633  | 4.190903  |
| ## | GSM875414 | 4.269385   | 4.672364  | 3.483487 | 6.470468 | 6.076758  | 3.964979  | 4.125125  |
| ## |           | GFM1       | LINC00574 | ADGRF1   | TRIM46   | NYNRIN    | RUNX1-IT1 | CFAP43    |
| ## | GSM875412 | 3.567856   | 4.034927  | 4.296974 | 4.362908 | 4.798288  | 5.659325  | 3.199692  |
| ## | GSM875413 | 3.352532   | 4.559275  | 4.327666 | 4.135435 | 8.821234  | 5.685245  | 3.374576  |
| ## | GSM875414 | 3.507254   | 4.194418  | 4.581648 | 4.393449 | 4.793270  | 5.416100  | 3.365992  |
| ## |           | PNMA3      | HPSE2     | PRDM16   | SMIM2    | TUT7      | CDK5RAP2  | H2AJ      |
| ## | GSM875412 | 5.617040   | 3.848030  | 4.462226 | 3.407291 | 8.863585  | 6.934313  | 4.395120  |
| ## | GSM875413 | 6.013889   | 3.675006  | 4.235925 | 3.501358 | 7.499202  | 6.831884  | 6.799426  |
| ## | GSM875414 | 6.076142   | 4.087179  | 5.399625 | 3.331175 | 7.776577  | 6.852674  | 4.118455  |
| ## |           | ST6GALNAC4 | GMEB1     | DPP8     | ANKRD36B | C21orf91  | FAM162A   | NDUFAF7   |
| ## | GSM875412 | 6.717010   | 6.959951  | 8.355957 | 8.806650 | 4.956102  | 10.96815  | 5.344013  |
| ## | GSM875413 | 6.485573   | 6.338838  | 8.327675 | 5.772296 | 4.367242  | 10.54463  | 4.682757  |
| ## | GSM875414 | 6.348582   | 6.483900  | 7.992584 | 7.978938 | 5.429958  | 10.20426  | 3.870631  |
| ## |           | PGLYRP4    | MANSC1    | TBC1D10B | ATP1A1   | A1CF      | PLEKHA5   | MTMR12    |
| ## | GSM875412 | 4.609141   | 8.975652  | 6.569973 | 10.78029 | 6.328892  | 8.592428  | 7.134037  |
| ## | GSM875413 | 4.634965   | 8.947900  | 6.926339 | 10.15011 | 4.756858  | 9.334751  | 5.682772  |
| ## | GSM875414 | 5.357751   | 9.341591  | 7.003492 | 11.00643 | 5.522204  | 9.365413  | 6.598104  |
| ## |           | RAB23      | CTAGE1    | ULK4     | PADI1    | CPLANE2   | RSPH6A    | ARPC5L    |
| ## | GSM875412 | 6.752544   | 3.412265  | 4.060350 | 7.116782 | 4.919768  | 5.491153  | 10.129758 |
| ## | GSM875413 | 6.973686   | 3.362931  | 3.852915 | 7.315952 | 5.557137  | 5.903493  | 8.801190  |
| ## | GSM875414 | 5.848376   | 3.238692  | 4.453588 | 7.339652 | 5.795933  | 6.000883  | 8.934504  |
| ## |           | ZNF696     | IL25      | KRTAP9-9 | SHARPIN  | C1QTNF1   | KRTAP1-1  | EPB41L5   |
| ## | GSM875412 | 5.299090   | 4.176087  | 3.138996 | 6.875833 | 7.261233  | 3.776213  | 4.569335  |
| ## | GSM875413 | 5.669833   | 4.375161  | 3.093834 | 7.597798 | 7.143959  | 3.876252  | 4.456994  |
| ## | GSM875414 | 5.299090   | 4.391113  | 3.163237 | 7.156378 | 6.326990  | 4.110348  | 4.441020  |
| ## |           | KRTAP1-3   | ADPGK     | SPACA1   | SLC05A1  | TIGD6     | TRMT1L    | GPR63     |

|    |           |          |           |          |          |           |           |           |
|----|-----------|----------|-----------|----------|----------|-----------|-----------|-----------|
| ## | GSM875412 | 3.549986 | 8.797226  | 3.779596 | 3.471964 | 3.185456  | 6.434751  | 4.372659  |
| ## | GSM875413 | 3.504408 | 7.878043  | 3.718182 | 3.816063 | 3.526050  | 7.026291  | 4.485804  |
| ## | GSM875414 | 3.605217 | 8.674407  | 3.832113 | 3.562028 | 3.319021  | 5.996603  | 4.446959  |
| ## |           | STXBP6   | SHCBP1L   | DIAPH3   | UNC93B1  | TSPAN14   | CAB39L    | ITM2C     |
| ## | GSM875412 | 5.025969 | 4.586975  | 3.180275 | 7.668704 | 8.184652  | 6.022022  | 9.230144  |
| ## | GSM875413 | 7.629397 | 4.802392  | 3.159785 | 6.392376 | 7.810714  | 5.622063  | 11.528517 |
| ## | GSM875414 | 6.868198 | 4.672817  | 3.048891 | 7.551816 | 8.663016  | 5.236340  | 9.005306  |
| ## |           | PTDSS2   | SNX27     | ETNPPL   | ANGPTL4  | LBH       | TRIM8     | APOL2     |
| ## | GSM875412 | 6.924015 | 7.337043  | 3.475845 | 5.176207 | 8.189194  | 8.352309  | 7.101692  |
| ## | GSM875413 | 7.217312 | 6.879573  | 3.508095 | 4.939543 | 10.159627 | 8.421846  | 7.176307  |
| ## | GSM875414 | 6.866823 | 7.382714  | 3.646954 | 5.043928 | 7.632656  | 8.630403  | 6.127353  |
| ## |           | RAB33B   | CDADC1    | TCF7L1   | LRRC3    | TDRD1     | COLEC12   | SLC25A32  |
| ## | GSM875412 | 5.912488 | 4.607770  | 4.900907 | 4.261063 | 3.305942  | 6.319433  | 8.774181  |
| ## | GSM875413 | 6.378947 | 4.232833  | 7.228423 | 4.581817 | 3.417211  | 4.173312  | 8.698397  |
| ## | GSM875414 | 5.810098 | 5.469751  | 4.835638 | 5.399358 | 3.414357  | 5.321668  | 7.978082  |
| ## |           | CTNBNL1  | PMFBP1    | SLC2A10  | SCRT1    | PLA2G12A  | WNT5B     | APOLD1    |
| ## | GSM875412 | 8.011439 | 4.742222  | 6.132020 | 4.124211 | 6.393602  | 4.875578  | 7.091311  |
| ## | GSM875413 | 8.962963 | 4.729997  | 9.175012 | 4.233037 | 6.219188  | 4.703755  | 6.718959  |
| ## | GSM875414 | 8.483557 | 5.236213  | 8.135131 | 5.211258 | 6.693404  | 6.559322  | 7.406381  |
| ## |           | TMPRSS5  | TEX13B    | TEX14    | APH1B    | SLC25A31  | ASAP1     | SLC17A5   |
| ## | GSM875412 | 5.127694 | 4.994426  | 3.653445 | 6.278060 | 2.993472  | 6.760009  | 8.877021  |
| ## | GSM875413 | 4.853828 | 4.746983  | 3.954293 | 6.907495 | 3.240314  | 7.289677  | 6.413802  |
| ## | GSM875414 | 5.163588 | 5.470703  | 3.659064 | 6.037528 | 2.871727  | 5.736257  | 7.954334  |
| ## |           | GTPBP8   | C17orf80  | POLL     | GTPBP2   | NMRK2     | TDRKH     | EPS15L1   |
| ## | GSM875412 | 8.362721 | 4.223808  | 6.546203 | 7.664419 | 4.411799  | 3.863379  | 5.705232  |
| ## | GSM875413 | 6.903360 | 4.201041  | 7.119398 | 6.390196 | 4.988069  | 4.101791  | 5.625257  |
| ## | GSM875414 | 7.511615 | 4.129570  | 6.862570 | 6.823468 | 5.354985  | 4.050525  | 5.754663  |
| ## |           | SPATA1   | CKLF      | PKD2L1   | RNF123   | UNKL      | CHST8     | RXFP3     |
| ## | GSM875412 | 3.454363 | 7.600073  | 6.434298 | 6.643293 | 5.897746  | 5.730646  | 4.061682  |
| ## | GSM875413 | 3.347108 | 7.540871  | 6.474421 | 6.578702 | 6.179458  | 5.522314  | 4.242904  |
| ## | GSM875414 | 4.076864 | 7.703740  | 6.673024 | 6.559341 | 6.183693  | 5.574272  | 4.401634  |
| ## |           | SPX      | TAC01     | CCAR2    | GSN-AS1  | NOD1      | ODAD2     | DENND1C   |
| ## | GSM875412 | 4.919403 | 6.653508  | 3.500596 | 4.066441 | 6.861090  | 4.273199  | 5.761367  |
| ## | GSM875413 | 5.627182 | 6.712827  | 3.922858 | 4.059379 | 6.967731  | 4.320624  | 5.942085  |
| ## | GSM875414 | 5.179088 | 7.204319  | 4.533698 | 4.358669 | 6.559341  | 4.765281  | 6.445252  |
| ## |           | DENND2D  | KCNQ4     | HTR3B    | TNFSF15  | FEZF2     | APOL3     | PPP1R9A   |
| ## | GSM875412 | 7.726583 | 4.629774  | 3.959726 | 4.364907 | 3.335892  | 7.098739  | 4.217999  |
| ## | GSM875413 | 4.763521 | 4.875589  | 4.365887 | 3.930312 | 3.330362  | 7.755758  | 6.982777  |
| ## | GSM875414 | 8.365130 | 5.588992  | 4.897206 | 6.662180 | 3.496312  | 6.628428  | 4.916456  |
| ## |           | NOX3     | OGFOD1    | INSL5    | IKZF3    | ELP3      | KCNE2     | TMC06     |
| ## | GSM875412 | 3.422064 | 7.248179  | 3.754199 | 3.384810 | 6.859688  | 6.595867  | 5.900425  |
| ## | GSM875413 | 3.635036 | 7.800584  | 3.688870 | 3.230848 | 7.750775  | 5.626192  | 5.533395  |
| ## | GSM875414 | 3.696110 | 7.207030  | 4.124103 | 3.458300 | 7.107934  | 7.144807  | 4.820764  |
| ## |           | KCNMB2   | UTP14A    | C6orf15  | TRPM6    | CFAP44    | NIPSNAP3B | CHRNA9    |
| ## | GSM875412 | 4.365712 | 3.705367  | 5.985760 | 3.671666 | 4.436933  | 3.593013  | 3.628480  |
| ## | GSM875413 | 4.320634 | 3.801923  | 5.956124 | 4.395370 | 3.915903  | 5.628019  | 3.299412  |
| ## | GSM875414 | 4.332048 | 4.031368  | 5.717976 | 3.999964 | 4.461667  | 3.252019  | 3.541049  |
| ## |           | DRICH1   | LINC02809 | PDE11A   | IL26     | IL1RAPL2  | WNT16     | AMBN      |
| ## | GSM875412 | 4.809175 | 5.229404  | 5.039196 | 3.178357 | 4.683380  | 4.449513  | 4.091294  |
| ## | GSM875413 | 4.758786 | 5.469046  | 4.631146 | 2.958226 | 4.723652  | 4.116627  | 4.969922  |
| ## | GSM875414 | 4.518295 | 5.220050  | 4.917205 | 3.301266 | 5.275203  | 4.744799  | 5.235294  |
| ## |           | LENEP    | PKD2L2    | ARHGEF38 | CT55     | VSX1      | KCNMB3    | FAM215A   |
| ## | GSM875412 | 5.228445 | 3.804691  | 4.055199 | 4.013544 | 4.670738  | 5.212705  | 4.025767  |
| ## | GSM875413 | 5.236551 | 3.792649  | 4.079511 | 4.778609 | 4.900072  | 4.947682  | 4.425765  |

|    |           |          |           |              |            |          |          |          |
|----|-----------|----------|-----------|--------------|------------|----------|----------|----------|
| ## | GSM875414 | 5.454011 | 4.018073  | 4.343592     | 4.182272   | 4.740198 | 5.651814 | 4.801219 |
| ## |           | A4GNT    | ANGPT4    | ASTE1        | GDF2       | GPR132   | EPN1     | PECR     |
| ## | GSM875412 | 5.120227 | 5.304215  | 5.773308     | 6.362212   | 4.241405 | 6.866441 | 6.172729 |
| ## | GSM875413 | 4.643537 | 5.738046  | 6.376779     | 6.564033   | 4.320624 | 7.101150 | 5.277059 |
| ## | GSM875414 | 8.584003 | 6.155591  | 6.890354     | 6.533973   | 4.803185 | 6.818664 | 6.265653 |
| ## |           | RPA4     | C5AR2     | MEPE         | PRDM9      | CCPG1    | FBX024   | CABP5    |
| ## | GSM875412 | 4.597046 | 3.575734  | 4.781912     | 3.980756   | 5.703478 | 4.002980 | 4.079309 |
| ## | GSM875413 | 5.592055 | 3.842240  | 4.683841     | 3.997012   | 5.965056 | 4.510887 | 4.189541 |
| ## | GSM875414 | 4.378111 | 3.711345  | 4.679650     | 4.238725   | 6.527259 | 4.949089 | 4.153264 |
| ## |           | ASCL3    | HHLA1     | MLXIPL       | CHST5      | IL22     | FGF23    | CCDC70   |
| ## | GSM875412 | 4.513491 | 5.004900  | 6.010790     | 5.670586   | 4.025278 | 4.335554 | 3.787551 |
| ## | GSM875413 | 4.307979 | 5.046905  | 5.786507     | 5.596207   | 4.105691 | 4.553029 | 4.349466 |
| ## | GSM875414 | 4.599479 | 5.134221  | 5.834243     | 5.498118   | 3.924220 | 4.600047 | 4.881093 |
| ## |           | PRDM13   | HRH4      | CCDC30       | PKD1L1-AS1 | C3orf36  | BAIAP2L2 | PRORY    |
| ## | GSM875412 | 3.570365 | 3.549635  | 4.308604     | 3.950570   | 4.597046 | 5.131413 | 5.982850 |
| ## | GSM875413 | 3.583278 | 3.299942  | 4.041046     | 3.985882   | 4.663816 | 3.593938 | 6.090195 |
| ## | GSM875414 | 3.811120 | 3.350083  | 4.262823     | 4.168647   | 4.401061 | 4.866415 | 6.141847 |
| ## |           | MROH9    | PARM1-AS1 | LOC100131532 | FUZ        | CIDEB    | TARS2    | RMC1     |
| ## | GSM875412 | 3.258271 | 4.028052  | 4.288429     | 6.062686   | 5.816435 | 6.910907 | 7.713663 |
| ## | GSM875413 | 3.218182 | 4.104828  | 4.824975     | 6.390179   | 6.652127 | 6.704368 | 8.020789 |
| ## | GSM875414 | 3.352043 | 3.792974  | 4.573469     | 6.835276   | 7.689384 | 6.779818 | 7.474936 |
| ## |           | MFSD11   | RNFT1     | CHAT         | SCT        | GFRA4    | ERVK3-2  | ZNF155   |
| ## | GSM875412 | 7.034362 | 7.049328  | 4.234952     | 4.968782   | 4.268510 | 3.373994 | 4.428759 |
| ## | GSM875413 | 6.662811 | 5.680216  | 3.989300     | 5.276521   | 4.729576 | 3.750980 | 4.657573 |
| ## | GSM875414 | 6.697666 | 6.775467  | 4.238606     | 5.231855   | 4.817834 | 4.407816 | 5.025463 |
| ## |           | NBEA     | MSANTD2   | OTOR         | NPL        | MAP3K7CL | NSMF     | RIPK4    |
| ## | GSM875412 | 4.691497 | 7.276503  | 4.573136     | 7.671091   | 4.195081 | 7.333262 | 8.208069 |
| ## | GSM875413 | 8.143431 | 7.208433  | 4.615069     | 4.979171   | 4.490666 | 6.535848 | 5.112359 |
| ## | GSM875414 | 5.145240 | 7.572440  | 4.808582     | 6.745377   | 4.360295 | 6.376428 | 8.896874 |
| ## |           | SCMH1    | TPK1      | SCYL2        | C1orf56    | CISH     | DCAKD    | ASIC4    |
| ## | GSM875412 | 7.196895 | 6.795427  | 6.694299     | 5.813804   | 6.829215 | 5.184238 | 4.885367 |
| ## | GSM875413 | 8.968237 | 7.546072  | 4.326581     | 4.989071   | 7.272071 | 5.236468 | 5.258075 |
| ## | GSM875414 | 6.589754 | 6.165934  | 7.206905     | 5.455971   | 7.608338 | 6.221220 | 5.335667 |
| ## |           | COQ3     | TRMT61B   | NRDE2        | ANKRD2     | FAM135A  | BACH2    | STMN4    |
| ## | GSM875412 | 6.922567 | 8.052100  | 3.646072     | 4.239675   | 3.320347 | 3.797791 | 3.818040 |
| ## | GSM875413 | 7.322158 | 7.135872  | 3.900732     | 4.551452   | 3.093601 | 4.074184 | 3.973771 |
| ## | GSM875414 | 6.805618 | 7.154992  | 3.797793     | 5.112464   | 3.074893 | 3.892000 | 3.915848 |
| ## |           | HMG5     | B3GNT4    | FAM117A      | MXD3       | GSG1     | PITPNM3  | EMC6     |
| ## | GSM875412 | 3.676851 | 5.767698  | 6.094352     | 6.763645   | 3.753173 | 3.552974 | 8.032208 |
| ## | GSM875413 | 3.899041 | 6.056713  | 8.569963     | 6.545805   | 3.688163 | 3.735893 | 8.352585 |
| ## | GSM875414 | 3.568165 | 6.017613  | 7.252407     | 7.568630   | 4.146005 | 3.880799 | 8.257951 |
| ## |           | HDHD3    | KIF18A    | TEX11        | CSRNP2     | SF3B5    | DCSTAMP  | ABHD17A  |
| ## | GSM875412 | 8.083654 | 5.340646  | 5.172629     | 6.220762   | 9.884261 | 3.859089 | 8.535142 |
| ## | GSM875413 | 6.678513 | 3.680313  | 5.322643     | 8.406634   | 9.520026 | 3.812864 | 8.975188 |
| ## | GSM875414 | 7.366147 | 4.389600  | 5.736301     | 6.367078   | 9.120036 | 4.671606 | 9.014666 |
| ## |           | SGPP1    | SH3BGRL3  | QTRT1        | IL21       | C1orf21  | RNF208   | LMAN2L   |
| ## | GSM875412 | 5.729410 | 9.778010  | 7.346807     | 3.982819   | 5.123104 | 4.745992 | 6.844511 |
| ## | GSM875413 | 6.592736 | 8.773878  | 7.171583     | 4.015718   | 7.123492 | 4.981314 | 7.675590 |
| ## | GSM875414 | 7.681115 | 9.633663  | 6.253379     | 4.121007   | 5.317803 | 4.903948 | 7.324489 |
| ## |           | SYNC     | PUS3      | HOXB8        | GDAP1      | ST8SIA2  | MZB1     | RNASEL   |
| ## | GSM875412 | 5.861160 | 7.028862  | 4.114182     | 4.277750   | 3.950627 | 6.648303 | 5.838346 |
| ## | GSM875413 | 6.239466 | 6.648316  | 4.542080     | 4.014072   | 4.110550 | 6.386035 | 5.994603 |
| ## | GSM875414 | 4.305470 | 7.632209  | 4.539308     | 4.586956   | 4.265570 | 7.839413 | 5.426247 |
| ## |           | GPR22    | DLX6      | PWWP3A       | ULBP2      | PTCH2    | DEF6     | CIDEA    |

|    |           |          |          |          |          |          |          |          |
|----|-----------|----------|----------|----------|----------|----------|----------|----------|
| ## | GSM875412 | 4.042226 | 4.217585 | 7.048739 | 4.705508 | 5.197972 | 6.115826 | 5.082919 |
| ## | GSM875413 | 7.181239 | 4.427059 | 8.415978 | 4.757257 | 5.349825 | 6.349449 | 5.279303 |
| ## | GSM875414 | 3.724829 | 5.419372 | 6.764576 | 4.793024 | 5.352973 | 6.481511 | 5.430044 |
| ## | TECTA     | GPRC5D   | SLC22A8  | NPAP1    | VWA7     | KLF15    | PCDHB1   |          |
| ## | GSM875412 | 3.760398 | 4.766179 | 4.324855 | 4.163721 | 4.827001 | 5.314167 | 4.266020 |
| ## | GSM875413 | 3.899589 | 4.567814 | 4.851198 | 4.385857 | 5.633645 | 5.645255 | 4.103787 |
| ## | GSM875414 | 4.404738 | 4.841160 | 5.865612 | 4.291205 | 5.300736 | 5.503683 | 4.121642 |
| ## | UGT1A8    | GPR27    | KCNIP1   | FRS2     | RBM17    | FGF14    | LYRM2    |          |
| ## | GSM875412 | 4.009220 | 4.933006 | 4.103906 | 5.250348 | 5.188017 | 3.766358 | 7.492541 |
| ## | GSM875413 | 3.513817 | 5.241257 | 6.213051 | 4.979020 | 5.407278 | 4.858691 | 6.646066 |
| ## | GSM875414 | 3.672912 | 6.063287 | 4.969129 | 6.483900 | 5.052086 | 4.297521 | 6.377335 |
| ## | GLP2R     | GPR52    | GDF9     | CATSPERG | PCDHB6   | NEUROD4  | PCDHB8   |          |
| ## | GSM875412 | 3.682493 | 4.501516 | 4.716156 | 4.068650 | 4.691497 | 4.058480 | 3.628416 |
| ## | GSM875413 | 4.976932 | 5.181213 | 4.934059 | 4.001495 | 6.373887 | 4.184449 | 3.687923 |
| ## | GSM875414 | 3.709633 | 5.400546 | 5.623866 | 4.743491 | 5.139501 | 4.514074 | 4.019766 |
| ## | BCL2L10   | NPVF     | ULBP1    | TAS2R1   | KCNK13   | CLDN17   | OR52A1   |          |
| ## | GSM875412 | 5.548767 | 3.390664 | 4.227954 | 4.334989 | 3.767669 | 4.852382 | 4.510222 |
| ## | GSM875413 | 5.462914 | 3.685541 | 4.335965 | 3.941756 | 4.002332 | 4.894803 | 4.150490 |
| ## | GSM875414 | 5.665255 | 3.432672 | 4.178136 | 3.690206 | 3.877779 | 5.012621 | 4.553169 |
| ## | CHRM2     | CTLA4    | BMP15    | FOXP3    | SMG9     | ATOH1    | ADAM29   |          |
| ## | GSM875412 | 3.743602 | 5.698858 | 3.772793 | 4.436218 | 6.309014 | 4.381678 | 3.386037 |
| ## | GSM875413 | 3.609439 | 4.898355 | 4.039515 | 4.335677 | 6.388844 | 4.713679 | 3.474483 |
| ## | GSM875414 | 3.683051 | 5.720933 | 4.287989 | 4.424580 | 6.858023 | 5.079332 | 3.827130 |
| ## | LY6G6E    | OR10C1   | CDX4     | MPIG6B   | OR11A1   | OR12D2   | FFAR2    |          |
| ## | GSM875412 | 3.901590 | 4.013854 | 4.621295 | 3.953291 | 3.643681 | 5.118119 | 3.804201 |
| ## | GSM875413 | 4.202363 | 4.206025 | 5.108510 | 4.555724 | 3.475035 | 5.484168 | 4.029621 |
| ## | GSM875414 | 4.784530 | 4.403818 | 5.441674 | 4.413950 | 3.625349 | 5.045198 | 4.165304 |
| ## | OR10J1    | CHRM5    | NPPC     | VPREB1   | HOXC8    | HTR1A    | OR3A1    |          |
| ## | GSM875412 | 3.979939 | 3.758749 | 3.974824 | 3.700551 | 5.584580 | 4.829572 | 3.757901 |
| ## | GSM875413 | 3.832892 | 4.113626 | 4.105118 | 3.627554 | 5.762575 | 5.181546 | 3.697518 |
| ## | GSM875414 | 4.264022 | 4.129346 | 4.250882 | 4.049927 | 6.755339 | 4.946963 | 3.677638 |
| ## | MCHR1     | CHRNA4   | P2RX2    | CHRM4    | NPBWR2   | GDNF     | GHSR     |          |
| ## | GSM875412 | 3.955227 | 5.507105 | 5.784702 | 4.457308 | 3.649424 | 4.765997 | 4.079348 |
| ## | GSM875413 | 3.882026 | 5.794872 | 5.473672 | 4.589779 | 3.815563 | 4.618330 | 4.197797 |
| ## | GSM875414 | 4.753666 | 5.781084 | 5.638889 | 5.006759 | 3.768259 | 4.513062 | 4.287622 |
| ## | OMP       | HTR5A    | GPR25    | GRID2    | MLNR     | NKX6-1   | MOS      |          |
| ## | GSM875412 | 3.694197 | 4.449511 | 4.007861 | 3.864650 | 3.241280 | 4.472293 | 3.960077 |
| ## | GSM875413 | 4.193546 | 4.833113 | 4.176746 | 3.909767 | 3.559033 | 5.057938 | 3.970934 |
| ## | GSM875414 | 4.258457 | 5.271792 | 4.280977 | 4.758499 | 3.489106 | 5.380374 | 4.411397 |
| ## | NEU2      | MTNR1A   | ZNF717   | TNFSF18  | FGF16    | OR1G1    | FGF17    |          |
| ## | GSM875412 | 4.682377 | 3.809320 | 3.435665 | 5.098904 | 3.929364 | 4.297109 | 5.358748 |
| ## | GSM875413 | 5.283305 | 3.902413 | 3.276884 | 9.098396 | 4.258707 | 4.245378 | 5.661106 |
| ## | GSM875414 | 5.009710 | 3.973771 | 3.500030 | 4.346451 | 4.377735 | 4.218626 | 6.149546 |
| ## | RBPJL     | CER1     | NMUR1    | UCP1     | OR3A2    | NPFFR1   | OR1A1    |          |
| ## | GSM875412 | 4.740075 | 4.034384 | 4.508766 | 3.873056 | 3.894340 | 5.808013 | 3.733312 |
| ## | GSM875413 | 4.912899 | 4.299294 | 4.584820 | 3.991287 | 4.192996 | 5.857796 | 3.891534 |
| ## | GSM875414 | 4.811939 | 4.482755 | 5.176077 | 4.289619 | 3.841335 | 5.894170 | 4.345151 |
| ## | PLA2G2E   | TAS2R14  | TAS2R4   | TAAR3P   | TAAR2    | TAS2R13  | TAS2R7   |          |
| ## | GSM875412 | 4.961737 | 4.047789 | 3.745831 | 3.622726 | 3.581038 | 3.466804 | 3.916235 |
| ## | GSM875413 | 4.968197 | 3.858307 | 3.937608 | 3.473561 | 3.401992 | 3.744395 | 3.596842 |
| ## | GSM875414 | 5.737318 | 3.766607 | 3.808960 | 3.725485 | 3.570841 | 3.725137 | 3.752289 |
| ## | TAS2R10   | TAS2R8   | EDA2R    | OR1F1    | INSR6    | IL36A    | GJD2     |          |
| ## | GSM875412 | 3.587356 | 3.541536 | 4.918960 | 5.300623 | 4.136964 | 4.171639 | 5.587477 |
| ## | GSM875413 | 5.180435 | 3.298395 | 5.693589 | 5.321518 | 4.538733 | 4.595227 | 6.101234 |



|    |           |           |           |          |          |           |           |           |
|----|-----------|-----------|-----------|----------|----------|-----------|-----------|-----------|
| ## | GSM875414 | 3.466824  | 3.444229  | 5.945963 | 5.336947 | 4.543959  | 4.904280  | 6.417711  |
| ## |           | PCDHB12   | OR2S2     | PCDHB3   | HOXD12   | VN1R1     | KCNAB3    | DEFB126   |
| ## | GSM875412 | 5.858322  | 4.248248  | 5.812962 | 3.554932 | 3.705943  | 5.096362  | 3.934554  |
| ## | GSM875413 | 6.500786  | 4.244254  | 6.810731 | 3.940924 | 3.845650  | 5.337643  | 3.695143  |
| ## | GSM875414 | 6.141657  | 4.209635  | 6.504786 | 4.516615 | 4.108553  | 5.214067  | 3.606921  |
| ## |           | PLA2G2F   | S1PR5     | MED16    | ADAMTS12 | YIPF5     | OR51E2    | OR3A3     |
| ## | GSM875412 | 3.904389  | 3.762114  | 5.264766 | 4.394031 | 8.019565  | 4.626232  | 4.613527  |
| ## | GSM875413 | 4.170784  | 3.741748  | 6.388282 | 3.942564 | 8.323359  | 4.810532  | 4.451323  |
| ## | GSM875414 | 5.034546  | 3.998499  | 7.057669 | 4.823316 | 7.871032  | 6.168741  | 4.621557  |
| ## |           | CCNL2     | TBL1XR1   | TEX13A   | RNF146   | OR12D3    | FGF21     | SLIRP     |
| ## | GSM875412 | 9.015467  | 8.821197  | 4.081005 | 6.939517 | 4.101069  | 5.181001  | 9.285147  |
| ## | GSM875413 | 8.789495  | 7.822691  | 4.273714 | 7.683030 | 3.836648  | 5.927815  | 10.496345 |
| ## | GSM875414 | 8.765474  | 8.511339  | 4.420610 | 6.923195 | 4.544648  | 6.166422  | 9.681420  |
| ## |           | HYI       | CDCA3     | MRPS15   | TEX12    | RBBP9     | GSC2      | MC3R      |
| ## | GSM875412 | 6.475930  | 6.921827  | 7.819962 | 3.388524 | 3.848254  | 3.351519  | 4.173872  |
| ## | GSM875413 | 7.558785  | 6.328591  | 7.679695 | 3.242968 | 4.043955  | 3.570089  | 4.234471  |
| ## | GSM875414 | 6.762343  | 7.658806  | 8.121127 | 3.306628 | 4.383574  | 4.004092  | 4.287293  |
| ## |           | PRLH      | TAS2R16   | OR1A2    | ADAM30   | GLT8D2    | TEX15     | PCDHB13   |
| ## | GSM875412 | 4.871763  | 3.626323  | 3.358078 | 3.967537 | 7.318627  | 3.893801  | 6.244482  |
| ## | GSM875413 | 5.453383  | 3.227130  | 3.550003 | 4.244068 | 9.649903  | 3.810830  | 6.635514  |
| ## | GSM875414 | 5.949597  | 3.452134  | 3.766607 | 3.979123 | 7.022996  | 3.759023  | 6.171781  |
| ## |           | OR2W1     | TMEM14B   | G6PC2    | TAS2R3   | BTNL2     | HTR1F     | TAAR5     |
| ## | GSM875412 | 3.175154  | 9.944498  | 4.593997 | 4.312775 | 4.665220  | 3.494929  | 4.699107  |
| ## | GSM875413 | 3.369681  | 9.177019  | 4.262641 | 4.603826 | 4.820506  | 3.603254  | 4.813207  |
| ## | GSM875414 | 3.557153  | 10.145663 | 4.573918 | 4.772886 | 4.573118  | 3.607785  | 5.358024  |
| ## |           | OR2C1     | TAS2R9    | KLK15    | CCL24    | OR1D2     | OR6A2     | P2RY4     |
| ## | GSM875412 | 4.714436  | 3.527053  | 4.526500 | 5.001113 | 4.343107  | 3.827594  | 4.126572  |
| ## | GSM875413 | 4.610470  | 3.589629  | 4.782352 | 4.984596 | 4.479422  | 3.871410  | 4.375369  |
| ## | GSM875414 | 4.809591  | 3.319398  | 5.127186 | 6.584914 | 4.466455  | 3.906024  | 4.930093  |
| ## |           | MC4R      | GPR32     | IL37     | MYL12B   | BNIP3L    | B4GALT5   | CUTA      |
| ## | GSM875412 | 4.002056  | 4.670183  | 3.558256 | 12.72424 | 9.163945  | 9.527129  | 10.45095  |
| ## | GSM875413 | 4.050624  | 4.561381  | 3.709633 | 11.58369 | 10.033028 | 8.040705  | 10.15171  |
| ## | GSM875414 | 3.784468  | 4.378395  | 4.341308 | 12.01176 | 8.763430  | 7.913697  | 10.25529  |
| ## |           | SPRY4     | UBAP1     | TOB2     | EGLN1    | KPNA3     | DENR      | TMEM222   |
| ## | GSM875412 | 7.468638  | 7.261186  | 6.828315 | 7.170415 | 9.665472  | 9.197876  | 7.387430  |
| ## | GSM875413 | 12.830035 | 7.657362  | 5.952215 | 5.717867 | 8.955971  | 10.640376 | 8.305226  |
| ## | GSM875414 | 6.848394  | 6.822719  | 5.723281 | 5.812187 | 9.383198  | 9.030377  | 7.967609  |
| ## |           | LCMT1     | MED17     | USP47    | FBXW4    | CDCA8     | ANKRD27   | RRAGD     |
| ## | GSM875412 | 8.365469  | 8.481381  | 9.028548 | 7.384105 | 7.468908  | 7.919843  | 5.056355  |
| ## | GSM875413 | 8.362690  | 7.959657  | 9.152198 | 8.434833 | 5.589391  | 7.956698  | 7.595100  |
| ## | GSM875414 | 8.704872  | 9.095900  | 9.241048 | 7.587158 | 7.472424  | 8.723449  | 4.398664  |
| ## |           | ZMIZ2     | PLVAP     | BHLHE41  | C11orf68 | LSG1      | EIF4EBP1  | ERLIN2    |
| ## | GSM875412 | 6.340491  | 7.335519  | 8.980249 | 7.325214 | 7.977799  | 7.251404  | 5.175300  |
| ## | GSM875413 | 6.758306  | 6.787666  | 7.326241 | 7.571412 | 7.594793  | 7.656147  | 7.597911  |
| ## | GSM875414 | 5.473612  | 8.899553  | 5.981294 | 7.252497 | 7.760127  | 7.950871  | 5.031859  |
| ## |           | PRPF18    | ILKAP     | GRWD1    | ABHD6    | MIS12     | MARK4     | SOAT1     |
| ## | GSM875412 | 4.542524  | 7.492907  | 6.431416 | 6.625393 | 7.947707  | 6.453312  | 7.144364  |
| ## | GSM875413 | 4.226415  | 7.724760  | 6.498618 | 5.980077 | 7.698888  | 6.904624  | 6.432829  |
| ## | GSM875414 | 4.221505  | 6.794092  | 6.645654 | 6.614682 | 7.708995  | 6.045643  | 6.913911  |
| ## |           | SIRT3     | CALHM2    | SLC26A6  | C7orf25  | GDF15     | RASSF4    | H2AC25    |
| ## | GSM875412 | 6.342795  | 6.519732  | 6.755643 | 6.515472 | 4.312220  | 6.198489  | 7.170464  |
| ## | GSM875413 | 6.610307  | 7.763721  | 5.269264 | 7.522373 | 4.272949  | 5.588174  | 6.744847  |
| ## | GSM875414 | 6.863475  | 6.848640  | 6.113793 | 5.816818 | 4.720798  | 6.198628  | 8.011893  |
| ## |           | CACNG4    | E2F5      | FAM174C  | PIMREG   | TMEM208   | FCMR      | PEX16     |

|    |           |           |           |           |          |           |           |          |
|----|-----------|-----------|-----------|-----------|----------|-----------|-----------|----------|
| ## | GSM875412 | 4.277187  | 7.090804  | 7.055446  | 6.249527 | 8.147784  | 6.270478  | 5.161765 |
| ## | GSM875413 | 4.522036  | 6.558548  | 7.000437  | 5.763443 | 8.914393  | 5.369701  | 4.923841 |
| ## | GSM875414 | 4.573846  | 6.086586  | 7.464830  | 5.839748 | 9.047084  | 6.854876  | 5.452058 |
| ## |           | PIPOX     | WNT6      | STAP2     | LRTM1    | ZFAND6    | RPH3AL    | TAF9B    |
| ## | GSM875412 | 4.409873  | 4.509131  | 6.805025  | 4.287370 | 9.483953  | 5.278703  | 6.869424 |
| ## | GSM875413 | 4.279986  | 4.473325  | 6.472181  | 4.448015 | 9.027841  | 6.059247  | 5.669331 |
| ## | GSM875414 | 4.534983  | 4.278096  | 7.649145  | 4.305450 | 9.152820  | 5.948267  | 5.743294 |
| ## |           | MTCH1     | AP00      | SNHG20    | DDX4     | WDR4      | ACOT9     | ZNF83    |
| ## | GSM875412 | 11.16074  | 8.503774  | 4.556996  | 3.637713 | 5.678071  | 9.545979  | 8.748747 |
| ## | GSM875413 | 11.83691  | 8.536576  | 4.366732  | 3.906602 | 5.485217  | 8.531908  | 8.098516 |
| ## | GSM875414 | 10.94207  | 7.088866  | 4.309315  | 3.576902 | 6.806127  | 8.907968  | 6.934025 |
| ## |           | RIC8A     | PPAN      | INTS13    | USP3     | ASB6      | MYL10     | F11R     |
| ## | GSM875412 | 8.605079  | 7.276120  | 8.733798  | 9.226132 | 6.851952  | 4.679721  | 9.632920 |
| ## | GSM875413 | 8.671017  | 7.597282  | 8.863430  | 7.185353 | 6.911591  | 5.159996  | 5.041046 |
| ## | GSM875414 | 9.046873  | 7.573448  | 7.963603  | 8.884689 | 6.781755  | 5.814795  | 9.677715 |
| ## |           | PYCARD    | HSPB8     | ACAD8     | LHX3     | TRAPPC9   | COR01C    | DONSON   |
| ## | GSM875412 | 9.116021  | 7.851778  | 7.157462  | 4.108235 | 5.290295  | 10.148999 | 6.758813 |
| ## | GSM875413 | 7.216457  | 9.480161  | 7.276453  | 4.362581 | 5.652045  | 9.320405  | 5.697266 |
| ## | GSM875414 | 7.959080  | 6.918039  | 7.037096  | 5.240938 | 5.835865  | 9.501944  | 6.904120 |
| ## |           | ETV7      | DSPP      | PCDHGB6   | NYX      | IMP3      | PIGP      | NLRP2    |
| ## | GSM875412 | 5.886241  | 4.257519  | 3.411803  | 3.779596 | 8.704802  | 9.103809  | 4.075150 |
| ## | GSM875413 | 5.979257  | 4.064878  | 3.696701  | 3.975302 | 7.878584  | 9.653501  | 4.103606 |
| ## | GSM875414 | 5.736257  | 4.915190  | 3.452111  | 4.177550 | 8.455499  | 9.534432  | 4.483234 |
| ## |           | MRPL34    | MAP1LC3C  | UBA52     | BRIP1    | VPS37B    | BABAM1    | MAP6D1   |
| ## | GSM875412 | 8.106949  | 4.072378  | 11.87748  | 4.580157 | 7.936515  | 8.229374  | 5.493725 |
| ## | GSM875413 | 8.353475  | 5.909914  | 11.67349  | 4.080387 | 8.037006  | 8.781279  | 5.004045 |
| ## | GSM875414 | 7.924010  | 4.175409  | 11.89684  | 4.010494 | 8.148663  | 8.394817  | 5.015242 |
| ## |           | ACSBG2    | WASF2     | COL5A2    | PRRC1    | WDR48     | RALGAPB   | GNA12    |
| ## | GSM875412 | 4.140333  | 8.374284  | 10.232155 | 8.495730 | 7.717425  | 7.871748  | 6.686806 |
| ## | GSM875413 | 4.022859  | 8.877453  | 8.914695  | 7.218650 | 7.902054  | 9.019671  | 8.449310 |
| ## | GSM875414 | 4.278096  | 7.745377  | 9.416167  | 8.615538 | 7.004799  | 7.385503  | 6.470648 |
| ## |           | LRRC37A2  | YTHDF1    | UBL4A     | COR01B   | ARMC6     | G6PC3     | ADSS2    |
| ## | GSM875412 | 5.715513  | 8.718871  | 7.402080  | 7.103154 | 6.339848  | 7.272810  | 8.358283 |
| ## | GSM875413 | 7.613142  | 9.850074  | 8.695282  | 6.808618 | 6.400731  | 7.374844  | 7.280629 |
| ## | GSM875414 | 6.150209  | 9.799176  | 8.478953  | 8.253126 | 6.678107  | 7.332787  | 8.160333 |
| ## |           | PCIF1     | JMJD1C    | R3HDM4    | TENT5A   | SPSB3     | MPHOSPH8  | PPP2R2D  |
| ## | GSM875412 | 6.091127  | 8.706998  | 7.459238  | 9.595454 | 6.319801  | 8.216852  | 7.143103 |
| ## | GSM875413 | 6.736151  | 8.424946  | 7.166039  | 8.093117 | 5.989497  | 8.957059  | 7.254434 |
| ## | GSM875414 | 6.606214  | 7.612192  | 8.905651  | 7.903429 | 6.960521  | 7.873281  | 6.683375 |
| ## |           | BRD7      | RITA1     | KDM7A     | MICALL1  | DNAJC10   | WIZ       | C6orf120 |
| ## | GSM875412 | 7.349911  | 6.957175  | 8.679873  | 6.945244 | 8.678701  | 6.555348  | 7.433000 |
| ## | GSM875413 | 7.750203  | 7.997094  | 8.021048  | 6.646066 | 7.206375  | 7.641481  | 7.302581 |
| ## | GSM875414 | 8.141668  | 7.246729  | 7.735498  | 6.588963 | 10.624724 | 6.343743  | 7.642576 |
| ## |           | RHOT2     | LDLRAP1   | TMA7      | DOCK6    | OXLD1     | CHPF2     | FAAP100  |
| ## | GSM875412 | 7.762121  | 7.227757  | 12.55689  | 6.710507 | 6.388760  | 7.722337  | 8.000139 |
| ## | GSM875413 | 7.671995  | 6.769553  | 12.31633  | 9.153542 | 6.993145  | 8.274277  | 6.371236 |
| ## | GSM875414 | 8.081931  | 6.752676  | 12.15077  | 6.750689 | 7.555141  | 8.139631  | 6.844864 |
| ## |           | NEFL      | SHTN1     | NRBF2     | TRABD    | RAB9A     | RAB15     | PGAP3    |
| ## | GSM875412 | 3.383652  | 8.573195  | 7.001140  | 6.398227 | 8.476615  | 6.698844  | 9.733179 |
| ## | GSM875413 | 3.484859  | 6.243941  | 5.787376  | 6.417430 | 8.797512  | 5.763792  | 6.770351 |
| ## | GSM875414 | 4.973167  | 8.639091  | 6.254613  | 7.497655 | 9.053755  | 5.722664  | 5.726327 |
| ## |           | ADGRA2    | PHF11     | DOLPP1    | INTS5    | KANSL2    | SGF29     | MACIR    |
| ## | GSM875412 | 6.714196  | 10.226762 | 7.291474  | 6.311853 | 7.288826  | 6.910836  | 7.113310 |
| ## | GSM875413 | 10.627666 | 9.366232  | 6.937555  | 6.977451 | 8.020610  | 7.418513  | 6.074279 |

|    |           |            |          |              |          |          |          |          |
|----|-----------|------------|----------|--------------|----------|----------|----------|----------|
| ## | GSM875414 | 6.526555   | 8.844897 | 7.378507     | 6.888223 | 6.939349 | 7.785816 | 6.243867 |
| ## | MARCHF8   | LONP2      | DTX3     | KLHL22       | MEAK7    | CLPB     | CASKIN2  |          |
| ## | GSM875412 | 7.073476   | 7.835540 | 4.843493     | 4.597046 | 6.803304 | 6.054686 | 5.728491 |
| ## | GSM875413 | 7.906004   | 8.718883 | 5.614932     | 5.010271 | 5.420538 | 6.813780 | 6.864889 |
| ## | GSM875414 | 7.189856   | 7.872274 | 5.485262     | 5.925866 | 5.582500 | 6.139291 | 6.038618 |
| ## | SMIM10L1  | ZGPAT      | DCAF15   | SDHAF1       | MINDY1   | TJAP1    | SYT13    |          |
| ## | GSM875412 | 8.499659   | 6.842029 | 5.087007     | 7.545916 | 6.473545 | 5.747940 | 5.637669 |
| ## | GSM875413 | 9.035081   | 7.650857 | 5.755757     | 7.566568 | 7.172494 | 5.645865 | 5.075641 |
| ## | GSM875414 | 8.217718   | 7.745759 | 5.537928     | 8.115022 | 7.336717 | 5.956786 | 5.453886 |
| ## | MIER2     | ORAI3      | TMEM268  | TFEB         | PAIP2B   | ELAPOR1  | ZNF783   |          |
| ## | GSM875412 | 4.244437   | 7.063800 | 5.102895     | 6.517083 | 4.685901 | 5.868650 | 7.338894 |
| ## | GSM875413 | 3.964560   | 8.710067 | 5.875012     | 7.749838 | 6.277668 | 3.764049 | 7.823179 |
| ## | GSM875414 | 4.565333   | 7.911570 | 5.330095     | 7.051989 | 5.406528 | 8.512090 | 7.448595 |
| ## | C2orf68   | FAM174B    | PGAP6    | DENND2A      | WHRN     | KCTD13   | ZNF335   |          |
| ## | GSM875412 | 6.492357   | 6.204828 | 7.689988     | 5.344013 | 6.546072 | 5.262648 | 7.357486 |
| ## | GSM875413 | 6.780968   | 6.160161 | 8.312165     | 7.947172 | 6.820639 | 5.843194 | 8.122220 |
| ## | GSM875414 | 6.080873   | 6.994679 | 8.151142     | 5.561833 | 6.309797 | 5.611832 | 7.750085 |
| ## | ADCK2     | MOSPD2     | COL8A2   | SHISAL1      | GPR153   | FAM131A  | TXNRD3   |          |
| ## | GSM875412 | 6.672831   | 8.082244 | 5.808941     | 5.469846 | 6.905115 | 6.752294 | 5.448008 |
| ## | GSM875413 | 7.671967   | 7.082493 | 4.580508     | 5.286067 | 8.406746 | 8.571172 | 5.881798 |
| ## | GSM875414 | 6.639493   | 6.417346 | 4.839085     | 5.471754 | 5.277645 | 7.103355 | 5.104179 |
| ## | IL17RC    | SEH1L      | GLRX5    | EOGT         | MRPL41   | RPUSD2   | PAOX     |          |
| ## | GSM875412 | 5.516321   | 9.397072 | 8.739003     | 7.205844 | 4.034384 | 5.246360 | 6.045671 |
| ## | GSM875413 | 6.152102   | 9.870869 | 9.350435     | 6.561837 | 4.220999 | 5.779734 | 6.233178 |
| ## | GSM875414 | 5.536076   | 9.358350 | 9.598190     | 6.339954 | 4.346689 | 5.080058 | 6.082255 |
| ## | GUCY1A1   | FBX041     | PIERCE1  | EMX2         | TRMT5    | MMP240S  | LRCH4    |          |
| ## | GSM875412 | 8.675167   | 4.902669 | 5.781298     | 3.363458 | 10.79666 | 7.055986 | 6.578935 |
| ## | GSM875413 | 9.816531   | 5.360394 | 5.695191     | 3.245755 | 11.21357 | 7.202816 | 6.721494 |
| ## | GSM875414 | 7.874249   | 5.077328 | 5.796595     | 3.282179 | 10.23561 | 6.534993 | 6.388162 |
| ## | WLS       | FAM110B    | ZNF587B  | NXPH4        | NOL11    | SMIM27   | EMILIN2  |          |
| ## | GSM875412 | 7.635920   | 4.270634 | 6.740446     | 4.404874 | 8.942376 | 6.859819 | 4.239127 |
| ## | GSM875413 | 10.552742  | 6.467444 | 5.561222     | 4.897612 | 8.568379 | 6.793935 | 4.507550 |
| ## | GSM875414 | 6.199566   | 4.784608 | 7.117821     | 4.711357 | 9.274806 | 6.585460 | 4.621776 |
| ## | NXPH3     | MRPL52     | C1orf174 | GNG3         | CEMP1    | EEF2KMT  | ZSCAN31  |          |
| ## | GSM875412 | 6.183873   | 4.382183 | 8.578729     | 4.560722 | 4.734770 | 5.912062 | 5.897358 |
| ## | GSM875413 | 6.420735   | 4.557501 | 7.599950     | 4.943778 | 4.880671 | 5.863280 | 5.319260 |
| ## | GSM875414 | 6.309509   | 5.460299 | 8.151796     | 5.581694 | 6.104579 | 6.275324 | 5.613638 |
| ## | PFDN6     | NTM        | SDHAP1   | OPLAH        | KIF18B   | MEX3D    | CRYBB2P1 |          |
| ## | GSM875412 | 4.855907   | 7.297471 | 10.183592    | 6.738858 | 6.760292 | 5.962099 | 5.302433 |
| ## | GSM875413 | 4.287894   | 5.227797 | 10.218473    | 4.501959 | 4.464416 | 6.382033 | 5.457004 |
| ## | GSM875414 | 4.433111   | 5.354893 | 9.383036     | 5.375993 | 6.533420 | 6.244882 | 5.568661 |
| ## | C19orf54  | PPIEL      | KRT8P12  | LOC105372602 | DND1     | SLC04C1  | RACGAP1  |          |
| ## | GSM875412 | 6.421302   | 5.857476 | 6.043700     | 4.324055 | 6.953697 | 3.357101 | 8.933839 |
| ## | GSM875413 | 6.058173   | 5.522815 | 6.241506     | 4.898726 | 6.394861 | 3.199172 | 8.860080 |
| ## | GSM875414 | 6.961452   | 5.448175 | 7.201216     | 4.424082 | 6.934696 | 3.175847 | 9.416168 |
| ## | DNAAF8    | NDUFB2-AS1 | INO80B   | GSTA3        | GTF2H3   | PRND     | AMIGO2   |          |
| ## | GSM875412 | 4.817481   | 4.509272 | 6.524158     | 4.159109 | 8.259035 | 3.647855 | 7.959261 |
| ## | GSM875413 | 4.713464   | 4.969195 | 6.701793     | 4.292023 | 8.010950 | 3.486526 | 9.629480 |
| ## | GSM875414 | 4.730617   | 4.784582 | 6.770932     | 4.771427 | 8.164067 | 3.531416 | 7.565623 |
| ## | ZNF764    | ARHGEF26   | P4HTM    | EXOC1        | WDR13    | ERV3-2   | MTMR14   |          |
| ## | GSM875412 | 5.533959   | 3.446463 | 8.369755     | 9.651563 | 8.086684 | 4.601984 | 8.421996 |
| ## | GSM875413 | 5.880961   | 3.983432 | 7.989309     | 8.892738 | 9.350692 | 6.031084 | 7.360269 |
| ## | GSM875414 | 7.142187   | 3.352943 | 7.241433     | 9.005338 | 8.218922 | 3.836346 | 7.890869 |
| ## | KIF17     | MYEF2      | ADAMTS1  | ZNF213-AS1   | TBC1D2   | MED15    | TRMO     |          |

```

## GSM875412 4.910093 3.627947 8.088600 3.795766 6.106017 7.662185 3.396514
## GSM875413 4.796401 3.709633 8.038508 3.659767 5.020808 8.422973 3.445906
## GSM875414 5.506128 3.804561 8.357669 3.716080 6.735324 7.788981 3.377742
## B4GALT7 FAM66D RRN3 POLR2J4 CERS2 MRPL17 SLC27A3
## GSM875412 6.334178 4.289894 7.871044 5.382512 9.957133 8.664520 6.483413
## GSM875413 7.202452 4.223515 7.806965 4.936725 9.726635 8.126146 6.425810
## GSM875414 7.392192 4.230371 8.120915 5.081640 10.519388 8.960128 7.981980
## TSNAXIP1 IL36RN NACA2 RPL23AP53 ALKBH4 ACTR10 DBNDD1
## GSM875412 5.223724 3.780829 3.507817 5.195613 5.598981 9.437939 5.397199
## GSM875413 6.154691 4.008302 3.688412 5.919833 6.359273 9.963434 5.340937
## GSM875414 6.340893 4.111145 3.723456 5.278811 5.631221 9.254264 5.409475
## ZNF112 POLM ISYNA1 KLK5 GMEB2 UBQLN4 SH3BP4
## GSM875412 5.382512 5.848675 5.844617 3.851210 6.668908 6.676792 9.924231
## GSM875413 4.997104 6.617823 8.646046 3.897992 7.572329 6.916138 7.740148
## GSM875414 4.400104 5.440222 6.315895 3.947123 6.357582 6.826427 9.355987
## SPO11 HNRNPUL2 TNS4 TMEM209 LOC105371267 ZDHHC8BP METTL2B
## GSM875412 3.079788 6.907151 6.232827 4.826038 5.872497 4.399899 4.240191
## GSM875413 2.955762 7.057420 6.101686 5.148980 5.036146 4.598790 4.936314
## GSM875414 3.019975 7.123701 7.234439 4.606861 5.053688 5.772378 3.722674
## PCOTH MYMX RHEX ZNF480 KCNC2 OR7E47P PDCD4-AS1
## GSM875412 4.317366 5.048311 4.080956 4.156357 5.573611 6.108193 3.872654
## GSM875413 4.556985 5.685295 4.224847 3.822195 5.408192 4.773434 5.045903
## GSM875414 3.910580 5.560563 4.467382 3.821789 5.096225 7.317519 5.394682
## SCAF4 EGOT LOC100996756 ZNF324B OR7E156P ALS2CL SMIM14
## GSM875412 5.743147 4.487133 4.707853 4.685714 5.843319 7.887274 3.505077
## GSM875413 5.390242 4.229086 4.580837 4.917094 5.599332 6.117592 3.851814
## GSM875414 4.247726 4.502732 4.970436 4.963080 6.130996 6.422403 3.860986
## EMC10 LAMA1 RNF126P1 FBX031 TUBBP5 SLC44A1 EFTUD2
## GSM875412 4.171639 4.455625 6.136975 6.287995 3.999188 6.505388 4.856443
## GSM875413 4.723696 4.732075 5.951303 6.682466 4.318106 5.697609 4.700763
## GSM875414 4.679911 4.719206 6.475188 6.389486 4.731882 5.744889 4.621455
## SNX6 DBNL ZDHHC9 VPS36 TMEM167B PPIL1 LMBR1
## GSM875412 10.659383 7.731036 7.958206 9.197881 9.108326 7.635263 6.487508
## GSM875413 9.060398 8.754011 6.912865 8.181497 9.772821 8.733215 7.061387
## GSM875414 9.945117 7.773313 7.321179 7.579691 8.881540 8.394393 6.087231
## AP3M1 ST6GALNAC6 AGO1 XPR1 MSTO1 PGP PI4K2B
## GSM875412 8.371921 5.617145 6.928576 8.531650 7.230090 7.728526 7.709603
## GSM875413 8.514213 7.160999 5.713708 9.306549 6.644145 7.663036 6.029062
## GSM875414 8.680557 5.031929 6.132195 7.892414 6.289629 8.119134 7.222917
## PABIR2 BAIAP2L1 RNF20 ACER3 SLC35B3 AXIN2 POLR1A
## GSM875412 8.055454 8.308514 8.856834 7.238169 9.721009 4.888311 6.859688
## GSM875413 8.638241 5.647073 9.403741 5.160406 8.205469 5.159968 6.695261
## GSM875414 8.390761 8.155249 9.206671 6.808957 9.062800 5.633487 6.145178
## SUFU ZNF703 TRMT6 SMOC1 DPYSL5 PRTFDC1 CMTR2
## GSM875412 6.213909 7.297737 7.333262 3.939534 4.408933 7.422066 7.627516
## GSM875413 6.735202 10.667827 7.579102 3.734087 4.551541 8.144157 7.340719
## GSM875414 6.342280 6.465920 6.525679 4.005820 4.085061 5.920275 7.539859
## RLIM HSD3B7 NUDT5 OTUD6B BLOC1S6 LPCAT2 CENPK
## GSM875412 6.342600 7.092803 8.336493 7.095649 8.358458 5.210929 6.830421
## GSM875413 5.807555 6.595341 6.452042 6.923511 8.337961 6.590047 5.495203
## GSM875414 5.603809 7.541706 6.464485 5.306386 8.592018 5.020490 4.717486
## APLN DHX33 ZNF346 CCDC113 TMEM38A FLVCR1 RAB9B
## GSM875412 5.653037 8.778054 5.939673 6.096075 5.406045 6.168129 5.729441
## GSM875413 7.362661 7.911733 7.937575 4.447309 5.609482 5.005063 6.986289

```

|    |           |           |           |           |           |           |           |           |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| ## | GSM875414 | 6.027171  | 7.769667  | 6.079476  | 4.221715  | 5.680895  | 6.636241  | 5.452087  |
| ## |           | KCNE3     | DCDC2     | GPR83     | FIGN      | NEU4      | SURF4     | RAB10     |
| ## | GSM875412 | 6.968545  | 3.866974  | 3.752627  | 3.936400  | 6.548453  | 9.473097  | 10.966097 |
| ## | GSM875413 | 3.977304  | 3.594256  | 3.787376  | 4.564504  | 6.454937  | 8.973993  | 9.787296  |
| ## | GSM875414 | 8.092345  | 7.182540  | 3.707045  | 3.922450  | 6.671339  | 8.821844  | 10.169932 |
| ## |           | YWHAG     | SHISA5    | TMEM9     | UBQLN1    | NDUFB9    | MRPL37    | RHBDD2    |
| ## | GSM875412 | 11.42375  | 9.254007  | 8.988734  | 8.069692  | 11.13754  | 9.065761  | 8.326341  |
| ## | GSM875413 | 11.87032  | 9.942573  | 8.721858  | 5.691669  | 11.66048  | 7.962676  | 9.654888  |
| ## | GSM875414 | 10.39158  | 8.990237  | 8.406701  | 6.749051  | 10.85546  | 9.029334  | 7.570992  |
| ## |           | CXXC5     | MRPS21    | MAF1      | OSTC      | XRN2      | TRIR      | TIMMDC1   |
| ## | GSM875412 | 8.566549  | 10.09107  | 8.225341  | 10.146203 | 8.643694  | 9.707912  | 9.595247  |
| ## | GSM875413 | 6.110953  | 10.23320  | 9.402742  | 9.389915  | 9.087763  | 9.984826  | 9.154795  |
| ## | GSM875414 | 8.771869  | 10.08054  | 8.180040  | 11.243357 | 7.740870  | 9.633637  | 9.392667  |
| ## |           | TMEM245   | LAMTOR1   | OCIAD1    | UBE2R2    | EIF2A     | ZRANB2    | TXNDC12   |
| ## | GSM875412 | 8.513732  | 9.376065  | 9.690997  | 8.847265  | 10.346096 | 9.336615  | 9.574827  |
| ## | GSM875413 | 8.271449  | 9.857436  | 9.746723  | 8.998187  | 9.311117  | 8.295657  | 7.997439  |
| ## | GSM875414 | 7.470319  | 10.187740 | 10.059164 | 8.531658  | 10.507665 | 8.363053  | 9.880735  |
| ## |           | NOB1      | NIBAN2    | CLPTM1L   | VTA1      | AP1M1     | SNX9      | TRAF7     |
| ## | GSM875412 | 8.326717  | 8.616455  | 9.855424  | 9.043452  | 7.103048  | 9.348002  | 7.200504  |
| ## | GSM875413 | 7.880144  | 6.946686  | 10.460149 | 7.096413  | 8.703809  | 8.183996  | 7.090613  |
| ## | GSM875414 | 9.117226  | 8.630523  | 9.601608  | 7.628599  | 7.334554  | 7.527930  | 7.852805  |
| ## |           | PRELID1   | SCYL1     | FARSB     | PDZD11    | GUCD1     | NAA20     | FUNDC2    |
| ## | GSM875412 | 9.90171   | 6.961734  | 10.135396 | 9.609326  | 8.805991  | 9.060120  | 9.235799  |
| ## | GSM875413 | 10.30368  | 7.548229  | 8.952741  | 9.957128  | 8.603886  | 10.100631 | 11.317785 |
| ## | GSM875414 | 10.62359  | 6.995980  | 8.569117  | 8.966144  | 9.053530  | 9.153668  | 9.173480  |
| ## |           | EMC4      | SLC40A1   | SDHAF2    | FBXW5     | SSU72     | DNAJB11   | XP05      |
| ## | GSM875412 | 9.968133  | 11.184519 | 7.935975  | 7.475732  | 9.629763  | 9.738387  | 6.805586  |
| ## | GSM875413 | 9.947955  | 8.330989  | 7.640220  | 7.877903  | 9.695513  | 9.039386  | 6.337649  |
| ## | GSM875414 | 10.543286 | 11.944417 | 6.865349  | 6.898633  | 9.957430  | 10.123392 | 6.887567  |
| ## |           | FAM107B   | C14orf119 | CHID1     | C1orf198  | RNF181    | STARD3NL  | SNAPIN    |
| ## | GSM875412 | 8.811053  | 8.886101  | 7.549453  | 8.734640  | 9.802733  | 8.585532  | 8.722825  |
| ## | GSM875413 | 10.007433 | 8.880671  | 8.815879  | 8.165357  | 10.007279 | 10.620812 | 9.246615  |
| ## | GSM875414 | 9.534533  | 10.466041 | 7.810343  | 8.463770  | 9.852372  | 9.150754  | 8.913625  |
| ## |           | CWC15     | SELENOK   | MFSD14B   | AIF1L     | NSUN2     | CCNDBP1   | MRPL51    |
| ## | GSM875412 | 9.611491  | 9.681632  | 9.290838  | 5.409124  | 9.096292  | 8.940053  | 9.838448  |
| ## | GSM875413 | 9.849801  | 10.455830 | 8.145870  | 5.630900  | 8.955422  | 9.129332  | 10.966014 |
| ## | GSM875414 | 10.439034 | 10.152249 | 7.803829  | 5.729622  | 8.860722  | 8.300438  | 9.982871  |
| ## |           | MARVELD1  | NOP58     | ADPRS     | STARD10   | JAGN1     | TMEM14C   | ZCCHC17   |
| ## | GSM875412 | 7.380936  | 10.820975 | 8.035829  | 8.020494  | 9.230009  | 9.953972  | 7.707202  |
| ## | GSM875413 | 9.065161  | 9.820967  | 8.483056  | 7.412572  | 8.196264  | 9.958766  | 7.827847  |
| ## | GSM875414 | 7.813316  | 10.362883 | 8.649447  | 10.469129 | 9.000239  | 10.056148 | 7.014989  |
| ## |           | TRUB2     | VIRMA     | NDUFB10   | TMEM138   | COQ5      | BCAR1     | FUCA2     |
| ## | GSM875412 | 7.524683  | 7.803378  | 9.952566  | 7.951447  | 7.731036  | 6.348161  | 9.609231  |
| ## | GSM875413 | 6.675475  | 9.005619  | 9.972392  | 8.033726  | 8.621910  | 6.351821  | 8.192382  |
| ## | GSM875414 | 7.318925  | 7.909833  | 10.670950 | 7.403408  | 6.961452  | 6.105099  | 8.481453  |
| ## |           | SFRP2     | PITHD1    | FOXRED1   | UCK1      | AKIRIN2   | PIGS      | PTPN23    |
| ## | GSM875412 | 7.991347  | 4.718336  | 7.364177  | 6.967473  | 5.099772  | 9.123826  | 4.369175  |
| ## | GSM875413 | 5.642459  | 4.612555  | 6.927318  | 8.238031  | 4.467822  | 8.048547  | 4.531102  |
| ## | GSM875414 | 6.890385  | 4.852837  | 7.284159  | 7.007846  | 4.909641  | 9.441978  | 4.918388  |
| ## |           | DCUN1D5   | PPP1R12C  | TMUB1     | MRPL1     | HDHD2     | MRPS23    | NOA1      |
| ## | GSM875412 | 9.091218  | 6.663421  | 6.314687  | 8.151356  | 7.983266  | 8.535063  | 7.851490  |
| ## | GSM875413 | 8.508891  | 8.156811  | 6.695804  | 7.842471  | 10.458289 | 8.207938  | 7.182152  |
| ## | GSM875414 | 9.575033  | 7.212759  | 6.916929  | 8.878195  | 7.783433  | 9.781018  | 8.474532  |
| ## |           | NEK6      | DENND11   | ZC3HC1    | CCM2      | RHOU      | TMEM98    | MTFP1     |

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## GSM875412 8.520775 8.370560 6.701441 7.551014 7.684944 10.617622 7.569847
## GSM875413 9.732443 6.657878 8.268559 8.512034 5.736572 9.038180 5.962461
## GSM875414 7.983005 6.559035 7.330539 7.254905 9.919505 8.477599 7.934349
##          SPNS1   BTBD10   FEM1A   NT5DC1   YPEL3   TIMM21   PEDS1
## GSM875412 7.356135 8.791637 6.503237 8.476615 7.724393 9.313249 8.473399
## GSM875413 7.402737 8.604153 7.170252 7.782396 7.353697 9.967614 8.131664
## GSM875414 8.212916 8.587810 7.141220 7.029245 8.328855 8.197620 8.627241
##          ORMDL1   KMT2E   COX16   SESN2   SMARCA1   COMMD5   NMRAL1
## GSM875412 9.277668 8.938429 9.135615 6.873384 7.923163 7.351438 7.692387
## GSM875413 8.758165 7.913843 9.851026 7.718197 7.931609 7.772785 7.153622
## GSM875414 9.171183 7.807321 10.330752 7.145181 8.346495 7.671748 8.491407
##          PHPT1   KCTD10   SELENOS   CHURC1   HAC11   ZDHHC16   ZHX1
## GSM875412 9.084486 7.298709 10.74050 7.619877 7.469729 7.959935 5.027342
## GSM875413 11.327268 7.735327 10.20622 7.703265 7.205547 7.500182 7.716267
## GSM875414 9.388423 7.585560 10.38101 7.287561 7.317004 7.770218 5.720105
##          JKAMP   NFKBIZ   CNOT10   PARP9   SC01   SLC25A19   ARV1
## GSM875412 9.526171 10.208960 7.273503 8.620899 7.767301 6.924130 8.322919
## GSM875413 9.327599 8.622654 7.146538 8.049977 7.157645 6.650262 8.158186
## GSM875414 8.563435 9.736414 7.119217 7.263969 7.727346 6.926472 6.668502
##          SSBP4   BBS2   RTL6   UBE2T   TATDN1   CGN   MAD2L2
## GSM875412 6.423304 6.482137 7.514504 7.981238 8.475246 8.761965 7.517387
## GSM875413 7.650403 7.637054 8.242515 6.021126 8.369924 4.698419 7.428358
## GSM875414 6.107222 6.640524 7.455014 8.583163 7.243659 8.986190 7.619272
##          SMOC2   NSRP1   GSKIP   SNX8   NDUFA12   STRBP   MED10
## GSM875412 8.933776 9.604282 9.984025 6.020724 10.02637 8.150489 7.914916
## GSM875413 9.379805 8.152064 8.196481 6.374990 11.47022 6.610033 8.617806
## GSM875414 7.492098 7.492722 10.296534 5.982087 10.80430 6.207942 7.925820
##          HSDL1   CLDN12   HDGFL2   EPDR1   G2E3   ORMDL3   SH3BP5L
## GSM875412 5.938074 9.745378 6.981755 6.943711 7.613525 10.263606 6.120665
## GSM875413 6.594729 9.071527 7.071364 10.387529 6.295228 8.347108 6.463621
## GSM875414 5.931190 8.145385 7.199666 6.320602 6.548115 8.056352 6.259918
##          STRADB   TRMT10C   POLR3GL   NTPCR   GON7   TCF19   PRMT6
## GSM875412 7.335901 8.023606 6.973314 7.578964 5.748093 5.866539 6.291340
## GSM875413 6.766352 7.747819 7.936424 8.947734 6.061516 6.482304 7.047941
## GSM875414 7.058921 8.250000 7.734577 7.394645 7.337025 6.356442 6.494916
##          SMIM3   GJB2   TSHZ1   NAT14   USP38   WDR24   PBDC1
## GSM875412 7.166506 8.766362 6.246174 5.620439 8.050088 5.433042 9.413514
## GSM875413 9.196513 4.388468 8.342722 7.670970 8.173396 5.733493 8.356976
## GSM875414 5.774362 9.786894 6.228352 6.649557 8.038609 6.571710 8.158211
##          SLC25A33   AMMECR1L   NT5C3A   SEC11C   FERMT3   SLC37A3   TMEM216
## GSM875412 8.323026 8.069295 9.137379 8.392084 6.753104 8.363136 7.238421
## GSM875413 7.233796 7.757232 7.460467 10.087734 6.692843 8.680719 7.333240
## GSM875414 8.944150 7.709575 8.705089 9.191351 6.443290 7.838371 7.423466
##          EBPL   WDR5   PNPLA8   MTA3   PRADC1   NTN4   CCDC3
## GSM875412 10.048044 6.863117 8.747807 7.492757 6.904816 6.387343 7.723329
## GSM875413 9.446529 5.571655 8.410030 7.133477 7.898665 6.649483 7.492198
## GSM875414 9.308171 6.089208 7.352028 5.952948 6.830405 5.093399 7.649059
##          ALKBH7   ABCB10   FGFRL1   TRPM7   TXNDC11   GOLGA2P10   SUGT1
## GSM875412 4.055198 6.962093 6.557141 6.668941 7.922793 5.544641 10.102169
## GSM875413 4.216321 4.990085 6.338880 5.372962 7.579972 5.953972 9.153238
## GSM875414 4.260265 6.420809 6.220840 6.049680 8.695526 5.087985 10.053864
##          DDX20   TMEM126A   TMEM69   RAB18   ATL1   SCOC   RRM2B
## GSM875412 7.306490 9.514666 8.557214 9.297409 6.495530 8.118187 7.017432
## GSM875413 7.294435 9.390095 7.394523 9.707155 7.326727 7.785613 8.026214

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|    |           |           |          |            |           |          |           |           |
|----|-----------|-----------|----------|------------|-----------|----------|-----------|-----------|
| ## | GSM875414 | 8.561217  | 9.929866 | 7.206742   | 9.724485  | 4.888503 | 9.567330  | 6.053399  |
| ## |           | MS4A7     | HDAC8    | BOK        | MOB2      | ALG1     | MTIF3     | SPATC1L   |
| ## | GSM875412 | 9.136174  | 7.032710 | 6.963521   | 7.521016  | 7.419061 | 7.938194  | 5.048417  |
| ## | GSM875413 | 8.352229  | 7.207544 | 5.159968   | 7.226211  | 6.556288 | 7.754853  | 4.929905  |
| ## | GSM875414 | 8.435311  | 6.655162 | 6.250391   | 7.534709  | 7.372593 | 7.766868  | 6.698653  |
| ## |           | ABRACL    | PSMG3    | DHX37      | DNAJC30   | NTMT1    | PLEKHA3   | NUDT22    |
| ## | GSM875412 | 9.460894  | 7.808819 | 5.712509   | 7.013462  | 8.390566 | 8.659644  | 4.470971  |
| ## | GSM875413 | 5.827313  | 8.105888 | 6.096600   | 8.465826  | 8.240374 | 8.794510  | 4.886997  |
| ## | GSM875414 | 7.641600  | 7.600767 | 5.425618   | 7.034248  | 7.718776 | 7.926819  | 5.380118  |
| ## |           | BRI3      | GLIS2    | LATS2      | NUF2      | ZNRF1    | CYP2S1    | FAM118B   |
| ## | GSM875412 | 9.505114  | 7.991906 | 5.463032   | 6.742139  | 7.411202 | 7.092555  | 8.136329  |
| ## | GSM875413 | 9.993736  | 9.644564 | 5.760342   | 4.055011  | 5.792118 | 4.844893  | 6.815140  |
| ## | GSM875414 | 10.878332 | 6.087343 | 6.088718   | 5.924745  | 7.720224 | 9.185310  | 7.750007  |
| ## |           | ZFYVE1    | ZNF581   | ARRDC1-AS1 | TSHZ3     | SERTAD1  | TMEM60    | DUSP23    |
| ## | GSM875412 | 6.994241  | 6.274424 | 6.123242   | 6.126321  | 7.200390 | 8.147610  | 8.335350  |
| ## | GSM875413 | 7.943685  | 7.040332 | 6.596767   | 5.307011  | 8.636507 | 8.359993  | 7.119944  |
| ## | GSM875414 | 7.245199  | 7.439072 | 6.067276   | 4.688818  | 7.861394 | 7.273566  | 7.662084  |
| ## |           | ENKD1     | MIF4GD   | KBTBD7     | LYAR      | RAD18    | FBXW9     | GPR160    |
| ## | GSM875412 | 5.492532  | 7.786394 | 6.000246   | 7.921299  | 5.235446 | 6.119886  | 9.537145  |
| ## | GSM875413 | 6.261790  | 8.017331 | 6.220114   | 6.778926  | 5.027449 | 6.046777  | 4.811006  |
| ## | GSM875414 | 6.754445  | 7.140744 | 6.886290   | 7.816622  | 4.662217 | 6.464469  | 11.148398 |
| ## |           | ZSCAN21   | RAVER1   | ISY1       | BLOC1S4   | YAE1     | GBP3      | TRPT1     |
| ## | GSM875412 | 6.253914  | 6.170630 | 6.722345   | 7.047667  | 7.552616 | 10.735614 | 7.752719  |
| ## | GSM875413 | 7.732526  | 6.855736 | 6.435974   | 7.179519  | 8.285751 | 6.773762  | 7.548053  |
| ## | GSM875414 | 6.415930  | 6.607654 | 5.938462   | 7.830452  | 7.683943 | 9.720862  | 7.355065  |
| ## |           | NKAP      | NICN1    | AMZ2P1     | DTNBP1    | ATL3     | CXCL16    | TCHP      |
| ## | GSM875412 | 6.123813  | 6.745086 | 6.706215   | 7.638654  | 7.264503 | 8.961953  | 7.458761  |
| ## | GSM875413 | 7.110060  | 6.843804 | 6.887512   | 8.687712  | 5.722896 | 7.992057  | 8.461784  |
| ## | GSM875414 | 6.309476  | 5.983931 | 6.415438   | 7.423736  | 7.576803 | 9.025899  | 7.016105  |
| ## |           | COPG2     | TMEM175  | OSBPL5     | RASD1     | RGMA     | PIGM      | MPV17L2   |
| ## | GSM875412 | 5.666823  | 6.152378 | 5.775466   | 6.070013  | 6.142058 | 7.975513  | 6.875833  |
| ## | GSM875413 | 6.748002  | 6.853883 | 7.517037   | 6.758869  | 8.398500 | 7.481331  | 7.626861  |
| ## | GSM875414 | 5.436715  | 6.248475 | 6.326855   | 8.413404  | 7.136475 | 7.661436  | 6.913606  |
| ## |           | IRF2BPL   | CRISPLD1 | MTRFR      | MRPL47    | TMEM120A | C15orf48  | HAGHL     |
| ## | GSM875412 | 8.834738  | 7.331048 | 6.149072   | 9.926701  | 7.748119 | 10.519960 | 6.782889  |
| ## | GSM875413 | 10.341291 | 7.940242 | 7.348052   | 9.334264  | 8.853673 | 5.527194  | 6.415151  |
| ## | GSM875414 | 9.815145  | 5.503219 | 5.726692   | 10.112089 | 6.920961 | 9.079690  | 6.664045  |
| ## |           | GNB4      | EXOSC3   | COMMD2     | CCDC8     | SPECC1   | CPLX1     | TNFSF13B  |
| ## | GSM875412 | 4.976359  | 6.727096 | 6.489479   | 6.229453  | 5.191211 | 4.422521  | 8.031984  |
| ## | GSM875413 | 4.803118  | 6.238548 | 5.139724   | 7.826849  | 5.003853 | 3.642272  | 7.056223  |
| ## | GSM875414 | 4.072572  | 7.063769 | 7.125948   | 5.179725  | 5.113056 | 4.448462  | 7.179976  |
| ## |           | DNAJC27   | ZC3H8    | CLDN2      | SPRTN     | FBXO44   | TMEM108   | DLL4      |
| ## | GSM875412 | 5.263946  | 7.047948 | 5.238060   | 5.479706  | 5.808013 | 3.509068  | 6.571836  |
| ## | GSM875413 | 6.111336  | 6.167803 | 4.876218   | 4.668239  | 6.391794 | 3.757253  | 6.827553  |
| ## | GSM875414 | 3.740572  | 7.645040 | 6.882113   | 4.425548  | 6.225672 | 3.452063  | 6.913295  |
| ## |           | SYT4      | RPS6KL1  | PSD2       | NECTIN4   | PDZD4    | TMEM79    | SWT1      |
| ## | GSM875412 | 4.347501  | 4.872281 | 5.181268   | 6.947441  | 5.440273 | 4.937410  | 5.956585  |
| ## | GSM875413 | 5.275687  | 5.363186 | 5.449683   | 6.111756  | 5.566317 | 5.094762  | 5.529586  |
| ## | GSM875414 | 4.318442  | 5.231806 | 5.238854   | 6.804478  | 6.131100 | 5.545880  | 5.816410  |
| ## |           | ESPN      | PKIB     | LRRC4      | TMEFF2    | PARVG    | PLPP5     | C1QTNF6   |
| ## | GSM875412 | 5.741171  | 6.596679 | 5.705270   | 3.758179  | 6.633324 | 7.157462  | 5.134442  |
| ## | GSM875413 | 5.890003  | 5.400924 | 5.944193   | 4.387299  | 6.331042 | 7.830988  | 5.633973  |
| ## | GSM875414 | 6.012594  | 8.238626 | 6.474668   | 4.257890  | 6.651159 | 7.965917  | 5.244633  |
| ## |           | HHATL     | PPP2R2C  | KIAA1549   | MTRES1    | TALAM1   | SPSB2     | TNFAIP8L2 |

```

## GSM875412 3.897055 3.698776 6.094941 6.847958 8.819860 5.170994 4.738284
## GSM875413 4.378107 4.057966 4.692797 7.386308 6.446836 6.605129 5.167541
## GSM875414 4.618232 4.415644 4.179578 7.022957 8.071174 6.456004 5.452420
##          THAP2      ZNF416      ZNF700      RNF135      AADAT      TMEM117      ITLN1
## GSM875412 3.437670 4.567456 6.479880 6.065198 5.040390 7.192775 8.159065
## GSM875413 5.697756 5.720408 6.120555 7.140673 4.445633 8.874636 5.284942
## GSM875414 3.313562 5.062908 6.725747 7.342286 6.116072 6.757543 8.676731
##          TRIM6      IQCN      OLFM2      USP30      RNF112      SLC25A18      ROPN1L
## GSM875412 4.105889 4.545872 4.573513 5.638055 4.192111 3.620923 3.864650
## GSM875413 7.548215 5.392530 4.293787 6.068591 6.932983 3.821977 3.943720
## GSM875414 3.830714 4.877554 4.339879 5.803888 4.328828 4.274531 4.058257
##          SEMA5B      LNX1      ABI3      ZNF649      ATAD3B      GPR34      ECRG4
## GSM875412 6.985911 6.713978 6.427943 4.337205 8.227098 7.381669 7.642096
## GSM875413 6.814776 5.068189 7.017404 4.434866 7.913068 7.569940 7.850792
## GSM875414 7.198657 7.424271 7.042853 4.701204 8.190814 6.744364 6.027406
##          ZFAND4      HYCC1      IFI27L2      MEX3B      TMEM191A      PCDHB5      RNF32-DT
## GSM875412 4.668342 6.896809 7.232692 3.948853 5.824042 4.116757 5.747532
## GSM875413 4.548996 6.140831 7.992800 4.466875 5.701520 7.074991 6.478021
## GSM875414 4.319948 7.392586 7.283762 4.339604 7.212208 3.948670 6.457503
##          C19orf33      RASD2      ZMYND12      FHIP1B      POLR1H      HCST      ZIC2
## GSM875412 10.189948 4.391578 4.334957 7.795164 7.722889 6.592036 7.367204
## GSM875413 4.479445 6.235259 5.343070 7.381459 7.423763 6.790949 3.409389
## GSM875414 10.930000 4.392337 3.836765 7.513417 8.626674 6.872268 3.514249
##          CRYGS      HSCB      SLC25A39      AS3MT      CELF4      CD163L1      TMEM234
## GSM875412 4.233441 7.380211 9.330979 4.568364 4.877872 5.806566 6.829266
## GSM875413 4.274291 7.252606 8.384858 5.902114 5.043245 6.499585 6.434927
## GSM875414 4.664704 7.431602 9.044643 4.206768 5.043147 6.574598 7.344807
##          FAM167B      KCNK6      TMPRSS13      DDX59      CCDC88B      ACTRT3      FKBP7
## GSM875412 5.367050 6.996205 5.011532 8.156704 6.915525 4.198543 3.983926
## GSM875413 5.182156 5.382329 5.251863 8.143722 7.167292 4.356529 3.812277
## GSM875414 6.163754 7.234433 5.006375 8.090527 7.178700 4.252092 3.841660
##          HEMGN      SGIP1      ZNF607      EIF1AD      ZMYND15      LY6K      IGF2BP1
## GSM875412 3.235603 4.309282 5.087959 5.120920 5.278231 7.248179 4.389723
## GSM875413 3.216461 5.299310 5.476127 5.133522 5.167309 5.229255 4.876630
## GSM875414 3.141447 3.858467 4.690700 5.509333 5.506887 6.741991 4.586563
##          RGS22      RADIL      C9orf64      CNDP1      MND1      LRMDA      DMRT2
## GSM875412 3.957179 5.015790 9.919905 4.709738 4.002416 6.446651 3.164058
## GSM875413 4.490133 6.164214 9.470148 3.830098 3.812088 5.725116 3.384309
## GSM875414 4.255650 6.051307 10.011166 3.678227 4.840488 5.573549 3.353187
##          GPBP1      C22orf23      C1QTNF4      WNT10A      CCL26      ZNF256      ACRBP
## GSM875412 9.515592 4.308676 3.594722 5.743119 4.549216 4.082789 4.726902
## GSM875413 10.102846 4.876881 4.194372 5.029380 4.433724 4.106610 5.117050
## GSM875414 9.911709 4.998918 3.909853 5.430917 4.484456 4.188090 5.051990
##          RTBDN      SPINK7      LINC00852      KCNH3      CECR2      GPC6      SLC23A1
## GSM875412 4.395033 3.719231 4.037578 5.536135 4.290195 6.196141 4.132750
## GSM875413 4.710176 3.734087 3.817862 5.908101 4.418119 5.914622 3.798478
## GSM875414 4.919231 3.804326 3.757481 5.974368 4.709553 5.279027 3.911720
##          MGARP      ARL6      CHST9      PGM2      AGPAT4-IT1      TTYH2      C16orf95
## GSM875412 3.792924 3.988657 3.362115 6.831333 5.409335 5.838064 4.492006
## GSM875413 3.673197 4.173411 3.409413 5.756454 5.831857 6.765659 4.466323
## GSM875414 3.634518 3.956630 3.465052 6.470302 4.974891 6.595611 4.534819
##          SLC4A11      C1QTNF2      TLR10      CFC1      C2orf88      KIRREL2      HASPIN
## GSM875412 7.675150 4.411156 4.033505 4.142888 4.898000 4.312220 4.279591
## GSM875413 4.920024 10.186642 3.721698 4.283581 4.494060 5.071066 4.406932

```



|    |           |           |          |          |          |           |          |          |
|----|-----------|-----------|----------|----------|----------|-----------|----------|----------|
| ## | GSM875414 | 6.513081  | 5.641498 | 3.802200 | 5.025189 | 4.613024  | 4.893256 | 5.162705 |
| ## |           | FGF19     | GPR84    | SSR4P1   | MRI1     | SNHG12    | DDX11L2  | KIF9     |
| ## | GSM875412 | 4.337388  | 4.293657 | 4.446677 | 6.862864 | 9.503369  | 4.975871 | 5.111483 |
| ## | GSM875413 | 4.721102  | 4.904060 | 4.797023 | 6.995371 | 8.450741  | 5.607335 | 4.851438 |
| ## | GSM875414 | 4.501177  | 4.954774 | 5.145123 | 7.096899 | 7.974250  | 4.836244 | 5.276960 |
| ## |           | ADH4      | TINAG    | DBIL5P   | CLTRN    | CHST6     | KATNAL1  | ZNF2     |
| ## | GSM875412 | 7.021247  | 3.539464 | 4.241686 | 3.326211 | 4.444714  | 4.020275 | 5.248785 |
| ## | GSM875413 | 6.888487  | 3.678468 | 4.400479 | 4.863577 | 4.282036  | 4.288862 | 5.512811 |
| ## | GSM875414 | 6.823534  | 3.709390 | 4.308803 | 3.381594 | 4.679865  | 3.766300 | 4.828506 |
| ## |           | LOC114224 | SLC41A2  | MSANTD4  | THUMPD3  | OSBPL6    | NAPSA    | RGS18    |
| ## | GSM875412 | 7.751047  | 6.947724 | 5.102165 | 7.728097 | 3.880507  | 5.675116 | 4.775368 |
| ## | GSM875413 | 6.573316  | 5.539466 | 4.740126 | 7.450002 | 5.052448  | 6.032604 | 4.423767 |
| ## | GSM875414 | 7.046852  | 9.443974 | 5.520540 | 6.779029 | 3.955636  | 5.615229 | 4.768991 |
| ## |           | KLHL1     | FAM178B  | CEP95    | SLC46A2  | LRRIQ1    | RBP5     | RIC1     |
| ## | GSM875412 | 3.140532  | 4.895918 | 5.053522 | 4.297635 | 3.718124  | 5.323884 | 3.394150 |
| ## | GSM875413 | 3.297367  | 5.206177 | 4.647185 | 4.286785 | 3.867108  | 5.491528 | 3.195365 |
| ## | GSM875414 | 3.346449  | 5.792097 | 5.112596 | 4.617123 | 3.797350  | 5.795795 | 3.278171 |
| ## |           | TNFRSF19  | LGALS12  | TKTL2    | CAPNS2   | CD274     | OTP      | FGFBP2   |
| ## | GSM875412 | 3.711465  | 4.427716 | 3.694807 | 4.490611 | 5.012592  | 3.244091 | 3.542436 |
| ## | GSM875413 | 3.641502  | 4.406480 | 3.480224 | 4.491912 | 4.990592  | 3.325512 | 3.659767 |
| ## | GSM875414 | 3.923584  | 4.942323 | 3.336751 | 4.920468 | 5.170959  | 3.629058 | 3.898431 |
| ## |           | SPATA9    | ERGIC1   | MOV10    | TNFRSF18 | STK40     | BVES     | PCDHB10  |
| ## | GSM875412 | 3.594392  | 7.776103 | 6.854005 | 5.164880 | 7.303446  | 3.587522 | 3.670532 |
| ## | GSM875413 | 3.719414  | 7.433718 | 7.089927 | 5.168910 | 7.840101  | 3.529363 | 5.346338 |
| ## | GSM875414 | 3.556198  | 8.834986 | 7.402792 | 5.736775 | 7.270362  | 3.456925 | 3.292887 |
| ## |           | HORMAD1   | GHRL     | ANKRD30A | ARMC2    | TEKT3     | SOST     | FBXW10   |
| ## | GSM875412 | 3.418073  | 7.259921 | 3.527504 | 4.032481 | 3.568490  | 3.631328 | 4.831323 |
| ## | GSM875413 | 3.333565  | 5.432279 | 3.564061 | 4.029926 | 4.464645  | 3.537350 | 4.618961 |
| ## | GSM875414 | 3.254867  | 6.266264 | 3.787882 | 3.889271 | 4.321011  | 3.789825 | 5.676002 |
| ## |           | ING5      | ACTR3C   | EPC1     | SPATA16  | C1QTNF7   | STK31    | OPTC     |
| ## | GSM875412 | 6.183251  | 6.005774 | 4.270498 | 4.921794 | 5.291038  | 8.616101 | 5.277535 |
| ## | GSM875413 | 6.196764  | 4.972631 | 3.709633 | 4.947682 | 7.697408  | 3.591546 | 5.385435 |
| ## | GSM875414 | 6.233541  | 5.184814 | 3.879398 | 5.295897 | 5.184625  | 4.727056 | 5.110001 |
| ## |           | KCNQ5     | ENAM     | FKSG29   | ZNF670   | SYT3      | TLR9     | PRKAG3   |
| ## | GSM875412 | 3.417611  | 3.864385 | 3.864650 | 4.691497 | 3.929663  | 4.885341 | 5.075067 |
| ## | GSM875413 | 3.401413  | 4.261044 | 3.801902 | 3.960342 | 4.269117  | 5.051985 | 5.141294 |
| ## | GSM875414 | 3.483869  | 4.534584 | 3.622960 | 4.222009 | 4.180648  | 5.756580 | 4.834793 |
| ## |           | DRC7      | TEX101   | PINX1    | STUB1-DT | MIR7-3HG  | SLC39A3  | MEIKIN   |
| ## | GSM875412 | 4.327845  | 4.767303 | 7.390340 | 5.819866 | 4.035562  | 6.476737 | 3.517573 |
| ## | GSM875413 | 4.748832  | 4.564413 | 7.111381 | 5.929732 | 4.076343  | 7.887388 | 3.573305 |
| ## | GSM875414 | 6.541537  | 5.376197 | 6.497637 | 5.882231 | 4.480659  | 7.217281 | 3.618984 |
| ## |           | GBA2      | ODAD4    | MTPN     | KIF2B    | PCDHB9    | GUCA1C   | TRPM5    |
| ## | GSM875412 | 7.655739  | 3.779596 | 4.396132 | 3.482750 | 4.589445  | 3.367808 | 4.498922 |
| ## | GSM875413 | 7.602774  | 4.543181 | 4.503273 | 3.616780 | 4.856241  | 3.793193 | 4.590320 |
| ## | GSM875414 | 8.236555  | 3.531924 | 4.271091 | 4.239822 | 5.233449  | 3.700873 | 4.410997 |
| ## |           | TEX35     | SUCNR1   | FLYWCH1  | ZBTB37   | DNAL1     | TTC29    | ANGPTL6  |
| ## | GSM875412 | 4.316347  | 4.955819 | 6.558472 | 4.140240 | 3.890121  | 3.310740 | 5.390606 |
| ## | GSM875413 | 4.683831  | 9.427251 | 7.911509 | 4.136127 | 3.665860  | 3.335705 | 5.805956 |
| ## | GSM875414 | 4.995274  | 5.024561 | 6.668932 | 4.636889 | 3.976322  | 3.467044 | 6.175944 |
| ## |           | RETNLB    | TRIM51   | FUT10    | CRLS1    | C19orf12  | FSD1L    | CHRD12   |
| ## | GSM875412 | 4.689338  | 3.822214 | 4.695137 | 8.570005 | 7.654522  | 3.640856 | 5.488677 |
| ## | GSM875413 | 4.361382  | 3.744917 | 4.604779 | 8.798963 | 8.420860  | 3.599172 | 5.159968 |
| ## | GSM875414 | 4.597104  | 3.899985 | 4.354307 | 9.014755 | 8.096562  | 4.342133 | 6.164609 |
| ## |           | C4orf17   | MRPL30   | TTLL2    | C2orf16  | LINC02882 | ANAPC11  | SOX7     |

```

## GSM875412 3.793335 7.649880 3.855106 5.005857 3.903802 4.189088 5.987968
## GSM875413 4.297395 6.997487 3.670046 5.490046 4.057966 4.122386 3.830932
## GSM875414 4.901608 8.389754 3.742546 5.361822 3.898140 4.392408 3.922553
## MRPS25 TBX22 LINC00626 RP1 BRK1 CCL28 FAM186B
## GSM875412 7.150929 3.209356 3.636134 3.362714 5.195616 7.235594 4.546441
## GSM875413 6.835242 5.297119 3.620996 3.348571 5.226340 3.716751 5.488737
## GSM875414 4.994742 3.240527 4.324784 3.298424 4.615035 4.037941 5.967084
## TTTY5 USP44 KCNK17 SLC4A9 HSD17B7P2 NUMBL INMT
## GSM875412 4.146911 3.779560 4.616719 4.694885 3.917549 5.529635 6.725052
## GSM875413 4.132731 3.606465 4.852564 5.160296 3.868097 6.205366 11.175974
## GSM875414 4.241740 3.608260 4.815967 5.077935 4.009711 5.358024 5.853033
## NLN AKR1C6P IL20 KCNK9 LINC01521 MFSD14CP IL17C
## GSM875412 3.374011 5.359172 3.935703 4.199222 3.757215 7.807320 6.054521
## GSM875413 3.242239 5.687882 4.086645 4.396173 4.013794 6.185748 5.837006
## GSM875414 3.330806 6.451575 4.002839 4.048098 3.885605 7.413819 5.742476
## NMUR2 BARHL1 IFNK MIR4755 P2RY12 PR01804 KLF16
## GSM875412 4.829709 5.720889 3.284635 4.513504 3.580069 3.228197 6.574021
## GSM875413 4.437861 6.161965 3.296252 4.301979 3.842851 3.390700 6.841488
## GSM875414 4.743154 6.395520 3.485606 4.961974 3.490116 3.832776 6.991688
## LOC284912 ZBTB46-AS1 LOC84214 ZRANB3 PLEKHN1 DPY30 SRA1
## GSM875412 4.836414 3.824671 3.698776 4.211139 6.652238 9.710905 8.104960
## GSM875413 5.122821 4.297373 3.845243 3.685541 7.231967 9.352813 9.283105
## GSM875414 5.319436 4.587051 3.571740 3.852424 7.306040 9.304775 8.136314
## HCAR1 WDR87 CACNG7 SHANK2-AS3 GCC2-AS1 AK3 DHRS4-AS1
## GSM875412 3.805372 4.370331 3.941765 4.377921 4.787757 7.121255 4.504541
## GSM875413 3.774718 4.884031 3.973771 4.326208 5.076602 5.937619 4.410731
## GSM875414 4.268692 5.446713 4.059400 4.453507 5.005021 5.298854 4.818201
## KAAG1 ACAD9 DMAP1 SLC25A2 SPZ1 NPFFR2 TTTY11
## GSM875412 4.026527 7.721452 7.144140 3.584571 3.068604 3.677686 4.486273
## GSM875413 4.226115 7.789683 7.687626 3.685541 3.361364 7.847292 4.629865
## GSM875414 4.464497 7.436519 6.795831 3.728613 3.188414 3.824833 4.678639
## MIOX WDPCP BOC ROPN1 TTTY12 CELA1 DLL1
## GSM875412 4.394274 4.958348 7.082036 3.577141 3.647644 4.225496 6.218518
## GSM875413 4.460306 5.392530 8.788943 3.997597 3.488263 4.171639 7.514501
## GSM875414 4.691122 5.168830 6.800315 4.468049 3.556429 4.107029 7.824492
## BDP1 PRDM7 IL36B GALP APOA5 INGX DBIL5P2
## GSM875412 4.707513 4.010881 3.392426 3.614081 6.409268 4.127231 3.650831
## GSM875413 5.432279 4.274725 3.455962 3.574625 6.624019 4.318023 4.771089
## GSM875414 5.322870 3.986391 3.442354 3.754444 7.293483 4.566299 4.554396
## WNT8A IL1F10 ZAN KRTAP4-12 FRMD8P1 RACGAP1P1 C3orf20
## GSM875412 4.125084 4.366259 4.564376 3.386811 5.511760 3.520994 5.088073
## GSM875413 4.085168 4.622016 4.566364 3.820603 5.470283 3.388253 5.567784
## GSM875414 4.290564 4.588977 4.844672 3.760305 5.542889 3.348709 5.882644
## FSCB ZNF33A CYP4F30P MTFR1L GPR174 VN1R10P VN1R3
## GSM875412 3.541536 3.572004 3.288508 7.555923 3.650550 3.460508 3.449046
## GSM875413 3.546379 3.266855 3.159479 8.848557 3.546804 3.400793 3.377978
## GSM875414 3.577306 3.888745 3.082929 6.378569 3.649077 3.344455 3.621092
## TTTY13 TTTY10 UBAC2 MRPS36 MAGI3 INTS2 MCM8
## GSM875412 3.584505 3.841131 8.099851 8.602150 4.396009 6.478696 6.476481
## GSM875413 3.824046 3.675179 7.823354 9.129798 4.231249 6.420562 6.671182
## GSM875414 3.827570 4.071968 8.049024 8.655912 4.462376 6.623413 5.494712
## MRO PCGF6 DGAT2 LCE3D CNFN MRPL27 MRPL36
## GSM875412 4.320279 6.410685 6.688451 4.689282 4.451459 9.802320 9.489918
## GSM875413 4.320624 6.389449 5.756982 4.728837 5.016792 9.460311 9.914820

```

|    |           |          |           |           |           |              |           |           |
|----|-----------|----------|-----------|-----------|-----------|--------------|-----------|-----------|
| ## | GSM875414 | 3.963940 | 7.018184  | 6.668519  | 4.778908  | 5.101284     | 9.676379  | 9.675449  |
| ## |           | MRPL43   | MRPS5     | RNF26     | ANGPTL1   | UBE2J2       | CFL2      | MS4A8     |
| ## | GSM875412 | 7.874949 | 8.536677  | 6.270478  | 4.876007  | 6.265224     | 6.788836  | 6.423434  |
| ## | GSM875413 | 8.576417 | 8.477354  | 6.320218  | 4.498839  | 6.598584     | 8.605613  | 5.007073  |
| ## | GSM875414 | 9.062554 | 8.628733  | 6.697987  | 4.719053  | 6.332030     | 5.839782  | 5.396620  |
| ## |           | PACSIN1  | PPIL3     | TIGD7     | BEX2      | ND4          | MAP1LC3A  | FTHL17    |
| ## | GSM875412 | 4.353457 | 8.885660  | 4.428504  | 5.097598  | 14.25572     | 8.289441  | 3.667520  |
| ## | GSM875413 | 4.944692 | 8.520614  | 6.451644  | 9.899823  | 14.38045     | 8.899290  | 3.645517  |
| ## | GSM875414 | 5.031758 | 9.319948  | 6.551824  | 7.009639  | 14.18346     | 6.928576  | 4.225350  |
| ## |           | MOV10L1  | RGS8      | TMEM121B  | TMTC1     | FCRL4        | MCHR2     | TSSK6     |
| ## | GSM875412 | 4.866073 | 4.647277  | 4.333254  | 4.950390  | 3.623566     | 4.614273  | 5.188300  |
| ## | GSM875413 | 5.027234 | 4.550621  | 4.843385  | 6.396177  | 3.788548     | 4.688257  | 5.527649  |
| ## | GSM875414 | 5.047638 | 4.960109  | 4.322299  | 4.959001  | 4.091101     | 4.832406  | 5.276316  |
| ## |           | PLA2G12B | TM2D2     | CARD6     | HINT2     | PMCHL2       | ACTR3BP2  | CDCA7     |
| ## | GSM875412 | 4.668960 | 8.445644  | 8.548070  | 8.039311  | 3.604873     | 4.023937  | 10.09227  |
| ## | GSM875413 | 4.698002 | 9.742953  | 5.895744  | 8.773871  | 3.827077     | 3.993985  | 4.56004   |
| ## | GSM875414 | 4.631689 | 8.304030  | 5.550697  | 8.841099  | 3.766579     | 3.981723  | 9.42450   |
| ## |           | WDR83    | PRXL2A    | NIPSNAP3A | USP45     | PHF6         | LINC00467 | MIEN1     |
| ## | GSM875412 | 5.985760 | 8.858354  | 8.079365  | 3.996692  | 4.274183     | 5.693807  | 12.500546 |
| ## | GSM875413 | 6.026625 | 9.709846  | 7.287592  | 3.464545  | 4.115894     | 4.963067  | 8.655690  |
| ## | GSM875414 | 6.216344 | 9.679688  | 6.976977  | 3.561007  | 4.439655     | 5.310063  | 8.867586  |
| ## |           | UQCC2    | RIOK1     | ARHGAP9   | FAM220A   | FOXD2-AS1    | AIFM2     | CHCHD6    |
| ## | GSM875412 | 8.589330 | 8.052101  | 6.397523  | 8.187989  | 3.674927     | 7.447231  | 6.923341  |
| ## | GSM875413 | 8.332078 | 6.914084  | 6.712567  | 9.315224  | 3.285446     | 6.528685  | 7.482194  |
| ## | GSM875414 | 8.782346 | 6.968690  | 6.527169  | 8.010907  | 3.575105     | 6.860921  | 6.787082  |
| ## |           | CFAP300  | PYM1      | PDCD2L    | C19orf48  | SEC22C       | MESP1     | NUDT16L1  |
| ## | GSM875412 | 3.635850 | 7.161707  | 7.037237  | 7.027786  | 5.306267     | 5.223771  | 6.228747  |
| ## | GSM875413 | 5.554559 | 7.402743  | 6.997761  | 6.971981  | 4.208243     | 5.556250  | 6.778025  |
| ## | GSM875414 | 3.587939 | 7.967330  | 8.681213  | 7.816360  | 4.955359     | 5.649283  | 6.783756  |
| ## |           | C7orf50  | MRPL45    | GPAT3     | BRMS1L    | SLC30A2      | CDIN1     | TMEM241   |
| ## | GSM875412 | 7.141610 | 8.989718  | 6.325268  | 4.072339  | 4.744569     | 5.992174  | 7.896446  |
| ## | GSM875413 | 9.652719 | 7.597343  | 5.743884  | 4.049944  | 4.926736     | 6.094118  | 7.618054  |
| ## | GSM875414 | 6.165332 | 8.081537  | 5.385258  | 3.876605  | 4.603195     | 5.540182  | 7.905629  |
| ## |           | TMEM107  | MON1A     | PERM1     | KIAA1191  | BUD13        | PLCD4     | PLPP7     |
| ## | GSM875412 | 4.126572 | 6.175915  | 5.438210  | 9.067644  | 6.921263     | 4.215095  | 4.974277  |
| ## | GSM875413 | 3.657803 | 6.545805  | 5.683104  | 10.804175 | 6.595652     | 4.311583  | 7.405525  |
| ## | GSM875414 | 3.852884 | 6.377335  | 5.554535  | 9.410739  | 6.316338     | 4.151681  | 5.188961  |
| ## |           | MGC12916 | TXNDC17   | NAA38     | ZNF559    | LOC107984035 | CCDC77    | CMSS1     |
| ## | GSM875412 | 4.661636 | 10.76467  | 8.160917  | 6.380029  | 5.228889     | 4.832310  | 7.965647  |
| ## | GSM875413 | 4.421168 | 10.03422  | 9.510455  | 7.515570  | 5.682772     | 5.082327  | 7.911831  |
| ## | GSM875414 | 4.501632 | 10.19167  | 7.746866  | 6.126261  | 5.761817     | 4.182202  | 7.507497  |
| ## |           | NT5C1A   | KCNIP4    | GPR61     | USP26     | TRAV23DV6    | KREMEN1   | PCDHGC5   |
| ## | GSM875412 | 5.072889 | 4.445171  | 3.634172  | 3.760075  | 3.284635     | 3.824114  | 4.255143  |
| ## | GSM875413 | 5.102248 | 6.378360  | 3.719657  | 3.984225  | 3.330957     | 3.874650  | 4.912475  |
| ## | GSM875414 | 5.445410 | 4.613900  | 3.930083  | 4.376635  | 3.619426     | 3.990999  | 5.032235  |
| ## |           | PARD6G   | PCDHAC2   | LACRT     | NFATC2    | HES7         | IRAG1     | KCNK4     |
| ## | GSM875412 | 4.713763 | 3.771113  | 4.132053  | 3.925370  | 5.191975     | 6.319433  | 4.025314  |
| ## | GSM875413 | 4.790110 | 4.817519  | 4.590622  | 4.350471  | 5.819274     | 7.866709  | 4.142877  |
| ## | GSM875414 | 5.336431 | 5.503293  | 4.641570  | 5.075181  | 6.207227     | 6.239333  | 4.939472  |
| ## |           | IRF2BP2  | RCC2      | SNHG16    | C4orf3    | SRP68        | VPS25     | SLC44A2   |
| ## | GSM875412 | 11.67968 | 10.093252 | 9.256520  | 9.877903  | 9.177111     | 8.587620  | 7.438974  |
| ## | GSM875413 | 10.73876 | 8.430199  | 8.178569  | 9.819602  | 9.634801     | 9.216326  | 7.209006  |
| ## | GSM875414 | 11.07405 | 9.439276  | 9.808755  | 9.733638  | 9.231964     | 9.788741  | 7.728285  |
| ## |           | SNHG1    | DNAJC5    | TBC1D14   | LRRC8A    | SLC35A4      | ERLEC1    | ZFP91     |

```

## GSM875412 9.842751 7.457446 7.969668 9.784342 7.669427 9.596009 7.994841
## GSM875413 8.583248 8.903705 8.300977 9.301026 9.150397 10.018292 7.310653
## GSM875414 8.637476 6.584955 7.304851 9.048766 7.323895 9.934738 7.034694
##          BIRC6      OST4      FYTTD1      MAL2      ERRFI1      SELENON      ANAPC16
## GSM875412 9.206059 10.43422 9.892376 10.653897 9.669202 6.913045 9.847775
## GSM875413 8.577416 11.60381 10.147994 3.751464 8.339568 7.351778 10.817175
## GSM875414 7.007637 11.43373 9.841497 12.084101 9.770940 6.923975 10.613677
##          NSMCE1      SYS1      MRPL10      MESD      LENG8      TTYH3      ANKIB1
## GSM875412 8.984804 6.738094 7.737095 4.861782 6.882303 7.887508 8.266900
## GSM875413 9.341715 7.709433 8.617111 5.221183 8.056351 8.210632 9.413237
## GSM875414 9.128767 6.951490 8.870173 4.930518 6.456052 7.539118 7.405907
##          SNX12      MANBAL      FAM210B      PPP1R15B      CNOT11      STT3B      PARP14
## GSM875412 8.524754 8.610456 8.320042 9.603896 9.379270 10.229315 8.829520
## GSM875413 9.065161 9.575430 10.125208 8.369776 8.327521 9.578660 7.864421
## GSM875414 7.831386 8.142724 8.595750 9.854306 9.576440 9.150362 6.624831
##          TMEM167A      CYSTM1      NIFK      DYNC2I2      SLC35B2      C12orf57      MIB1
## GSM875412 9.258675 11.880396 8.127226 7.706679 7.901160 9.168649 8.108319
## GSM875413 10.292474 9.230784 7.092387 6.272263 8.157954 11.640231 8.671409
## GSM875414 8.542102 11.599230 7.817467 7.661284 8.171727 9.673423 7.790652
##          WDR75      SMIM30      SULF2      ATPAF1      CHTF8      CYB561A3      CCAR1
## GSM875412 8.206394 7.673547 9.804141 6.022831 8.421634 7.503197 9.382635
## GSM875413 7.535807 8.619528 10.414150 7.626163 8.641730 7.480939 8.509476
## GSM875414 7.917486 7.331211 6.088279 5.505167 8.488781 7.039451 8.869332
##          RPL7L1      PIM3      SMIM15      ABHD12      KIAA1522      UBE2Q2      FAM234A
## GSM875412 10.12430 8.474523 9.802529 8.098867 8.770483 8.584624 8.000344
## GSM875413 10.07158 8.899308 9.778476 8.511237 5.712656 9.668653 8.068116
## GSM875414 10.63484 10.461439 10.139490 7.374676 7.715698 9.187753 7.649635
##          RNF185      STMP1      CDCA5      ABHD16A      TMEM263      ARHGAP21      NAV1
## GSM875412 7.165850 8.580031 7.004473 8.666410 8.473762 9.742455 6.703625
## GSM875413 8.057533 8.720155 5.404545 7.927042 10.589717 7.928776 6.572400
## GSM875414 8.421126 8.833019 6.735534 8.179841 10.131677 9.487147 6.186088
##          GPAT4      CIAO2A      ZMAT2      UBALD2      DCAF12      TNKS1BP1      CERCAM
## GSM875412 8.722374 9.879513 8.783535 7.623145 8.443779 6.585968 6.246145
## GSM875413 8.520423 8.262465 10.079062 7.696346 7.080782 7.330084 9.388047
## GSM875414 6.936214 9.683659 8.529597 8.118805 7.548874 7.556020 6.590232
##          ARRDC3      FAM219B      NDFIP2      WDFY1      GRAMD1A      ANKRD13A      HIBADH
## GSM875412 8.960854 6.266331 9.728451 8.793169 6.703870 8.967430 9.061590
## GSM875413 9.851501 7.743753 5.607031 8.078792 7.206879 9.275220 9.493761
## GSM875414 8.130320 6.080330 9.306700 8.866312 7.777308 8.930378 7.647910
##          DPP7      COMMD7      GET4      TCEAL8      COX20      ABHD14B      DNTTIP1
## GSM875412 7.872587 9.492097 5.492384 7.973418 8.631325 7.684944 7.956104
## GSM875413 8.131066 10.428402 5.336985 9.562098 9.353509 7.831561 8.392835
## GSM875414 7.537681 10.190852 5.229552 9.084531 7.801456 8.250303 8.048230
##          GPCPD1      UBTD2      CPEB4      TP53INP2      GPT2      SLAIN2      SHKBP1
## GSM875412 8.792534 7.608017 6.873446 8.770466 6.168803 4.183042 6.914363
## GSM875413 10.043440 7.876089 6.878058 10.298393 5.720279 4.401966 7.590992
## GSM875414 8.002559 7.686695 6.857010 7.847289 7.782395 3.481608 7.766428
##          ATAD1      PYCR2      ZDHHC5      DMAC1      MICOS10      DANCER      TPRG1L
## GSM875412 8.882978 6.803187 9.258607 4.789691 11.131538 9.481525 9.462077
## GSM875413 9.195239 7.122101 8.593113 7.266007 11.579640 8.763032 9.533484
## GSM875414 8.893595 7.227996 9.306049 4.719341 9.877266 9.756506 8.678055
##          ACSS1      KRTCAP2      JMJD8      GNPTG      LAMTOR4      UTP4      ANO6
## GSM875412 8.050745 10.17971 7.473315 8.113754 8.188775 8.442911 9.146258
## GSM875413 7.720570 10.29825 7.837327 8.148887 9.619264 8.913456 9.856549

```

|    |           |           |           |          |          |          |           |           |
|----|-----------|-----------|-----------|----------|----------|----------|-----------|-----------|
| ## | GSM875414 | 7.167753  | 10.31822  | 7.578106 | 9.056944 | 7.924783 | 9.062837  | 7.900778  |
| ## |           | PREX1     | TTC7A     | SARNP    | ZFAS1    | STING1   | MRPS6     | MYADM     |
| ## | GSM875412 | 6.459721  | 6.615738  | 8.765931 | 10.23531 | 6.946460 | 8.552119  | 6.264706  |
| ## | GSM875413 | 6.765299  | 5.159968  | 9.772250 | 10.59260 | 8.081877 | 8.820334  | 8.064303  |
| ## | GSM875414 | 6.444080  | 6.158032  | 9.010878 | 10.64998 | 5.919627 | 8.153769  | 8.490177  |
| ## |           | EXOC4     | PPP1R18   | SETD7    | CHCHD10  | PTGFRN   | NUFIP2    | CCDC115   |
| ## | GSM875412 | 8.342449  | 6.976055  | 8.746302 | 8.974767 | 9.061984 | 10.000465 | 8.000842  |
| ## | GSM875413 | 8.742444  | 8.792178  | 9.586400 | 9.834314 | 7.790047 | 7.452001  | 8.736660  |
| ## | GSM875414 | 7.438979  | 7.754402  | 7.950000 | 8.871799 | 5.672572 | 5.926870  | 7.685734  |
| ## |           | CERS5     | TMEM250   | DUS3L    | CFAP36   | ATXN7L3  | ROMO1     | SUDS3     |
| ## | GSM875412 | 7.846859  | 7.123057  | 6.035544 | 7.401367 | 8.219931 | 8.416696  | 7.914290  |
| ## | GSM875413 | 9.153891  | 7.671675  | 6.560446 | 8.605530 | 7.453331 | 9.942573  | 8.745692  |
| ## | GSM875414 | 8.009188  | 6.993150  | 6.424669 | 7.173198 | 7.470736 | 8.400213  | 6.488614  |
| ## |           | LEMD2     | TMEM219   | CMIP     | CAMK2D   | SUMF2    | TMEM205   | TMEM101   |
| ## | GSM875412 | 6.275776  | 8.681095  | 7.210466 | 7.203055 | 8.454227 | 9.176211  | 6.657896  |
| ## | GSM875413 | 6.293688  | 9.610554  | 6.294999 | 7.242990 | 8.872697 | 9.976897  | 7.055552  |
| ## | GSM875414 | 6.657156  | 9.475853  | 7.643894 | 8.516039 | 8.846342 | 8.560337  | 6.756678  |
| ## |           | PHF13     | SMIM20    | APCDD1   | DAB2IP   | GOPC     | RPRD1B    | IGSF8     |
| ## | GSM875412 | 7.808046  | 7.618350  | 7.157462 | 7.081188 | 7.860491 | 7.503244  | 6.474693  |
| ## | GSM875413 | 8.059433  | 8.134592  | 6.879879 | 7.450655 | 7.508658 | 7.377391  | 5.524672  |
| ## | GSM875414 | 7.188677  | 6.702669  | 6.287216 | 6.763600 | 7.021241 | 7.588110  | 6.588256  |
| ## |           | NBDY      | BOD1      | TOMM5    | SURF6    | SLC15A4  | NT5C3B    | BLOC1S2   |
| ## | GSM875412 | 3.838212  | 7.794008  | 9.951672 | 7.420699 | 8.177546 | 7.930078  | 9.305483  |
| ## | GSM875413 | 5.907910  | 9.388082  | 9.807837 | 7.289962 | 9.057396 | 9.381016  | 8.658203  |
| ## | GSM875414 | 3.748162  | 8.896395  | 9.970193 | 6.762352 | 7.961935 | 9.021542  | 9.222887  |
| ## |           | TMEM203   | GPR108    | UBL7     | SNHG29   | ULK3     | NUS1      | ZCCHC3    |
| ## | GSM875412 | 8.429194  | 7.878704  | 7.355973 | 9.147383 | 7.584674 | 8.413409  | 4.497681  |
| ## | GSM875413 | 8.853111  | 8.644137  | 7.746277 | 8.172677 | 6.575672 | 8.361236  | 4.625527  |
| ## | GSM875414 | 7.916167  | 7.886254  | 7.574176 | 8.629966 | 7.051159 | 7.710179  | 4.578543  |
| ## |           | RAB2B     | PDRG1     | ZNFX1    | CDCA7L   | CPSF3    | GTF3C6    | USP40     |
| ## | GSM875412 | 7.859587  | 7.473637  | 8.040888 | 8.772278 | 8.616168 | 10.33511  | 7.851702  |
| ## | GSM875413 | 8.103968  | 8.556997  | 8.621080 | 7.527474 | 7.803992 | 10.11252  | 7.506715  |
| ## | GSM875414 | 8.257058  | 7.950217  | 7.814100 | 6.381423 | 8.225361 | 10.00121  | 6.819617  |
| ## |           | CEP20     | SYVN1     | COPRS    | FBX045   | SNX14    | MRPL38    | ZNF598    |
| ## | GSM875412 | 9.249111  | 7.024336  | 8.733204 | 7.434949 | 8.785734 | 7.726285  | 6.636686  |
| ## | GSM875413 | 8.542352  | 7.337102  | 9.905859 | 6.843411 | 8.070380 | 8.017061  | 6.813173  |
| ## | GSM875414 | 8.777938  | 7.898405  | 7.976825 | 8.424528 | 7.402748 | 8.417147  | 7.572659  |
| ## |           | C12orf75  | KANSL1    | CHMP4B   | PURB     | TBC1D23  | PPP1R9B   | MMGT1     |
| ## | GSM875412 | 10.003389 | 8.392534  | 9.177900 | 8.534900 | 8.406310 | 5.567006  | 8.442571  |
| ## | GSM875413 | 8.737457  | 8.681466  | 8.925198 | 9.563633 | 8.037112 | 5.741548  | 10.110074 |
| ## | GSM875414 | 9.563876  | 9.338900  | 9.213067 | 7.918601 | 8.582635 | 5.904945  | 9.504615  |
| ## |           | MRRF      | TMEM181   | POGLUT3  | CPNE2    | ZRANB1   | FBXL3     | SPRYD3    |
| ## | GSM875412 | 8.107409  | 9.743819  | 7.166478 | 6.941931 | 5.945346 | 10.023619 | 7.297805  |
| ## | GSM875413 | 6.301013  | 7.782098  | 7.831771 | 8.429804 | 7.716088 | 9.696905  | 9.671555  |
| ## | GSM875414 | 6.768199  | 8.802675  | 7.459914 | 6.973865 | 5.989840 | 10.225783 | 7.322881  |
| ## |           | SIN3A     | SFXN4     | NCOA5    | FAM219A  | RPS19BP1 | RTKN      | ZNF622    |
| ## | GSM875412 | 6.751060  | 8.154763  | 6.352833 | 6.141390 | 7.964103 | 7.020743  | 7.905715  |
| ## | GSM875413 | 6.997543  | 7.862292  | 8.444967 | 6.932818 | 8.777981 | 5.940658  | 8.644978  |
| ## | GSM875414 | 6.454389  | 6.827120  | 6.555089 | 6.365731 | 8.424206 | 7.373611  | 9.050656  |
| ## |           | SYAP1     | SNHG5     | ELOF1    | EIF2AK4  | PPP1R1B  | ARHGAP18  | CRAMP1    |
| ## | GSM875412 | 9.798916  | 11.906570 | 7.694719 | 7.080674 | 10.99792 | 6.112738  | 6.787440  |
| ## | GSM875413 | 9.296173  | 9.504897  | 8.049822 | 6.940013 | 4.73757  | 4.863603  | 6.740295  |
| ## | GSM875414 | 9.904622  | 11.740651 | 7.777140 | 6.577199 | 7.04606  | 5.501949  | 6.426895  |
| ## |           | TTC14     | PLRG1     | DPH3     | MRPS26   | MRPL14   | PPP1R16A  | PPTC7     |

```

## GSM875412 7.942874 8.198030 7.326630 8.032275 9.574903 7.408718 9.676658
## GSM875413 7.437612 9.012038 6.179927 9.486936 8.189522 7.160672 8.912188
## GSM875414 7.521588 9.469907 7.059521 8.095580 9.646495 7.480362 9.094408
##          RAMAC SLC25A25 LOC100129034 FAM199X ZFYVE27      SNHG8 MFSD14A
## GSM875412 7.750890 6.827120      7.557937 7.761777 7.206358 9.864017 9.361931
## GSM875413 7.593460 7.430753      8.982870 8.637330 7.515249 9.281127 9.366307
## GSM875414 8.721363 6.445006      6.864228 6.955565 6.400275 10.558829 9.618292
##          OIP5-AS1 STRIP1 DRAM2 CCDC80 SNAP47 STIM2 RAB24
## GSM875412 9.334247 7.233797 7.954487 6.450971 7.398770 7.314562 6.857927
## GSM875413 9.476253 7.142989 7.946870 7.134406 7.802300 7.313000 8.796312
## GSM875414 7.977210 7.552168 6.831436 6.966101 7.858632 6.021088 7.410137
##          SRXN1 CCDC97 MRPL32 TMEM63B SAT2 NEPRO SMAP2
## GSM875412 7.803378 6.384947 9.695001 7.452297 7.696712 4.597046 7.761277
## GSM875413 9.311956 6.954528 10.177299 7.140971 8.624685 3.829585 7.592975
## GSM875414 7.491763 6.549005 9.171677 7.407701 7.438029 3.709633 7.634745
##          ARRDC4 PIP4P1 PNPT1 TRAPPC1 SLC39A10 HAUS1 KNSTRN
## GSM875412 6.887927 7.373576 9.370687 7.837467 8.566724 7.866538 7.058104
## GSM875413 6.258921 7.743485 7.446116 8.675351 6.643926 8.477982 6.263753
## GSM875414 7.600767 8.565511 9.088086 8.706904 7.948852 7.333952 6.188679
##          NDUFA11 SLC25A29 ZNF511 TANC1 PHF5A COMMD6 FAM217B
## GSM875412 9.591319 6.992381 8.035243 9.294008 9.038176 10.64296 7.457451
## GSM875413 10.192261 7.077151 7.811931 9.082950 8.244656 10.35751 9.070660
## GSM875414 9.113302 7.196558 7.947313 8.314774 8.257519 10.27711 5.897358
##          OCIAD2 MRPL21 FAM104A MCU CC2D1B RBM27 ATOSA
## GSM875412 10.282834 8.235387 7.787852 9.331701 6.484179 8.546086 7.896558
## GSM875413 7.095385 8.268194 7.406828 6.622365 5.993886 9.392074 7.484090
## GSM875414 9.634532 8.179977 7.253291 9.163683 6.704603 7.750993 8.354508
##          FBX032 MCRIP1 CCDC50 BORCS7 ZYG11B MTERF2 TMED8
## GSM875412 7.495246 7.116008 9.583096 7.600946 8.067806 5.508547 7.454435
## GSM875413 7.218530 8.378138 7.843786 9.049709 8.650276 8.366049 9.267809
## GSM875414 6.176388 6.868771 8.624648 8.331226 7.711464 6.552496 8.028049
##          ARL8A C1QC SH3BGR12 NEURL1B INO80 DNAJC19 ZDHHC20
## GSM875412 7.340883 9.740797 9.434351 6.650602 7.089050 7.214907 10.693389
## GSM875413 7.290781 9.973795 8.997104 10.232496 6.247619 7.756223 8.713426
## GSM875414 7.240183 10.507423 10.318886 6.952860 6.784067 7.512186 9.709632
##          ESAM PYG02 VSIR TMEM199 VPS37A PKDCC MIR100HG
## GSM875412 5.624036 6.899699 5.526279 8.563106 6.541400 9.796252 6.262984
## GSM875413 4.822001 7.498278 5.193102 7.281966 7.764205 8.132445 10.096315
## GSM875414 6.253456 7.185685 4.725008 8.139382 6.328928 6.930922 4.433458
##          ZNF275 DOCK7 BTBD6 LOC93622 GFM2 GATAD2B ZCRB1
## GSM875412 6.110794 8.495735 7.713525 6.903962 7.620797 6.084106 8.951080
## GSM875413 8.290377 8.182889 8.096046 7.402493 8.615496 5.992006 10.376952
## GSM875414 6.464244 8.835142 7.922998 7.903067 6.704019 6.469086 9.710846
##          RPU5D4 TSEN15 TP53RK RPP25L SMIM12 COA5 TMEM87B
## GSM875412 8.481211 8.144919 6.444467 7.822099 8.832176 7.125424 9.227453
## GSM875413 7.176382 7.923420 6.960253 7.861117 8.697762 7.793037 8.205248
## GSM875414 7.823842 8.361667 6.834823 8.868549 8.987943 6.533765 9.300379
##          ATP5MK RNF149 DTX3L MPLKIP GPAM PM20D2 CDC26
## GSM875412 11.88522 10.659580 9.752668 8.718870 5.353205 8.022624 8.938802
## GSM875413 12.10488 8.811953 8.814081 8.455994 4.481831 7.419950 8.643190
## GSM875414 12.15437 9.384185 8.064531 7.720718 4.453291 6.253888 8.317313
##          NAXE KAT14 DEDD2 ABHD17C BRAT1 NUDCD1 UBN2
## GSM875412 9.740465 6.150148 7.837195 8.958227 6.758813 4.042321 6.412934
## GSM875413 9.580144 7.908739 7.607366 4.186217 7.516936 4.093648 7.514872

```

|    |           |           |           |           |          |           |              |           |
|----|-----------|-----------|-----------|-----------|----------|-----------|--------------|-----------|
| ## | GSM875414 | 8.939444  | 5.752525  | 8.087208  | 8.411645 | 6.696091  | 3.264690     | 5.832437  |
| ## |           | AMOTL1    | GRIPAP1   | CCDC124   | TMEM128  | FRMD6     | PATL1        | ETFRF1    |
| ## | GSM875412 | 7.893299  | 7.249400  | 3.969328  | 7.737121 | 7.885680  | 8.451547     | 7.889903  |
| ## | GSM875413 | 9.350827  | 8.562763  | 3.773649  | 8.327730 | 9.708122  | 7.260641     | 10.444667 |
| ## | GSM875414 | 6.200640  | 6.461414  | 3.782673  | 8.020736 | 7.269086  | 7.059830     | 7.839254  |
| ## |           | NUP35     | GPANK1    | LRRC58    | C1orf122 | VPS26B    | TMEM18       | DYNLL2    |
| ## | GSM875412 | 8.512460  | 7.366172  | 8.351440  | 8.414564 | 7.496712  | 5.345130     | 8.163411  |
| ## | GSM875413 | 7.812572  | 8.132747  | 8.636763  | 9.346575 | 7.793544  | 5.519487     | 9.477778  |
| ## | GSM875414 | 8.576560  | 7.947912  | 8.119508  | 8.496214 | 6.948691  | 5.032388     | 8.608191  |
| ## |           | ATE1      | RALGAPA2  | SCAF1     | DOCK8    | DHRX      | PCED1A       | RELCH     |
| ## | GSM875412 | 7.592548  | 8.136385  | 4.849799  | 6.367005 | 8.523918  | 6.687284     | 7.636663  |
| ## | GSM875413 | 7.087858  | 7.483484  | 5.512380  | 5.552261 | 8.606394  | 8.047108     | 8.199096  |
| ## | GSM875414 | 6.759237  | 4.776321  | 5.357496  | 5.221071 | 7.961120  | 6.784989     | 6.686641  |
| ## |           | OAF       | SCRN2     | PPP4R2    | ANAPC7   | ACAP3     | MOB3A        | PHF19     |
| ## | GSM875412 | 8.065454  | 5.856732  | 9.055438  | 6.947258 | 5.86865   | 6.336294     | 5.760319  |
| ## | GSM875413 | 8.327766  | 5.870349  | 7.207018  | 6.927951 | 7.43893   | 7.714437     | 7.414414  |
| ## | GSM875414 | 7.154276  | 6.255174  | 9.570421  | 4.092245 | 6.14822   | 6.776161     | 6.088729  |
| ## |           | SMIM19    | TMEM54    | TRAPPC6B  | ZCCHC9   | ZBTB21    | RPL22L1      | EEF2K     |
| ## | GSM875412 | 10.038415 | 8.777943  | 6.705991  | 7.996408 | 6.634643  | 8.956082     | 7.957152  |
| ## | GSM875413 | 9.882693  | 7.259355  | 7.167919  | 8.975265 | 7.369883  | 8.305206     | 6.646066  |
| ## | GSM875414 | 7.088866  | 7.115662  | 8.176463  | 7.942871 | 5.229793  | 8.848513     | 9.018045  |
| ## |           | SNHG6     | SHROOM3   | VMA21     | CSRNP1   | PAN3      | INAFM2       | TMEM141   |
| ## | GSM875412 | 11.26632  | 8.415994  | 8.113642  | 6.512096 | 10.135856 | 5.363688     | 7.706345  |
| ## | GSM875413 | 11.75893  | 6.155581  | 10.026157 | 7.654896 | 9.193532  | 7.438588     | 7.282331  |
| ## | GSM875414 | 10.50572  | 9.995944  | 8.793049  | 6.524270 | 9.430269  | 4.032418     | 7.789743  |
| ## |           | SLC41A1   | RWDD4     | GINM1     | MZT1     | MRPL50    | ITPRIP       | DPH7      |
| ## | GSM875412 | 6.546919  | 7.320787  | 8.224507  | 8.356742 | 6.985832  | 6.594589     | 7.069221  |
| ## | GSM875413 | 7.356755  | 7.824519  | 7.704067  | 8.518343 | 6.373311  | 7.947131     | 7.169638  |
| ## | GSM875414 | 6.118448  | 7.044863  | 8.390026  | 8.089657 | 7.351968  | 6.211727     | 6.787353  |
| ## |           | TMEM129   | SH3RF1    | FBXO25    | NRM      | LSM10     | SLC45A4      | GLIPR2    |
| ## | GSM875412 | 7.045422  | 8.695144  | 6.984223  | 7.071236 | 7.603906  | 7.913695     | 6.594118  |
| ## | GSM875413 | 7.655461  | 7.160290  | 8.198828  | 7.395133 | 8.088434  | 7.091639     | 8.193784  |
| ## | GSM875414 | 7.128925  | 8.077012  | 7.881076  | 7.405299 | 7.982668  | 8.400680     | 6.594655  |
| ## |           | TP53I13   | CCDC43    | UHRF2     | SAAL1    | IFFO2     | SPRYD4       | SLAIN1    |
| ## | GSM875412 | 7.669277  | 9.684593  | 8.736908  | 7.380211 | 6.705267  | 6.385345     | 3.550921  |
| ## | GSM875413 | 6.711982  | 5.941791  | 7.893242  | 6.312053 | 5.848302  | 6.572235     | 5.781669  |
| ## | GSM875414 | 6.815773  | 7.537952  | 9.608719  | 7.471815 | 5.088463  | 5.871619     | 3.986117  |
| ## |           | ALG2      | PAG1      | CIPC      | ALKBH2   | CACHD1    | ZBTB4        | DPY19L3   |
| ## | GSM875412 | 9.084510  | 6.246174  | 6.157541  | 6.144210 | 6.750843  | 8.252521     | 6.499645  |
| ## | GSM875413 | 8.404973  | 6.778562  | 6.994676  | 6.938131 | 7.226022  | 10.599760    | 8.227289  |
| ## | GSM875414 | 9.997281  | 6.044181  | 5.804881  | 6.719229 | 5.797563  | 7.517374     | 7.789467  |
| ## |           | EBLN3P    | COA6      | CCDC117   | SAMD1    | UBE2E2    | UHRF1        | NCBP2AS2  |
| ## | GSM875412 | 7.368627  | 8.159967  | 7.595533  | 6.657259 | 7.158318  | 8.068423     | 8.513184  |
| ## | GSM875413 | 7.306353  | 6.864890  | 7.805914  | 6.612048 | 8.846292  | 8.610621     | 8.064810  |
| ## | GSM875414 | 8.144864  | 7.609695  | 8.888159  | 6.348153 | 6.512401  | 8.909013     | 8.750546  |
| ## |           | SPOPL     | COL12A1   | LRATD1    | ATPCKMT  | SPNS2     | POLR3H       | NAA30     |
| ## | GSM875412 | 8.879521  | 10.779869 | 9.576825  | 5.418378 | 6.438696  | 6.687880     | 7.129314  |
| ## | GSM875413 | 8.439950  | 9.047965  | 6.193126  | 5.186737 | 5.588761  | 7.112688     | 8.007618  |
| ## | GSM875414 | 8.899515  | 10.224120 | 6.856983  | 5.618631 | 7.928070  | 6.823734     | 6.909151  |
| ## |           | LRWD1     | CTHRC1    | SKA2      | FAM83D   | POMGNT2   | EPB41L4A-AS1 | SNHG15    |
| ## | GSM875412 | 7.183291  | 11.164725 | 7.642535  | 8.102548 | 6.702757  | 8.258909     | 7.592585  |
| ## | GSM875413 | 7.870451  | 6.072774  | 9.395599  | 6.499124 | 7.963906  | 9.821004     | 7.488502  |
| ## | GSM875414 | 6.927628  | 10.280819 | 8.405827  | 7.483009 | 7.108669  | 8.005278     | 6.592106  |
| ## |           | C8orf76   | ARL6IP6   | MED29     | GEMIN5   | STK11IP   | RPTOR        | BRI3BP    |

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## GSM875412 6.360535 8.834580 6.348891 7.363294 6.400143 6.176224 9.610359
## GSM875413 5.564754 7.162489 8.036713 8.447050 6.665588 6.552801 7.786734
## GSM875414 6.280246 8.894343 7.779359 6.891076 6.708832 6.148024 8.058854
##          LNPK   MRPL55   SYNPO2   CCDC167   PSMA3-AS1   PLEKHH1   ANKRD50
## GSM875412 5.326805 7.331290 7.904221 7.199499 8.215635 7.125099 7.744866
## GSM875413 4.733666 7.894355 8.276991 7.448158 8.062779 6.181158 8.589796
## GSM875414 4.371344 7.940179 7.371498 7.559091 7.221465 7.113418 7.820419
##          KLHL42   ZDHC8   COQ10A   LTV1   C16orf91   ZNF513   KLHDC8B
## GSM875412 7.634798 6.306879 6.118147 8.296223 7.585050 6.146438 7.045037
## GSM875413 9.195954 7.644766 8.184127 7.840890 7.202763 6.537049 9.415224
## GSM875414 6.653613 6.361087 6.409831 6.734468 8.443704 7.013406 7.029789
##          TUBGCP6   RNA45SN5   RCS1   COG6   RSPRY1   COX14   TSPAN33
## GSM875412 4.966337 7.762637 6.567825 8.393056 7.506048 8.765983 6.798725
## GSM875413 6.130027 5.537498 6.254758 7.709026 7.816343 10.520089 9.965503
## GSM875414 5.159465 7.434137 5.677308 8.213703 8.281119 8.817477 7.781168
##          SAPCD2   SLC27A4   UBE2F   REEP3   RRP36   AGAP3   LIX1L
## GSM875412 7.273503 8.244267 9.056036 9.030550 8.404072 7.635263 7.914008
## GSM875413 6.150743 7.330636 8.714167 8.458657 7.674196 9.177365 9.814822
## GSM875414 7.926453 7.569196 7.954190 7.631676 8.591703 6.962000 7.960070
##          SMDT1   MRPL54   JAZF1   CYB5D2   METTL23   FAM229B   TBRG1
## GSM875412 9.233317 8.332176 6.539477 5.764221 8.672044 5.872621 7.633450
## GSM875413 10.201291 8.832003 10.048558 7.339595 8.650413 8.550110 6.269149
## GSM875414 9.195866 8.549706 6.306126 5.879793 9.475219 6.123931 7.382622
##          BOD1L1   TMEM125   MICOS13   DNAAF9   MMAB   DAGLB   RHN01
## GSM875412 8.023678 8.487544 8.371327 6.437781 6.801866 5.128608 5.544711
## GSM875413 8.880620 5.362464 9.267848 8.705239 8.860080 5.518356 7.126475
## GSM875414 7.240663 7.409961 8.369032 6.472137 7.303753 5.492773 5.255417
##          EPC2   HENMT1   ZFYVE19   NCEH1   GNPAT1   SNHG17   SLC25A26
## GSM875412 7.893814 7.827189 6.444148 8.500448 8.706272 8.950509 7.799660
## GSM875413 7.983052 5.828731 6.542243 4.507401 7.101425 8.605977 7.641201
## GSM875414 7.472407 8.225608 6.047822 7.938291 9.397897 7.458034 7.402469
##          LRATD2   RPF2   VASN   TRIM47   TRAPPC5   STEAP2   TYSND1
## GSM875412 9.635791 9.458515 5.636076 6.932664 7.455086 7.569935 4.608734
## GSM875413 6.764729 8.562032 7.717610 7.120042 8.377370 8.859808 4.657737
## GSM875414 9.062455 8.175185 5.270031 7.028023 7.824212 6.851507 5.029206
##          SLC35B4   ATG16L2   GZF1   NAA25   AEBP2   MGME1   TPRN
## GSM875412 6.635779 5.323342 7.174174 7.272781 7.845830 7.255608 6.457371
## GSM875413 9.160223 5.791241 9.195672 7.783080 9.379554 8.266003 5.766587
## GSM875414 6.449897 5.775493 6.401362 5.839396 7.066111 7.446342 5.239632
##          WDR54   PTPMT1   PIGU   CASTOR2   LOC728743   IAH1   NPNT
## GSM875412 6.885970 7.274230 7.662967 7.062866 4.990706 9.357466 9.098184
## GSM875413 8.635454 7.311577 8.403161 7.736643 5.700963 9.193568 9.301072
## GSM875414 7.021705 7.186262 6.882971 6.627446 5.668455 9.598753 5.619452
##          TP53INP1   MRPL20-AS1   RNF213   NKIRAS1   CCDC137   EID2   EIF4E3
## GSM875412 8.836306 7.657867 9.309253 5.606750 6.403329 6.516020 4.126572
## GSM875413 9.713360 7.574164 8.194116 7.592536 6.338838 7.451104 4.513749
## GSM875414 8.789852 7.620204 8.126346 5.369154 7.009649 7.288140 3.853433
##          COA8   NRBP2   SAMD8   CHASERR   MIDN   METRNL   DDHD1
## GSM875412 6.070733 7.650456 7.204721 10.439918 7.599660 7.640233 6.861625
## GSM875413 7.046305 8.469607 7.068828 9.936072 7.981402 7.560420 6.990517
## GSM875414 7.313755 6.226341 6.446564 9.811764 7.913231 7.065215 6.300914
##          NDUFAF8   PRICKLE2   ALKBH6   TMEM64   PCDH18   BTF3L4   RIMKLB
## GSM875412 4.003987 5.601141 6.841532 5.981576 8.126125 8.270463 4.692486
## GSM875413 4.257329 6.862820 6.830638 8.317785 10.271280 8.181867 6.984367

```



|    |           |          |          |            |          |           |           |           |
|----|-----------|----------|----------|------------|----------|-----------|-----------|-----------|
| ## | GSM875414 | 4.536585 | 4.880903 | 7.755671   | 5.452473 | 8.212016  | 8.592363  | 4.199427  |
| ## |           | MIDEAS   | HID1     | CPSF2      | TMEM41A  | LONRF2    | MOB1B     | CTTNBP2NL |
| ## | GSM875412 | 6.498268 | 6.891354 | 7.322323   | 7.356613 | 3.938215  | 8.099168  | 9.328320  |
| ## | GSM875413 | 7.338409 | 6.407989 | 7.514501   | 7.226941 | 6.556556  | 7.990993  | 8.035657  |
| ## | GSM875414 | 6.532478 | 6.713622 | 7.196617   | 8.310340 | 3.956270  | 7.529764  | 8.420434  |
| ## |           | KIF21A   | CABLES2  | PET100     | ISCA2    | NSMCE3    | CCDC12    | MTURN     |
| ## | GSM875412 | 7.213064 | 5.938451 | 8.940972   | 7.329913 | 5.710788  | 9.074072  | 7.183827  |
| ## | GSM875413 | 8.166790 | 7.476013 | 9.475767   | 7.412693 | 7.587962  | 8.350331  | 8.617867  |
| ## | GSM875414 | 8.713097 | 6.714819 | 8.882949   | 7.885234 | 6.067681  | 8.480708  | 5.422298  |
| ## |           | OMA1     | COMMD1   | SLC49A4    | SWI5     | VANGL2    | NAPEPLD   | SELENOM   |
| ## | GSM875412 | 7.769268 | 8.692874 | 8.569291   | 6.739256 | 6.102540  | 6.606050  | 8.745842  |
| ## | GSM875413 | 7.747197 | 8.888880 | 6.431724   | 8.231104 | 4.564084  | 7.078782  | 11.658042 |
| ## | GSM875414 | 6.496232 | 8.598260 | 6.906867   | 6.743485 | 5.557164  | 4.417051  | 9.088047  |
| ## |           | ARRDC2   | ARHGAP31 | B3GNT9     | TOMM40L  | PRICKLE1  | BPIFB1    | PAXX      |
| ## | GSM875412 | 7.071000 | 4.645671 | 6.402973   | 5.583101 | 7.221387  | 7.808538  | 6.960144  |
| ## | GSM875413 | 6.965453 | 5.612907 | 8.227408   | 5.745917 | 8.733983  | 5.666495  | 6.768215  |
| ## | GSM875414 | 7.021241 | 5.279008 | 6.851428   | 6.669522 | 6.788134  | 8.538838  | 6.195682  |
| ## |           | FCSK     | TMEM218  | PPM1M      | MBD6     | RNF145    | RPUSD1    | FLYWCH2   |
| ## | GSM875412 | 6.938200 | 7.785285 | 6.529164   | 5.799249 | 10.334735 | 6.518743  | 6.006403  |
| ## | GSM875413 | 7.133577 | 7.919580 | 7.498157   | 7.190711 | 11.102165 | 6.170353  | 6.685733  |
| ## | GSM875414 | 8.152498 | 7.658995 | 6.694048   | 7.208521 | 9.223147  | 5.659955  | 6.596506  |
| ## |           | LZIC     | ZDHHC12  | MRFAP1     | DCP1B    | ATXN1L    | FNDC5     | ZC3H18    |
| ## | GSM875412 | 6.875833 | 7.073476 | 11.47752   | 5.590594 | 7.510598  | 4.798519  | 5.488571  |
| ## | GSM875413 | 6.521967 | 5.993887 | 11.91000   | 7.678952 | 7.617905  | 8.617884  | 6.504534  |
| ## | GSM875414 | 6.554121 | 6.978034 | 11.87997   | 5.964845 | 7.306512  | 4.996152  | 7.435858  |
| ## |           | PTAR1    | ZNF385A  | ZNF436     | TIFA     | PCMTD1    | TTC8      | DHRS13    |
| ## | GSM875412 | 7.514335 | 5.450827 | 7.300424   | 6.564000 | 9.386308  | 6.028657  | 7.590351  |
| ## | GSM875413 | 8.000224 | 5.893024 | 7.753130   | 6.140831 | 10.467565 | 7.046373  | 6.590047  |
| ## | GSM875414 | 7.359265 | 5.544868 | 6.687573   | 6.041073 | 8.499638  | 6.991688  | 7.161954  |
| ## |           | PLEKHG1  | ZFP90    | SLC9A3-AS1 | TBCK     | ALKBH3    | BROX      | FAM83H    |
| ## | GSM875412 | 7.626204 | 6.270884 | 7.435575   | 8.026465 | 6.742139  | 10.010353 | 8.864467  |
| ## | GSM875413 | 6.373286 | 7.687167 | 5.214815   | 8.081103 | 7.699935  | 8.844186  | 5.070296  |
| ## | GSM875414 | 6.002466 | 7.209563 | 5.565666   | 8.197364 | 8.094417  | 9.691874  | 8.695232  |
| ## |           | MANEAL   | OTUD1    | REXO1      | HEIH     | SNHG11    | TTC7B     | RIMOC1    |
| ## | GSM875412 | 5.344632 | 8.267969 | 4.597046   | 7.679627 | 7.028506  | 5.647614  | 9.731754  |
| ## | GSM875413 | 5.185376 | 9.650714 | 4.881097   | 9.458823 | 7.084247  | 7.791290  | 9.141363  |
| ## | GSM875414 | 4.859071 | 8.340571 | 4.933609   | 7.878989 | 6.051307  | 5.362830  | 8.697815  |
| ## |           | STK36    | ZFAND2B  | SBF2       | USP42    | TBC1D25   | WDR36     | TUBE1     |
| ## | GSM875412 | 7.087005 | 7.205530 | 8.479377   | 3.753000 | 5.372371  | 7.285059  | 7.351387  |
| ## | GSM875413 | 6.835992 | 7.539635 | 8.446150   | 3.936699 | 6.731974  | 9.309105  | 7.608207  |
| ## | GSM875414 | 5.798654 | 7.495897 | 7.002637   | 4.225577 | 6.533838  | 6.702934  | 5.385177  |
| ## |           | FMNL2    | CHAMP1   | UPRT       | VAR2     | ANKRD13D  | RILPL1    | ZSWIM6    |
| ## | GSM875412 | 8.688650 | 7.015970 | 6.725661   | 8.259614 | 4.986655  | 5.997143  | 8.909878  |
| ## | GSM875413 | 8.018142 | 7.265929 | 7.159976   | 7.599811 | 5.566474  | 8.107489  | 11.586360 |
| ## | GSM875414 | 9.215790 | 8.113367 | 5.603363   | 8.789911 | 5.329610  | 5.894496  | 8.978210  |
| ## |           | NDUFV3   | KDM2B    | SLC30A7    | ARHGAP30 | TMEM45B   | SMIM26    | MCEE      |
| ## | GSM875412 | 5.243659 | 7.691768 | 9.182325   | 6.838090 | 10.918781 | 9.419412  | 7.217085  |
| ## | GSM875413 | 5.894364 | 7.824581 | 7.938230   | 6.580796 | 6.826926  | 10.784209 | 7.058716  |
| ## | GSM875414 | 6.205757 | 6.715219 | 9.484802   | 6.817062 | 9.804363  | 8.938781  | 7.326910  |
| ## |           | TMEM150A | TADA2B   | C1orf131   | PTRHD1   | CLEC14A   | KCTD1     | SNX30     |
| ## | GSM875412 | 5.470966 | 6.706215 | 8.753200   | 9.198354 | 6.467847  | 7.602973  | 7.170464  |
| ## | GSM875413 | 6.391248 | 7.263919 | 7.408971   | 7.642243 | 6.983380  | 4.736233  | 6.971944  |
| ## | GSM875414 | 5.028387 | 7.370345 | 8.760026   | 8.479442 | 6.920547  | 5.316062  | 5.277273  |
| ## |           | LRRC45   | AMN1     | EXOC6      | ZNRF2    | SUSD1     | JDP2      | SVIP      |

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## GSM875412 5.228676 5.745633 6.995581 6.820986 6.752628 6.309506 7.469768
## GSM875413 5.220330 7.168130 6.815916 4.995770 5.011954 6.106414 8.402291
## GSM875414 5.836728 4.482755 6.873391 5.481437 6.219053 5.273171 8.006447
##          DNER      POC1B      ZBTB2      ELMOD3      MED19      FAM91A1      RUNDC1
## GSM875412 3.481865 7.569244 5.387637 6.437898 7.965842 8.841131 6.853546
## GSM875413 4.429563 8.202226 5.842465 6.900445 7.564394 8.937104 6.587311
## GSM875414 3.655883 7.718584 4.468177 6.487301 8.973650 8.599943 8.144864
##          SLC18B1      SMIM29      CRTC2      HAUS8      FAM241B      CHST14      ZNF830
## GSM875412 9.174398 6.595552 6.244121 5.615861 6.295916 6.397553 6.999576
## GSM875413 7.521204 7.344049 6.556866 5.974370 6.873699 7.824581 7.154450
## GSM875414 7.972758 6.569718 6.461421 5.552161 6.674321 6.081698 7.800788
##          ALYREF      LYSMD3      IFT172      ADSS1      PCGF5      MITD1      AHSAP2
## GSM875412 8.486324 7.678652 7.961126 6.050281 8.174537 8.632826 8.761687
## GSM875413 7.463606 8.580570 7.501331 5.756419 8.182193 7.324195 8.320485
## GSM875414 9.714468 7.403033 6.703997 6.339035 7.366158 7.840509 7.572440
##          GORAB      PIP4P2      TRUB1      OTUD6B-AS1      ZMAT1      ARL5B      MEX3A
## GSM875412 6.916434 4.635280 7.708967 5.367068 4.508189 8.651322 5.014792
## GSM875413 6.302209 7.798835 7.761401 6.037813 8.433501 7.221547 4.616266
## GSM875414 6.262158 4.201383 8.075540 4.487883 3.762286 8.639323 5.320548
##          FUT11      NOPCHAP1      JMY      SPPL2A      POC1A      MIGA2      ZNRF3
## GSM875412 6.893336 7.605805 7.397393 9.890147 6.586018 7.457203 7.881443
## GSM875413 6.531815 7.804612 9.134028 8.879938 5.884108 7.404882 7.040681
## GSM875414 6.503953 8.156007 6.432269 9.672110 5.969481 6.616764 6.746400
##          TMEM42      SHPRH      KLHL15      C19orf25      ARL14EP      MALSU1      RSNB1L
## GSM875412 7.104123 6.938494 6.975631 5.843938 6.979366 9.60428 7.528195
## GSM875413 6.850448 6.601885 7.889279 6.902966 7.659227 10.75948 7.494174
## GSM875414 7.078454 4.897755 5.812634 6.662859 7.416883 9.85918 6.783756
##          TCEA3      STARD4      BRAF      FRA10AC1      PARP10      TMC4      ARDC1
## GSM875412 8.519271 7.481278 7.367493 7.617338 6.073881 8.553682 8.123629
## GSM875413 8.084766 8.323366 8.522506 8.966012 6.779805 5.685119 6.483372
## GSM875414 10.095561 6.925188 5.371120 6.484348 6.760961 8.195195 7.471619
##          TEAD2      TBC1D20      EVI5L      LINC00938      VAT1L      ERI1      PAQR8
## GSM875412 6.554031 7.197443 5.459899 6.715601 4.843620 6.768360 8.024734
## GSM875413 9.866836 9.671792 6.235678 8.537704 5.572068 6.725738 6.521369
## GSM875414 7.598777 6.038427 6.422596 5.421578 5.044368 4.799013 9.472808
##          CAPS      PPP1R35      PAPLN      ABTB1      PABIR1      TRIM41      HES6
## GSM875412 6.273108 7.874308 5.672559 6.721873 6.238401 7.081825 8.243281
## GSM875413 6.018817 7.473426 4.827618 6.233647 7.236863 8.182621 6.204958
## GSM875414 5.882364 7.414087 4.803210 5.987246 5.723509 7.377232 6.589119
##          FAM89A      FDX2      RNASEH2C      MARCHF9      CREB3L4      RMI2      DIPK2A
## GSM875412 6.420401 6.620092 7.149753 5.480474 5.716430 7.908230 8.637855
## GSM875413 5.421578 7.691039 9.269565 6.904624 5.433502 5.648537 8.847332
## GSM875414 5.219717 7.169586 7.342175 6.767302 9.495488 7.934113 8.332782
##          CCNQ      TANGO6      GGT7      PPIL4      NLRC5      TSTD1      TMEM68
## GSM875412 7.197522 5.862177 5.712077 7.132194 8.156016 8.286774 5.420192
## GSM875413 8.486515 6.283797 6.359158 6.625902 5.739692 6.419232 6.890113
## GSM875414 8.061523 5.928372 5.781004 6.295426 6.443196 9.230280 4.597485
##          ZBTB47      FAM222A      RCCD1      TMCC3      NHSL1      NRARP      PHETA2
## GSM875412 6.143873 5.179376 8.416642 6.372683 7.678637 9.352740 7.086996
## GSM875413 7.262917 7.013175 7.331989 5.662270 6.397250 6.078093 6.592316
## GSM875414 4.656356 5.388179 6.957128 5.737319 9.271736 8.819236 7.234743
##          HEATR5A      ZNF71      CCDC127      PHYKPL      ABRAXAS1      PODN      MTX3
## GSM875412 7.694719 5.608010 8.429953 7.529902 6.029528 7.078629 6.319433
## GSM875413 7.311030 5.980297 9.695401 7.787684 6.627328 10.304249 8.214404

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## GSM875414 7.734850 6.622241 8.541671 7.618082 5.191814 6.709283 5.742767
##          BMF      ORAI1      HINT3      NSMCE2      CFAP73      FBX030      CD109
## GSM875412 5.889385 6.535946 4.459702 8.252456 4.895291 7.604083 6.298248
## GSM875413 7.570604 7.484090 4.361236 9.117104 5.029205 7.866231 4.188013
## GSM875414 5.639311 6.737349 4.196925 8.573345 4.611494 6.940050 5.504120
##          SBK1      IER5L      SGPP2      ZSCAN29      ZFAT      KRT10-AS1      TRIM11
## GSM875412 5.099772 6.707976 9.866483 7.080542 5.353050 6.082678 6.576752
## GSM875413 5.045207 8.287690 4.275162 6.708948 6.078919 7.880659 6.107340
## GSM875414 5.608481 5.845721 9.886389 6.089482 6.456270 7.461491 7.121246
##          EEIG2      CHTF18      DIRAS1      ZNF462      LINC02381      FAM110A      NEIL2
## GSM875412 8.888473 5.787429 5.101065 4.487300 7.437015 5.556093 8.110109
## GSM875413 7.925748 5.571262 5.250066 7.071329 9.687527 5.838998 8.266364
## GSM875414 8.410743 6.086366 5.192441 5.906052 8.483557 6.121950 5.859768
##          PWAR6      CWC22      TMEM192      ZNF618      UMAP1      REEP6      FHDC1
## GSM875412 6.072942 7.854469 7.557124 5.382973 6.602731 6.772460 6.446599
## GSM875413 9.965907 7.115720 7.039307 7.663127 7.289328 5.973115 6.041432
## GSM875414 6.362390 7.419159 7.803400 5.213335 5.553452 5.915912 7.748609
##          SAMD9L      C16orf87      CENPV      UBE2QL1      CASTOR1      FAM167A      MUC20
## GSM875412 7.616573 5.256022 8.469258 4.129067 4.425256 7.516070 8.557502
## GSM875413 8.783114 4.857286 4.517097 4.053130 5.500106 4.343277 5.905046
## GSM875414 6.626293 6.137086 8.066129 4.432705 4.650370 4.962854 5.184107
##          PHYHIPL      SLC43A2      ARHGAP23      SFT2D3      ANKRD44      MIB2      TMEM25
## GSM875412 4.834218 6.111225 10.139678 7.248179 6.177362 5.005533 5.634239
## GSM875413 4.241805 6.574591 6.733244 6.972963 8.814272 5.529586 6.962177
## GSM875414 4.055292 6.319609 5.892061 7.861217 4.817092 4.937719 5.731371
##          PANK1      ZFAND2A      MUC12      CDCA2      WDSUB1      PABPC1L      HDAC10
## GSM875412 6.352745 7.332543 5.144463 5.078471 7.074319 8.237282 5.459529
## GSM875413 6.825059 9.083261 6.510443 4.813795 5.519043 7.243340 5.707358
## GSM875414 7.119819 7.098581 4.958263 5.293128 7.376207 7.302579 6.197691
##          SHISA4      ZNF521      UNC13D      SLC26A11      CISD2      FCHSD1      U2AF1L4
## GSM875412 5.283580 4.910348 6.200066 7.893481 6.666684 4.966337 6.161494
## GSM875413 5.722177 4.391951 6.344140 9.841598 5.419140 6.542810 7.188288
## GSM875414 5.434006 3.595547 6.645654 8.474304 7.035296 4.965744 6.517081
##          CMPK2      NEURL4      NAPRT      ROB02      C8orf82      FOXK1      PRR12
## GSM875412 8.011086 6.088007 8.850451 4.090075 6.633042 8.138563 5.276453
## GSM875413 8.095384 6.564740 6.809348 4.172934 7.822051 9.032105 6.112715
## GSM875414 7.103525 6.461866 9.606951 4.303176 7.416697 6.183228 5.710104
##          AMIG01      FAM20C      SVBP      CISD3      SLC27A1      USP37      WDR81
## GSM875412 5.757350 7.284056 7.292470 8.335752 7.183098 5.786284 6.930467
## GSM875413 6.923936 9.127751 7.836984 7.943385 7.212619 5.767318 7.617678
## GSM875414 5.462610 7.359436 5.995250 7.733065 7.335098 5.150296 6.691977
##          RNF169      SLFN11      LYSMD2      MRPS9      CNRIP1      FAM174A      ZNF251
## GSM875412 7.303465 6.325177 8.687355 7.828868 6.601863 8.187666 6.173478
## GSM875413 7.053938 7.379545 8.630236 8.148672 9.221506 9.866015 7.161887
## GSM875414 7.145130 5.441094 7.298706 7.899252 6.761565 6.509340 5.462246
##          CCDC71L      LUC7L2      SESTD1      ZNF827      FAHD1      GIGYF1      FIBIN
## GSM875412 7.047991 8.652233 8.867709 4.088340 6.336545 7.007551 6.222770
## GSM875413 9.476817 9.740030 8.071010 4.947682 5.882991 7.543460 9.084102
## GSM875414 6.511786 8.024999 8.813858 4.207075 7.177198 6.863995 6.416190
##          PPM1K      FAM120B      TDRP      LMBRD2      FMC1      SLC25A30      ATP11C
## GSM875412 6.893693 7.027901 4.237952 9.361534 6.489833 7.232574 6.862081
## GSM875413 8.827076 6.865881 8.140255 9.955952 8.769518 7.194873 8.299565
## GSM875414 6.669522 6.591630 4.395534 8.624401 6.549637 6.276415 5.670324
##          ZNF18      EMB      MORN2      KIFC2      STXBP5      ABHD15      EFCAB7

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|    |           |          |            |          |          |          |           |            |
|----|-----------|----------|------------|----------|----------|----------|-----------|------------|
| ## | GSM875412 | 6.097739 | 8.244678   | 7.206757 | 6.620522 | 5.729961 | 7.361481  | 5.110810   |
| ## | GSM875413 | 6.169593 | 7.769448   | 7.807314 | 6.192460 | 4.392028 | 5.115645  | 5.986593   |
| ## | GSM875414 | 4.946607 | 6.971544   | 5.240999 | 6.260400 | 3.803246 | 5.362040  | 4.657360   |
| ## |           | CHMP4C   | FAM20A     | FITM2    | ZFP1     | FAR2P2   | TAMM41    | KIAA1143   |
| ## | GSM875412 | 8.949479 | 5.029160   | 7.362227 | 5.366575 | 4.262995 | 5.251784  | 8.550739   |
| ## | GSM875413 | 3.813675 | 4.781174   | 9.308640 | 6.444636 | 5.369767 | 4.770693  | 8.492448   |
| ## | GSM875414 | 7.910443 | 5.322430   | 6.896168 | 4.874150 | 7.441393 | 5.027789  | 7.708008   |
| ## |           | MPEG1    | LSM11      | STOX2    | AFAP1L2  | CLMP     | SPRED1    | TTC32      |
| ## | GSM875412 | 7.383979 | 4.497818   | 4.999004 | 5.631691 | 4.715985 | 7.551108  | 7.562698   |
| ## | GSM875413 | 7.370024 | 5.566556   | 4.766307 | 6.754873 | 9.469124 | 8.083122  | 7.044508   |
| ## | GSM875414 | 8.181869 | 4.336596   | 5.560968 | 3.568406 | 4.917635 | 6.653270  | 6.517407   |
| ## |           | NR2C2AP  | FBXL20     | TENT4B   | PHYHD1   | SUMF1    | LYPLAL1   | PDP2       |
| ## | GSM875412 | 6.685627 | 7.209544   | 7.162351 | 5.275230 | 9.073500 | 7.639971  | 6.214440   |
| ## | GSM875413 | 6.332480 | 8.117286   | 6.907394 | 5.399104 | 8.470842 | 7.474967  | 6.230659   |
| ## | GSM875414 | 6.895346 | 7.077176   | 7.443309 | 5.560224 | 8.927524 | 7.524630  | 6.324736   |
| ## |           | ARHGEF19 | DNAJC25    | FAM110C  | ESCO1    | GXYLT1   | COMTD1    | ATG4D      |
| ## | GSM875412 | 5.863980 | 7.090259   | 7.964734 | 8.056373 | 5.759023 | 7.178021  | 6.609683   |
| ## | GSM875413 | 5.931805 | 6.755094   | 6.714026 | 8.334456 | 6.640522 | 6.374345  | 6.274478   |
| ## | GSM875414 | 6.611097 | 5.470675   | 8.761129 | 7.958643 | 5.989999 | 7.352259  | 5.930294   |
| ## |           | DOCK11   | RFLNB      | HVCN1    | GRPEL2   | RNF217   | WDR35     | XXYLT1     |
| ## | GSM875412 | 7.385357 | 6.221466   | 6.856295 | 7.086996 | 5.053761 | 6.617504  | 5.291735   |
| ## | GSM875413 | 7.188552 | 8.584003   | 6.874236 | 7.150549 | 6.515661 | 7.822061  | 6.139340   |
| ## | GSM875414 | 6.564478 | 6.544854   | 6.609693 | 6.068321 | 4.013831 | 5.035119  | 6.448306   |
| ## |           | CHCHD1   | GABPB1-AS1 | C17orf58 | PPP1R14C | LRIG3    | ZNF518B   | EGFLAM     |
| ## | GSM875412 | 8.740859 | 3.930733   | 6.735564 | 5.185136 | 6.248168 | 7.014235  | 4.985876   |
| ## | GSM875413 | 8.803585 | 4.075139   | 6.893261 | 4.426027 | 8.030873 | 7.877903  | 9.416806   |
| ## | GSM875414 | 9.554931 | 4.459376   | 6.907579 | 4.576320 | 5.504471 | 7.558283  | 5.249630   |
| ## |           | ZDHHC23  | SOX8       | DPP9     | ANAPC4   | UBR1     | SCFD2     | ZNF407-AS1 |
| ## | GSM875412 | 7.349608 | 4.170581   | 6.409790 | 8.840197 | 8.432386 | 7.450614  | 7.404065   |
| ## | GSM875413 | 4.211154 | 4.029621   | 6.545504 | 8.540403 | 9.014454 | 8.025973  | 7.047475   |
| ## | GSM875414 | 5.299740 | 4.900710   | 6.180646 | 7.579481 | 7.609301 | 8.369905  | 5.364038   |
| ## |           | PXYLP1   | DMKN       | C12orf73 | FNDC1    | CENPW    | CPEB2     | HTRA3      |
| ## | GSM875412 | 7.421579 | 4.672200   | 6.240302 | 8.088600 | 8.93389  | 8.162400  | 7.12346    |
| ## | GSM875413 | 6.116725 | 5.189013   | 7.552465 | 4.234942 | 7.56042  | 9.711449  | 10.10960   |
| ## | GSM875414 | 7.243986 | 5.397704   | 6.928188 | 6.394648 | 8.55735  | 7.579691  | 6.24992    |
| ## |           | RHBDD1   | NADK2      | EAF1     | MED11    | CXCL17   | PRR15     | ZBTB41     |
| ## | GSM875412 | 7.128238 | 8.423435   | 8.020698 | 7.539158 | 7.320787 | 8.016190  | 7.410634   |
| ## | GSM875413 | 7.121979 | 7.820321   | 7.036120 | 7.494724 | 5.597046 | 4.523754  | 6.990037   |
| ## | GSM875414 | 6.315764 | 7.524411   | 7.487820 | 7.344451 | 5.612124 | 9.264753  | 7.033003   |
| ## |           | DENND6A  | PRPF40B    | FIZ1     | FBX033   | CCDC136  | VSTM2L    | RNPC3      |
| ## | GSM875412 | 9.128709 | 5.606268   | 7.248179 | 6.237971 | 4.623875 | 5.183048  | 8.585183   |
| ## | GSM875413 | 9.471113 | 7.471175   | 8.040530 | 7.203857 | 6.320122 | 5.866798  | 7.736881   |
| ## | GSM875414 | 9.047894 | 5.926224   | 7.962649 | 6.729662 | 4.901383 | 4.959367  | 6.782455   |
| ## |           | IGIP     | DEPDC1B    | FGD5     | RGMB     | NOSTRIN  | LCLAT1    | FAM78A     |
| ## | GSM875412 | 7.728655 | 5.127425   | 6.602366 | 7.584478 | 7.142267 | 9.580897  | 5.467435   |
| ## | GSM875413 | 9.946256 | 3.425177   | 6.517665 | 9.380596 | 4.928960 | 9.259664  | 5.304763   |
| ## | GSM875414 | 6.527120 | 5.535007   | 5.740304 | 6.069207 | 8.742691 | 7.445963  | 6.559940   |
| ## |           | PPP1R14A | HDHC3      | ASPHD2   | C1orf226 | GNPDA2   | FAM177A1  | PLD6       |
| ## | GSM875412 | 5.798904 | 7.006450   | 5.704581 | 5.411188 | 6.688019 | 9.200103  | 5.587384   |
| ## | GSM875413 | 5.255931 | 6.426496   | 4.855046 | 6.012562 | 7.499425 | 8.985228  | 6.069511   |
| ## | GSM875414 | 6.418068 | 7.138794   | 7.238313 | 4.699238 | 5.485560 | 8.467298  | 5.361548   |
| ## |           | SGMS2    | NHLRC3     | YDJC     | CCDC159  | SLC39A11 | EEF1AKMT1 | METTL7B    |
| ## | GSM875412 | 9.192349 | 8.311918   | 6.428086 | 6.096090 | 8.044351 | 7.215762  | 6.044962   |
| ## | GSM875413 | 6.749523 | 7.470647   | 5.453048 | 7.236286 | 5.756818 | 8.304665  | 5.868242   |

|    |           |          |          |           |          |            |          |           |
|----|-----------|----------|----------|-----------|----------|------------|----------|-----------|
| ## | GSM875414 | 9.249132 | 7.559909 | 7.151587  | 7.297570 | 8.636043   | 6.818263 | 7.586436  |
| ## |           | REL1     | TMEM256  | MOB3C     | ZNF414   | CCDC18-AS1 | B3GLCT   | CCDC146   |
| ## | GSM875412 | 6.262833 | 8.009210 | 6.857789  | 4.363632 | 8.670019   | 4.908495 | 7.002782  |
| ## | GSM875413 | 5.611728 | 8.079593 | 7.618693  | 4.629557 | 7.456938   | 4.039255 | 6.342210  |
| ## | GSM875414 | 5.871894 | 7.966529 | 6.171945  | 4.755492 | 7.960471   | 4.159881 | 4.620150  |
| ## |           | JOSD2    | ZNF800   | C11orf96  | TRIM35   | STARD9     | ZBTB34   | ADHFE1    |
| ## | GSM875412 | 6.264920 | 5.099772 | 10.29235  | 5.782337 | 5.03326    | 6.504202 | 6.303582  |
| ## | GSM875413 | 6.741923 | 5.057822 | 11.80720  | 7.123930 | 6.78217    | 6.151016 | 6.702168  |
| ## | GSM875414 | 6.837179 | 4.931794 | 10.41679  | 6.113728 | 4.86938    | 5.379757 | 5.707678  |
| ## |           | RNF214   | FOXP4    | LINC01000 | SYTL1    | HPS3       | TYW3     | PLEKHG5   |
| ## | GSM875412 | 5.866589 | 5.946401 | 8.235792  | 5.922212 | 8.695794   | 7.248179 | 5.983538  |
| ## | GSM875413 | 6.518508 | 8.700254 | 7.919587  | 4.918599 | 8.559452   | 4.116929 | 6.251375  |
| ## | GSM875414 | 6.164044 | 7.721588 | 7.217552  | 9.050557 | 8.498710   | 8.167986 | 6.469342  |
| ## |           | QSOX2    | EGLN2    | PLEKHH2   | SNX33    | IGSF21     | PRIMPOL  | GHDC      |
| ## | GSM875412 | 7.129629 | 4.131429 | 6.120588  | 6.452573 | 4.213821   | 6.033807 | 5.363397  |
| ## | GSM875413 | 6.926339 | 4.569834 | 7.045105  | 6.830768 | 5.274159   | 6.931453 | 7.402498  |
| ## | GSM875414 | 6.789100 | 4.411783 | 4.669726  | 5.857045 | 4.440459   | 5.751115 | 6.672328  |
| ## |           | NOM1     | GSTO2    | SKA3      | DNAJC18  | RASSF3     | MIAT     | ZNF316    |
| ## | GSM875412 | 7.008455 | 7.196502 | 6.647500  | 4.695955 | 9.639760   | 7.013667 | 6.448022  |
| ## | GSM875413 | 6.742952 | 8.054943 | 5.821267  | 6.705589 | 9.765854   | 7.274203 | 7.298372  |
| ## | GSM875414 | 6.591636 | 7.500892 | 6.116072  | 4.441020 | 9.989092   | 6.749996 | 5.821866  |
| ## |           | TMEM116  | ELOVL7   | LNP1      | SUSD3    | CARMN      | FNDC10   | EVA1C     |
| ## | GSM875412 | 4.585550 | 8.005708 | 5.867685  | 4.825011 | 7.157462   | 5.788114 | 6.024463  |
| ## | GSM875413 | 6.281216 | 4.328011 | 7.850178  | 5.694418 | 11.411053  | 5.891600 | 6.993145  |
| ## | GSM875414 | 4.116270 | 6.295071 | 5.723603  | 5.828119 | 6.690695   | 6.220508 | 4.860723  |
| ## |           | CPNE5    | PRRT2    | FAM3B     | ZNF503   | RHPN2      | FBXL17   | ZNF213    |
| ## | GSM875412 | 4.929216 | 4.966337 | 10.149862 | 8.651649 | 10.163442  | 6.495530 | 6.992770  |
| ## | GSM875413 | 7.017994 | 8.685689 | 4.439554  | 4.977420 | 4.254778   | 7.427012 | 7.151056  |
| ## | GSM875414 | 5.680895 | 5.615651 | 6.627869  | 5.995690 | 10.441710  | 5.976206 | 7.883675  |
| ## |           | CENATAC  | SFMBT2   | ADAT2     | CARMIL2  | NFXL1      | MRAP2    | CCDC88C   |
| ## | GSM875412 | 8.288738 | 6.239772 | 6.912380  | 4.405992 | 6.816937   | 8.149812 | 6.072815  |
| ## | GSM875413 | 7.793544 | 8.180784 | 5.405386  | 5.075305 | 6.437544   | 4.115880 | 3.789010  |
| ## | GSM875414 | 6.807006 | 5.625282 | 4.287336  | 5.375820 | 6.281013   | 5.207491 | 5.704718  |
| ## |           | MUC15    | NGEF     | PDIK1L    | HAPLN3   | C8orf58    | POC5     | FAM200B   |
| ## | GSM875412 | 3.541639 | 7.230209 | 6.474532  | 6.495530 | 5.262648   | 6.266480 | 5.912691  |
| ## | GSM875413 | 3.420591 | 5.659129 | 6.563051  | 6.375749 | 6.876656   | 7.131713 | 5.740358  |
| ## | GSM875414 | 3.492282 | 7.251813 | 5.799806  | 6.200724 | 5.643118   | 5.090628 | 4.753656  |
| ## |           | FGF11    | CCDC9B   | TCEAL3    | CCNYL1   | PCDH19     | ZNF766   | CIART     |
| ## | GSM875412 | 4.999379 | 6.902200 | 7.863671  | 7.481278 | 4.095882   | 6.246174 | 5.625883  |
| ## | GSM875413 | 4.973120 | 7.078449 | 9.624073  | 6.561735 | 4.510836   | 7.150450 | 5.060080  |
| ## | GSM875414 | 4.722951 | 5.193008 | 7.776112  | 6.837757 | 3.853595   | 7.095748 | 5.209807  |
| ## |           | IN080E   | BOLA3    | SPINDOC   | ZNF689   | IKBIP      | MFSD3    | TRAM2-AS1 |
| ## | GSM875412 | 7.174412 | 9.247545 | 6.096090  | 6.135629 | 5.459899   | 5.457629 | 6.338852  |
| ## | GSM875413 | 7.402721 | 9.577178 | 6.138243  | 6.456888 | 6.714026   | 5.234094 | 6.106546  |
| ## | GSM875414 | 8.009713 | 9.585039 | 5.773588  | 6.921636 | 6.088191   | 5.546167 | 5.005157  |
| ## |           | TMEM119  | ANKS3    | ACER2     | TSPAN18  | PET117     | TMEM178B | INAFM1    |
| ## | GSM875412 | 5.987854 | 6.601692 | 6.172114  | 6.715541 | 4.130795   | 4.785651 | 6.500193  |
| ## | GSM875413 | 5.414155 | 6.990586 | 5.514396  | 7.576853 | 4.011605   | 6.556431 | 8.925940  |
| ## | GSM875414 | 6.280090 | 6.853582 | 4.391110  | 6.044921 | 3.807120   | 3.809143 | 6.853302  |
| ## |           | ZBTB46   | PXN-AS1  | DCUN1D3   | USP54    | DTX1       | ANKRD37  | MYEOV     |
| ## | GSM875412 | 5.040104 | 4.660564 | 7.106002  | 7.614530 | 5.443960   | 8.191545 | 7.478039  |
| ## | GSM875413 | 8.857399 | 6.588326 | 7.169876  | 6.094911 | 5.288561   | 6.543800 | 4.878285  |
| ## | GSM875414 | 4.921783 | 5.051234 | 6.783382  | 7.176847 | 5.384064   | 7.479884 | 8.764065  |
| ## |           | HES4     | PARS2    | MOSMO     | SWSAP1   | TMC8       | OSCP1    | ATCAY     |

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## GSM875412 6.307736 5.810140 6.372325 5.169166 7.642447 5.017837 4.510637
## GSM875413 5.604051 5.766156 7.031786 5.241518 5.839365 7.229420 4.989105
## GSM875414 7.769174 5.807885 6.562647 5.618010 7.064861 5.528236 5.226820
##          RILP  FAM171B  MBOAT1  PLPP6  TMEM200B  TUSC1  ANO9
## GSM875412 6.907854 5.190517 8.645148 5.857845 5.165980 8.346831 7.840059
## GSM875413 7.358952 7.262859 7.331981 5.992435 8.041389 9.250217 6.411716
## GSM875414 6.887863 4.465923 7.726810 6.066056 5.322302 8.470035 6.684136
##          TBCEL  IL17D  UTP23  PPP1R3E  WTIP  UBLCP1  PLAC9
## GSM875412 5.656282 4.694773 7.903486 5.187961 5.709665 8.081605 5.876572
## GSM875413 7.236401 6.322278 8.019455 6.346874 6.545805 9.362038 5.108043
## GSM875414 6.557509 4.554055 8.342443 6.272560 5.603979 8.445811 5.938607
##          YBEY  URB1-AS1  ARHGEF25  CRACR2B  ZC3H10  APTR  GALNT17
## GSM875412 6.104267 5.553400 6.058027 7.178136 5.980211 7.192268 5.489479
## GSM875413 7.119409 5.749616 6.484130 6.015557 6.949372 5.785193 8.311504
## GSM875414 6.850070 6.258454 6.069007 7.947220 5.629320 5.745776 5.548553
##          NRAV  COX18  LURAP1L  ERP27  C6orf136  CPT1C  ZNF48
## GSM875412 5.583301 7.946584 6.875556 4.512606 6.775194 4.459298 6.871804
## GSM875413 5.621425 8.077106 6.926171 4.002408 6.591509 8.158944 7.103822
## GSM875414 5.578171 8.756755 8.661636 4.320694 6.626239 4.665920 6.726001
##          HACE1  PAX8-AS1  FOXQ1  ZMYND19  LOC105372480  SUSD2  ADCK1
## GSM875412 6.473505 8.988627 10.873099 7.545549 6.527100 5.750182 6.476338
## GSM875413 6.169724 7.285488 4.615266 6.476300 6.969573 4.876733 7.127239
## GSM875414 5.316609 5.193134 11.600238 6.992815 6.924743 5.013660 6.234102
##          INTS6L  SLC16A9  CMBL  PRXL2C  EEFSEC  ZDHHC24  SEPTIN1
## GSM875412 5.359357 5.072840 6.351233 7.435358 6.467942 6.396016 4.394611
## GSM875413 7.680658 6.739093 9.861958 6.516963 6.529434 6.594620 5.251151
## GSM875414 6.268318 4.485977 11.023974 7.586043 6.615934 7.071332 5.957212
##          MAGI2-AS3  SCARF2  SFXN2  FAM27E3  LNX2  TMEM86A  LOC105371763
## GSM875412 6.386321 5.486529 7.326116 5.877256 8.752823 6.137054 4.438289
## GSM875413 9.182955 5.709966 6.622776 5.955741 6.982384 5.513818 5.215027
## GSM875414 5.058795 5.791679 6.900284 6.655254 9.125257 6.265653 5.719058
##          EXOC8  TMPO-AS1  TECPR1  KLHDC9  TMEM170A  CDPF1  SH3BP5-AS1
## GSM875412 7.130456 3.392671 7.425099 7.461460 7.764849 5.325259 5.953951
## GSM875413 6.843804 3.911653 8.379373 7.953993 7.166990 6.334985 5.742136
## GSM875414 6.337715 3.691420 7.480053 6.728109 6.502808 4.909163 5.267166
##          ALDH16A1  SPEN-AS1  DIS3L2  ZBED10P  MB21D2  METTL14  STAMBPL1
## GSM875412 6.575541 5.632007 5.589599 6.026511 6.477556 7.746990 5.945311
## GSM875413 6.552756 6.356968 5.599311 5.425073 8.339877 8.137372 5.126282
## GSM875414 7.197512 5.657064 5.379380 6.135929 5.958209 8.109315 4.663984
##          EPSTI1  TSPAN11  TARS3  BCL9L  TMEM201  GPX8  TBC1D24
## GSM875412 8.813797 4.991594 6.581190 6.516975 6.712828 7.399999 4.980596
## GSM875413 6.764937 5.729996 7.523738 6.745314 8.254221 9.338085 4.324972
## GSM875414 7.348904 5.664997 5.831181 5.693316 6.859249 8.362598 5.849158
##          STK32C  THAP5  FBXL16  RIMS4  EBF1  NACC1  DIPK1B
## GSM875412 6.032597 6.729457 6.460416 4.349560 5.751315 6.499534 4.591084
## GSM875413 5.707509 7.892901 5.056395 4.912899 4.600922 6.278348 4.811019
## GSM875414 5.824582 5.659335 7.232753 4.836798 4.828548 6.520319 4.527100
##          RIPOR3  SNHG18  ERMARD  RNF150  TEPSIN  ZNF75A  MROH6
## GSM875412 5.023173 6.383226 7.695432 5.458159 8.258883 6.365213 7.309037
## GSM875413 8.657857 4.968347 8.139089 6.616939 5.701757 6.730643 7.185769
## GSM875414 5.912651 5.550329 6.783357 4.679555 6.984058 6.958727 7.933499
##          LRSAM1  FAM3D  ZNF326  OXNAD1  HYLS1  LRCH2  STPG1
## GSM875412 5.580974 8.228740 8.506680 7.878663 7.073476 4.760500 5.561976
## GSM875413 6.123475 6.067066 7.580234 6.220721 6.338305 8.525149 6.635037

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|    |           |           |              |            |          |            |          |            |
|----|-----------|-----------|--------------|------------|----------|------------|----------|------------|
| ## | GSM875414 | 5.421142  | 8.118734     | 7.086296   | 6.428500 | 7.723280   | 3.866030 | 6.004085   |
| ## |           | L3HYPDH   | CYP4X1       | TCEAL7     | GTSF1    | UBXN11     | ARHGEF37 | ANKRD13B   |
| ## | GSM875412 | 4.947076  | 7.547003     | 4.690222   | 4.453536 | 5.624978   | 6.347855 | 6.050648   |
| ## | GSM875413 | 5.385638  | 5.686385     | 8.949217   | 4.606313 | 6.564506   | 9.540311 | 5.890116   |
| ## | GSM875414 | 4.519001  | 3.086576     | 3.611060   | 4.138788 | 6.571710   | 5.007369 | 5.522204   |
| ## |           | CPAMD8    | BORCS5       | ST6GALNAC1 | RNF166   | MRGPRF     | TMEM63C  | GPR15LG    |
| ## | GSM875412 | 5.115347  | 6.192643     | 8.027236   | 4.947952 | 6.655174   | 3.902690 | 4.157159   |
| ## | GSM875413 | 5.102166  | 7.051024     | 3.826802   | 5.271641 | 6.112309   | 4.186470 | 4.502920   |
| ## | GSM875414 | 4.649443  | 6.505737     | 9.838973   | 4.747072 | 6.067276   | 4.233542 | 4.651466   |
| ## |           | ARMC5     | CLIC6        | RNF139-DT  | RBMXL1   | TMEM139    | FAM81A   | REERG      |
| ## | GSM875412 | 6.353665  | 8.542027     | 5.735722   | 8.758309 | 8.358347   | 5.077536 | 6.412440   |
| ## | GSM875413 | 6.590047  | 6.749589     | 5.287101   | 7.542483 | 4.420192   | 4.937631 | 6.238946   |
| ## | GSM875414 | 6.501693  | 6.336038     | 4.972598   | 8.943393 | 6.305111   | 4.412636 | 7.796359   |
| ## |           | PCSK9     | IGFBPL1      | LYPD6      | COG8     | SAMD10     | CELF6    | ECSCR      |
| ## | GSM875412 | 6.553383  | 4.548790     | 4.016341   | 6.987017 | 5.074831   | 4.267883 | 6.182171   |
| ## | GSM875413 | 5.653005  | 4.064570     | 4.133018   | 7.602295 | 5.406995   | 4.760323 | 5.969667   |
| ## | GSM875414 | 6.832372  | 6.149579     | 3.986614   | 6.570835 | 5.493554   | 4.210321 | 6.559458   |
| ## |           | TLCD3B    | COG1         | MED30      | SLC9A9   | MIRLET7D   | ZFP62    | MYO1G      |
| ## | GSM875412 | 6.228587  | 7.565551     | 6.610579   | 5.924410 | 7.380009   | 7.644748 | 5.732018   |
| ## | GSM875413 | 6.634035  | 8.149973     | 6.144031   | 7.407079 | 7.482249   | 8.407235 | 5.676166   |
| ## | GSM875414 | 5.942064  | 7.936245     | 6.376132   | 5.322882 | 5.635396   | 7.810726 | 6.256204   |
| ## |           | TRIM59    | ENPP5        | TLCD1      | C16orf74 | ZC3H6      | ZNF558   | THAP6      |
| ## | GSM875412 | 5.270493  | 3.682822     | 7.863568   | 5.514914 | 6.369787   | 6.875833 | 5.275742   |
| ## | GSM875413 | 4.533355  | 3.322409     | 4.435674   | 6.100541 | 7.882246   | 7.173187 | 5.384278   |
| ## | GSM875414 | 5.971277  | 3.919294     | 5.879630   | 7.160747 | 5.206648   | 6.373570 | 5.457127   |
| ## |           | WDR53     | LGR6         | LGI4       | RTL5     | EVA1A      | LARGE2   | TXLNB      |
| ## | GSM875412 | 5.016909  | 6.840880     | 5.993107   | 5.296781 | 4.622568   | 6.974472 | 3.358666   |
| ## | GSM875413 | 4.782683  | 4.770836     | 6.112609   | 8.591962 | 4.280576   | 5.917436 | 4.925477   |
| ## | GSM875414 | 4.830578  | 5.359102     | 6.172177   | 5.143014 | 4.297063   | 6.879869 | 3.380936   |
| ## |           | LOC389831 | C2orf76      | FMNL3      | SHD      | PEBP4      | RP9      | CDC42EP5   |
| ## | GSM875412 | 4.484268  | 5.586030     | 4.368668   | 4.589113 | 4.052057   | 4.494467 | 8.248357   |
| ## | GSM875413 | 3.687187  | 7.564093     | 7.356952   | 5.284003 | 5.722286   | 4.390384 | 6.804408   |
| ## | GSM875414 | 4.993760  | 5.440162     | 4.407504   | 5.008054 | 5.315817   | 4.401196 | 9.566307   |
| ## |           | PLBD2     | FAM241A      | PCNX3      | CPXM1    | TMEM161B   | TRNP1    | MVB12A     |
| ## | GSM875412 | 6.724785  | 5.864384     | 6.122038   | 5.683370 | 8.083251   | 9.115703 | 7.197522   |
| ## | GSM875413 | 9.006692  | 7.126409     | 6.609072   | 4.870051 | 8.116561   | 5.303534 | 7.218680   |
| ## | GSM875414 | 6.276795  | 7.844237     | 6.822857   | 5.321694 | 6.447269   | 7.304452 | 7.182814   |
| ## |           | IDNK      | TRABD2A      | LOC154761  | FAM104B  | IGDCC4     | KLHL13   | ARHGAP39   |
| ## | GSM875412 | 6.727457  | 7.421889     | 5.549877   | 5.977611 | 4.474213   | 4.536967 | 4.966424   |
| ## | GSM875413 | 6.892155  | 5.228907     | 6.482476   | 7.626309 | 8.130217   | 6.395491 | 5.129452   |
| ## | GSM875414 | 6.452572  | 5.904776     | 6.765667   | 5.407842 | 3.994162   | 4.086100 | 4.689055   |
| ## |           | ANXA2R    | FOXN3-AS1    | TMEM198    | WDR90    | ZFP41      | VIT      | ANXA2R-OT1 |
| ## | GSM875412 | 6.767213  | 4.510439     | 5.919365   | 7.950366 | 5.492960   | 4.066958 | 5.956117   |
| ## | GSM875413 | 5.618310  | 4.933016     | 6.278365   | 5.933001 | 6.083303   | 4.398834 | 5.606348   |
| ## | GSM875414 | 6.992972  | 4.646624     | 6.195588   | 7.477055 | 5.043719   | 4.929752 | 5.622940   |
| ## |           | TPGS1     | ASB2         | FAM86B2-DT | UCA1     | BEND3      | GTF2IP20 | SHANK3     |
| ## | GSM875412 | 4.428842  | 5.882549     | 7.671772   | 8.412873 | 6.640142   | 6.786281 | 4.927525   |
| ## | GSM875413 | 6.509131  | 6.735010     | 10.273358  | 5.158990 | 5.995280   | 6.342264 | 6.142072   |
| ## | GSM875414 | 5.371296  | 6.674481     | 7.481706   | 6.252055 | 5.482263   | 6.442295 | 6.034249   |
| ## |           | GSEC      | LOC105371312 | LINGO1     | MYPOP    | C2orf74-DT | FGD4     | PHACTR3    |
| ## | GSM875412 | 5.969742  | 5.333630     | 5.167613   | 5.797805 | 3.822214   | 8.949302 | 4.451247   |
| ## | GSM875413 | 4.304606  | 5.762642     | 5.282123   | 6.085289 | 3.943834   | 7.423483 | 3.587459   |
| ## | GSM875414 | 4.745773  | 5.215223     | 5.651630   | 5.714693 | 3.493249   | 8.153405 | 3.662026   |
| ## |           | FAM98C    | ZNF595       | ANKRD9     | GATD1    | NRK        | TOR2A    | C2orf69    |

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## GSM875412 6.678960 3.750914 5.375175 8.171339 3.525205 6.389389 7.673159
## GSM875413 7.384421 3.929624 6.149499 7.882454 10.079618 6.061815 7.073747
## GSM875414 7.418146 3.888644 5.541828 7.124743 3.552030 6.105614 7.422194
##          GPRIN1    SMIM10 CYB561D1    RILPL2 MACC1-DT    SLU7    SPACA6
## GSM875412 5.080948 4.077993 7.363182 7.941350 5.735974 7.605648 3.906841
## GSM875413 5.166718 4.718180 7.509318 9.240723 4.500986 9.231463 6.280607
## GSM875414 5.490491 4.109214 7.051306 7.960372 5.258786 8.258375 4.301768
##          IL17RD    S100A16    PWWP2B LINC00261    CEP85L    CIBAR1    NKAIN4
## GSM875412 4.661302 11.523623 6.701646 5.204792 6.383645 6.686974 4.457216
## GSM875413 4.710593 8.502143 6.199860 5.449683 7.575163 8.390205 5.040601
## GSM875414 5.239230 12.082115 6.556786 5.455900 6.084910 6.624538 4.621154
##          CCDC18    GAREM2    E2F7    STK33 RARA-AS1    AASDH    UTP15
## GSM875412 3.991138 5.641907 5.041703 4.836221 6.357343 7.002806 4.332816
## GSM875413 3.769540 5.861389 4.688549 6.366908 7.113444 7.150444 4.472647
## GSM875414 4.015420 5.719344 4.479542 4.874150 6.261940 5.926262 3.834114
##          SNORA72 ZNF503-AS2    SNHG19 ARFGEF3    NAPSBB DDIT4L    ZG16B
## GSM875412 5.238611 4.817344 8.757383 8.929533 6.445909 4.384774 8.561557
## GSM875413 4.530834 5.234257 8.738877 7.787628 7.567620 4.665640 4.597350
## GSM875414 4.568265 5.189415 8.864611 8.271711 5.421251 4.299864 11.561980
##          SLC35F1 CCDC126    NAP1L5    EPOP    GOLGA7B    MTRF2    GIMAP7
## GSM875412 4.850348 7.067632 3.887257 5.936543 5.691984 7.059025 5.993787
## GSM875413 5.041046 6.133319 8.576834 5.986276 5.562073 3.938214 4.921260
## GSM875414 5.063830 6.716005 4.091742 5.979639 5.660036 5.504537 5.929068
##          NANP    MMP25-AS1 TMEM179B    NMNAT3    JAML    PIF0    PPM1L
## GSM875412 7.687971 4.219239 8.886833 6.676189 6.535336 4.900276 6.078379
## GSM875413 7.228552 3.993290 8.292546 6.303544 6.585699 5.918191 6.203119
## GSM875414 7.109157 3.894490 8.723903 5.710522 6.917804 6.190584 5.183032
##          RAB37    CTXN1    C1orf52 ZSCAN25    RIPK3    ZNF300    ZNF584
## GSM875412 4.741822 4.602074 8.296882 5.742696 5.711661 5.880934 6.428905
## GSM875413 4.688019 4.856108 8.319202 6.993145 5.159968 5.332208 6.823298
## GSM875414 6.004600 4.990590 8.572618 6.371666 7.296417 5.476890 6.505235
##          BMT2    RNF144B C19orf44    LSP1P5    OLIG1    PLEKHG4    S1PR3
## GSM875412 6.539569 7.463232 4.391244 7.028502 3.368238 6.262336 7.563107
## GSM875413 8.125970 8.042420 5.019012 8.164600 3.189004 5.676671 10.604499
## GSM875414 6.163446 7.087433 4.874198 7.017787 3.238920 7.952182 6.124380
##          ADCY5    DISP1    ZNF25    RSP03    ATG4C    ARL13B B4GAT1-DT
## GSM875412 4.748915 5.305580 6.181750 7.435251 5.566553 7.017911 5.042536
## GSM875413 8.108210 6.572867 8.123851 6.041432 6.554015 6.723934 5.286470
## GSM875414 4.321903 5.823627 5.570297 6.117218 5.593325 7.614614 5.472974
##          HS3ST4 LINC03027 ZNF354C    ISM2    PSMG4    SLC44A3 ZSWIM3
## GSM875412 3.985815 4.762843 5.048589 4.752312 8.755350 8.392963 5.382512
## GSM875413 4.067839 6.203961 6.516183 4.967777 8.367722 4.159015 5.974680
## GSM875414 4.075010 5.689278 5.643653 5.057962 7.721089 7.492187 6.290690
##          ZNF775    DACT3    ZNF526    HELZ2    VSIG2    FREM1 MIR503HG
## GSM875412 5.708066 6.784112 4.818531 6.070136 8.619524 4.412588 4.848436
## GSM875413 6.488946 9.706041 4.602283 6.837427 5.851363 6.991491 5.611903
## GSM875414 5.324543 6.750374 5.400546 6.300670 6.668212 4.643229 4.875289
##          SLC52A3    AGR3    N4BP2    BLOC1S3    IFTAP    LOXL3    TBC1D10C
## GSM875412 6.704759 10.612793 5.812870 5.998579 6.867022 5.866216 6.365213
## GSM875413 5.515637 3.484705 5.529586 6.260042 8.302775 5.938600 6.469130
## GSM875414 5.778239 10.045167 5.591280 6.681792 7.352494 6.053739 6.723495
##          MAP7D2    TAMALIN    ACCS    ZNF853    DNLZ    SDSL LINC00888
## GSM875412 3.783554 6.396758 6.522923 4.561739 5.931607 6.351957 4.892106
## GSM875413 4.791826 7.597388 7.263188 5.664327 8.186540 7.712417 7.723376

```



|    |           |           |          |           |            |           |          |           |
|----|-----------|-----------|----------|-----------|------------|-----------|----------|-----------|
| ## | GSM875414 | 4.245668  | 7.025011 | 6.719095  | 5.485738   | 5.992902  | 5.746394 | 4.602509  |
| ## |           | FBXL19    | DDIAS    | MFSDB     | CMC1       | TDRD9     | DEPDC7   | PCED1B    |
| ## | GSM875412 | 7.164354  | 6.356091 | 6.520330  | 8.477687   | 3.590210  | 4.609369 | 5.277758  |
| ## | GSM875413 | 6.498425  | 4.887479 | 7.065603  | 7.607454   | 3.350988  | 3.896680 | 6.254134  |
| ## | GSM875414 | 6.483900  | 5.763095 | 6.816544  | 8.082460   | 3.305057  | 5.255683 | 5.239051  |
| ## |           | RBM43     | ZNF565   | EMILIN3   | PI16       | CLHC1     | CARNMT1  | WDR27     |
| ## | GSM875412 | 4.454266  | 5.852792 | 7.668340  | 5.996695   | 6.955806  | 7.486081 | 6.594083  |
| ## | GSM875413 | 4.944836  | 6.379451 | 7.244307  | 6.299653   | 4.153327  | 6.649776 | 7.350336  |
| ## | GSM875414 | 4.307681  | 5.429012 | 7.476318  | 6.306406   | 3.856674  | 5.933261 | 6.150558  |
| ## |           | ZUP1      | CEP44    | POU2AF3   | NUDT16     | KIAA1958  | UBASH3B  | MORN4     |
| ## | GSM875412 | 7.399467  | 6.244272 | 6.527130  | 6.106021   | 6.656611  | 3.720932 | 5.496011  |
| ## | GSM875413 | 5.965026  | 7.161873 | 3.882562  | 5.801084   | 6.232587  | 3.434667 | 6.756242  |
| ## | GSM875414 | 5.636242  | 6.290036 | 6.595209  | 4.383955   | 5.407709  | 3.583851 | 5.899722  |
| ## |           | NDUFAF2   | LYPD6B   | CALHM6    | ZNF784     | CPNE8     | ALPK2    | IGSF11    |
| ## | GSM875412 | 8.152208  | 6.281386 | 3.915357  | 5.385314   | 4.915108  | 3.993056 | 3.574111  |
| ## | GSM875413 | 10.004922 | 4.692146 | 4.338951  | 6.176182   | 7.286853  | 3.972019 | 3.592083  |
| ## | GSM875414 | 7.728715  | 6.941594 | 4.054511  | 6.338528   | 7.032522  | 4.164113 | 3.635740  |
| ## |           | GGTA1     | OTULIN   | PNPLA7    | PYROXD2    | LINC01355 | OSR1     | ZBED3     |
| ## | GSM875412 | 6.356754  | 5.773751 | 4.535562  | 6.552376   | 6.186791  | 4.639762 | 6.766059  |
| ## | GSM875413 | 7.184232  | 5.500531 | 5.516073  | 5.690770   | 6.161523  | 8.970620 | 7.795351  |
| ## | GSM875414 | 6.023357  | 6.159690 | 6.158566  | 5.523431   | 6.254433  | 3.973040 | 5.414326  |
| ## |           | ENHO      | IRX2     | RHPN1     | SMYD1      | PLIN4     | GAB3     | BAZ2B-AS1 |
| ## | GSM875412 | 4.970596  | 4.265103 | 6.275839  | 3.540332   | 5.382512  | 5.593772 | 3.976051  |
| ## | GSM875413 | 5.592157  | 4.715494 | 6.934373  | 4.008670   | 6.624867  | 7.049990 | 4.551122  |
| ## | GSM875414 | 5.380410  | 4.917635 | 6.611474  | 3.835445   | 6.875994  | 6.207112 | 3.293327  |
| ## |           | LHFPL4    | FBX016   | BOLA3-DT  | MSC-AS1    | BATF2     | KIAA2026 | MAP6      |
| ## | GSM875412 | 4.742644  | 4.562412 | 3.885650  | 4.746222   | 5.699508  | 7.333262 | 4.387434  |
| ## | GSM875413 | 4.782501  | 5.592508 | 4.281288  | 4.723652   | 6.245303  | 7.087152 | 6.047262  |
| ## | GSM875414 | 5.045934  | 4.540373 | 4.723357  | 4.296815   | 5.435740  | 7.379757 | 4.222982  |
| ## |           | PLEKHA7   | C6orf226 | ZNF319    | SH3RF3     | FOXA3     | GABPB2   | MASTL     |
| ## | GSM875412 | 6.664235  | 6.373332 | 5.654677  | 6.172114   | 6.334241  | 7.302128 | 6.191145  |
| ## | GSM875413 | 4.029621  | 6.810719 | 6.155155  | 8.813543   | 5.010595  | 7.537905 | 4.487033  |
| ## | GSM875414 | 7.931738  | 6.239404 | 5.823056  | 5.512808   | 9.423635  | 5.781406 | 5.245273  |
| ## |           | CCDC61    | CCDC191  | TM4SF18   | SLC22A15   | THAP8     | GALNT15  | SPHKAP    |
| ## | GSM875412 | 5.020476  | 5.768764 | 5.095225  | 6.473545   | 5.379982  | 4.265103 | 3.580069  |
| ## | GSM875413 | 5.606674  | 5.910622 | 4.607366  | 6.436270   | 6.061815  | 4.194583 | 3.547444  |
| ## | GSM875414 | 6.322021  | 4.676510 | 5.245298  | 7.639868   | 6.211651  | 3.997050 | 3.657813  |
| ## |           | CDAN1     | NANOS1   | ADCK5     | MIR29B2CHG | C1orf162  | PRMT9    | ZNF662    |
| ## | GSM875412 | 6.146448  | 3.492712 | 6.387011  | 5.258035   | 6.702600  | 6.576752 | 4.105795  |
| ## | GSM875413 | 6.904624  | 5.367947 | 5.547023  | 9.023818   | 6.980675  | 6.648807 | 4.908719  |
| ## | GSM875414 | 6.049604  | 3.562689 | 5.773588  | 4.564655   | 6.082026  | 6.623432 | 4.583284  |
| ## |           | RTN4R     | TEDC1    | LINC01116 | MAP3K21    | MYZAP     | ABTB3    | TMTC2     |
| ## | GSM875412 | 5.408228  | 6.004172 | 4.451247  | 8.102970   | 6.341943  | 4.008410 | 6.458415  |
| ## | GSM875413 | 4.747056  | 6.079980 | 4.253674  | 4.137982   | 5.870323  | 4.078820 | 7.236073  |
| ## | GSM875414 | 6.190584  | 6.620958 | 4.379022  | 6.593355   | 5.218432  | 4.171833 | 6.363496  |
| ## |           | IL2ORB    | ODF2L    | RBM45     | LIN52      | FAM83G    | MTMR9LP  | DPP10     |
| ## | GSM875412 | 3.931211  | 6.302375 | 7.240541  | 6.225159   | 6.574384  | 6.194466 | 3.184319  |
| ## | GSM875413 | 4.156184  | 4.267239 | 7.522175  | 6.635753   | 6.045834  | 6.436270 | 8.517646  |
| ## | GSM875414 | 3.901365  | 4.529032 | 7.227871  | 5.792707   | 6.674135  | 5.806148 | 3.178409  |
| ## |           | FAM221A   | HAGLR    | UBXN2A    | DYNLT2B    | RAB30-DT  | MTLN     | PEAR1     |
| ## | GSM875412 | 9.040661  | 4.388888 | 7.209797  | 5.243162   | 7.543441  | 7.531768 | 5.963128  |
| ## | GSM875413 | 7.781221  | 4.363672 | 7.514501  | 7.069508   | 8.058925  | 7.596423 | 9.003196  |
| ## | GSM875414 | 8.146007  | 4.658591 | 6.120328  | 5.551465   | 7.585422  | 6.546687 | 6.032567  |
| ## |           | CHROMR    | HJV      | CITED4    | SRGAP2B    | MEG9      | CNTROB   | BHLHE22   |

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## GSM875412 4.589515 3.738184 6.145469 7.220576 3.692364 6.440230 4.971579
## GSM875413 4.697787 3.524382 6.061729 6.843198 3.814291 7.112134 4.742760
## GSM875414 4.555552 3.761063 6.035862 6.472006 3.960996 6.645654 3.987572
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## GSM875412 4.574777 4.265103 5.364135 6.489991 6.217463 6.561941 4.401309
## GSM875413 5.984090 5.947304 6.222893 5.633999 6.210685 6.831701 7.167910
## GSM875414 4.736983 5.106939 6.472479 6.638241 6.273836 5.908502 5.574204
##          DPH5-DT      CYR1 USP30-AS1      LT01      RASAL3      CCEPR SLC12A2-DT
## GSM875412 6.051627 5.533305 4.810197 5.606268 6.319157 3.487349 5.099772
## GSM875413 6.136436 5.189281 4.823186 5.205032 6.575436 3.403112 6.551942
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##          VXN      SLC45A3 CXorf38 LINC-PINT CLDN23 CAPN12 ZCCHC12
## GSM875412 3.304835 6.397910 6.495907 7.440241 4.030455 7.409301 3.759182
## GSM875413 3.249295 5.531531 6.135858 7.875296 3.843486 5.990871 3.791036
## GSM875414 3.210888 7.755229 4.627820 6.074561 3.927968 6.816802 3.978266
##          ZSWIM7 SORCS2 KRBOX1 NPTN-IT1 PUSL1 TOX2 D2HGDH
## GSM875412 6.092350 5.414157 4.779963 4.667668 6.511518 4.278844 7.076968
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##          CYS1      HCN3 LOC101928092 SGTB ZDBF2 CBL1-AS1 GTF2IRD2
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## GSM875412 4.296463 4.845173 5.840316 5.049297 5.318306 3.981367 5.892514
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##          XIRP2      CPNE4 NCK1-DT RBPMS2 SIMC1 POLR2J2 PTGR1
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## GSM875413 3.396824 3.662401 5.865373 9.348009 8.362302 6.917626 7.113138
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## GSM875412 3.974530 6.758182 5.815291 7.141359 7.297011 4.498700 6.183098
## GSM875413 3.758926 6.872539 6.315359 8.057204 8.950593 3.957256 6.588010
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##          ZNF653 TATDN3 COL22A1 FAM162B CFC1B NAT8L MAMDC2
## GSM875412 4.240102 6.421863 4.105437 5.150260 4.814203 5.761907 4.515832
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##          SNHG21 NHS ALG10B INTU WHAMM LYSMD4 ZNF19
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## GSM875413 5.666649 5.566927 4.076586 4.565614 5.216544 7.992370 8.534761

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## GSM875414 5.563887 6.518213 4.316155 5.002338 4.763938 6.444616 7.763381
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## SNHG10 DUSP28 AGXT2 SLC51A LRRC37B LRRC57 NRG3
## GSM875412 3.629447 6.881660 3.822214 3.569528 7.433219 6.968120 3.507420
## GSM875413 4.054937 7.133285 3.960602 3.615525 7.224201 5.781533 3.386800
## GSM875414 4.752919 5.268019 4.129149 3.823195 6.646707 5.447654 3.744464
## ZC3H12B C17orf97 ZDHHC21 LDHD FBLN7 TPCN2 MFSD4A
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## KIF12 ANAPC1 IGSF9 USP51 GARIN5A DAPL1 LINC01503
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## NUTM2B-AS1 C10orf143 ZNF571-AS1 SPATA18 HPDL LOC100289361
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## MYOCD NKAPL RTN4RL2 MIR4458HG LIN28B SPESP1 LINC00920
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## GSM875414 5.534330 4.829412 3.969463 4.777936 3.264690 3.620374 4.157510
## PRDX6-AS1 PPP1R3F INSIG1-DT GOLT1A ILDR2 SRARP TINCR
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## L3MBTL3 IL17RE SAMD13 KIF7 RBOX3 SDK1 PNCK
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|    |           |          |            |           |          |            |          |              |
|----|-----------|----------|------------|-----------|----------|------------|----------|--------------|
| ## | GSM875412 | 8.450067 | 8.425430   | 6.060517  | 4.328090 | 5.260214   | 6.805467 | 4.837627     |
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| ## | GSM875414 | 7.391716 | 9.695318   | 5.312461  | 3.636008 | 4.552325   | 6.316498 | 5.088896     |
| ## |           | GALNT9   | TMEM88     | TAF A5    | XAGE2    | MAMDC4     | MAEL     | LINC01614    |
| ## | GSM875412 | 5.774271 | 5.604556   | 4.993906  | 5.644624 | 5.246919   | 3.703848 | 4.141234     |
| ## | GSM875413 | 6.161883 | 6.404663   | 3.731567  | 6.001116 | 6.342395   | 3.563699 | 3.605806     |
| ## | GSM875414 | 6.563665 | 6.064503   | 3.928247  | 6.005270 | 5.746641   | 3.657590 | 3.807667     |
| ## |           | PPM1J    | SHISA3     | HOXD-AS2  | ANKDD1A  | INKA1      | MS4A14   | WDR31        |
| ## | GSM875412 | 5.545766 | 4.629253   | 4.284853  | 5.379845 | 5.879849   | 5.223946 | 3.806542     |
| ## | GSM875413 | 5.291731 | 4.316983   | 4.752146  | 5.813436 | 7.336389   | 4.848907 | 3.867880     |
| ## | GSM875414 | 4.609945 | 4.219455   | 5.082362  | 5.045320 | 5.846201   | 4.947569 | 3.784844     |
| ## |           | PTPDC1   | TENT5B     | SDR42E1   | TMEM200C | AQP11      | ZNF502   | ZNF680       |
| ## | GSM875412 | 6.857991 | 4.848384   | 5.558958  | 3.914048 | 5.564960   | 4.161363 | 6.822014     |
| ## | GSM875413 | 6.781207 | 4.470508   | 4.947974  | 8.942153 | 5.282214   | 6.186734 | 6.566236     |
| ## | GSM875414 | 6.033320 | 4.917635   | 6.838038  | 3.965778 | 6.067379   | 5.150040 | 6.086208     |
| ## |           | ACOT4    | C20orf85   | UNC79     | ZNF367   | GALNT5     | PPM1N    | CARMIL3      |
| ## | GSM875412 | 5.468040 | 3.923345   | 4.317767  | 6.990718 | 6.448754   | 4.632884 | 5.802171     |
| ## | GSM875413 | 5.140235 | 3.877649   | 5.013196  | 6.791928 | 6.181105   | 4.772483 | 6.086543     |
| ## | GSM875414 | 5.322090 | 3.781832   | 4.734924  | 7.044661 | 8.332946   | 6.019544 | 6.478612     |
| ## |           | WFDC21P  | FITM1      | ELFN1     | LRRK2    | LINC01569  | SPTY2D1  | CHCHD4       |
| ## | GSM875412 | 5.802479 | 5.549458   | 4.528646  | 4.667870 | 5.828684   | 8.116969 | 7.863568     |
| ## | GSM875413 | 5.519382 | 5.232396   | 4.564328  | 7.078782 | 6.159306   | 6.994613 | 8.044049     |
| ## | GSM875414 | 5.532175 | 5.764322   | 4.256503  | 4.401151 | 6.328786   | 8.461784 | 6.979524     |
| ## |           | AMDHD1   | SMIM22     | BBS12     | CYB5RL   | CKAP2L     | ZNF320   | SLX4IP       |
| ## | GSM875412 | 3.183787 | 8.801492   | 4.323141  | 5.503233 | 6.040087   | 6.230273 | 6.368639     |
| ## | GSM875413 | 3.183960 | 6.089179   | 4.980950  | 5.437029 | 4.894729   | 6.380526 | 7.061225     |
| ## | GSM875414 | 3.198755 | 9.534426   | 5.292307  | 5.242417 | 6.161113   | 4.470076 | 6.166636     |
| ## |           | GRAMD2A  | TMEM150C   | GBP5      | CCDC184  | LINC01094  | IRX3     | LOC105370109 |
| ## | GSM875412 | 5.854670 | 6.514742   | 6.120555  | 4.252914 | 4.645671   | 5.088415 | 8.336782     |
| ## | GSM875413 | 4.425965 | 9.713499   | 5.495463  | 5.801084 | 4.353787   | 5.204745 | 8.579932     |
| ## | GSM875414 | 4.610490 | 4.478601   | 6.272230  | 4.738634 | 3.762300   | 5.061994 | 7.879668     |
| ## |           | CCBE1    | ITGA6-AS1  | DIPK1C    | SEZ6     | EML6       | SPATA33  | SALL4        |
| ## | GSM875412 | 4.200107 | 4.354221   | 5.841099  | 4.333889 | 4.521222   | 4.785651 | 5.535902     |
| ## | GSM875413 | 3.542198 | 4.110919   | 5.030640  | 4.152446 | 4.549063   | 4.999289 | 6.634839     |
| ## | GSM875414 | 4.228499 | 4.229655   | 5.198431  | 4.447902 | 4.638116   | 5.095290 | 6.746965     |
| ## |           | SERTAD4  | ZC3H12A-DT | P2RY8     | PHETA1   | ZBTB42     | TMEM220  | LINC02035    |
| ## | GSM875412 | 4.433865 | 4.912199   | 5.778479  | 6.878356 | 4.574846   | 5.407515 | 7.208391     |
| ## | GSM875413 | 7.264839 | 4.498265   | 5.979161  | 7.172872 | 4.584334   | 6.499843 | 6.203360     |
| ## | GSM875414 | 4.129507 | 5.391914   | 6.049572  | 7.002805 | 5.418321   | 5.686800 | 4.452403     |
| ## |           | ZNF738   | NCR3LG1    | LCDR      | SMTNL2   | FOXSI      | ZNF823   | TMEM86B      |
| ## | GSM875412 | 6.896854 | 6.303176   | 4.913196  | 4.219239 | 5.253567   | 6.222770 | 5.287554     |
| ## | GSM875413 | 6.575672 | 4.983775   | 6.392863  | 4.360228 | 4.875813   | 5.036865 | 5.053197     |
| ## | GSM875414 | 6.422748 | 4.891885   | 4.308651  | 4.569444 | 5.579507   | 5.669628 | 4.676058     |
| ## |           | SMIM5    | C15orf61   | ZNF438    | ANO4     | TMEM44-AS1 | ID2-AS1  | NAF1         |
| ## | GSM875412 | 6.036804 | 8.289947   | 6.599896  | 4.246503 | 5.176413   | 3.860064 | 7.741259     |
| ## | GSM875413 | 6.484130 | 8.333240   | 7.023657  | 4.135820 | 5.332208   | 4.087334 | 7.688762     |
| ## | GSM875414 | 6.388522 | 7.935612   | 6.221690  | 3.903273 | 5.573707   | 4.271374 | 7.071453     |
| ## |           | TIGD5    | VEPH1      | LINC02893 | TPRG1    | ZNF445     | OR51E1   | GLT1D1       |
| ## | GSM875412 | 7.019596 | 3.673119   | 4.508151  | 4.239142 | 6.892643   | 4.008698 | 4.794073     |
| ## | GSM875413 | 6.878234 | 3.932848   | 4.449921  | 3.747605 | 6.607473   | 3.603230 | 5.080166     |
| ## | GSM875414 | 6.206395 | 5.836819   | 5.035073  | 3.694493 | 5.961734   | 3.948322 | 5.539704     |
| ## |           | DEFB123  | CLRN3      | LINC03013 | TIGD3    | ASAH2B     | SIX4     | PROSER2      |
| ## | GSM875412 | 3.813712 | 8.336962   | 3.681984  | 4.358412 | 5.248249   | 6.030086 | 7.030724     |
| ## | GSM875413 | 4.111145 | 3.815007   | 3.600641  | 5.166997 | 6.026849   | 5.486524 | 5.227468     |

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## GSM875414 4.079205 7.950533 3.733783 4.746946 4.397964 4.879383 7.285808
## ZNG1B ZDHHC22 TMEM161B-DT ZNF608 A1BG SMIM4 LINC00526
## GSM875412 7.421414 5.952115 4.734733 5.891831 4.601958 6.465665 6.413727
## GSM875413 7.168350 5.914334 6.942870 5.617074 4.565867 6.728109 6.535188
## GSM875414 6.951853 5.908303 4.284662 5.423672 5.559386 5.642131 5.573874
## CNTN3 ALOX12-AS1 WIPF3 KANSL1-AS1 C4orf48 ZBTB45 LOC644656
## GSM875412 3.533012 5.995036 7.894384 3.417845 8.207050 6.110448 6.246174
## GSM875413 5.584943 6.066454 8.839019 3.387825 7.307550 6.590047 5.528401
## GSM875414 3.238283 5.657635 4.931569 3.774404 7.901374 6.802198 5.892008
## KCTD21 LOC105376805 C5orf34 C12orf60 LRRC75A FRMD3 RAB43
## GSM875412 5.239009 8.249464 6.658036 3.769604 5.660190 6.125444 5.746880
## GSM875413 6.325377 9.142379 5.139163 4.659323 4.877663 6.081222 5.815791
## GSM875414 5.535580 9.685305 4.868152 4.708276 5.024039 5.800477 5.716726
## GTF2I-AS1 ZNF488 SHE SPACDR ENPP6 SLC6A17 MIR3682
## GSM875412 3.637806 6.156973 5.691910 4.475677 3.281270 5.976714 5.083611
## GSM875413 3.451413 4.652402 5.387593 5.393159 3.204606 6.041372 5.433931
## GSM875414 3.475510 5.163244 6.762744 4.696588 3.388394 5.375139 4.374808
## LEMD1 SPSB4 LINC01315 C1orf74 TMEM238 ENDOV FAM166B
## GSM875412 7.535772 4.936997 5.843807 4.613317 3.946308 4.953989 4.347846
## GSM875413 4.101393 5.163020 5.332208 4.114566 4.082112 5.448897 4.434457
## GSM875414 4.266260 4.651984 5.687419 4.743292 4.416667 4.868741 4.623227
## LCA5 TMEM91 CYP4V2 YJEFN3 LRRC37A3 BEX5 C9orf152
## GSM875412 3.086782 5.215008 4.920588 5.095317 5.402530 4.749773 7.144475
## GSM875413 3.343032 6.180929 5.215601 5.408105 6.847970 7.484090 4.025528
## GSM875414 2.939032 5.247972 4.613617 5.540779 6.065229 6.766188 8.652209
## CMTM2 PRKAR1B-AS1 ERICH3 MORN5 TIGD2 FDXACB1 TSC22D1-AS1
## GSM875412 4.005826 5.595150 3.196762 3.976245 6.197332 4.809513 4.164481
## GSM875413 5.367575 5.556486 3.147120 4.497003 5.476127 4.620076 3.971804
## GSM875414 4.108713 5.738000 3.086490 4.710716 5.676815 4.766979 4.260557
## LINC00654 SYCN SRRM4 LINC00324 DISP3 TICRR AARS2
## GSM875412 4.292578 4.288693 3.995015 5.140047 5.594778 5.261912 6.027090
## GSM875413 4.517491 4.147338 3.767211 5.516520 5.736378 4.950282 6.401080
## GSM875414 4.401159 4.342505 4.035470 5.583671 6.128748 5.206380 6.924396
## UBR3 DNAAF3 ATXN7L2 SPRED3 KHDC1 PEG3-AS1 CNIH2
## GSM875412 8.927881 4.420294 3.779596 6.524230 4.355926 3.734548 5.410279
## GSM875413 9.081745 4.559377 4.391148 7.138047 6.681131 4.202579 5.610718
## GSM875414 8.723113 5.295383 4.335680 6.604385 4.532288 3.699099 4.965367
## RAB39B PLCXD3 PRIMA1 UBXN10 RSPH1 SAPCD1-AS1 MARCHF4
## GSM875412 3.296835 3.767268 5.574563 6.669522 6.513652 4.957450 4.273861
## GSM875413 4.888697 3.351365 7.502728 6.008168 4.969431 4.776395 4.565807
## GSM875414 3.390344 3.275496 5.792731 6.318595 6.064718 4.739092 4.906394
## LINC02716 SERTAD4-AS1 PSTK PCAT19 SMIM43 DPY19L2 SG02
## GSM875412 5.437462 5.083135 4.358412 4.876007 3.557636 3.714548 6.585653
## GSM875413 6.508120 8.611376 6.023685 4.763253 3.316502 7.991553 5.099665
## GSM875414 6.248505 5.422274 4.968165 4.680803 3.488195 3.574594 5.737320
## ADAMTS14 UBE2D3-AS1 IFI27L1 ELP2 PDCD7 PANTR1 NIPAL4
## GSM875412 5.686650 4.954985 6.239204 7.356613 5.362385 4.177310 5.171337
## GSM875413 5.738147 5.493530 6.355684 8.477743 5.607763 4.422270 5.288576
## GSM875414 5.801335 5.243871 6.483900 4.660205 5.634814 4.217565 5.379419
## TTBK1 LINC01405 NSUN6 FLJ46875 ZNF561 CLVS1 UNC80
## GSM875412 5.693990 3.821350 6.738752 6.654080 4.971195 3.760207 3.350326
## GSM875413 5.790029 3.985782 6.208795 6.372280 5.107634 4.102546 5.572575
## GSM875414 6.161113 4.199736 5.298066 6.158452 4.562409 4.577591 3.335881
## ZCCHC18 SSC5D TDRG1 SOWAHA TRMT10A SNORC LINC00926

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## GSM875412 4.586205 6.089726 5.395739 4.973851 4.245932 4.340643 6.421448
## GSM875413 5.210461 7.715526 5.637792 4.165803 4.640163 3.808315 5.701954
## GSM875414 4.354901 6.759730 5.972461 5.510225 4.308098 4.630851 5.178385
## LINC00473 LPAR5 CALHM5 FUOM LINC00461 CFAP206 ARSI
## GSM875412 4.384113 6.801526 6.074008 6.708294 3.418203 5.244820 4.162275
## GSM875413 4.407615 6.351716 6.544796 5.960951 3.287874 5.893479 4.447455
## GSM875414 4.295308 5.538258 5.826801 7.163081 3.212204 5.523471 3.854994
## TMEM225B LINC01504 NEURL2 MYOM3 RALY-AS1 SYNGAP1 SYNPR
## GSM875412 4.170730 5.285486 4.402106 4.847363 5.687612 4.548790 3.535232
## GSM875413 4.613238 5.580869 5.034918 4.659798 5.623808 5.451406 3.953262
## GSM875414 4.513876 5.939619 4.747817 5.478856 5.402652 4.987327 4.342653
## SLC25A21-AS1 PRDM6 NFAM1 LINC01816 LOC730098 METTL21C COPB2-DT
## GSM875412 3.447637 6.575324 6.654834 4.123719 5.159073 3.173818 5.196146
## GSM875413 4.291677 5.750665 7.088483 4.288643 5.970341 3.136181 5.616917
## GSM875414 3.611603 6.187962 6.733649 4.861932 5.051040 3.299502 5.550169
## C9orf50 GSX2 CCDC138 ADAMTS10 KKRX FGF14-AS2 MIR497HG
## GSM875412 4.871464 4.116177 4.573939 6.462303 3.803666 3.867980 4.822274
## GSM875413 5.031403 4.174207 3.990274 6.682404 3.784631 6.287643 5.526115
## GSM875414 5.216925 4.110805 3.887995 6.021442 3.996033 3.989929 5.095568
## NKX1-2 KNDC1 GLDN LINC01431 SMTNL1 SCGB3A1 ANKRD23
## GSM875412 3.284635 4.404874 5.498987 3.735188 4.970670 5.820978 4.522530
## GSM875413 3.438362 7.432395 6.796334 3.712064 5.143062 5.825926 4.823915
## GSM875414 3.345171 5.059049 4.983853 3.843366 5.763462 6.500952 4.765294
## LOC101928230 WDR35-DT DUSP15 C5orf63 GALNT16 ZNF879 FOXD3-AS1
## GSM875412 5.237405 4.296387 5.381569 5.169845 4.070180 4.452668 4.867094
## GSM875413 5.513622 4.463087 5.947066 5.031719 4.197811 5.673017 5.097957
## GSM875414 4.579271 4.704386 5.152936 4.261115 4.803047 5.433156 5.606489
## LINC02606 LINC02532 CNN3-DT PHOSPHO2 FAM228B TBX15 RBAKDN
## GSM875412 3.795515 4.344812 4.442289 7.331551 5.757833 5.059096 5.473169
## GSM875413 4.659798 4.070760 6.039113 6.355684 8.139438 4.790071 5.707358
## GSM875414 4.292452 4.176825 4.661538 7.941415 5.338773 5.622065 5.373643
## ZNF469 PLEKHG4B BTBD17 ITGB8-AS1 FAXC VPS13B-DT SEPTIN7-DT
## GSM875412 6.650602 4.259287 4.554157 6.118201 3.216453 5.669891 4.652867
## GSM875413 6.498956 5.824304 4.498824 6.534012 3.372085 7.267598 5.157334
## GSM875414 5.943307 6.279553 4.492698 6.691584 3.310470 5.856434 4.217073
## SLC20A1-DT SLC45A1 MYLK-AS1 NUMB TMEM52 RTKN2 DSCR9
## GSM875412 4.260625 4.401590 5.218323 4.666505 4.799834 3.138885 5.959717
## GSM875413 4.329376 4.884474 5.449683 4.819726 4.441114 3.223330 6.254673
## GSM875414 4.758255 4.417793 5.400399 4.627891 5.768662 3.169455 6.550541
## IRX1 HMGB4 INSYN1 OIT3 PIWIL4 LINC02901 DBH-AS1
## GSM875412 3.652702 3.739019 5.127883 3.863996 6.659092 3.997375 5.415604
## GSM875413 3.730201 3.858926 5.363186 3.472570 7.682013 4.151719 5.145755
## GSM875414 3.583674 5.113672 5.498981 3.869300 5.397724 4.548459 5.310997
## SHISA2 LINC01102 CELF5 CEACAM19 LOC145474 ATXN1-AS1 HSPB9
## GSM875412 5.184238 3.548002 3.707514 5.437521 4.29526 3.859638 4.058100
## GSM875413 5.367785 3.328074 3.626925 6.259327 4.14672 3.825266 4.538851
## GSM875414 3.412755 3.597559 4.173893 6.234421 3.67690 3.979231 5.707498
## ARHGEF39 LOC101926907 PBX4 SHC4 FAM182A LINC01341 ZNF597
## GSM875412 4.245522 4.509629 5.676344 4.303026 3.707411 4.903888 4.916377
## GSM875413 3.786299 4.796452 4.851061 3.622496 3.546175 5.142161 3.367321
## GSM875414 4.389482 5.034878 6.287440 3.540895 3.402553 5.748239 5.435642
## PARD3-DT LOC100505942 PRDM15 ACSM2A XRR1 MCPH1-AS1 RASGEF1A
## GSM875412 3.501771 4.127198 3.945798 3.133663 5.785901 6.470468 8.539014
## GSM875413 3.566253 4.682226 4.145530 3.286368 5.558063 5.899210 3.514344

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## GSM875414 3.686335      4.456202 4.876938 3.630667 6.002466 5.765617 7.368038
##      ATP6V1G3 MORC2-AS1 WWC2-AS2 LINC00844 PGM5-AS1 SLC7A3 LRRC46
## GSM875412 3.590659 7.040590 4.524287 3.300716 5.219068 4.034384 5.002275
## GSM875413 3.461685 6.482774 4.701443 3.330657 5.667320 4.171255 4.936731
## GSM875414 4.035690 7.823775 4.752076 3.428953 4.956362 3.978386 4.471713
##      ACMSD TSACC SYPL2 DUOXA2 LAMB2P1 OVOL1-AS1 IL10RB-DT
## GSM875412 3.533213 5.191970 4.358642 7.767368 5.005258 5.213360 3.838383
## GSM875413 3.282438 5.145391 4.633464 6.225868 4.973815 5.435162 4.254452
## GSM875414 3.557888 5.669090 4.867214 6.363496 4.617646 5.086712 4.618360
##      TMEM102 ICA1-AS1 LOC105371264 LRFN5 LOC105369228 HOXA11-AS
## GSM875412 4.837808 5.210905      5.379048 4.022011      6.485258 4.443403
## GSM875413 5.003276 4.947585      4.873855 3.866825      8.169161 4.387082
## GSM875414 4.513406 5.186611      5.394174 4.011194      5.043256 4.956463
##      IGSF10 PKHD1L1 EXOC3L4 SLITRK4 STX1B XKR4 RSPH9
## GSM875412 4.774563 3.548960 5.685933 3.716745 4.585540 3.191487 3.785727
## GSM875413 6.207248 3.445634 5.391814 3.532685 4.929468 3.250776 4.589058
## GSM875414 4.657798 3.734173 5.568956 3.616008 4.614580 3.324000 4.480492
##      ATP2A1-AS1 BBS5 RTN4RL1 MIR210HG SMLR1 LCN12 HSF5
## GSM875412 4.503929 4.248616 4.357933 8.398843 3.799571 3.748715 3.594098
## GSM875413 4.628731 3.862473 4.580234 5.346903 3.800746 3.642771 3.538981
## GSM875414 4.956444 4.295062 4.689130 5.155056 3.936692 3.862838 3.698332
##      RNF182 FAM210A HOXB-AS3 PATL2 ZNF683 NWD2 DENND2C
## GSM875412 3.757743 6.564357 5.087880 5.144462 5.819750 3.336437 5.004095
## GSM875413 3.811223 7.588258 6.857999 5.270934 6.077897 3.377978 5.089385
## GSM875414 4.076964 6.291344 5.132117 5.457558 6.232224 3.573789 4.917635
##      PTGR2 RNF157-AS1 LINC00886 LINC01088 PRAC1 RFX5-AS1 FAAH2
## GSM875412 3.198135 3.577446 5.498987 3.697032 3.593338 4.284041 5.990565
## GSM875413 3.518243 3.573733 5.937869 4.124668 3.668404 4.772548 5.585672
## GSM875414 3.264690 3.853785 5.161629 3.801021 4.014748 4.586115 6.320152
##      LINC01191 LINC01119 ADCY4 ODAD3 C19orf81 LOC389765 FAM163B
## GSM875412 4.551766 4.161929 6.818034 4.700822 3.981303 5.872585 4.272100
## GSM875413 4.596197 4.588067 6.727182 5.567396 4.909491 6.225721 4.353179
## GSM875414 4.878650 4.342066 7.113385 5.341910 4.472018 4.041443 4.336277
##      C2CD4C TMEM61 MARCHF10 CST9L SLC51B KRTDAP PDE4DIPP6
## GSM875412 6.216203 4.805987 4.179385 3.453589 4.195364 3.365825 4.321267
## GSM875413 6.345733 5.334655 4.466596 3.699360 4.277388 3.437713 4.210960
## GSM875414 6.601147 5.481757 4.632940 3.777415 4.387556 4.122909 4.027595
##      SMIM1 CT75 PRAC2 STAC3 BCAR4 ZNF497 LINC00673
## GSM875412 5.567819 3.903802 4.378677 5.238140 4.030449 3.558367 4.144078
## GSM875413 5.629280 4.237357 4.756002 5.606674 4.069162 3.529295 3.682764
## GSM875414 5.625226 4.089321 4.694207 5.462986 4.109947 3.647124 4.532769
##      NIM1K LIX1 COL6A6 SLC36A4 ZNF883 CCDC42 DLX6-AS1
## GSM875412 4.329082 2.957954 3.724170 3.903802 3.181049 4.138234 3.684574
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## GSM875414 4.289111 3.265023 3.748664 3.284266 3.348446 4.640436 3.746389
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## GSM875414 4.805722 3.994523 3.993754 3.294207 3.674628 5.902456 3.743420
##      ASPDH DHRS7C ZNF233 TRABD2B TAF1A1 TTLL6 HAGLROS
## GSM875412 6.365131 4.250492 3.235598 4.550791 3.318069 4.870477 3.865925
## GSM875413 6.280541 4.643244 3.714362 4.501550 8.036288 6.596477 4.334415
## GSM875414 6.106425 4.675989 3.334879 4.427949 3.602035 5.651323 4.500971
##      MICA-AS1 MAILR LOC100288123 C2orf92 CMTM5 LINC03040 SEPTIN12

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## GSM875412 6.131651 3.910757 4.286457 4.359477 5.476630 4.916066 5.053761
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## TEX38 GLTPD2 SH2D5 DDX19B LINC02727 NPM2 LINC00967
## GSM875412 3.732890 4.384992 4.386402 5.824713 3.928532 6.483956 3.951550
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## SPATA8 UNC5CL SLC35G1 PALM3 ARX SLC6A19 LINC02749
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## GSM875412 3.375810 6.018206 4.481904 4.772371 5.688129 5.808069 4.162389
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## GSM875412 4.312220 4.451247 4.364172 4.740908 4.975766 5.276763 4.232085
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## GSM875414 3.639008 4.690228 4.245816 5.072050 5.753810 4.566233 5.489957
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## GSM875412 4.219239 3.597644 5.364581 3.548573 6.215334 3.727478 3.489842
## GSM875413 4.076028 3.472794 4.885353 3.522820 6.189590 4.122275 3.669117
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## GARIN1B NTRK3-AS1 FBX015 LINC02349 KHDC3L TBC1D21 CCNB3
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| ## | GSM875413    | 3.548437   | 4.322208  | 3.171452     | 3.462029     | 4.473732     | 3.818435          |
| ## | GSM875414    | 3.400060   | 4.622312  | 3.264690     | 3.553197     | 4.761585     | 3.865235          |
| ## | ZBTB20-AS1   | BOLA2      | LINC03024 | ATP13A4-AS1  | C1orf94      | LOC105371038 |                   |
| ## | GSM875412    | 4.845864   | 4.713786  | 3.672152     | 3.141950     | 5.052543     | 5.573611          |
| ## | GSM875413    | 4.686866   | 3.820638  | 3.574999     | 3.115455     | 5.243211     | 6.206687          |
| ## | GSM875414    | 4.759496   | 4.004061  | 3.999893     | 3.291113     | 5.181278     | 6.107427          |
| ## | ZYG11A       | LINC00922  | C2orf144  | IQCF5        | FANCD20S     | LOC100130691 | SPAG5-AS1         |
| ## | GSM875412    | 4.163393   | 4.375951  | 3.642142     | 3.859012     | 4.446089     | 4.098068 4.235254 |
| ## | GSM875413    | 4.030167   | 4.095046  | 4.163713     | 3.725348     | 4.621177     | 4.090232 4.258320 |
| ## | GSM875414    | 4.334676   | 5.157103  | 4.188579     | 3.834869     | 4.410860     | 4.189699 4.641512 |
| ## | CFAP107      | TEX46      | TPD52L3   | APOC2        | LINC02805    | CFAP299      | NOXRED1           |
| ## | GSM875412    | 4.205305   | 3.255601  | 4.454167     | 5.090576     | 3.682434     | 3.398657 4.238506 |
| ## | GSM875413    | 4.278977   | 3.604280  | 4.818932     | 4.912899     | 3.646151     | 3.397851 3.886887 |
| ## | GSM875414    | 4.355457   | 3.685803  | 4.623158     | 4.835780     | 3.878967     | 3.703176 4.175115 |
| ## | CCDC62       | TMEM31     | SAXO1     | LINC01015    | PRSS37       | FATE1        | LINC01082         |
| ## | GSM875412    | 4.394498   | 3.678529  | 4.495877     | 3.996598     | 3.959034     | 5.166859 5.739067 |
| ## | GSM875413    | 4.287831   | 4.232431  | 4.557040     | 4.161623     | 4.357712     | 5.194805 5.430142 |
| ## | GSM875414    | 4.451079   | 4.232431  | 4.704153     | 4.053188     | 4.937160     | 5.270186 6.140489 |
| ## | CDHR3        | SPATA42    | DMGDH     | TSIX         | LOC105371508 | IRAG1-AS1    | PRRX2-AS1         |
| ## | GSM875412    | 3.951402   | 3.385672  | 3.556376     | 3.857776     | 3.551132     | 5.802855 4.999646 |
| ## | GSM875413    | 3.696994   | 3.636123  | 3.684222     | 3.688355     | 4.026555     | 5.914622 5.366992 |
| ## | GSM875414    | 3.411466   | 3.972011  | 3.539208     | 4.306135     | 3.956890     | 6.208308 5.283356 |
| ## | RNASE11      | LINC02853  | C10orf82  | LOC105372640 | CABS1        | TEX33        | SUN3              |
| ## | GSM875412    | 3.541413   | 4.171639  | 4.445339     | 4.012391     | 3.215483     | 3.312099 3.527061 |
| ## | GSM875413    | 3.667203   | 3.823441  | 4.735883     | 3.912269     | 3.115184     | 3.468934 3.547411 |
| ## | GSM875414    | 3.822214   | 4.531981  | 5.798069     | 4.174481     | 3.226014     | 3.580548 3.341809 |
| ## | ADAM7-AS2    | ASB17      | TMEM174   | SLC22A9      | LINC00919    | ERICH4       | LINC02992         |
| ## | GSM875412    | 3.806354   | 3.525752  | 4.000849     | 4.374300     | 3.982480     | 3.921478 4.358412 |
| ## | GSM875413    | 3.854322   | 3.490965  | 4.140595     | 4.155474     | 3.908066     | 4.134821 4.644190 |
| ## | GSM875414    | 3.793612   | 3.420093  | 4.524178     | 4.323293     | 4.336596     | 4.618936 4.331527 |
| ## | PRSS30P      | TEX56P     | MUCL3     | ITPRID1      | CCDC74B      | REG3G        | RARB-AS1          |
| ## | GSM875412    | 4.935125   | 3.523364  | 9.084089     | 3.667048     | 4.966707     | 4.155453 4.341785 |
| ## | GSM875413    | 4.746061   | 3.606851  | 5.687786     | 3.441743     | 4.886876     | 4.403344 4.403551 |
| ## | GSM875414    | 4.811450   | 4.057253  | 5.246689     | 3.968342     | 5.273117     | 4.809285 4.419820 |
| ## | LOC105377924 | ERICH3-AS1 | C3P1      | APOA1-AS     | ASCL5        | AP4B1        | CASP14            |
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| ## | GSM875413    | 3.441177   | 4.066961  | 5.130985     | 3.885298     | 4.102505     | 7.508104 4.075993 |
| ## | GSM875414    | 3.464702   | 4.399285  | 5.580331     | 4.155386     | 3.954283     | 7.008635 4.144946 |
| ## | PCDHB2       | PCDHB14    | OTX2      | CARD18       | RBP2         | PCDHB7       | KCNJ11            |
| ## | GSM875412    | 3.775275   | 3.887834  | 3.464186     | 4.046299     | 5.118118     | 3.729268 4.625428 |
| ## | GSM875413    | 3.418812   | 6.330125  | 3.331806     | 3.826265     | 6.625097     | 3.957764 5.103082 |
| ## | GSM875414    | 3.468391   | 3.423231  | 3.580214     | 3.913282     | 6.292147     | 4.157913 5.305432 |
| ## | GPR55        | MIXL1      | ULBP3     | PCDHB4       | ABCG8        | NPBWR1       | PCDHGC4           |
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| ## | GSM875413    | 4.233505   | 4.534132  | 4.063887     | 3.616751     | 4.219255     | 5.875944 4.288100 |
| ## | GSM875414    | 4.202835   | 5.052086  | 4.707133     | 3.317938     | 4.355080     | 6.548129 3.930629 |
| ## | ZP4          | TAS2R5     | PRM3      | LINC00029    | FGF10        | CHAC1        | HOXB4             |
| ## | GSM875412    | 4.046373   | 5.204613  | 4.601730     | 4.501326     | 3.789483     | 6.764716 6.738128 |
| ## | GSM875413    | 4.292813   | 4.183967  | 4.829089     | 4.788874     | 3.779643     | 7.402493 7.384101 |
| ## | GSM875414    | 4.314332   | 4.476724  | 4.894501     | 4.508162     | 4.125384     | 6.573743 5.879393 |
| ## | USF1         | FBX06      | GJB6      | CENPH        | EOMES        | DLX3         | GBGT1             |
| ## | GSM875412    | 4.932422   | 7.348897  | 3.318102     | 6.590112     | 6.519267     | 5.838430 5.681930 |
| ## | GSM875413    | 5.169363   | 7.139465  | 3.283984     | 6.677758     | 5.984215     | 4.231074 6.958975 |

|    |           |          |           |           |              |              |           |           |
|----|-----------|----------|-----------|-----------|--------------|--------------|-----------|-----------|
| ## | GSM875414 | 5.285754 | 6.862970  | 3.974028  | 5.979355     | 6.322046     | 4.649813  | 5.908539  |
| ## |           | CHRM1    | NTF4      | HOXA13    | PCDHB15      | MYLK2        | NOG       | DMRT3     |
| ## | GSM875412 | 3.427228 | 3.530589  | 5.804323  | 3.207045     | 6.537484     | 3.886646  | 3.229634  |
| ## | GSM875413 | 3.660211 | 3.739939  | 3.105388  | 3.518178     | 6.666929     | 3.609872  | 3.377192  |
| ## | GSM875414 | 5.305200 | 4.212405  | 3.335769  | 3.270063     | 6.932595     | 3.592433  | 3.430003  |
| ## |           | CLEC3A   | PRLHR     | PHAX      | PHF12        | COX19        | PRXL2B    | DDX55     |
| ## | GSM875412 | 4.092175 | 3.513451  | 6.590287  | 6.790364     | 6.371800     | 8.816555  | 5.666137  |
| ## | GSM875413 | 3.952831 | 4.393199  | 7.561356  | 6.753467     | 6.269149     | 7.500710  | 7.135371  |
| ## | GSM875414 | 4.089177 | 3.648682  | 6.716848  | 5.683419     | 5.746608     | 8.926298  | 6.393739  |
| ## |           | KRT80    | AP5B1     | TENM2     | HOMEZ        | KIAA1586     | LRRCC1    | FBXW8     |
| ## | GSM875412 | 5.235965 | 4.587879  | 4.236298  | 3.822214     | 3.926410     | 5.082164  | 4.910329  |
| ## | GSM875413 | 4.791016 | 4.350757  | 6.474647  | 3.746798     | 4.516483     | 5.656800  | 5.524634  |
| ## | GSM875414 | 5.073389 | 4.660051  | 4.087420  | 3.701150     | 4.049961     | 3.998507  | 5.148736  |
| ## |           | PALD1    | SASS6     | SOX2-OT   | TIMM29       | C20orf96     | HOXD8     | NUDT14    |
| ## | GSM875412 | 5.561851 | 4.728954  | 3.162401  | 6.476638     | 4.199227     | 4.244728  | 4.039868  |
| ## | GSM875413 | 9.814791 | 4.165955  | 3.075089  | 6.444152     | 4.230084     | 4.412015  | 4.223724  |
| ## | GSM875414 | 5.401076 | 4.292370  | 3.113609  | 6.486895     | 4.495702     | 3.793368  | 4.515864  |
| ## |           | ERMN     | ZSWIM4    | LINC00958 | HOXC9        | ZFP28        | ZNF658    | MIR4453HG |
| ## | GSM875412 | 3.572891 | 4.021755  | 4.532933  | 5.184238     | 3.791536     | 3.841113  | 6.375437  |
| ## | GSM875413 | 3.730849 | 3.947984  | 4.398668  | 4.141293     | 4.169804     | 4.671325  | 6.536101  |
| ## | GSM875414 | 3.852529 | 3.671844  | 4.678246  | 6.459706     | 4.779435     | 3.663299  | 5.307035  |
| ## |           | ANKRD33B | DOK6      | SMIM24    | ZNF490       | TTC39B       | PNMA8B    | FSTL5     |
| ## | GSM875412 | 5.150604 | 3.480137  | 8.366994  | 5.234272     | 5.644306     | 4.742775  | 3.227451  |
| ## | GSM875413 | 5.076783 | 8.287319  | 6.072323  | 5.256444     | 4.371575     | 5.133269  | 3.282203  |
| ## | GSM875414 | 5.271410 | 3.222834  | 9.899726  | 4.896627     | 4.702417     | 5.126974  | 3.227792  |
| ## |           | ZNF30    | LENG1     | ZKSCAN2   | GIMAP2       | MAP10        | CCDC102A  | PCDH20    |
| ## | GSM875412 | 4.896772 | 5.556620  | 4.966337  | 7.191952     | 3.384626     | 4.600452  | 3.409908  |
| ## | GSM875413 | 5.741860 | 6.228777  | 5.889182  | 5.540198     | 3.333203     | 5.493459  | 3.783706  |
| ## | GSM875414 | 5.574173 | 6.178985  | 5.012884  | 5.364570     | 3.360767     | 5.235397  | 3.275933  |
| ## |           | DSCAML1  | CTBP1-DT  | KIF26A    | LOC100506639 | PRSS27       | HECW2     | BCLAF3    |
| ## | GSM875412 | 3.516038 | 5.936841  | 4.406885  | 4.944088     | 4.171639     | 5.661741  | 6.235072  |
| ## | GSM875413 | 3.539427 | 5.768686  | 4.496951  | 4.349449     | 3.928187     | 5.602288  | 6.026217  |
| ## | GSM875414 | 3.574515 | 5.972770  | 6.329320  | 4.448961     | 3.991445     | 5.819456  | 4.083590  |
| ## |           | DNM3OS   | SLC25A51  | FOXP1-IT1 | PCDHB16      | BLACAT1      | TUNAR     | GRHL3     |
| ## | GSM875412 | 3.948977 | 5.256133  | 5.488753  | 3.689218     | 5.383527     | 3.842221  | 3.949762  |
| ## | GSM875413 | 8.117173 | 4.873202  | 5.372351  | 7.660472     | 4.530585     | 3.942917  | 3.690783  |
| ## | GSM875414 | 3.796508 | 5.910602  | 5.541459  | 3.473354     | 4.803175     | 4.238741  | 4.094376  |
| ## |           | GASK1A   | LINC00933 | CTTNBP2   | ZNF616       | MFSD4B       | FRG1HP    | DNM1P41   |
| ## | GSM875412 | 4.423402 | 3.419447  | 5.216421  | 3.727172     | 4.898747     | 6.300417  | 5.413900  |
| ## | GSM875413 | 3.993115 | 3.727552  | 8.719766  | 3.836648     | 4.219714     | 6.276502  | 5.188107  |
| ## | GSM875414 | 3.622960 | 3.532376  | 3.845714  | 3.769175     | 4.307485     | 5.967899  | 4.942464  |
| ## |           | SLX4     | ADM5      | SPRY3     | NIPAL1       | CEP126       | MACF1     | S100A7A   |
| ## | GSM875412 | 5.676344 | 5.378233  | 3.867676  | 4.607605     | 3.998756     | 7.108703  | 4.354732  |
| ## | GSM875413 | 5.559798 | 5.704737  | 4.239654  | 4.509900     | 5.165099     | 6.728109  | 4.242534  |
| ## | GSM875414 | 6.059747 | 5.647125  | 3.801212  | 4.532179     | 4.385631     | 6.367098  | 4.214945  |
| ## |           | CD99P1   | CLEC2L    | SLITRK6   | MROH8        | TNFRSF14-AS1 | ERVH48-1  | GPR158    |
| ## | GSM875412 | 6.105190 | 4.420015  | 3.970537  | 4.908300     | 6.997643     | 4.145546  | 5.367435  |
| ## | GSM875413 | 5.334649 | 4.542579  | 7.475466  | 5.618697     | 6.370318     | 3.967798  | 4.474108  |
| ## | GSM875414 | 5.416522 | 4.558515  | 4.034093  | 5.278328     | 7.000743     | 4.397960  | 3.661844  |
| ## |           | LCA5L    | NKD2      | GUSBP4    | ISLR2        | ZNF554       | LRR4C     | HSPC324   |
| ## | GSM875412 | 4.070752 | 5.764364  | 4.988572  | 4.357331     | 6.145469     | 3.943524  | 4.239763  |
| ## | GSM875413 | 4.526701 | 5.816838  | 5.268003  | 5.032478     | 5.914753     | 7.394902  | 4.265162  |
| ## | GSM875414 | 4.552592 | 5.989927  | 4.687076  | 5.273965     | 6.285981     | 4.698181  | 4.260973  |
| ## |           | ZNF530   | OLMALINC  | SLC22A16  | DSEL         | MDGA1        | LINC00865 | PTPRG-AS1 |

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## GSM875412 4.128605 3.534331 4.404201 3.807384 6.162615 6.053456 3.822214
## GSM875413 4.557803 4.188402 4.325428 6.464524 7.078782 7.456407 3.598022
## GSM875414 4.407155 4.147996 4.144946 3.220707 6.468141 6.091214 3.437439
## LOC100652768 STYXL2 ZBTB11-AS1 PNISR-AS1 ADGRD1 ZNF624 LYSMD1
## GSM875412 6.246174 9.946182 4.324821 3.622637 5.150193 3.634552 4.517239
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## GSM875414 6.290053 4.447310 5.719058 3.346449 5.111428 3.349809 4.783285
## PSMD6-AS2 PGBD3 LCORL TMEM254-AS1 MBNL1-AS1 ADIRF-AS1 CDH26
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## GSM875414 4.894501 4.185938 4.342205 5.149375 4.241184 5.565868 3.627641
## MIATNB TMEM132C ZNF880 NRAD1 MUC17 THSD7B KIAA1210
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## GSM875413 5.019748 10.051684 5.268235 3.521161 4.380795 7.502403 3.228339
## GSM875414 5.071107 5.224229 6.190586 3.638159 5.616983 3.776984 3.281494
## GMDS-DT ZSWIM5 ZNF431 LINC02591 ISL2 SNORD114-3 TTLL9
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## GSM875412 3.754557 6.724785 3.215556 4.935949 3.883022 3.912143 4.967359
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## GSM875412 3.993056 3.561802 3.907665 4.500383 3.407912 4.806705 4.794860
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## GSM875414 5.812323 4.262726 6.252906 5.890323 4.466886 3.433324 5.310464
## XNDC1N TMEM30A NEURL3 HSBP1L1 NUP210L WFDC3 DCDC1
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## COL20A1 EFCAB12 ZNF596 ANXA2R-AS1 PROCA1 UGT1A6 UGT1A1
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## GSM875414 3.587939 4.289314 3.743968 6.937612 5.426563 5.377221 4.076502
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## LRFN2 BPIFB2 ISX LINC00589 LINGO2 TRIM55 LOC100652999
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## ZNF691 RTL9 RNASEH1-DT CMKLR2-AS SYT8 LINC01426 GTSF1L
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## MIR4500HG LRRC55 NR2F2-AS1 GNAS-AS1 PIRT ISM1 SIRPD
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## MIR1-1HG HERC2P7 ZFP14 ANKRD19P KCNA7 SPDYE1 DPY19L3-DT
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## PTCSC1 ZFP92 LINC01007 PABPC5 LINC01224 C20orf173 RPS11P6
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## GSM875412 3.356342 4.356842 4.970578 3.933756 5.676825 3.670814 5.063065
## GSM875413 3.595244 4.790071 4.884831 4.320624 5.772698 3.780076 8.139089
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## GSM875412 3.254483 4.546648 3.320347 3.946340 4.258112 4.835249 4.057742
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## RPL26L1-AS1 OR2A4 MIR3147HG SH3RF3-AS1 SPAG17 CMYA5 MEF2C-AS1
## GSM875412 3.529046 5.306457 5.352219 3.455661 3.702470 4.750566 4.795223
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## BPIFB4 LINC00475 ESAM-AS1 LINC00396 KRTAP1-5 KRTAP3-2 KRTAP3-1
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## LOC90246 GGT1 ZBTB12 CCDC85A EBF4 GRIN3B SUN5
## GSM875412 3.524681 5.606268 4.257274 4.913506 4.937667 5.038244 4.636806
## GSM875413 3.465841 5.749794 4.690058 5.260142 7.422707 5.156475 4.723244
## GSM875414 3.881859 5.994958 5.015197 5.565940 5.569180 5.560803 5.186096
## WFDC10A NYAP2 DCDC2B LOC349160 C11orf86 LRRC74A CYP51A1-AS1
## GSM875412 3.935625 3.375583 5.627084 3.704723 6.225735 6.145469 3.474463
## GSM875413 3.919601 3.198887 6.153914 3.669811 6.282409 5.942109 3.444825
## GSM875414 5.213099 3.315526 6.000084 3.937957 5.918672 5.770249 3.400435
## TBX5-AS1 ADCY10P1 FAM83C-AS1 IGLV9-49 LYZL1 PRNT TGM6
## GSM875412 3.658653 4.549595 4.404874 3.798235 3.583914 3.753669 5.715912
## GSM875413 3.782638 4.125389 4.867769 3.913752 3.508791 3.913959 5.669663

```

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## GSM875414 4.886461 4.101560 5.076397 4.113920 3.753481 4.221315 6.091609
## TFP2D EYS ABHD16B DEFB121 TRAV12-1 FAM95A LINC00923
## GSM875412 4.351486 3.087563 4.761123 3.898915 4.034384 4.208325 3.699430
## GSM875413 4.536686 2.986707 4.847666 3.445906 3.830006 4.110452 3.635036
## GSM875414 5.120124 2.967548 4.659629 3.519302 4.895873 4.796350 3.587848
## SEL1L2 CBLN4 PCDHGB8P BHLHE23 LINC02667 LOC100505874 KCNT2
## GSM875412 3.813207 4.096352 3.614869 4.335774 4.262426 4.258710 4.238624
## GSM875413 3.987713 4.466729 3.920646 4.566894 4.331579 6.940519 7.159268
## GSM875414 4.708300 4.404175 3.651349 4.896599 4.692012 6.132492 3.710562
## TAS2R45 ONECUT3 GJD4 LOC105377485 LOC286059 NIPAL4-DT B3GAT2
## GSM875412 3.337274 4.770897 4.640564 4.116587 4.304920 5.630518 3.738184
## GSM875413 3.492203 5.424385 5.262871 4.153960 4.436156 5.999819 3.983559
## GSM875414 3.729404 5.457629 5.618870 4.182589 5.423991 5.841751 3.955995
## LINC01267 LOC101927950 NSMCE1-DT LINC02535 OPN4 CASP16P SCIRT
## GSM875412 4.300815 4.550681 4.873506 4.016011 4.343753 3.725873 3.936030
## GSM875413 4.199114 4.372983 4.520491 3.416954 4.168158 4.396868 3.791632
## GSM875414 4.733548 4.163792 4.159331 4.218761 4.306693 3.942879 4.380406
## MAP1LC3B2 LOC105376387 LOC100506405 SEBOX OTOP2 LOC105375026
## GSM875412 3.818786 3.344585 3.759194 5.382512 4.623113 4.833030
## GSM875413 4.220385 3.455569 3.775616 5.371004 4.790770 4.602421
## GSM875414 4.598802 3.139681 4.078388 5.675954 5.121575 4.481933
## TNFAIP8L3 GNG8 LINC02842 GSDMC ACSS2 NEXMIF NEK2-DT
## GSM875412 3.801241 4.367325 3.353687 4.640318 8.629263 3.650508 7.732261
## GSM875413 3.760057 4.981522 3.400904 4.821616 8.064832 3.703569 7.718312
## GSM875414 3.893456 5.935531 3.443897 4.724428 7.766964 4.064337 7.982704
## SSPOP LOC105378948 CREB3L3 OR6B1 VSIG1 TRBV7-8 IGLV4-3
## GSM875412 5.881312 6.533267 3.903876 3.734461 5.519374 4.267815 6.282395
## GSM875413 6.018137 6.107379 4.098349 3.601010 4.719186 4.430563 6.484130
## GSM875414 6.571721 6.457503 4.898239 3.782217 5.493684 4.291917 6.258900
## TRAV30 TRAV25 ZNF861P TRAV24 TRAV34 TRAV40 TRAV5
## GSM875412 4.623668 3.452483 4.725674 3.469918 3.405392 3.474458 3.832412
## GSM875413 4.960775 3.356143 4.849564 3.586063 3.361444 3.893056 3.608522
## GSM875414 4.953351 3.709633 5.452451 3.796264 3.639956 4.676510 3.622403
## OR111 IL17F GABRR3 NUTM2F IGLV1-70 LINC02256 LOC105377776
## GSM875412 5.741171 4.019323 3.489016 5.976871 3.633926 5.319023 3.429574
## GSM875413 5.615844 4.547544 3.587939 5.910529 3.720920 5.508460 3.882534
## GSM875414 5.248146 4.676903 3.937351 5.570575 3.911424 5.589887 3.629840
## LINC01808 LINC02152 CLSTN2-AS1 PROKR2 RNF215 EME1 OR51B4
## GSM875412 3.151887 3.486984 4.185896 4.034384 4.968870 7.810518 3.748151
## GSM875413 3.145397 3.444058 4.168587 4.106325 5.275919 5.837718 3.856398
## GSM875414 3.310232 3.950439 4.449337 4.240608 5.487360 5.998764 3.761407
## GALNT13 LOC101928697 PCDHB18P OR51B2 LINC01257 LINC02673 ANKRD60
## GSM875412 3.469627 3.431575 3.419709 4.251856 3.300767 4.810864 4.289825
## GSM875413 4.135167 3.564061 3.734087 3.909260 3.261555 4.579614 4.515551
## GSM875414 3.641919 3.684273 3.998728 3.913337 3.207640 4.522530 4.828216
## ELOVL3 SRMS PCGEM1 NOBOX OR51I2 OR51B6 GCNT7
## GSM875412 3.674775 3.808138 3.870758 5.068467 4.188087 3.521166 3.448292
## GSM875413 3.550217 3.734980 3.986923 4.710600 4.181525 3.681478 3.812088
## GSM875414 3.992561 4.560407 4.026413 5.218502 4.297666 3.757629 4.240074
## OR14J1 KCNK16 LOC101929718 LGALS8-AS1 KLF18 OR52D1 TPM3P4
## GSM875412 3.822214 5.560686 4.453365 5.340738 3.768331 4.175391 3.694801
## GSM875413 3.687852 5.644999 4.587923 5.522043 3.768810 4.132848 3.762732
## GSM875414 3.817435 5.253311 4.607504 5.756444 4.002395 4.485050 4.500494
## OR51I1 KRTAP4-8 KRTAP4-11 KRTAP4-1 KRTAP4-5 KRTAP9-8 NXF5

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## GSM875412 5.472364 3.633940 3.507502 3.641094 4.994990 4.039417 4.492541
## GSM875413 5.354956 3.958519 3.272562 3.434282 4.943726 3.945735 4.645976
## GSM875414 5.102662 4.042559 3.291689 3.628737 5.298027 3.878967 4.699919
## NLRP2B LINC01347 KRTAP4-2 LOC105376689 KRTAP4-3 KRTAP9-3 KRTAP17-1
## GSM875412 4.061464 4.531722 4.446042 4.481211 3.320347 3.324330 4.479460
## GSM875413 4.560574 4.174075 4.446672 4.468111 3.340400 3.307632 4.733807
## GSM875414 4.593614 4.532236 4.603766 4.412529 3.299132 3.226691 4.568777
## KRTAP4-6 KRTAP4-4 KRTAP4-9 PTCHD4 KRTAP2-1 NUTM2B IGLV1-44
## GSM875412 3.864650 3.400395 4.057107 4.099552 3.322966 5.956585 5.903124
## GSM875413 3.431109 3.280248 3.854056 4.114583 3.418238 5.949282 5.849609
## GSM875414 3.668067 3.332231 4.060097 3.919666 3.523752 5.661223 6.426549
## LINC00470 OBP2B SEMA4B OR8D2 OR51A1P LINC02504 R3HDM1
## GSM875412 4.207675 4.903952 9.249511 4.032571 4.441640 4.647178 4.736469
## GSM875413 3.828830 5.316405 7.272571 3.963605 4.830282 4.404062 4.979109
## GSM875414 3.990553 5.864379 8.331067 4.202512 4.812750 4.331853 5.041079
## DMBX1 OR51M1 KLHL31 CABP7 CSTL1 PROX2 LOC102723506
## GSM875412 3.226051 4.087980 4.102386 4.000541 3.896616 3.468285 3.345273
## GSM875413 3.455383 4.171492 4.581132 4.198262 4.362590 3.460357 3.612614
## GSM875414 5.268166 3.926829 4.872980 4.508754 4.617758 3.640136 3.672232
## TRAV26-2 MAS1L LOC101929645 LOC101929963 FRG2EP LINC01859
## GSM875412 4.103603 3.948977 3.445679 3.658653 3.132270 3.905350
## GSM875413 3.996700 3.866326 3.401933 3.543069 3.118764 3.945930
## GSM875414 4.319903 3.955550 3.454966 4.018643 3.217012 4.151945
## LOC101927709 OR5V1 TRAV8-1 LINC03048 LINC00309 TRAV12-3 MOGAT3
## GSM875412 3.189192 3.650598 4.881176 4.689449 3.178560 3.542221 4.288241
## GSM875413 3.408990 3.613770 5.200671 5.248869 3.263756 3.291322 3.834790
## GSM875414 3.331723 3.655193 5.163217 5.268899 3.304753 3.484456 4.345855
## TRAV22 TRAV20 LOC93463 TRBV25-1 TRAV39 LOC102724638 TRBV7-3
## GSM875412 3.415538 4.140500 3.082286 3.577730 3.599177 6.172114 4.904336
## GSM875413 3.439874 3.932161 3.330951 3.575300 3.538931 6.566732 4.763019
## GSM875414 3.521099 4.375968 3.791004 3.716522 3.948632 6.619838 5.034659
## TRBV24-1 ITIH6 H2BW2 OR2B3 GNA01-AS1 ZNF470 ZNF687
## GSM875412 4.294408 4.161377 3.877096 3.906328 4.246536 3.580069 6.726079
## GSM875413 4.364601 3.866030 4.721409 3.891025 4.458669 3.587939 6.639799
## GSM875414 4.892191 3.997058 5.159563 3.931122 4.244569 4.051588 7.048097
## LINC00917 FRG1BP PHRF1 ARL16 SLC38A5 GALM BCDIN3D
## GSM875412 4.081005 7.551927 7.118814 7.553084 4.976969 8.440149 5.367585
## GSM875413 4.002111 6.843804 7.242947 7.732422 5.989612 7.262859 5.529586
## GSM875414 4.825947 6.544134 7.306334 7.494628 5.294760 7.769174 5.028996
## TLCD4 LDLRAD3 ABHD13 TMEM200A RBM24 DIS3L ZBED5-AS1
## GSM875412 6.687284 6.557961 5.223771 6.754804 3.579043 6.931347 6.968709
## GSM875413 4.574268 9.012216 4.440166 6.637728 5.062135 7.946177 8.418117
## GSM875414 5.255738 5.749525 4.971751 4.302281 3.666830 6.880091 6.462040
## ILF3-DT WDR89 NPEPL1 XIRP1 SLC2A12 ZNF792 RAB12
## GSM875412 5.292904 3.372711 7.283052 5.367689 3.704759 3.849758 4.381926
## GSM875413 6.329961 3.539906 4.955592 5.400341 3.614667 4.243631 5.018362
## GSM875414 5.622342 3.661373 4.941161 5.927103 3.763855 4.498390 4.130460
## LOC100190986 PIH1D2 SHLD1 DNAAF10 TRIM65 LINC01106 PRAG1
## GSM875412 9.651122 3.808192 4.624945 7.142763 5.993383 6.346075 7.654114
## GSM875413 5.134773 3.812088 5.897025 7.468475 5.791777 4.610593 5.546207
## GSM875414 9.637987 3.724739 4.749165 6.477024 5.597603 5.143914 7.091120
## C4orf46 BICDL2 LEO1 CMTM8 MAML2 LRR1 CHAC2
## GSM875412 4.577326 7.904715 7.639608 7.054441 5.730343 6.791388 5.676344
## GSM875413 4.504599 6.254319 6.016403 4.984598 5.011504 6.247832 3.816319

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## GSM875414 4.641453 5.821034 8.002719 6.393211 4.598427 5.913627 4.694274
##          TAF3  ZNF542P EIF3J-DT  MIGA1 FLVCR1-DT  GNGT2  SHROOM1
## GSM875412 4.890042 3.903802 5.116529 6.540286 5.382512 5.660794 4.720024
## GSM875413 5.439544 4.580517 5.544640 7.902515 6.529664 5.684720 5.087236
## GSM875414 5.204596 5.286470 4.498956 6.454321 5.560460 5.947278 5.159612
##          MARVELD2  ZBTB8A  KRTCAP3 FAM111A-DT  RNF183 RASSF8-AS1  FBX027
## GSM875412 7.598309 7.875829 8.457386 6.905407 6.792338 3.779596 4.376756
## GSM875413 4.348512 6.140479 5.359896 6.982384 4.770897 3.845965 4.436283
## GSM875414 7.975421 7.000070 7.458499 5.832533 4.829412 3.731035 4.354436
##          TOX-DT  LINC01003  GBP4  TYW5  SNHG30  CCDC112  LURAP1
## GSM875412 4.213669 7.112505 6.308171 6.960285 6.019023 4.953523 4.978341
## GSM875413 3.916404 7.326221 6.862196 6.178099 6.343649 4.962922 5.957579
## GSM875414 3.737397 5.109461 5.938555 7.274890 5.408775 3.722641 5.235468
##          LINC01004 EXOC3-AS1  CBLN3  INSYN2B  SLC38A9  MIX23  WDR86
## GSM875412 6.289536 3.591998 4.309797 3.410999 6.444630 6.084904 4.028996
## GSM875413 6.388844 4.436318 5.200978 3.529750 7.194557 6.351859 3.650610
## GSM875414 5.243468 3.716242 4.903566 3.403659 6.909585 6.761565 3.679503
##          ODF3B  PACRGL  UNC45B  FAM83F  SBSN  DNAAF4  SP2-DT
## GSM875412 4.966609 4.849836 3.773572 5.389820 4.427543 5.139786 6.443079
## GSM875413 5.409930 4.061786 3.730829 5.066830 4.305991 3.951955 7.630046
## GSM875414 5.571613 4.323086 3.844583 5.310478 4.299987 3.940417 6.560726
##          FLJ32255  ELAPOR2  TRMT10B  GIMAP8  GCSAM  NOXO1  ST6GALNAC3
## GSM875412 5.926850 5.080369 3.708926 4.691497 3.664417 5.730621 3.805027
## GSM875413 3.709633 7.228198 4.096318 4.235714 3.698438 5.157807 3.849831
## GSM875414 3.860929 4.845493 3.604120 4.965744 3.600838 4.894501 4.032470
##          ABCA9  GANC  FUNDC1 LOC728485  NRROS  PJKV  MYPN
## GSM875412 3.539797 4.452535 7.148649 5.042057 5.244820 4.170880 4.470457
## GSM875413 3.284414 4.531164 8.482580 5.249826 5.825926 4.964458 4.570856
## GSM875414 3.232789 4.431707 8.699169 5.358406 5.771276 4.110133 4.655478
##          C14orf28  GXYLT2  FCRLA  TTC9B  MLIP  FAM161B  LVRN
## GSM875412 5.115377 7.269416 4.932805 5.670063 4.170243 3.683118 3.259318
## GSM875413 6.255494 6.152990 5.032204 5.635346 4.088124 5.041046 3.386324
## GSM875414 4.625805 5.170627 5.729544 5.908598 4.402906 3.399889 3.400267
##          NUDT19  TANGO2  LINC00174  ZNF805  PPP1R32  PIRC66  PGBD1
## GSM875412 8.032828 6.509510 5.170679 4.882472 4.493508 4.648527 3.698776
## GSM875413 7.133075 7.376058 5.639843 5.299759 4.890594 4.297209 4.173513
## GSM875414 8.182991 7.289972 5.571237 4.633635 5.179422 4.998923 4.076537
##          ZNF383  HAPLN4  MINCR  PELI3  CKMT2-AS1  FAM131C  CD63-AS1
## GSM875412 4.412675 4.557025 4.962677 6.064361 5.161206 5.302334 5.653119
## GSM875413 4.352296 4.522678 4.323292 7.885297 7.430303 5.609060 6.826679
## GSM875414 4.511185 4.438982 3.346083 6.449272 5.254228 5.797001 6.055298
##          RASL10B  HRCT1  ASB5  USHBP1  ASPRV1  SYNE4  ZNF280C
## GSM875412 4.081005 6.043061 3.369240 5.318031 5.282485 5.460758 3.979956
## GSM875413 4.472596 6.325109 3.335634 5.507219 5.064137 4.251907 4.233037
## GSM875414 4.619118 6.984771 3.237345 5.355187 5.256361 4.613856 3.713851
##          SNORD89  FAM171A2  APCDD1L  GPAT2  C3orf70  ZNF425  MCEMP1
## GSM875412 7.753659 4.414032 5.508820 5.972397 4.451247 3.854543 5.170386
## GSM875413 5.506775 5.654113 5.507157 5.026026 4.785603 4.007348 4.878586
## GSM875414 6.152060 5.622994 5.459262 5.458713 4.743154 4.258606 5.157041
##          VPS37D  MIR34AHG  SPC24  STARD7-AS1  PAXIP1-DT  LINC01139  DUBR
## GSM875412 5.565727 7.068970 5.216583 4.691497 6.971544 3.181005 4.001080
## GSM875413 6.594429 7.227405 5.338952 4.902351 7.066945 3.115651 4.655495
## GSM875414 5.804847 6.282634 5.507191 4.600205 6.493128 3.120815 3.941831
##          HNRNPD-DT  ALKBH8  TMEM151A  STRIT1  ZNF567  USP46-DT  DHFR2

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|    |           |              |           |           |            |           |              |          |
|----|-----------|--------------|-----------|-----------|------------|-----------|--------------|----------|
| ## | GSM875412 | 4.034384     | 4.263292  | 5.363675  | 3.378053   | 6.397397  | 4.012364     | 4.663301 |
| ## | GSM875413 | 3.855603     | 4.358581  | 5.448853  | 3.163611   | 6.242026  | 4.031871     | 5.752303 |
| ## | GSM875414 | 3.299502     | 4.335706  | 4.677447  | 3.384622   | 6.178741  | 4.223322     | 4.219596 |
| ## | MTFMT     | ZNF594       | REM2      | KLB       | GAS2L3     | GAS5-AS1  | SPRNP1       |          |
| ## | GSM875412 | 5.534344     | 3.953940  | 4.069835  | 3.348172   | 6.214197  | 3.778973     | 4.272933 |
| ## | GSM875413 | 5.711061     | 3.987033  | 4.380501  | 3.339240   | 5.664216  | 3.900332     | 4.228157 |
| ## | GSM875414 | 5.662097     | 3.955541  | 4.549502  | 3.461440   | 7.909190  | 3.980494     | 4.218045 |
| ## | SRL       | CRIP3        | ZFP3      | SMKR1     | TSLP       | RHOC      | VM01         |          |
| ## | GSM875412 | 5.532799     | 4.764005  | 4.684325  | 4.432684   | 3.815984  | 4.199355     | 5.128394 |
| ## | GSM875413 | 5.682318     | 5.046461  | 5.341549  | 4.797251   | 7.650006  | 4.229565     | 5.606674 |
| ## | GSM875414 | 5.511436     | 5.482263  | 5.410867  | 4.243702   | 3.393688  | 4.087086     | 5.289537 |
| ## | PNMA6A    | PPP3CB-AS1   | TMEM170B  | LIN54     | ZNF182     | CNEP1R1   | RGL4         |          |
| ## | GSM875412 | 4.837171     | 5.087076  | 4.006747  | 3.629146   | 5.840249  | 7.349498     | 4.197202 |
| ## | GSM875413 | 5.751149     | 5.065058  | 4.829782  | 3.992318   | 6.815429  | 8.010162     | 4.346618 |
| ## | GSM875414 | 5.873072     | 5.585848  | 3.356100  | 3.540167   | 5.281612  | 8.036551     | 4.883038 |
| ## | VSTM1     | LOC101927330 | PRELID2   | CAHM      | NKX6-2     | SP5       | KCTD11       |          |
| ## | GSM875412 | 3.385857     | 5.381429  | 7.739296  | 3.583445   | 4.094384  | 6.087532     | 6.251532 |
| ## | GSM875413 | 3.660852     | 4.624452  | 7.309396  | 4.453032   | 4.611197  | 5.843943     | 6.748555 |
| ## | GSM875414 | 3.987573     | 5.017714  | 6.863058  | 3.616436   | 4.427047  | 5.976677     | 6.125319 |
| ## | C9orf85   | LIPH         | PRSS35    | LINC02604 | DCST1-AS1  | MIEF2     | SPNS3        |          |
| ## | GSM875412 | 5.086904     | 7.585834  | 3.453591  | 6.094604   | 4.688461  | 4.916649     | 5.064178 |
| ## | GSM875413 | 5.217045     | 5.664743  | 3.530561  | 6.571698   | 4.437145  | 5.753574     | 5.155769 |
| ## | GSM875414 | 5.198933     | 8.352993  | 3.574594  | 5.837832   | 4.446687  | 4.880439     | 6.266979 |
| ## | UGT3A1    | YPEL4        | LINP1     | NAPA-AS1  | LRRC73     | MIR9-3HG  | HMCN1        |          |
| ## | GSM875412 | 3.918779     | 4.548790  | 4.246925  | 4.895942   | 4.628226  | 4.326929     | 7.326746 |
| ## | GSM875413 | 4.071408     | 4.364469  | 4.560945  | 5.160475   | 5.600746  | 4.934090     | 8.797957 |
| ## | GSM875414 | 4.159717     | 4.809973  | 5.009387  | 5.212722   | 5.444822  | 5.512974     | 5.196362 |
| ## | RIMKLA    | ZNF610       | PLA2G4F   | BHLHA15   | PPDPFL     | FCRL1     | OR2I1P       |          |
| ## | GSM875412 | 5.746062     | 3.679720  | 5.682287  | 5.738367   | 3.551521  | 3.761370     | 3.805314 |
| ## | GSM875413 | 6.109354     | 4.133542  | 5.507262  | 5.308111   | 3.648465  | 3.413358     | 3.808023 |
| ## | GSM875414 | 5.702395     | 3.611060  | 5.056524  | 6.456962   | 3.456729  | 3.634518     | 3.816231 |
| ## | LINC02937 | MKX          | ADAL      | SFR1      | RCOR2      | ASB12     | INKA2-AS1    |          |
| ## | GSM875412 | 4.110664     | 3.943803  | 3.832145  | 7.488856   | 6.250195  | 5.808174     | 4.312220 |
| ## | GSM875413 | 4.057424     | 3.836648  | 5.102050  | 6.956327   | 6.030216  | 6.842827     | 4.493905 |
| ## | GSM875414 | 3.956995     | 4.297851  | 3.753642  | 7.221598   | 5.780462  | 6.828262     | 4.482755 |
| ## | LYPD5     | XAGE3        | PLPP4     | LHFPL1    | LMNTD2     | NHIP      | LOC100128653 |          |
| ## | GSM875412 | 4.173947     | 4.204797  | 4.107815  | 3.579554   | 5.565395  | 3.566504     | 5.746180 |
| ## | GSM875413 | 4.444499     | 4.725266  | 4.546802  | 3.970185   | 5.560123  | 3.886285     | 6.393645 |
| ## | GSM875414 | 4.278096     | 5.332167  | 3.789636  | 3.689303   | 7.530461  | 4.234435     | 6.851527 |
| ## | DQX1      | KDF1         | C2orf81   | CFAP95-DT | ZNF232-AS1 | MOCS2-DT  | ZNF687-AS1   |          |
| ## | GSM875412 | 5.985353     | 6.126679  | 6.381617  | 3.948207   | 3.379074  | 3.734710     | 4.691497 |
| ## | GSM875413 | 4.376662     | 4.870564  | 7.042944  | 3.734077   | 3.403112  | 4.805513     | 4.791004 |
| ## | GSM875414 | 5.651184     | 5.897040  | 7.330855  | 4.095171   | 3.452827  | 3.501407     | 5.699592 |
| ## | BCL2L15   | CAPSL        | ZNF8-DT   | SMIM6     | NAV2-AS6   | LINC01096 | GATA6-AS1    |          |
| ## | GSM875412 | 6.549354     | 3.390827  | 5.009156  | 5.816113   | 4.149934  | 3.650855     | 5.920600 |
| ## | GSM875413 | 4.184416     | 3.870730  | 5.701407  | 5.930006   | 4.227332  | 6.899160     | 4.877308 |
| ## | GSM875414 | 5.163508     | 4.046444  | 5.725815  | 5.489590   | 4.297666  | 3.859462     | 7.035195 |
| ## | SPRR2G    | SNORA37      | HYKK      | PAGE5     | LINC02888  | USP7-AS1  | HERPUD2-AS1  |          |
| ## | GSM875412 | 4.777085     | 4.397825  | 4.982900  | 4.632257   | 3.474594  | 3.620923     | 4.152379 |
| ## | GSM875413 | 4.730640     | 4.312418  | 4.959419  | 4.884031   | 3.515059  | 3.828379     | 3.866030 |
| ## | GSM875414 | 5.210372     | 4.134353  | 5.007248  | 4.485841   | 3.614341  | 3.871845     | 3.639387 |
| ## | LINC02777 | LOC102723692 | LINC01215 | ABCC6P1   | PHOSPHO1   | GGT6      | BTLA         |          |
| ## | GSM875412 | 4.565271     | 4.840013  | 3.400282  | 3.923218   | 4.478628  | 4.897812     | 4.399938 |
| ## | GSM875413 | 5.452866     | 4.613347  | 3.105377  | 3.910032   | 4.411119  | 4.979600     | 4.404226 |

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## GSM875414 4.605167 5.164106 3.160305 4.347254 4.673431 4.747622 5.008773
## LOC100130744 LOC101928762 ODF3L1 GPR199P RBBP8NL ZNF628
## GSM875412 4.099113 5.754841 3.838535 4.940295 5.105600 4.981466
## GSM875413 4.202363 5.573417 4.385468 4.557706 5.074019 5.732152
## GSM875414 4.254669 5.530988 4.284748 4.907887 4.935818 5.967151
## KRBA1 LOC646214 LOC100506563 RDH5 NLRC3 RFESD LOH12CR2
## GSM875412 6.485397 5.525282 4.595842 3.990303 5.592087 3.541536 3.850544
## GSM875413 7.484818 6.012614 5.893383 3.832677 4.409493 3.754876 5.901652
## GSM875414 6.689524 5.412341 4.771748 4.313612 4.784864 3.561310 3.674391
## EPM2AIP1 FBLL1 CCDC17 NECTIN3-AS1 ZNF285 SYCP2L MMAA
## GSM875412 4.468270 4.551169 4.379693 3.961745 4.052418 3.404559 6.475893
## GSM875413 5.800650 5.023670 4.311272 4.504599 5.119612 3.798729 5.991816
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## GSM875413 3.459166 6.270111 4.289458 6.223108 4.504599 4.833490
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## GSM875412 3.640806 3.662563 4.040405 3.912689 4.960699 3.853069 4.379003
## GSM875413 4.980257 4.377017 4.230490 3.895588 4.003319 4.157464 4.582333
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## GSM875412 3.392426 3.570422 4.644743 5.367818 3.710645 3.948977
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## NKAPP1 DEGS2 LOC729683 C6orf52 CCDC183 CFAP95 LOC105369889
## GSM875412 5.293603 5.978605 5.533466 5.364691 4.167381 3.814394 3.640804
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## DPEP2NB FAM193B-DT EPHA2-AS1 HHIP-AS1 GTPBP10 C8orf48 PRH1
## GSM875412 4.137485 4.254325 4.213773 5.254120 3.523493 3.509289 3.236833
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## GSM875414 4.805059 4.273835 5.814529 5.356090 3.842404 3.596641 2.899884
## SLC16A12-AS1 RNF180 TMEM52B CRIM1-DT RPS6KA2-AS1 IQCF6 LRRC10B
## GSM875412 3.484272 3.423872 3.532278 5.673312 4.868142 4.158162 4.978401
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## ATXN7L3-AS1 SDCBP2-AS1 ZNF681 TIFAB LOC388780 LINC02802 FRMPD3
## GSM875412 5.099772 4.727412 3.993056 4.857669 4.548790 7.188519 4.413073
## GSM875413 5.408383 4.378032 3.921044 5.020701 5.430000 7.078768 5.181196
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## RNF151 MIR124-2HG STK4-DT GSG1L LYG1 C1orf87 TOGARAM2
## GSM875412 4.898916 3.704804 4.582940 5.443059 4.951556 3.630272 4.506182
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## GSM875414 4.818457 4.322312 4.866334 5.523215 4.744793 3.788695 4.555853
## LRRC2-AS1 SLITRK1 C3orf80 AJM1 CCDC78 CLIP1-AS1 RASGEF1C

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## GSM875412 3.554451 3.381567 4.171639 5.240929 3.986260 4.067327 4.203065
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## GSM875414 3.872864 3.671620 3.759764 5.333267 4.466228 4.261011 4.691774
## LHFPL3 IQCF2 LINC01233 TPTE2P5 RIPPLY2 MAP3K5-AS1 LINC01943
## GSM875412 3.581237 4.156539 3.466804 4.643655 4.134295 4.289403 5.050026
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## GSM875414 5.352221 3.841175 3.320413 3.938553 4.693058 4.068236
## C12orf56 EFCAB13-DT C19orf18 FBX043 TEX29 LINC00494 LINC01561
## GSM875412 3.558620 3.202036 3.925455 4.215295 4.221667 4.325854 5.880695
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## GSM875412 5.815178 3.265209 3.797019 3.821391 3.415044 3.405225 3.894070
## GSM875413 6.925577 3.292394 4.236824 4.143564 3.468488 3.973771 3.733304
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## LOC100506790 C4orf47 LRRC34 LOC105377663 LINC03006 EVPLL
## GSM875412 4.438208 3.867589 3.285760 3.824423 3.580069 4.885401
## GSM875413 4.504599 4.324611 3.459936 3.449154 3.667428 4.577802
## GSM875414 5.298841 3.750990 3.274090 3.631928 3.806718 4.719341
## HACD4 CCDC182 BOLL C2orf49-DT FAM3D-AS1 MNX1-AS1 CCER1
## GSM875412 3.416290 5.485725 3.841917 4.661872 4.038563 3.627648 4.053785
## GSM875413 3.363780 6.037069 3.823164 5.086008 4.198499 3.694902 4.209498
## GSM875414 3.313492 5.750086 3.919967 4.766418 4.461836 4.543634 4.201222
## TRIM63 LINC03007 C17orf99 ODAFH LINC00582 EIF2AK3-DT
## GSM875412 3.770189 4.309492 5.681826 3.365494 4.541726 4.084314
## GSM875413 3.950219 6.926987 3.950899 3.524724 4.841181 4.150743
## GSM875414 4.201425 4.205314 4.147953 3.831736 5.120422 3.777012
## LOC105370461 DPP3-DT LOC105371046 EMC3-AS1 TMEM217 LOC102723493
## GSM875412 4.731670 5.127623 4.182435 5.821496 3.575791 3.767559
## GSM875413 4.617635 5.009710 4.533169 5.787348 3.849435 3.747574
## GSM875414 4.743287 4.999376 5.309438 5.625282 3.880729 3.980741
## CATSPERD CEP83-DT LSMEM2 LSAMP-AS1 ENO1-AS1 IL34 FAM230C
## GSM875412 3.735184 4.721698 5.142124 4.645756 3.739487 6.610842 3.357101
## GSM875413 3.647951 4.759161 5.682790 5.452645 3.713026 6.879298 3.467099
## GSM875414 3.882151 4.298896 5.666436 4.611486 3.610384 6.349498 3.511410
## LOC105373383 SYNDIG1L ZNF649-AS1 INSC ZNF347 LAMTOR5-AS1
## GSM875412 4.725785 4.641248 3.850369 4.006678 3.477662 4.574551
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## GSM875414 5.897290 4.128127 3.885846 4.170576 3.519900 3.660661
## ACTR3-AS1 LOC105379807 LINC00244 UVRAG-DT LOC101928263 BPIFA2
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## GSM875413 3.581815 6.258344 4.071409 4.006260 5.245740 4.260754
## GSM875414 3.815992 7.161605 3.742782 4.250581 5.605962 4.725310
## LINC01913 LOC101928214 LOC646903 KRT77 RIIAD1 SCARNA2
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## GSM875414 5.665018 3.860529 3.569875 3.600306 5.273819 6.772026
## HSD11B1-AS1 CCDC83 FBN1-DT NKILA NEK5 LOC100507384
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## GSM875413 4.068772 3.390022 3.502684 4.456661 3.520580 3.979418

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## GSM875414      4.743015 3.413624 3.688574 4.510266 3.742442      4.616779
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## GSM875412      4.149175 4.116869 3.167215 4.475523      3.556856      4.024700
## GSM875413      3.964440 4.081189 3.166257 4.445658      3.310651      3.876358
## GSM875414      4.230893 4.024602 3.022054 4.279784      3.916050      3.842940
##              CCDC196 PHKA1-AS1      FSD2 LINC00853 ZFY-AS1      NEK10      GPHA2
## GSM875412 3.198778 3.560964 4.062232 3.905599 3.404424 4.343439 5.117277
## GSM875413 3.390759 3.768972 3.617161 3.964227 3.301855 4.246710 5.134591
## GSM875414 3.446030 3.992730 4.051347 4.794261 3.449402 4.077362 5.163952
##              FAM238B C10orf71-AS1 KCNQ10T1      LRRC71 IGSF11-AS1 SLC5A11 PELATON
## GSM875412 4.990540      3.773376 5.597279 5.657327      3.065903 5.090474 4.527343
## GSM875413 4.987910      4.224827 6.506928 5.772518      3.053692 5.170360 4.389076
## GSM875414 5.638177      5.466187 5.528219 5.731763      3.154784 5.766771 4.578312
##              RAB4B LOC100505978      MEIOB KCNIP2-AS1 LINC03031 LINC03043
## GSM875412 5.585456      4.104727 3.412166      5.822945 4.462447 4.093537
## GSM875413 5.584830      4.152773 3.397718      6.182992 4.754658 3.990741
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##              CFAP100-DT KCNU1 LINC01208      TCTE1 AKAP14 DNAJB8      TGM7
## GSM875412 4.023241 3.620923 5.275756 4.107072 3.390960 4.024145 3.838809
## GSM875413 4.032867 3.653468 5.540404 4.205452 3.371524 4.570219 4.043111
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## GSM875413 3.889159 3.710551 4.391465 3.689605      4.935960 4.008243
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## GSM875413 4.507452 3.580847      4.674033 4.855531 5.153599 4.150757
## GSM875414 4.778407 3.459550      4.144259 5.023251 5.078150 4.077279
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## GSM875413 3.463870 5.336169 5.164711 3.319627 3.505015 4.028706 4.281127
## GSM875414 3.325447 4.696614 5.215241 3.584486 3.834608 4.421480 4.363302
##              LOC102724929 LOC101928462      TTC36 LINC01697 OSTM1-AS1 ACTRT2
## GSM875412      5.820292      3.963755 4.691497 3.609890 3.521507 4.589689
## GSM875413      6.423626      4.179849 5.181373 3.380496 3.841639 5.007344
## GSM875414      6.727805      4.633739 5.643118 3.497107 3.917829 5.997758
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## GSM875412 3.392426 3.475936 3.745954      3.369998 3.640053 3.524335
## GSM875413 3.760057 3.336731 3.744630      3.526329 3.521032 3.607405
## GSM875414 3.953443 3.411493 4.165239      3.850948 3.634518 4.392972
##              LINC02619 FGF14-IT1      TPBGL CYP4Z1 LOC105369746 LOC105370027
## GSM875412 3.061200 3.856140 4.587541 3.309643      4.027363      4.135453
## GSM875413 3.176392 4.177605 4.402714 3.357647      3.714099      4.142096
## GSM875414 3.115499 4.911866 4.534730 3.277307      3.724286      4.329461
##              RSP04 SORCS3-AS1      TEX43 MSANTD1      USP43 ADORA2A-AS1      SP8
## GSM875412 4.872248 4.320487 3.486027 4.276361 5.180656      4.171639 3.087484
## GSM875413 5.137848 4.145712 3.485434 4.323900 4.202363      4.376553 3.164604
## GSM875414 5.116707 4.234544 3.518972 4.165640 4.847361      4.904320 3.124977
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## GSM875412 5.068089 4.187578 6.204439 9.593271 3.163254 3.517616      3.294385
## GSM875413 4.733064 3.862054 6.270081 9.484530 3.118785 3.749623      3.458658
## GSM875414 4.542436 4.291965 5.847589 9.559521 3.287974 4.198513      3.584114
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## GSM875412 3.698776      4.945579 4.747551 3.959068 4.044770 3.970793 3.440951
## GSM875413 3.506618      5.293334 5.075594 3.831469 4.088907 4.241146 3.595219
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## GSM875413 3.595907 3.352279 4.036918 3.523562      4.035096      3.787734
## GSM875414 4.020962 3.500997 3.956890 3.530434      4.165239      3.741786
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## GSM875412      4.231197 3.352735 3.065337 3.408380 3.500902 5.274174
## GSM875413      4.802477 3.611768 3.181558 3.377978 3.681494 5.462877
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##          GABRG3-AS1 LOC100128164 TMEM207 LINC00518 LOC105374621 PPP1R36
## GSM875412      4.683282      3.901747 3.574255 3.198035      4.738284 6.091081
## GSM875413      4.716831      4.040306 4.057966 3.075780      4.756205 5.699911
## GSM875414      4.761791      3.962192 4.067125 3.155609      4.621196 5.924710
##          LINC01815 MIR663AHG BRINP3-DT LINC02221 LOC105377323 LINC02032
## GSM875412 3.214179 3.325324 3.714374 3.457197      3.305800 3.566387
## GSM875413 3.221484 3.186073 3.732668 3.393343      3.380416 3.496840
## GSM875414 3.280166 3.299502 4.033114 3.279631      3.376363 3.396652
##          TEX51 LINC02283 C12orf54 LOC100507513 ZNF705G LOC100507562
## GSM875412 3.942930 4.243900 4.043250      4.083661 3.868159      3.558618
## GSM875413 4.076103 4.500675 4.289356      4.225325 3.889159      3.477964
## GSM875414 3.943557 4.721344 5.344728      4.216348 4.008013      3.796731
##          RGS7BP RRS1-DT TP53TG3HP LINC01010 PRR9 LOC101929341 BGLT3
## GSM875412 3.454725 3.112355 4.601406 4.701563 3.652070      3.375856 4.825347
## GSM875413 7.603375 3.174739 4.737374 4.606050 3.729238      3.471369 4.817893
## GSM875414 3.396054 3.182927 4.642495 4.718808 3.757171      3.622353 4.540096
##          SCGB2B2 TCF4-AS1 CFAP52 LOC100505685 LINC01364 HDAC4-AS1 SLC25A47
## GSM875412 4.068896 3.512690 3.618426      3.463604 3.799547 4.265103 4.171639
## GSM875413 3.964936 3.369099 3.586950      3.945610 4.045084 4.538010 4.637743
## GSM875414 4.187413 3.394713 3.740410      3.958145 3.959816 3.986578 4.826188
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## GSM875412 3.331872      5.263923 3.638177 4.050484 3.901812 4.119960 5.547610
## GSM875413 3.538182      5.146654 3.375600 4.270603 3.734087 3.988424 5.106093
## GSM875414 3.824122      5.615864 3.581538 4.623847 3.928762 4.467627 5.076397
##          LOC729296 SPATA12 LOC105375206 LOC102723786 FAM205C LINC01118
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## GSM875413 3.611768 3.888182      3.289184      4.892045 4.596633 4.224252
## GSM875414 4.682889 4.048415      3.367717      5.004290 4.472231 4.220178
##          LOC100996671 KRTAP10-12 LINC01883 LOC101927098 SOX21-AS1 LOC105374947
## GSM875412      3.710581 4.725131 3.541536      4.097823 3.602782      3.851385
## GSM875413      3.630847 4.031542 3.635139      4.089197 3.497883      4.292577
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##          C3orf22 EDDM13 KRT25 ADAM6 LOC105372695 CAND1.11
## GSM875412 4.454910 4.791451 3.661353 3.948977      4.251949 3.699589
## GSM875413 4.935262 4.945561 3.647431 4.534999      4.333820 4.161509
## GSM875414 4.889116 4.990289 3.669927 4.492064      4.812660 4.337446
##          LOC105377993 C17orf50 SNRK-AS1 LOC105369341 LINC00347 KCTD6
## GSM875412      3.428166 4.717620 3.993056      3.738228 4.304995 5.509689
## GSM875413      3.538981 5.166114 4.138780      3.915588 4.428196 4.786261

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## GSM875414      3.676215 5.556629 4.079146      3.907043 4.608078 5.503422
##      HEPACAM      PGBD2      PRR18      NEMP2      SDR16C5      ALKAL2      CRNDE
## GSM875412 4.050449 5.763575 5.181918 4.346017 8.775036 3.778576 5.344013
## GSM875413 4.474178 5.585009 4.731380 4.252553 3.790245 3.943479 5.328261
## GSM875414 4.703708 6.589714 4.996709 4.089509 9.026239 3.866860 6.851655
##      MLKL C6orf132 SLC16A14 CD2BP2-DT SCAMP1-AS1      TMEM65 ARHGAP36
## GSM875412 7.649365 7.059747 4.569729 3.816673 6.128801 4.964843 3.209086
## GSM875413 6.463354 4.681534 3.965270 4.078199 7.432539 5.421175 3.415069
## GSM875414 7.439041 6.599168 5.512992 4.465514 5.426876 5.002666 3.194841
##      ATP8B1-AS1 PRR34-AS1 B4GALNT4      LGI3      GPIHBP1      TMEM154      RBP7
## GSM875412 5.668254 7.374130 3.842813 5.976391 5.081044 4.645671 4.702228
## GSM875413 6.137608 7.120473 4.351743 6.178615 5.176642 4.727891 5.113661
## GSM875414 5.544503 6.796514 4.867710 6.497673 5.458774 4.238725 5.295194
##      LCN10 PDE6B-AS1 RPH3AL-AS1 LOC101928728      GATA5      RNF227 GAS6-AS1
## GSM875412 5.300473 4.074508 3.506783      3.948532 4.258503 5.820335 4.522895
## GSM875413 6.545805 4.029621 3.780107      4.353935 4.365517 6.017381 5.002244
## GSM875414 5.269949 4.168266 3.732907      4.534847 4.650035 5.462863 4.241588
##      SMIM31 LINC00106 SMIM2-AS1 DYNLRB2      RBM12B ADAMTS16      SHISA7
## GSM875412 9.055750 6.841623 3.891692 3.409685 4.754446 4.967103 4.838308
## GSM875413 3.564378 6.768215 4.092330 3.835121 5.249391 4.874201 5.041046
## GSM875414 5.347771 6.641319 4.279576 3.769264 4.424931 4.757053 5.814786
##      LINC02361 ZNF818P      MEIG1      ACOT12 PDZRN3-AS1 LOC101930112
## GSM875412 5.143731 4.692110 4.070427 3.170276 4.643790      5.049003
## GSM875413 5.152150 5.357922 4.005945 3.390120 5.306757      4.971582
## GSM875414 5.155281 5.862722 3.642692 3.266070 5.246812      6.265653
##      MUC12-AS1 LOC105377436      TEX44 IBA57-DT      DGKK      FAM240C      COX3
## GSM875412 5.988225      3.683441 4.890321 3.817756 4.572755 3.549908 9.964713
## GSM875413 6.252730      3.749971 5.130132 4.164618 4.503724 3.666122 9.298578
## GSM875414 6.176372      3.927589 5.551610 4.691655 4.598458 3.921619 8.033746
##      LOC105376975 DCAF12L1      CASC16 MIR5188      LRRC69 SLC6A18      OOE
## GSM875412      4.658660 3.671068 3.857236 3.466804 4.653336 5.170551 5.256579
## GSM875413      4.648626 4.773143 4.169773 3.279161 5.381476 5.005389 5.196649
## GSM875414      4.706468 3.497577 3.964589 3.144386 4.428749 4.865744 5.257704
##      C12orf50      GKN2 TMEM255B LOC100130964 EPHA5-AS1      ENPP7 TMC3-AS1
## GSM875412 3.431417 9.131158 5.146263      3.251902 5.186876 5.026117 4.417442
## GSM875413 3.596763 7.811428 5.400478      3.243139 5.192315 5.763065 4.790071
## GSM875414 3.715209 6.879365 5.651427      3.411292 5.696640 6.885594 4.646281
##      LOC101927499 DYRK3-AS1 LINC02264 TMEM270      SPDYA LOC101928236
## GSM875412      3.555479 3.664709 3.435500 3.627178 3.466804      4.723463
## GSM875413      3.903893 3.442746 3.353354 3.952338 3.289120      4.752363
## GSM875414      3.866030 3.822697 3.630909 4.047180 3.287651      4.678554
##      LINC00635 LINC02269 SLC7A13 PHC2-AS1 GLIPR1L1 LINC00845      SPRN
## GSM875412 3.505433 3.577541 3.234214 4.588534 3.471484 3.529095 5.056449
## GSM875413 3.641298 6.031381 3.215073 4.912899 3.543321 3.566121 5.216655
## GSM875414 3.468496 4.312101 3.360955 4.832031 3.707292 3.569933 5.020064
##      RASL11A LINC00672      GLI4      ARMH1 LINC01607 C6orf58 LINC00226
## GSM875412 4.389913 4.545219 3.712940 3.567349 3.731617 6.127073 3.534261
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## GSM875414 4.368618 4.015139 3.744890 4.047576 3.977271 3.953204 3.264046
##      RRN3P3 LBX2-AS1 TMEM130 TMEM71 DLGAP1-AS1 ANKRD22      CLYBL
## GSM875412 7.386907 5.691345 4.093514 4.880338 7.287648 8.172814 6.852749
## GSM875413 7.033292 5.639929 4.666952 5.319126 7.734883 4.922680 6.672990
## GSM875414 8.099009 6.671620 4.338622 4.544648 6.037527 8.986524 5.315817
##      FCRLB      FGFBP3      ZNF540 LOC100289230      MICU3      FAM83A ANKRD36

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## GSM875412 4.081005 3.615800 3.920713      5.604508 3.584988 4.709973 3.723888
## GSM875413 4.963611 4.050636 6.486185      6.301438 7.064402 4.157961 3.323625
## GSM875414 4.744778 3.622887 4.061043      3.933381 3.423969 4.350100 3.356681
##          SETD9 KMT2E-AS1 IQCH-AS1 TAF1A-AS1 SDHAF4 KRBOX5 UBL7-DT
## GSM875412 5.996597 5.483024 5.871077      4.017232 6.172393 7.480874 5.325450
## GSM875413 3.897105 5.495376 6.051689      4.089861 5.923993 7.061635 4.745195
## GSM875414 5.826570 5.306146 6.341540      4.112138 5.216554 6.264855 5.184095
##          GLYCTK HEXIM2 CHKB-DT AFTPH-DT JAKMIP1 ZNF296 LINC02562
## GSM875412 6.704481 3.791387 5.151115      4.212891 4.358121 4.733783 4.107211
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## GSM875414 6.430003 5.112652 5.277662      5.815680 4.590159 5.558223 4.063823
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## GSM875412 5.556255 5.423297 4.484858      4.094477 5.212835 3.945951 5.903220
## GSM875413 5.385454 6.064375 4.703399      5.057529 5.460038 4.584992 6.492418
## GSM875414 5.470470 6.811581 5.361019      4.423727 5.813266 4.065574 6.070477
##          SMIM10L2A SPTSSB SLX9 COL24A1 IPMK PTGES3L RASSF10
## GSM875412 3.358325 4.334795 4.533893      3.356275 5.643395 3.864650 4.597046
## GSM875413 4.118404 4.033796 4.399045      3.360617 5.174016 3.611116 3.920626
## GSM875414 3.636613 3.806692 5.083096      3.351806 4.847835 3.726759 4.117755
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## GSM875413 4.851061 6.484130 4.094235      3.793091 5.399652 4.848133 4.530615
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##          ACY1 PABPC4L ZSWIM9 LINC02731 LINC00513 PARTICL ATP2B1-AS1
## GSM875412 4.619126 3.978908 5.785146      4.284336 3.298040 5.616372 6.423309
## GSM875413 4.956866 8.346560 6.269153      4.282134 3.229173 5.590412 8.772647
## GSM875414 5.068860 4.241032 6.221814      4.535988 3.180091 6.034249 5.603979
##          FOXF4-AS1 LINC01133 ZNF780A BMS1P1 LINC01679 LOC105373754 ZNF420
## GSM875412 5.341171 3.674090 4.402146      5.541081 4.772890 3.620247 4.728509
## GSM875413 5.645199 3.667810 4.067652      4.388803 4.793950 3.530070 4.964777
## GSM875414 5.123728 3.792974 4.263455      4.867357 4.651468 3.632921 4.536920
##          FIBCD1 LOC100505715 SP2-AS1 RFTN2 HPS1-AS1 TRIM61 PSORS1C3
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## GSM875413 6.301340 7.755247 4.089372      5.692247 4.853099 3.634454 3.859507
## GSM875414 6.757179 5.983821 3.929314      5.729230 5.260864 3.684167 4.267512
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## GSM875413 3.745664 4.746231 5.940965      4.570035 3.997777 4.729856
## GSM875414 3.511913 3.674834 3.317236      4.630741 3.947701 5.479316
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## GSM875412 3.675453 3.675710 4.623890      4.266301 5.103954 3.469251 3.340676
## GSM875413 3.945735 4.051431 4.723667      5.051272 5.186801 3.159785 3.356180
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## GSM875412 4.484448 5.686898 5.072099      4.700444 4.883265 3.725701
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## GSM875414 3.919664 4.186512 5.219929 4.851339 4.136782 4.974936
## TRG-AS1 BANC R TMEM123-DT LOC105375785 CRYZL2P LLOXNC01-250H12.3
## GSM875412 5.446756 4.451247 4.318718 5.203994 5.776320 4.912339
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## LINC01857 NRSN1 DDI1 MAP3K2-DT CSKMT LRRC4B PTMAP11
## GSM875412 4.196756 4.163436 3.405936 5.642869 5.167458 3.842952 3.589306
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## GSM875414 3.983464 4.175640 3.310232 4.906767 5.052026 4.158393 3.592012
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## MARCHF11 LYPLAL1-AS1 LINC01554 HAVCR1P1 ARRDC3-AS1 LOC105376139
## GSM875412 3.951330 4.154527 4.036050 5.155219 5.400714 3.658995
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## GSM875414 4.091396 4.548587 4.247374 5.413514 5.201391 4.367063
## FLJ45513 LINC01187 GPC2 IGFL1 LOC100506858 LOC728024
## GSM875412 5.043174 3.671799 4.451247 3.956934 5.109097 4.397867
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## NDUFV2-AS1 FLACC1 ZNF284 PAK6-AS1 EFHB LOC105375382 ZNF708
## GSM875412 4.697434 3.763506 5.513035 3.746648 3.226043 3.099398 3.954614
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## LINC00608 FLJ16779 MELTF-AS1 TRARG1 LOC102723904 HS3ST6 LMO7DN
## GSM875412 3.367060 3.729562 4.698035 5.359482 5.166863 4.515322 3.727057
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## GSM875414 3.651296 3.779596 4.506603 5.607730 5.907722 5.030107 3.628289
## GRK3-AS1 LOC101927603 FZD10-AS1 OPALIN EPHX4 LINC02388 TMEM213
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## GSM875412 3.921085 4.133953 4.044964 4.935295 3.647537 3.575630 5.283881
## GSM875413 4.095636 3.842729 4.508886 5.248965 3.612760 3.401673 5.094167
## GSM875414 5.652824 4.057253 4.459451 5.058756 3.853028 3.512915 5.273184
## CHST13 NCKAP5 LHFPL3-AS2 FOXO6 LOC441179 LOC101928120
## GSM875412 4.057237 2.981533 5.890200 6.031154 3.798591 5.111720
## GSM875413 4.396936 3.299899 6.159567 6.204091 3.392119 5.825926
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## LINC00900 LINC02909 CFAP20DC SLC5A10 LSP1P4 ZGLP1 C5orf49
## GSM875412 3.885046 3.325220 4.265103 4.573448 4.548790 5.770790 3.605284
## GSM875413 5.009710 3.226759 3.391598 4.809327 4.263601 6.239630 3.560358
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## FAM47C DYDC2 LINC01214 DACH2 LOC286437 ITPR1-DT LOC101927609
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## GSM875414 3.940904 3.909800 3.837916 3.084207 5.573376 3.417787 3.975976
## LINC00545 DZIP1L KCTD4 LINC02703 LINC01354 KBTBD8 SYCE3
## GSM875412 3.966596 5.426972 3.821429 5.451773 3.429579 4.636155 3.779596
## GSM875413 4.052691 5.840311 3.839460 5.801902 4.043212 5.108280 4.150309
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## LOC105374937 FHIP1A-DT SPATS1 LOC105376301 LINC01114 UBE2E2-DT

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|    |              |              |              |              |           |           |             |
|----|--------------|--------------|--------------|--------------|-----------|-----------|-------------|
| ## | GSM875412    | 5.056926     | 4.649333     | 4.154155     | 6.168551  | 4.170557  | 4.079503    |
| ## | GSM875413    | 4.174618     | 4.725758     | 4.021086     | 5.878936  | 4.146432  | 4.002382    |
| ## | GSM875414    | 4.058364     | 4.968612     | 4.296555     | 5.839794  | 4.918099  | 4.105548    |
| ## | LINC03002    | LOC101928554 | NEBL-AS1     | LINC03011    | SLC10A4   | HOXA-AS3  | COL28A1     |
| ## | GSM875412    | 4.455256     | 3.770544     | 4.076309     | 4.897987  | 3.170970  | 4.856642    |
| ## | GSM875413    | 4.522142     | 3.565633     | 4.249980     | 7.939036  | 3.099908  | 5.124394    |
| ## | GSM875414    | 4.432671     | 3.500706     | 4.638450     | 5.491185  | 3.162925  | 5.757425    |
| ## | CCDC142      | PCF11-AS1    | PM20D1       | LINC00313    | SLIT3-AS1 | HLA-DPB2  | CLCA4-AS1   |
| ## | GSM875412    | 4.036762     | 5.865916     | 3.586769     | 4.081005  | 3.872433  | 4.122893    |
| ## | GSM875413    | 4.293495     | 5.164320     | 3.411857     | 4.233037  | 4.490126  | 3.644828    |
| ## | GSM875414    | 4.384842     | 4.661042     | 3.404378     | 4.472164  | 4.179856  | 3.812860    |
| ## | LOC105377844 | LOC102723458 | LOC390705    | LOC101928014 | FSIP2     | C11orf94  |             |
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| ## | GSM875412    | 3.950121     | 3.889261     | 3.682433     | 5.598508  | 4.088000  | 3.486328    |
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| ## | LINC00323    | PPP1R3B-DT   | TIGIT        | FHAD1-AS1    | SPEM2     | MEG8      | ATP6VOD1-DT |
| ## | GSM875412    | 3.341368     | 4.430773     | 5.048100     | 3.385368  | 3.117648  | 3.632792    |
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| ## | GSM875414    | 3.326032     | 5.633526     | 4.907066     | 4.017687  | 3.472387  | 4.418076    |
| ## | PSMA8        | LOC100506236 | LINC02036    | STAM-DT      | PPM1F-AS1 | FBN3      | TEPP        |
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| ## | GSM875413    | 3.224966     | 3.608826     | 3.666227     | 3.423133  | 5.392530  | 4.482317    |
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| ## | GSM875413    | 4.908759     | 3.334358     | 3.384522     | 4.507729  | 3.391694  | 3.501954    |
| ## | GSM875414    | 5.054615     | 3.375605     | 4.025618     | 4.554604  | 3.436277  | 3.528791    |
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| ## | GSM875413    | 4.987157     | 4.231656     | 3.989437     | 5.082904  | 4.600564  | 5.269224    |
| ## | GSM875414    | 4.674589     | 4.902266     | 3.508556     | 5.085780  | 4.944287  | 5.460861    |
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| ## | NANOS3       | LOC389895    | DMRTB1       | C9orf57      | AFMID     | RNF212B   | HBM         |
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| ## | SPATA3       | LOC102724030 | LOC105374118 | LOC101929609 | BPIFA3    | FARS2-AS1 |             |
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| ## | GSM875412    | 3.558208     | 3.708300     | 3.729226     | 4.207353  | 3.639566  | 5.304855    |
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## GSM875414 4.510100 3.943805 5.819081 4.026758 3.666300 3.364976
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## GSM875413 3.635036 4.267861 4.902881 4.067243 4.835624 3.971232 3.781800
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| ## | SERTM1       | KLHL23       | LOC105373618 | C1GALT1C1L   | CBY3         | ACP4         | SRFBP1   |
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## LOC101927608 LOC101929255 LOC105375038 NRG4 ZNF600 GAPLINC
## GSM875412 5.357585 3.505433 4.490228 3.718856 8.202234 4.248900
## GSM875413 5.805837 3.192967 4.143111 3.690764 4.910850 4.167368
## GSM875414 5.662084 3.409082 4.052172 3.659698 7.528401 4.126000
## EID2B UBXN7-AS1 DHDDS-AS1 RBM46 KISS1R TCF24 SH2D6
## GSM875412 3.700229 3.720049 4.111601 3.178182 4.027194 3.041607 5.604238
## GSM875413 4.654488 3.712935 4.298163 3.134256 3.935545 3.038504 5.938530
## GSM875414 3.748602 4.378111 4.457191 3.204460 4.033037 3.074481 6.235657
## MAP3K15 GPR137C TSSK4 HEPACAM2 CFAP100 CRADD-AS1 HMGN2P46
## GSM875412 3.918064 3.413473 4.096116 4.596017 4.940666 3.445383 5.279471
## GSM875413 3.768092 3.599882 4.064752 4.108173 4.977420 3.665239 4.395335
## GSM875414 3.608308 3.251912 4.221715 3.731073 5.030406 3.716884 5.102140
## MALRD1 PIK3IP1-DT LOC105376717 LINC00668 GLYCTK-AS1 MAP3K5-AS2
## GSM875412 3.355722 4.139024 3.522691 4.850222 4.009382 3.599519
## GSM875413 3.786299 4.649594 3.403112 5.023658 4.022371 3.602006
## GSM875414 3.413280 4.355810 3.747650 4.816161 4.193403 3.807120
## LOC105374869 PELP1-DT LOC105377134 LINC01424 PGLYRP2 LOC102723847
## GSM875412 4.282703 3.654697 3.819846 3.505433 3.958974 5.305305
## GSM875413 4.551392 3.823588 4.185271 3.493061 4.349399 5.697709
## GSM875414 5.053784 3.690502 3.531679 3.397141 4.637362 5.442688
## TEX53 LINC02708 BCAN-AS1 LOC105372179 KLRK1-AS1 OTOS LOC440570

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## GSM875412 3.626496 4.338908 5.041443 3.888274 4.261763 4.126572 3.715372
## GSM875413 3.708266 4.550536 4.438346 4.082456 4.381463 4.013203 3.627295
## GSM875414 4.336596 4.279687 5.039847 3.863841 4.500971 4.474346 3.541817
## PRRT3-AS1 LURAP1L-AS1 CYMP POTEM LOC105378044 NOMO3
## GSM875412 4.793441 3.085162 4.969177 5.288187 4.043497 6.676978
## GSM875413 4.779376 3.078457 5.023243 5.334046 3.903541 6.425117
## GSM875414 5.515185 3.176214 5.073647 6.587424 4.126973 6.409708
## RNF148 LOC101928409 LOC101059948 VWCE LAMA5-AS1 DCST2
## GSM875412 3.728528 4.334149 3.908973 5.221287 5.656494 3.722959
## GSM875413 3.987668 6.236308 4.029621 5.248965 5.788883 4.326231
## GSM875414 4.065091 4.587229 4.308602 5.875935 6.608571 4.722163
## RDH12 USP27X-DT BBOX1-AS1 IGSF5 LINC02400 CECR7 LINC01551
## GSM875412 4.789319 4.053108 5.799356 3.671253 3.740557 4.066029 4.342377
## GSM875413 4.497015 4.340125 3.558446 4.025576 3.619233 4.353462 4.616696
## GSM875414 4.546255 3.835828 4.098293 3.779596 3.779596 4.360309 4.707845
## DNAI3 PAN3-AS1 LOC105371079 LOC105369308 XKR7 ZFP28-DT
## GSM875412 3.459939 4.658404 4.683752 4.737547 4.526612 3.704260
## GSM875413 3.930561 4.455971 4.359001 4.464831 4.530141 4.268991
## GSM875414 3.822282 4.565152 4.427534 4.881531 4.950543 4.529188
## NPW PIP5KL1 PACRG-AS3 RRN3P2 FAM24A LINC03008 UTS2B
## GSM875412 3.579645 5.341772 4.121004 6.184194 3.900694 4.877601 3.604303
## GSM875413 3.840245 5.324634 4.032913 4.662349 3.714648 4.805158 3.495149
## GSM875414 6.860853 4.894673 4.077803 6.106332 3.766607 4.984238 3.573083
## ZNF283 LOC105371693 LINC02303 RPL36A ACTL9 LOC105376489
## GSM875412 3.993056 3.948977 3.541536 4.449280 3.706999 4.382748
## GSM875413 3.654560 4.014473 3.686287 4.902715 4.271536 4.468026
## GSM875414 3.956360 4.093413 4.068072 4.225839 4.579823 4.569992
## RBM33-DT SLC38A11 LOC105375282 LOC100506446 LOC105379385 LOC101929719
## GSM875412 5.058161 4.734970 3.986127 3.948977 3.851193 4.777144
## GSM875413 5.030464 4.071073 3.888529 4.128887 3.815967 4.248550
## GSM875414 4.641883 6.395892 3.886056 3.956890 3.720599 4.292046
## LINC00482 PATE2 FAM205A LOC101593348 TNS2-AS1 C1QTNF12 PIERCE2
## GSM875412 5.741648 4.116826 4.265863 4.274951 5.813284 5.225318 4.507656
## GSM875413 6.134936 4.047928 4.440443 4.366816 5.884497 5.074632 5.277453
## GSM875414 5.746115 4.617233 4.308194 4.681880 5.401681 6.532481 6.436476
## LOC105370569 DEFB132 LINC02918 FREM3 LOC105375769 DARS1-AS1
## GSM875412 4.498708 3.138198 4.939213 3.251434 3.779596 4.171639
## GSM875413 4.884031 3.115184 4.900350 3.311405 3.864735 4.160128
## GSM875414 4.261966 3.220141 4.504663 3.481650 4.606486 4.229608
## LEF1-AS1 LINC00280 TMC05B LINC02517 LOC101928557 LOC105370291
## GSM875412 3.564445 3.556651 3.522550 4.455365 4.317717 3.171511
## GSM875413 3.621275 3.879453 3.758656 4.632502 4.699491 3.064785
## GSM875414 3.711695 4.104588 3.524722 5.112001 5.025631 3.146866
## ZNF418 SIX3-AS1 LINC02350 TBX18-AS1 G2E3-AS1 AKAIN1 ZXDA
## GSM875412 4.210659 3.990513 3.581779 3.189751 3.858082 3.240493 4.832310
## GSM875413 4.658280 4.039205 3.790650 3.377978 3.626289 3.329206 6.218839
## GSM875414 4.893848 4.617058 3.611060 3.612988 4.033073 3.383651 5.295194
## MARS2 CC2D2B SANBR LINC00921 LOC105378067 LOC100422526
## GSM875412 5.741171 5.209324 7.140700 3.880186 3.708508 3.176364
## GSM875413 4.743471 6.087582 6.716436 4.024979 3.699139 3.284089
## GSM875414 4.986429 6.145178 5.733528 4.101130 3.752318 3.309436
## LOC105377730 SPACA3 KIF23-AS1 PRAP1 LOC102723678 MIDEAS-AS1
## GSM875412 4.836777 4.230864 5.758760 7.198761 5.299990 4.085935
## GSM875413 4.835856 4.107382 6.089244 5.416317 6.211074 4.502151

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## GSM875414      5.046170 4.681216 6.258861 6.325735      5.154583 4.297666
##      LINC00881 LOC100507006 FAM47A TMEM132E RIPOR3-AS1 LINC01887
## GSM875412 3.658653      4.685231 3.320347 4.177239      5.834730 4.085292
## GSM875413 4.131400      5.016535 3.216025 4.465311      5.957871 4.815653
## GSM875414 4.708195      5.211767 3.756618 4.632817      6.254728 4.031258
##      PYDC1 LOC101929109 LOC105372485 LOC105371734      VWC2 NET01-DT
## GSM875412 4.126572      3.443723      5.709451      3.820020 3.128296 3.467247
## GSM875413 4.497865      3.568326      5.454693      3.871224 3.134973 3.689993
## GSM875414 4.380543      3.434929      4.642101      4.039572 3.273553 4.051813
##      KLHDC7B-DT PSLNR LOC105374428 LOC105369705 LOC100272217 LINC02419
## GSM875412 4.143225 4.009014      3.597649      3.580938      3.255070 3.261982
## GSM875413 4.439408 3.929472      3.651197      3.519297      3.276007 3.557064
## GSM875414 4.840139 3.753481      4.126973      3.812194      3.178482 3.337244
##      C11orf97 LINC00968 PGBD4 SFTA1P LINC02511 LANCL3 WAKMAR2
## GSM875412 4.126158 3.620923 4.297594 4.266883 3.361337 3.348130 3.528138
## GSM875413 4.188263 3.522306 4.352192 4.507085 3.438120 3.239636 3.346909
## GSM875414 4.336596 3.526365 4.417523 5.278362 3.436955 3.065106 3.281807
##      TMCC2-AS1 TEX26 WDR38 LINC00680 LINC00877 UBE2Q2P13 POU2F2-AS1
## GSM875412 3.297801 3.358345 5.154408 3.678415 3.987618 4.100057 4.161032
## GSM875413 3.572952 4.212084 5.448713 3.776668 4.229700 5.059927 4.481590
## GSM875414 3.587731 3.499723 5.580072 2.971337 4.057253 4.297666 4.267690
##      LOC105371485 IL6-AS1 LOC105375771 KRT222 LOC105375571 SFTA2
## GSM875412      3.949094 4.614233      5.071555 3.256418      3.840076 6.467027
## GSM875413      4.063387 4.639868      4.953106 3.270907      3.892210 3.728721
## GSM875414      4.036407 5.079522      5.119369 3.310824      4.127368 4.993063
##      LRRC72 AIFM3 MIOS-DT LINC00551 LOC105378146 PEX11G GLIS1
## GSM875412 3.634970 5.414902 3.351809 3.267000      3.884293 6.281226 4.323434
## GSM875413 3.774385 5.414277 3.845152 3.152733      3.942922 6.288494 4.237396
## GSM875414 3.923429 5.610992 3.301550 3.446724      4.642093 6.390562 5.050306
##      LOC105372766 PINX1-DT MIR670HG LOC101929154 IQCJ-SCHIP1-AS1 FAM223B
## GSM875412      4.975115 3.895949 4.819216      3.539602      4.942761 5.274439
## GSM875413      4.924274 4.455462 5.093246      3.645293      5.096453 5.705453
## GSM875414      5.010994 4.165239 5.116368      4.136873      5.550573 4.859370
##      LOC105373334 LIN28B-AS1 ZNF793 LOC101929536 LBX1-AS1 SYT6
## GSM875412      4.862671 4.965689 4.846820      5.512624 4.526815 3.694492
## GSM875413      4.948831 5.096653 5.366140      5.958986 4.633372 3.791037
## GSM875414      5.043749 5.485546 4.956803      5.452275 4.571028 3.544621
##      LINC02218 HSPA2-AS1 LOC102723657 LOC105375707 ZNF300P1 FAM95C
## GSM875412 3.825117 3.715091      3.720593      3.181632 3.776959 3.775508
## GSM875413 3.831902 3.454882      3.940915      3.203742 4.947682 3.748433
## GSM875414 3.694778 4.043431      3.823843      3.430623 3.993620 5.565082
##      LOC102724593 LOC105375602 C17orf98 LINC00690 TRAM1L1 LOC105378515
## GSM875412      4.987640      4.271192 3.562629 3.489466 4.738284      3.183787
## GSM875413      4.942945      4.221860 3.973449 3.414152 5.263120      3.399961
## GSM875414      5.223694      4.444114 3.928258 3.590700 4.416458      3.690512
##      LINC02091 LINC01799 ANO7L1 CCDC154 S1PR1-DT BTG1-DT KLLN
## GSM875412 4.589594 3.378295 5.085552 5.466437 3.580069 5.887374 4.738284
## GSM875413 4.668674 3.533104 5.753574 5.673937 3.579952 6.982516 4.781601
## GSM875414 5.506606 3.425103 5.081955 5.648180 3.603179 6.912265 4.940497
##      INSYN2A MYCNUT SMAD1-AS2 TMEM225 SHISA8 PINK1-AS THBS3-AS1
## GSM875412 3.283329 4.230267 3.496807 3.951184 4.275658 4.421980 4.257926
## GSM875413 3.133922 4.281289 3.465108 3.911232 4.138826 4.188690 4.248472
## GSM875414 3.088267 4.594929 3.676953 3.784860 4.332850 5.403081 4.791851
##      PYCARD-AS1 LOC100130452 KCTD19 BCDIN3D-AS1 ZNF788P LINC01927

```

```

## GSM875412 4.763978 4.404874 5.069434 4.034384 4.074520 4.795879
## GSM875413 4.808886 4.411709 5.708179 4.105104 5.711904 4.938820
## GSM875414 5.328559 4.512172 5.243717 3.753438 4.094666 4.938665
## HMX2 CFAP418 KIF1C-AS1 LINC02624 LOC100996583 MIR4307HG
## GSM875412 3.610654 5.186421 4.337047 3.959704 4.388487 3.455968
## GSM875413 3.896565 5.685351 4.756858 4.088678 3.920208 3.563959
## GSM875414 4.706369 5.452975 4.742195 4.111145 5.789710 3.605358
## BCL10-AS1 ZNF850 LINC02844 FAM9C ARLNC1 NUP210P1 CYP4F22
## GSM875412 3.707223 3.585111 3.603877 3.516866 5.190512 4.067348 3.872485
## GSM875413 3.457997 3.731959 3.751915 3.866030 5.074624 4.411709 4.287296
## GSM875414 3.603004 6.688101 3.624243 4.262644 5.545244 4.227069 4.215497
## IGLON5 LINC00595 POT1-AS1 LOC105370890 LRGUK TMIGD2 DMRTA1
## GSM875412 4.933806 4.490642 3.375475 4.666926 3.936772 6.921117 4.691497
## GSM875413 9.221871 4.513753 3.542417 5.484921 4.496548 7.027652 4.511010
## GSM875414 5.685886 4.366436 3.535722 5.264882 4.320511 7.261120 4.928787
## ODC1-DT CCDC54 ZNF667-AS1 ZBED9 KBTBD12 LINC02109 TEX36
## GSM875412 3.813498 3.680587 5.280233 3.653424 5.798111 3.304167 3.510384
## GSM875413 4.029621 3.487605 8.181998 3.564493 3.775388 3.587939 3.536877
## GSM875414 4.176574 3.501656 4.546473 5.037781 3.948026 3.630946 3.573331
## MTCP1 LINC01159 PARP11-AS1 LINC01563 CCDC63 LINC01731 NQO2-AS1
## GSM875412 3.979074 4.323913 4.789417 3.956788 4.950447 4.805657 3.628082
## GSM875413 4.233037 4.235506 4.496798 4.790073 5.073043 5.131461 3.997656
## GSM875414 4.141490 4.777222 4.731442 4.545535 5.112198 5.671191 4.504464
## ITGB1-DT TNFRSF10A-DT LOC400499 GALR3 NUS1P3 ZNF710-AS1 SAP25
## GSM875412 4.604713 4.789988 6.215746 5.572143 5.131955 5.635119 7.077564
## GSM875413 4.663291 4.659798 6.409115 5.515512 4.073641 5.987281 6.919957
## GSM875414 4.841796 5.085164 6.224424 5.764967 4.391609 5.083208 8.790297
## TMEM231 LOC100505915
## GSM875412 4.801471 7.477163
## GSM875413 6.777188 6.498500
## GSM875414 3.960167 8.466902

```

## differential genes expression analysis

Genes with P value less than 0.05 and  $|\log_{10}FC|$  value greater than or equal to 1 were taken as differential expression genes.

```

library(tidy)
library(limma)

new_GC <- t(data_GC[,-1])
group_GC <- data_GC[,1]

new_GC <- new_GC %>% data.frame(stringsAsFactors = FALSE) %>%
  data.matrix()

design <- model.matrix(~0 + factor(group_GC))
colnames(design) <- c("control", "treat")

rownames(design) <- colnames(new_GC)
contrast.matrix <- makeContrasts(treat - control, levels = design)

fit <- lmFit(new_GC, design)

```



```

fit_2 <- eBayes(contrasts.fit(fit, contrast.matrix))
temoutput <- limma::topTable(fit_2, n = Inf, adjust = "fdr")
temoutput <- na.omit(temoutput)

temoutput <- dplyr::mutate(temoutput, g = ifelse(temoutput$adj.P.Val < 0.05 & abs(temoutput$logFC) >= 1

temoutput

```

| ##             | logFC       | AveExpr   | t          | P.Value      | adj.P.Val    |
|----------------|-------------|-----------|------------|--------------|--------------|
| ## FIGNL1      | 1.06577292  | 5.530174  | 9.1049253  | 1.664299e-13 | 1.453495e-09 |
| ## PRIMA1      | -1.78619674 | 6.648593  | -9.0176135 | 2.406516e-13 | 1.453495e-09 |
| ## KIF18A      | 1.34493749  | 5.038626  | 8.9833663  | 2.781315e-13 | 1.453495e-09 |
| ## TYMS        | 1.31971703  | 7.252157  | 8.9824626  | 2.791960e-13 | 1.453495e-09 |
| ## JAM2        | -1.35460091 | 6.882721  | -8.8635307 | 4.617226e-13 | 1.922982e-09 |
| ## NFYA        | 0.72609805  | 6.425544  | 8.6839110  | 9.880203e-13 | 3.429089e-09 |
| ## TMEM100     | -2.08214504 | 6.638810  | -8.6061687 | 1.373716e-12 | 4.086607e-09 |
| ## CDCA5       | 1.20326971  | 6.835160  | 8.4815726  | 2.330372e-12 | 5.986338e-09 |
| ## SCN4B       | -0.98240824 | 4.935990  | -8.4346273 | 2.844085e-12 | 5.986338e-09 |
| ## SETBP1      | -1.57421090 | 6.657249  | -8.4321020 | 2.874730e-12 | 5.986338e-09 |
| ## CENPN       | 1.25134991  | 7.255170  | 8.3690856  | 3.756276e-12 | 7.110971e-09 |
| ## MCM2        | 1.03679673  | 8.132370  | 8.3428783  | 4.198299e-12 | 7.285448e-09 |
| ## TCF21       | -1.38144148 | 7.001722  | -8.3195126 | 4.636103e-12 | 7.426323e-09 |
| ## CKS1B       | 1.06899885  | 9.368021  | 8.2750334  | 5.599725e-12 | 8.329190e-09 |
| ## FXYD1       | -1.28964438 | 6.554763  | -8.2179257 | 7.136322e-12 | 9.907118e-09 |
| ## NCAPD3      | 0.71951575  | 7.591715  | 8.1312487  | 1.031141e-11 | 1.337622e-08 |
| ## ANP32E      | 1.17444237  | 7.103161  | 8.1177463  | 1.091989e-11 | 1.337622e-08 |
| ## FAXDC2      | -1.17106226 | 6.075462  | -8.0825379 | 1.268079e-11 | 1.467027e-08 |
| ## UBE2S       | 1.28226330  | 8.169793  | 8.0610073  | 1.389473e-11 | 1.494157e-08 |
| ## CHEK1       | 1.15448230  | 5.354582  | 8.0534088  | 1.435033e-11 | 1.494157e-08 |
| ## ADH1B       | -3.19032739 | 7.907062  | -8.0144480 | 1.693184e-11 | 1.678994e-08 |
| ## SNRPC       | 0.41548411  | 9.028921  | 7.9320227  | 2.402554e-11 | 2.169798e-08 |
| ## FANCI       | 1.24346750  | 7.053698  | 7.9231397  | 2.494875e-11 | 2.169798e-08 |
| ## BUB1        | 1.74188936  | 6.469142  | 7.9127747  | 2.607088e-11 | 2.169798e-08 |
| ## EXO1        | 0.91828283  | 5.961451  | 7.9068663  | 2.673296e-11 | 2.169798e-08 |
| ## AURKB       | 1.18662379  | 5.868108  | 7.8949813  | 2.811607e-11 | 2.169798e-08 |
| ## MCM10       | 1.41162409  | 5.346508  | 7.8948379  | 2.813319e-11 | 2.169798e-08 |
| ## SMC4        | 1.01066359  | 8.304807  | 7.8840081  | 2.945648e-11 | 2.190720e-08 |
| ## CCT5        | 0.60485688  | 10.388588 | 7.8697839  | 3.128945e-11 | 2.246798e-08 |
| ## RAI2        | -1.39311619 | 6.714695  | -7.8561734 | 3.314990e-11 | 2.290276e-08 |
| ## PLK1        | 1.03838958  | 6.404467  | 7.8495519  | 3.409459e-11 | 2.290276e-08 |
| ## NCAPH       | 1.12522698  | 5.690290  | 7.8376215  | 3.586504e-11 | 2.291630e-08 |
| ## BCL2L12     | 0.68271101  | 6.611598  | 7.8346788  | 3.631569e-11 | 2.291630e-08 |
| ## ADAMTS9-AS2 | -1.33269310 | 5.931504  | -7.8163693 | 3.924943e-11 | 2.342154e-08 |
| ## CENPL       | 0.86504317  | 4.842986  | 7.8149348  | 3.948904e-11 | 2.342154e-08 |
| ## CHEK2       | 0.70670501  | 6.425920  | 7.8065533  | 4.091852e-11 | 2.342154e-08 |
| ## MAMDC2      | -2.04759476 | 5.730613  | -7.8025734 | 4.161530e-11 | 2.342154e-08 |
| ## UCK2        | 0.86683555  | 7.849353  | 7.7764962  | 4.648326e-11 | 2.489638e-08 |
| ## PFDN2       | 0.58589556  | 9.086843  | 7.7757688  | 4.662691e-11 | 2.489638e-08 |
| ## SPARCL1     | -1.35286870 | 11.246546 | -7.7553719 | 5.084051e-11 | 2.578710e-08 |
| ## CAPN6       | -2.22621072 | 6.653343  | -7.7549940 | 5.092207e-11 | 2.578710e-08 |
| ## KIF23       | 1.52172951  | 6.189294  | 7.7500094  | 5.201009e-11 | 2.578710e-08 |
| ## DDIAS       | 0.89369381  | 5.902310  | 7.7150033  | 6.033363e-11 | 2.903176e-08 |
| ## CSNK2A1     | 0.69877907  | 7.504500  | 7.7110921  | 6.134256e-11 | 2.903176e-08 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## C16orf89  | -1.82541263 | 6.455895  | -7.6816957 | 6.948471e-11 | 3.203415e-08 |
| ## MTFR2     | 1.19910531  | 6.142675  | 7.6773951  | 7.076310e-11 | 3.203415e-08 |
| ## ANLN      | 1.54942214  | 6.859095  | 7.6709332  | 7.272826e-11 | 3.222326e-08 |
| ## POLQ      | 1.18530253  | 5.438949  | 7.6244696  | 8.855747e-11 | 3.841918e-08 |
| ## MFAP4     | -1.56711166 | 8.084907  | -7.5967284 | 9.960262e-11 | 4.144087e-08 |
| ## MAD2L1    | 1.48805136  | 7.148890  | 7.5946900  | 1.004665e-10 | 4.144087e-08 |
| ## TPX2      | 1.58165169  | 7.929243  | 7.5922910  | 1.014927e-10 | 4.144087e-08 |
| ## MCM4      | 1.03778426  | 7.303605  | 7.5405214  | 1.263738e-10 | 5.060784e-08 |
| ## CDK2      | 0.69907505  | 7.287953  | 7.5320268  | 1.310017e-10 | 5.147131e-08 |
| ## MCM3      | 0.69487097  | 8.924554  | 7.5095054  | 1.441065e-10 | 5.499288e-08 |
| ## ASPA      | -1.37042115 | 5.256737  | -7.5076442 | 1.452463e-10 | 5.499288e-08 |
| ## NCAPD2    | 0.96998903  | 6.966394  | 7.4866063  | 1.587722e-10 | 5.687819e-08 |
| ## FEN1      | 0.87625394  | 8.003207  | 7.4855271  | 1.594990e-10 | 5.687819e-08 |
| ## MATN2     | -2.26665044 | 8.264538  | -7.4838819 | 1.606133e-10 | 5.687819e-08 |
| ## TTC28     | -0.97319425 | 6.706586  | -7.4802706 | 1.630867e-10 | 5.687819e-08 |
| ## CAVIN2    | -1.05535243 | 6.090960  | -7.4761946 | 1.659239e-10 | 5.687819e-08 |
| ## GREM2     | -1.63913606 | 5.233078  | -7.4752138 | 1.666140e-10 | 5.687819e-08 |
| ## CNOT9     | 0.68872910  | 6.883597  | 7.4705430  | 1.699396e-10 | 5.707779e-08 |
| ## H2AZ2     | 0.58166223  | 9.855801  | 7.4426688  | 1.912087e-10 | 6.320205e-08 |
| ## ROR1      | -0.78273747 | 6.647389  | -7.4380598 | 1.949728e-10 | 6.330668e-08 |
| ## LINC01082 | -0.89124741 | 5.792253  | -7.4348888 | 1.976054e-10 | 6.330668e-08 |
| ## TRIP13    | 1.15472864  | 7.186230  | 7.4189085  | 2.114215e-10 | 6.670668e-08 |
| ## NEMP1     | 0.91515890  | 4.743975  | 7.4096085  | 2.199011e-10 | 6.834659e-08 |
| ## PRC1      | 1.35319053  | 8.054843  | 7.4042548  | 2.249355e-10 | 6.888320e-08 |
| ## NUP98     | 0.62728203  | 7.309537  | 7.4002600  | 2.287669e-10 | 6.904118e-08 |
| ## DMD       | -1.79992061 | 6.928845  | -7.3952857 | 2.336286e-10 | 6.919022e-08 |
| ## ADRB2     | -1.05926048 | 5.774290  | -7.3929910 | 2.359060e-10 | 6.919022e-08 |
| ## NCAPG2    | 0.94962213  | 6.446277  | 7.3810080  | 2.481630e-10 | 7.080751e-08 |
| ## BOC       | -1.53048239 | 7.924423  | -7.3776763 | 2.516823e-10 | 7.080751e-08 |
| ## NOVA1     | -1.15151677 | 5.011837  | -7.3775099 | 2.518594e-10 | 7.080751e-08 |
| ## KLHDC1    | -0.84637025 | 5.630139  | -7.3745580 | 2.550213e-10 | 7.080751e-08 |
| ## ILF2      | 0.64875152  | 9.561215  | 7.3604529  | 2.706847e-10 | 7.416760e-08 |
| ## ANK2      | -2.10698720 | 7.013881  | -7.3366517 | 2.993200e-10 | 8.016617e-08 |
| ## PSMA1     | 0.40339284  | 10.926629 | 7.3343885  | 3.021953e-10 | 8.016617e-08 |
| ## EIF4E3    | -0.64450979 | 4.117140  | -7.3328806 | 3.041264e-10 | 8.016617e-08 |
| ## CDC45     | 0.90270657  | 6.568664  | 7.3209597  | 3.198313e-10 | 8.325210e-08 |
| ## GINS1     | 1.30040734  | 7.474194  | 7.3113528  | 3.330740e-10 | 8.562881e-08 |
| ## ERCC6L    | 0.64682380  | 4.905116  | 7.2850221  | 3.722381e-10 | 9.416526e-08 |
| ## NSD2      | 0.86737377  | 5.788162  | 7.2830672  | 3.753226e-10 | 9.416526e-08 |
| ## ZMAT1     | -1.21506699 | 5.034130  | -7.2728365 | 3.918847e-10 | 9.603821e-08 |
| ## PRKACB    | -0.98137272 | 9.271276  | -7.2706930 | 3.954460e-10 | 9.603821e-08 |
| ## ZWILCH    | 1.10695163  | 6.802323  | 7.2699885  | 3.966234e-10 | 9.603821e-08 |
| ## SAMD11    | -0.43514703 | 6.228546  | -7.2635167 | 4.076051e-10 | 9.756287e-08 |
| ## RFC4      | 0.75343223  | 8.036576  | 7.2459654  | 4.389364e-10 | 1.038683e-07 |
| ## HPGDS     | -0.89957291 | 5.423140  | -7.2378070 | 4.543060e-10 | 1.062974e-07 |
| ## ISL1      | -1.64247886 | 6.873392  | -7.2313999 | 4.667513e-10 | 1.079959e-07 |
| ## DNAJC9    | 0.65105569  | 8.878317  | 7.2257816  | 4.779437e-10 | 1.093703e-07 |
| ## BDH2      | -0.90550043 | 9.136092  | -7.2174807 | 4.949711e-10 | 1.120356e-07 |
| ## CCDC51    | 0.60064904  | 7.480887  | 7.2100847  | 5.106509e-10 | 1.143419e-07 |
| ## RCC2      | 0.64417723  | 9.551679  | 7.2031446  | 5.258139e-10 | 1.164846e-07 |
| ## CHRDL1    | -2.50128338 | 6.929583  | -7.1888825 | 5.583965e-10 | 1.214630e-07 |
| ## SPC25     | 1.28459940  | 5.081250  | 7.1882078  | 5.599868e-10 | 1.214630e-07 |
| ## KIF15     | 1.19775082  | 6.125715  | 7.1857638  | 5.657850e-10 | 1.214630e-07 |
| ## ECRG4     | -2.61359215 | 7.385796  | -7.1802603 | 5.790619e-10 | 1.226887e-07 |

|             |             |           |            |              |              |
|-------------|-------------|-----------|------------|--------------|--------------|
| ## FANCG    | 0.73217618  | 7.379977  | 7.1785390  | 5.832778e-10 | 1.226887e-07 |
| ## TDP1     | 0.62955654  | 7.521179  | 7.1740849  | 5.943294e-10 | 1.237632e-07 |
| ## FOXF1    | -1.25892711 | 8.407847  | -7.1665545 | 6.134906e-10 | 1.264884e-07 |
| ## PLK4     | 0.79420700  | 4.139250  | 7.1592425  | 6.326845e-10 | 1.278232e-07 |
| ## POLR2D   | 0.61669065  | 6.582137  | 7.1579021  | 6.362672e-10 | 1.278232e-07 |
| ## PATL1    | 0.51419562  | 8.275052  | 7.1563140  | 6.405385e-10 | 1.278232e-07 |
| ## GHR      | -1.75938980 | 5.186140  | -7.1548438 | 6.445179e-10 | 1.278232e-07 |
| ## EXOSC5   | 0.51492243  | 7.433185  | 7.1407589  | 6.839126e-10 | 1.343566e-07 |
| ## PLAC9    | -1.35609998 | 6.632605  | -7.1359494 | 6.979064e-10 | 1.358243e-07 |
| ## UBE2C    | 1.51585256  | 9.033327  | 7.1278634  | 7.220792e-10 | 1.380453e-07 |
| ## DCPS     | 0.45536542  | 7.239082  | 7.1276999  | 7.225766e-10 | 1.380453e-07 |
| ## AJUBA    | 1.37703240  | 6.150756  | 7.1151520  | 7.617761e-10 | 1.442111e-07 |
| ## CDCA8    | 0.89772542  | 7.287121  | 7.1088279  | 7.823277e-10 | 1.467675e-07 |
| ## ECT2     | 1.23555117  | 8.354190  | 7.1041219  | 7.979786e-10 | 1.483670e-07 |
| ## MELK     | 1.29392361  | 8.011544  | 7.0949202  | 8.294871e-10 | 1.528605e-07 |
| ## GOLGA8N  | -0.63585706 | 9.268861  | -7.0824566 | 8.741488e-10 | 1.596779e-07 |
| ## CBX7     | -0.97733824 | 7.752546  | -7.0720286 | 9.133504e-10 | 1.653879e-07 |
| ## RUVBL1   | 0.69054802  | 7.985707  | 7.0611251  | 9.562121e-10 | 1.709690e-07 |
| ## CCDC86   | 0.69027772  | 6.980678  | 7.0600384  | 9.605921e-10 | 1.709690e-07 |
| ## KLHL13   | -1.24181272 | 5.354199  | -7.0557092 | 9.782405e-10 | 1.720428e-07 |
| ## UTP18    | 0.50068081  | 9.244937  | 7.0539468  | 9.855171e-10 | 1.720428e-07 |
| ## MYOCD    | -1.60174972 | 6.592797  | -7.0525288 | 9.914109e-10 | 1.720428e-07 |
| ## FMOD     | -1.24632646 | 9.292633  | -7.0374714 | 1.056202e-09 | 1.817715e-07 |
| ## RPA3     | 0.63073035  | 9.022660  | 7.0172461  | 1.149909e-09 | 1.962762e-07 |
| ## CENPE    | 1.19691167  | 6.214063  | 7.0151360  | 1.160150e-09 | 1.964143e-07 |
| ## SG02     | 0.98058013  | 6.088995  | 7.0091556  | 1.189670e-09 | 1.997878e-07 |
| ## METTL7A  | -1.51946722 | 10.497589 | -7.0033313 | 1.219139e-09 | 2.030987e-07 |
| ## RAD51AP1 | 1.09357532  | 7.441713  | 6.9920322  | 1.278394e-09 | 2.098000e-07 |
| ## AOC3     | -1.46205362 | 8.073712  | -6.9918236 | 1.279514e-09 | 2.098000e-07 |
| ## GSTM5    | -0.82841691 | 5.937931  | -6.9861512 | 1.310360e-09 | 2.131793e-07 |
| ## PAFAH1B3 | 0.81526949  | 7.747774  | 6.9804882  | 1.341894e-09 | 2.166171e-07 |
| ## RCCD1    | 0.57560591  | 7.795228  | 6.9684190  | 1.411640e-09 | 2.261231e-07 |
| ## PPP1R14B | 0.55511170  | 8.266426  | 6.9511598  | 1.517692e-09 | 2.405278e-07 |
| ## C7       | -2.69650274 | 7.994788  | -6.9500671 | 1.524667e-09 | 2.405278e-07 |
| ## CCT3     | 0.58207978  | 10.361449 | 6.9436202  | 1.566473e-09 | 2.452649e-07 |
| ## HDGF     | 0.64834970  | 10.266979 | 6.9366892  | 1.612691e-09 | 2.506170e-07 |
| ## PKP4     | 0.66351716  | 6.900015  | 6.9181407  | 1.743160e-09 | 2.688857e-07 |
| ## TBRG4    | 0.61210948  | 7.827263  | 6.8907606  | 1.955171e-09 | 2.993712e-07 |
| ## KIT      | -1.61990554 | 7.469031  | -6.8731056 | 2.105285e-09 | 3.200033e-07 |
| ## SYNP02   | -2.40205808 | 8.876604  | -6.8591989 | 2.231552e-09 | 3.367380e-07 |
| ## MGP      | -1.71887614 | 11.438239 | -6.8370647 | 2.448230e-09 | 3.667766e-07 |
| ## SLC7A5   | 1.16682374  | 7.442636  | 6.8350314  | 2.469155e-09 | 3.672691e-07 |
| ## Clorf112 | 0.90988603  | 4.989652  | 6.8306248  | 2.515113e-09 | 3.714519e-07 |
| ## GTF3C4   | 0.50417064  | 5.817297  | 6.8062350  | 2.785303e-09 | 4.058849e-07 |
| ## CPE      | -1.48410444 | 8.237436  | -6.8031555 | 2.821408e-09 | 4.058849e-07 |
| ## RGMA     | -1.57126724 | 7.585195  | -6.8029521 | 2.823809e-09 | 4.058849e-07 |
| ## CFD      | -1.80249656 | 8.620402  | -6.8027476 | 2.826225e-09 | 4.058849e-07 |
| ## CCT2     | 1.05273688  | 9.617355  | 6.7987029  | 2.874436e-09 | 4.080559e-07 |
| ## PRKAR2B  | -1.72242419 | 7.209348  | -6.7981962 | 2.880533e-09 | 4.080559e-07 |
| ## HMGB3    | 0.82876739  | 7.614881  | 6.7916189  | 2.960851e-09 | 4.146126e-07 |
| ## KLHL7    | 0.77739199  | 4.196673  | 6.7911519  | 2.966638e-09 | 4.146126e-07 |
| ## FLAD1    | 0.65058154  | 6.936353  | 6.7839277  | 3.057599e-09 | 4.244763e-07 |
| ## ANKRD29  | -1.07373961 | 4.705134  | -6.7652588 | 3.305706e-09 | 4.558810e-07 |
| ## CKAP2L   | 0.92917958  | 6.117194  | 6.7615103  | 3.357885e-09 | 4.584313e-07 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## HNRNPU    | 0.47638593  | 9.553325  | 6.7599354  | 3.380052e-09 | 4.584313e-07 |
| ## HSPD1     | 0.90763926  | 11.045657 | 6.7592147  | 3.390243e-09 | 4.584313e-07 |
| ## TTK       | 1.56945252  | 6.654397  | 6.7549110  | 3.451744e-09 | 4.637363e-07 |
| ## PSMB2     | 0.48815919  | 10.358536 | 6.7532311  | 3.476050e-09 | 4.640081e-07 |
| ## DNA2      | 0.88079513  | 6.364625  | 6.7396110  | 3.679497e-09 | 4.852329e-07 |
| ## SELENOP   | -1.05203875 | 11.663693 | -6.7366052 | 3.725966e-09 | 4.852329e-07 |
| ## UBE2T     | 1.18942383  | 7.709382  | 6.7364188  | 3.728866e-09 | 4.852329e-07 |
| ## RASA4     | -0.93173691 | 6.406785  | -6.7350428 | 3.750350e-09 | 4.852329e-07 |
| ## CNTN4     | -1.27036488 | 5.489116  | -6.7349655 | 3.751561e-09 | 4.852329e-07 |
| ## ESYT2     | 0.96021863  | 4.665822  | 6.7330396  | 3.781845e-09 | 4.861304e-07 |
| ## CCNF      | 0.63383663  | 6.659001  | 6.7236342  | 3.933272e-09 | 4.972200e-07 |
| ## JAM3      | -1.15437849 | 8.325942  | -6.7232944 | 3.938856e-09 | 4.972200e-07 |
| ## CCNA2     | 1.30756390  | 6.211313  | 6.7232401  | 3.939747e-09 | 4.972200e-07 |
| ## RCAN2     | -1.50974611 | 8.220729  | -6.7193978 | 4.003433e-09 | 5.006150e-07 |
| ## PSMD14    | 0.52892068  | 10.226077 | 6.7187227  | 4.014728e-09 | 5.006150e-07 |
| ## SF3B3     | 0.48432158  | 8.527810  | 6.7144595  | 4.086788e-09 | 5.065671e-07 |
| ## NDC80     | 1.11035278  | 6.922928  | 6.7125109  | 4.120152e-09 | 5.076808e-07 |
| ## DDX56     | 0.59977477  | 8.005183  | 6.7097594  | 4.167724e-09 | 5.105217e-07 |
| ## STX12     | -0.60066063 | 8.518508  | -6.7065099 | 4.224610e-09 | 5.144636e-07 |
| ## BORA      | 0.96568641  | 7.030905  | 6.6935673  | 4.458940e-09 | 5.375305e-07 |
| ## PWAR6     | -1.51963364 | 6.824442  | -6.6921531 | 4.485315e-09 | 5.375305e-07 |
| ## PCNA      | 0.75452523  | 10.354891 | 6.6918244  | 4.491467e-09 | 5.375305e-07 |
| ## NUSAP1    | 1.16097437  | 8.251271  | 6.6886184  | 4.551916e-09 | 5.409648e-07 |
| ## ZCCHC24   | -1.26931037 | 8.298985  | -6.6875563 | 4.572119e-09 | 5.409648e-07 |
| ## MAPK10    | -0.83121133 | 6.446085  | -6.6854801 | 4.611872e-09 | 5.425854e-07 |
| ## DCLRE1B   | 0.37592584  | 5.421961  | 6.6779994  | 4.757967e-09 | 5.566287e-07 |
| ## NUF2      | 1.55827897  | 6.421504  | 6.6733878  | 4.850312e-09 | 5.642620e-07 |
| ## TK1       | 1.02528542  | 8.007844  | 6.6703384  | 4.912350e-09 | 5.656611e-07 |
| ## STIP1     | 1.21540551  | 7.367141  | 6.6701277  | 4.916666e-09 | 5.656611e-07 |
| ## CKAP5     | 0.63176491  | 8.373406  | 6.6614427  | 5.097868e-09 | 5.832858e-07 |
| ## PRPF4     | 0.65660031  | 8.172068  | 6.6586390  | 5.157767e-09 | 5.869145e-07 |
| ## ADCY2     | -1.01970939 | 5.799882  | -6.6536276 | 5.266581e-09 | 5.953831e-07 |
| ## LINC01140 | -1.52960585 | 6.032848  | -6.6525910 | 5.289372e-09 | 5.953831e-07 |
| ## ID4       | -1.53245165 | 8.422754  | -6.6493191 | 5.361954e-09 | 6.003082e-07 |
| ## LDOC1     | -0.88651761 | 6.569037  | -6.6394388 | 5.587191e-09 | 6.221801e-07 |
| ## ZNF540    | -0.64936978 | 4.411964  | -6.6357027 | 5.674787e-09 | 6.261551e-07 |
| ## LMOD1     | -1.94824031 | 8.006636  | -6.6346770 | 5.699073e-09 | 6.261551e-07 |
| ## AUNIP     | 0.76783583  | 5.303179  | 6.6340868  | 5.713094e-09 | 6.261551e-07 |
| ## ADAM33    | -0.76075208 | 6.216907  | -6.6305685 | 5.797393e-09 | 6.320676e-07 |
| ## FBLN5     | -1.27845232 | 8.071670  | -6.6218277 | 6.012207e-09 | 6.444132e-07 |
| ## CDT1      | 0.67587591  | 5.311384  | 6.6202584  | 6.051604e-09 | 6.444132e-07 |
| ## PID1      | -1.39761165 | 6.617050  | -6.6186627 | 6.091925e-09 | 6.444132e-07 |
| ## TICRR     | 0.58371044  | 5.390564  | 6.6181522  | 6.104880e-09 | 6.444132e-07 |
| ## EIF6      | 0.60564587  | 10.016100 | 6.6177089  | 6.116153e-09 | 6.444132e-07 |
| ## KIF14     | 1.28843609  | 6.961430  | 6.6176404  | 6.117897e-09 | 6.444132e-07 |
| ## OGN       | -2.94254814 | 6.732347  | -6.6172734 | 6.127248e-09 | 6.444132e-07 |
| ## SKA1      | 0.70314990  | 4.257360  | 6.5983346  | 6.629547e-09 | 6.937371e-07 |
| ## STIL      | 1.10654255  | 7.341319  | 6.5962536  | 6.687174e-09 | 6.962685e-07 |
| ## ASAP3     | -0.55763716 | 6.744747  | -6.5900733 | 6.861268e-09 | 7.108410e-07 |
| ## BUB1B     | 1.25141556  | 7.512503  | 6.5883967  | 6.909266e-09 | 7.113295e-07 |
| ## METTL13   | 0.41853733  | 6.641555  | 6.5875268  | 6.934301e-09 | 7.113295e-07 |
| ## VLDLR     | -1.36981140 | 5.838837  | -6.5813831 | 7.113699e-09 | 7.261553e-07 |
| ## PGM5-AS1  | -1.42451729 | 5.919914  | -6.5773462 | 7.234079e-09 | 7.348413e-07 |
| ## CEP85L    | -0.89052212 | 7.263739  | -6.5646376 | 7.626408e-09 | 7.709336e-07 |

|            |             |           |            |              |              |
|------------|-------------|-----------|------------|--------------|--------------|
| ## TIPIN   | 0.81383721  | 5.710682  | 6.5619242  | 7.712872e-09 | 7.741265e-07 |
| ## RRM1    | 0.83039625  | 7.085683  | 6.5613173  | 7.732344e-09 | 7.741265e-07 |
| ## KNSTRN  | 0.90895079  | 6.950123  | 6.5579867  | 7.840076e-09 | 7.811566e-07 |
| ## ABCA6   | -0.68055241 | 4.310064  | -6.5540504 | 7.969322e-09 | 7.902531e-07 |
| ## SUV39H2 | 0.79595015  | 7.055354  | 6.5513044  | 8.060736e-09 | 7.955297e-07 |
| ## MRPL17  | 0.49073830  | 8.442835  | 6.5467674  | 8.214058e-09 | 8.068375e-07 |
| ## MRPS17  | 0.72830001  | 8.092839  | 6.5433827  | 8.330321e-09 | 8.144160e-07 |
| ## ARHGAP6 | -1.38839045 | 6.217039  | -6.5422365 | 8.370060e-09 | 8.144773e-07 |
| ## PEG3    | -1.52940739 | 5.027151  | -6.5320402 | 8.731970e-09 | 8.457421e-07 |
| ## ALG3    | 0.52194024  | 8.072372  | 6.5217484  | 9.113012e-09 | 8.785618e-07 |
| ## DTX1    | -0.47821593 | 5.735022  | -6.5152649 | 9.361485e-09 | 8.983575e-07 |
| ## ASPM    | 1.44637962  | 7.205431  | 6.5091725  | 9.601093e-09 | 9.171246e-07 |
| ## CIAO1   | 0.48286683  | 7.593382  | 6.5076274  | 9.662819e-09 | 9.188061e-07 |
| ## ITPR1   | -0.90824044 | 7.250169  | -6.5046803 | 9.781653e-09 | 9.239370e-07 |
| ## UMPS    | 0.53922124  | 7.529635  | 6.5031101  | 9.845559e-09 | 9.239370e-07 |
| ## ALYREF  | 0.79062463  | 8.262839  | 6.5011779  | 9.924764e-09 | 9.239370e-07 |
| ## MYBL2   | 0.77394451  | 7.047089  | 6.5008492  | 9.938301e-09 | 9.239370e-07 |
| ## NUP37   | 0.64500216  | 8.726717  | 6.5008139  | 9.939755e-09 | 9.239370e-07 |
| ## SELENOI | 1.01066145  | 6.601295  | 6.4997672  | 9.982992e-09 | 9.239370e-07 |
| ## CENPA   | 1.24421494  | 6.984303  | 6.4954035  | 1.016526e-08 | 9.366433e-07 |
| ## PARBP   | 0.68375021  | 4.186481  | 6.4941027  | 1.022023e-08 | 9.375599e-07 |
| ## FOXM1   | 1.29496031  | 6.837085  | 6.4885251  | 1.045930e-08 | 9.552824e-07 |
| ## CNOT1   | 0.70371873  | 5.689737  | 6.4873150  | 1.051189e-08 | 9.558936e-07 |
| ## MPLKIP  | 0.49018011  | 8.481392  | 6.4802020  | 1.082639e-08 | 9.802121e-07 |
| ## KIF2C   | 1.25179841  | 7.464017  | 6.4790166  | 1.087970e-08 | 9.807748e-07 |
| ## DAAM2   | -1.03016455 | 7.096711  | -6.4719609 | 1.120246e-08 | 1.005518e-06 |
| ## TLE4    | -0.96478799 | 8.205358  | -6.4648259 | 1.153851e-08 | 1.031236e-06 |
| ## MRPL38  | 0.53388509  | 8.119036  | 6.4479036  | 1.237603e-08 | 1.101361e-06 |
| ## TCEAL7  | -1.31044589 | 5.403775  | -6.4451329 | 1.251879e-08 | 1.109325e-06 |
| ## MKI67   | 1.04188061  | 6.856103  | 6.4431259  | 1.262322e-08 | 1.113839e-06 |
| ## PHF23   | 0.49709848  | 6.562625  | 6.4411138  | 1.272878e-08 | 1.118414e-06 |
| ## ANKRD50 | -0.73249877 | 8.223211  | -6.4390467 | 1.283814e-08 | 1.122711e-06 |
| ## E2F3    | 0.45808126  | 6.987183  | 6.4381567  | 1.288552e-08 | 1.122711e-06 |
| ## WDR5    | 0.66614539  | 6.421765  | 6.4281186  | 1.343197e-08 | 1.165447e-06 |
| ## CNRIP1  | -0.90360567 | 7.637246  | -6.4237979 | 1.367420e-08 | 1.174562e-06 |
| ## P2RY14  | -1.34420635 | 7.397009  | -6.4236999 | 1.367974e-08 | 1.174562e-06 |
| ## PABPC1L | 0.97076480  | 7.911742  | 6.4232322  | 1.370623e-08 | 1.174562e-06 |
| ## RANGAP1 | 0.73526667  | 7.364679  | 6.4220454  | 1.377368e-08 | 1.175504e-06 |
| ## SNRPD1  | 0.69978310  | 9.652423  | 6.4178076  | 1.401721e-08 | 1.191405e-06 |
| ## FBLN1   | -1.52921972 | 8.031356  | -6.4107081 | 1.443480e-08 | 1.218889e-06 |
| ## LAMA2   | -1.00056745 | 7.078863  | -6.4103260 | 1.445763e-08 | 1.218889e-06 |
| ## PODN    | -1.18666822 | 7.614059  | -6.4076238 | 1.462004e-08 | 1.227612e-06 |
| ## MRT04   | 0.65671124  | 7.564847  | 6.3960943  | 1.533361e-08 | 1.282358e-06 |
| ## COA6    | 0.49603785  | 7.862509  | 6.3939879  | 1.546766e-08 | 1.288394e-06 |
| ## SPAG5   | 1.02064846  | 7.454112  | 6.3912995  | 1.564043e-08 | 1.297595e-06 |
| ## CH25H   | -1.33694649 | 6.638537  | -6.3874723 | 1.588970e-08 | 1.313044e-06 |
| ## EZH2    | 0.98779365  | 7.105564  | 6.3802027  | 1.637408e-08 | 1.347722e-06 |
| ## CCNB2   | 1.17504105  | 8.169769  | 6.3768942  | 1.659934e-08 | 1.357303e-06 |
| ## NFE2L3  | 1.18254678  | 6.525455  | 6.3761878  | 1.664784e-08 | 1.357303e-06 |
| ## ADHFE1  | -0.77929811 | 6.797047  | -6.3756332 | 1.668601e-08 | 1.357303e-06 |
| ## CSTF2   | 0.62322700  | 7.571097  | 6.3740807  | 1.679332e-08 | 1.360716e-06 |
| ## MRE11   | 0.71249468  | 6.812021  | 6.3707052  | 1.702902e-08 | 1.374466e-06 |
| ## SEC31A  | -0.38743574 | 10.573438 | -6.3694456 | 1.711781e-08 | 1.376298e-06 |
| ## H2AX    | 0.83159881  | 8.542818  | 6.3646110  | 1.746288e-08 | 1.397309e-06 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## KIF4A      | 1.21374442  | 6.552088  | 6.3635742  | 1.753777e-08 | 1.397309e-06 |
| ## MAD2L2     | 0.60467534  | 7.198868  | 6.3629857  | 1.758043e-08 | 1.397309e-06 |
| ## PMAIP1     | 1.53038591  | 7.555356  | 6.3591818  | 1.785862e-08 | 1.414022e-06 |
| ## HAUS6      | 0.62399333  | 4.248107  | 6.3491292  | 1.861498e-08 | 1.468327e-06 |
| ## C4orf46    | 0.80010481  | 5.008398  | 6.3468783  | 1.878864e-08 | 1.476433e-06 |
| ## FHL1       | -1.74449360 | 7.712953  | -6.3432896 | 1.906885e-08 | 1.492818e-06 |
| ## SRPK1      | 0.83067828  | 6.784693  | 6.3416217  | 1.920048e-08 | 1.497494e-06 |
| ## DEPDC1     | 0.87663364  | 4.332085  | 6.3399901  | 1.933013e-08 | 1.501980e-06 |
| ## VIPR2      | -0.38441817 | 6.303527  | -6.3386972 | 1.943347e-08 | 1.504396e-06 |
| ## SYNPO      | -0.99687682 | 8.088601  | -6.3292483 | 2.020556e-08 | 1.558373e-06 |
| ## UFD1       | 0.87398001  | 6.354634  | 6.3234765  | 2.069207e-08 | 1.590006e-06 |
| ## PPP5C      | 0.53424947  | 7.044587  | 6.3149681  | 2.143049e-08 | 1.633278e-06 |
| ## TSFM       | 0.46726174  | 7.876399  | 6.3146493  | 2.145866e-08 | 1.633278e-06 |
| ## TNS2       | -0.91792982 | 7.072301  | -6.3142895 | 2.149050e-08 | 1.633278e-06 |
| ## ZNF582-DT  | -0.33336776 | 3.836276  | -6.3083596 | 2.202199e-08 | 1.667585e-06 |
| ## TCEAL3     | -0.92156872 | 8.044220  | -6.3052556 | 2.230538e-08 | 1.682925e-06 |
| ## ARMCX1     | -1.13670235 | 7.909601  | -6.3031047 | 2.250387e-08 | 1.691771e-06 |
| ## YAP1       | 0.81263028  | 7.463289  | 6.2997442  | 2.281749e-08 | 1.709177e-06 |
| ## NOP2       | 0.54453549  | 7.680819  | 6.2840052  | 2.434495e-08 | 1.817058e-06 |
| ## TEAD4      | 0.68081481  | 7.122183  | 6.2814588  | 2.460142e-08 | 1.829643e-06 |
| ## CDCA3      | 0.88342476  | 6.936827  | 6.2751093  | 2.525266e-08 | 1.864968e-06 |
| ## NCAPG      | 1.04391052  | 6.623979  | 6.2750818  | 2.525552e-08 | 1.864968e-06 |
| ## SLC25A4    | -0.82388736 | 8.095233  | -6.2642228 | 2.640924e-08 | 1.936136e-06 |
| ## KIF18B     | 1.06257347  | 6.834010  | 6.2635993  | 2.647704e-08 | 1.936136e-06 |
| ## RERG       | -1.43228151 | 7.631326  | -6.2634050 | 2.649821e-08 | 1.936136e-06 |
| ## CLIP3      | -0.86794087 | 7.108639  | -6.2594915 | 2.692810e-08 | 1.960667e-06 |
| ## CD47       | 0.70739463  | 10.246058 | 6.2575985  | 2.713852e-08 | 1.969103e-06 |
| ## RPF2       | 0.49352021  | 8.773958  | 6.2536981  | 2.757722e-08 | 1.989597e-06 |
| ## ANO5       | -0.93131744 | 5.400711  | -6.2533910 | 2.761206e-08 | 1.989597e-06 |
| ## SNRPB      | 0.66217115  | 9.645266  | 6.2492297  | 2.808844e-08 | 2.016944e-06 |
| ## EML1       | -1.53669841 | 5.962266  | -6.2402210 | 2.914783e-08 | 2.085823e-06 |
| ## FENDRR     | -0.77443662 | 6.792898  | -6.2381647 | 2.939514e-08 | 2.090382e-06 |
| ## PLPP1      | -0.70875234 | 8.942686  | -6.2380226 | 2.941230e-08 | 2.090382e-06 |
| ## GALNT2     | 0.59940985  | 7.081408  | 6.2348633  | 2.979655e-08 | 2.110488e-06 |
| ## ATP2A2     | 0.51700518  | 10.275618 | 6.2280600  | 3.064095e-08 | 2.162940e-06 |
| ## CEP76      | 0.65604677  | 6.887235  | 6.2236293  | 3.120357e-08 | 2.195213e-06 |
| ## E2F7       | 1.35052506  | 5.245301  | 6.2160491  | 3.218995e-08 | 2.256982e-06 |
| ## FRZB       | -1.65602393 | 8.046867  | -6.2145822 | 3.238436e-08 | 2.259380e-06 |
| ## ADGRD1     | -1.39193334 | 5.673604  | -6.2141553 | 3.244116e-08 | 2.259380e-06 |
| ## FBXO5      | 0.81464526  | 5.724913  | 6.2108437  | 3.288512e-08 | 2.282666e-06 |
| ## IL33       | -1.76203673 | 6.720790  | -6.2047981 | 3.371119e-08 | 2.332232e-06 |
| ## DISP1      | -0.83188233 | 6.024326  | -6.2029880 | 3.396249e-08 | 2.341837e-06 |
| ## ZNF667-AS1 | -1.07119546 | 5.604467  | -6.1950104 | 3.509234e-08 | 2.408115e-06 |
| ## NR3C2      | -1.36079132 | 6.961697  | -6.1945757 | 3.515497e-08 | 2.408115e-06 |
| ## FAM13C     | -1.17876824 | 5.979128  | -6.1912440 | 3.563863e-08 | 2.433242e-06 |
| ## EHMT2      | 0.51167842  | 7.297466  | 6.1886327  | 3.602231e-08 | 2.451401e-06 |
| ## TIMELESS   | 0.79446837  | 6.989014  | 6.1846443  | 3.661625e-08 | 2.483703e-06 |
| ## FGF7P3     | -0.89080463 | 5.199820  | -6.1837480 | 3.675104e-08 | 2.484752e-06 |
| ## RPRD1B     | 0.46528071  | 7.374419  | 6.1790369  | 3.746770e-08 | 2.525007e-06 |
| ## RACGAP1    | 0.87417618  | 8.869194  | 6.1733658  | 3.834876e-08 | 2.576047e-06 |
| ## UTP25      | 0.44610827  | 6.955830  | 6.1686558  | 3.909607e-08 | 2.617802e-06 |
| ## NDC1       | 0.96257858  | 6.557412  | 6.1673401  | 3.930740e-08 | 2.623517e-06 |
| ## NME1       | 0.59779587  | 9.961785  | 6.1662431  | 3.948446e-08 | 2.626915e-06 |
| ## SCAMP3     | 0.42330638  | 8.569139  | 6.1611865  | 4.031087e-08 | 2.673355e-06 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## BANF1     | 0.50049195  | 10.040452 | 6.1569273  | 4.102023e-08 | 2.710724e-06 |
| ## CCSAP     | 0.17273263  | 3.401043  | 6.1562469  | 4.113468e-08 | 2.710724e-06 |
| ## CSTF1     | 0.52606775  | 6.753147  | 6.1482185  | 4.250936e-08 | 2.792476e-06 |
| ## FAM107A   | -0.57341793 | 6.803219  | -6.1455531 | 4.297571e-08 | 2.812266e-06 |
| ## NXT1      | 0.48755595  | 8.288975  | 6.1449569  | 4.308072e-08 | 2.812266e-06 |
| ## CCL21     | -1.03715951 | 7.489089  | -6.1392858 | 4.409235e-08 | 2.869310e-06 |
| ## MRPS30    | 0.82647987  | 8.029660  | 6.1376997  | 4.437947e-08 | 2.877138e-06 |
| ## HHIP-AS1  | -0.66951159 | 5.384003  | -6.1370974 | 4.448897e-08 | 2.877138e-06 |
| ## CDC25A    | 0.72833194  | 3.936432  | 6.1332607  | 4.519289e-08 | 2.913612e-06 |
| ## ZNF195    | 0.63808760  | 7.053683  | 6.1296274  | 4.586965e-08 | 2.948116e-06 |
| ## CPNE1     | 0.69001472  | 8.425209  | 6.1273612  | 4.629682e-08 | 2.952529e-06 |
| ## TUBB      | 0.54876581  | 10.946763 | 6.1267606  | 4.641069e-08 | 2.952529e-06 |
| ## NUTF2     | 0.70791288  | 9.075321  | 6.1266610  | 4.642960e-08 | 2.952529e-06 |
| ## PRELP     | -1.30400227 | 7.067118  | -6.1262619 | 4.650545e-08 | 2.952529e-06 |
| ## FAM228B   | -0.77968936 | 6.106870  | -6.1215541 | 4.740951e-08 | 3.000777e-06 |
| ## PDE8B     | -0.53053701 | 3.936295  | -6.1124967 | 4.919806e-08 | 3.104547e-06 |
| ## MRPL58    | 0.40279620  | 7.925228  | 6.1088589  | 4.993506e-08 | 3.136437e-06 |
| ## OIP5      | 1.14167689  | 6.054374  | 6.1085181  | 5.000467e-08 | 3.136437e-06 |
| ## PPIA      | 0.29342531  | 13.156944 | 6.1046325  | 5.080504e-08 | 3.177069e-06 |
| ## DDI2      | 0.69768850  | 4.987495  | 6.1037456  | 5.098949e-08 | 3.179058e-06 |
| ## SSBP2     | -0.43983909 | 4.495103  | -6.1025757 | 5.123383e-08 | 3.184756e-06 |
| ## SLIT2     | -1.38427026 | 7.358629  | -6.0957756 | 5.267713e-08 | 3.264728e-06 |
| ## CDC20     | 1.26747671  | 7.757903  | 6.0928914  | 5.330136e-08 | 3.293613e-06 |
| ## HJURP     | 1.09327018  | 6.387051  | 6.0855768  | 5.491752e-08 | 3.383439e-06 |
| ## LONRF2    | -1.28874368 | 4.982313  | -6.0830818 | 5.547980e-08 | 3.407998e-06 |
| ## PRMT3     | 0.64977698  | 6.714412  | 6.0806112  | 5.604219e-08 | 3.432420e-06 |
| ## AGTRAP    | 0.67922104  | 7.143647  | 6.0798187  | 5.622378e-08 | 3.433443e-06 |
| ## EMC8      | 0.48867940  | 8.896017  | 6.0729876  | 5.781340e-08 | 3.502718e-06 |
| ## UBQLN1    | 0.69692129  | 7.219856  | 6.0729634  | 5.781909e-08 | 3.502718e-06 |
| ## PIMREG    | 0.71937528  | 6.130636  | 6.0727783  | 5.786280e-08 | 3.502718e-06 |
| ## CEP55     | 1.30221733  | 7.052459  | 6.0690238  | 5.875607e-08 | 3.546482e-06 |
| ## BRCA1     | 0.70220944  | 6.653625  | 6.0666904  | 5.931811e-08 | 3.570059e-06 |
| ## CDCA4     | 0.68242305  | 7.268606  | 6.0629969  | 6.021862e-08 | 3.613811e-06 |
| ## ZFP28     | -0.31086661 | 4.016357  | -6.0581069 | 6.143171e-08 | 3.667408e-06 |
| ## LRRC42    | 0.54122138  | 7.480601  | 6.0573887  | 6.161188e-08 | 3.667408e-06 |
| ## SGPL1     | 0.58430782  | 4.588297  | 6.0572766  | 6.164007e-08 | 3.667408e-06 |
| ## NDN       | -1.17340257 | 7.709161  | -6.0565462 | 6.182392e-08 | 3.667867e-06 |
| ## CD01      | -1.42414454 | 5.120435  | -6.0554278 | 6.210653e-08 | 3.668553e-06 |
| ## PKP3      | 0.91267812  | 5.739847  | 6.0551070  | 6.218783e-08 | 3.668553e-06 |
| ## SLC28A3   | 1.00210020  | 5.458716  | 6.0449501  | 6.481688e-08 | 3.812844e-06 |
| ## XPR1      | 0.61266165  | 7.962525  | 6.0441847  | 6.501937e-08 | 3.813981e-06 |
| ## RRP9      | 0.51801656  | 6.266442  | 6.0430759  | 6.531387e-08 | 3.820495e-06 |
| ## XP05      | 0.71252987  | 6.559506  | 6.0358439  | 6.726724e-08 | 3.921065e-06 |
| ## NUP107    | 0.65527066  | 8.944710  | 6.0353042  | 6.741529e-08 | 3.921065e-06 |
| ## C14orf132 | -1.39011742 | 6.974150  | -6.0346396 | 6.759808e-08 | 3.921065e-06 |
| ## FCGBP     | -2.55232792 | 8.812691  | -6.0310511 | 6.859348e-08 | 3.967752e-06 |
| ## ANKRD35   | -0.79162363 | 6.206934  | -6.0268957 | 6.976428e-08 | 4.024297e-06 |
| ## PSME3     | 0.67629747  | 8.137654  | 6.0231293  | 7.084253e-08 | 4.069696e-06 |
| ## BRIP1     | 0.52405675  | 4.119691  | 6.0227842  | 7.094216e-08 | 4.069696e-06 |
| ## CNN1      | -2.06429567 | 9.141003  | -6.0167317 | 7.271195e-08 | 4.159763e-06 |
| ## NFRKB     | 0.42649792  | 5.848521  | 6.0156473  | 7.303362e-08 | 4.166718e-06 |
| ## KMT5A     | 0.49586556  | 6.091768  | 6.0144365  | 7.339443e-08 | 4.175862e-06 |
| ## RBM15     | 0.37301017  | 7.720040  | 6.0135274  | 7.366651e-08 | 4.179922e-06 |
| ## DCAF7     | 0.56405462  | 6.998780  | 6.0127836  | 7.388986e-08 | 4.181202e-06 |

|             |             |           |            |              |              |
|-------------|-------------|-----------|------------|--------------|--------------|
| ## HSPB2    | -0.59113855 | 5.648439  | -6.0112143 | 7.436328e-08 | 4.196588e-06 |
| ## SF3B4    | 0.51661558  | 8.173799  | 6.0070374  | 7.563804e-08 | 4.256991e-06 |
| ## CENPM    | 0.68359689  | 6.974272  | 6.0046208  | 7.638540e-08 | 4.287465e-06 |
| ## CNTNAP1  | -0.49490069 | 6.414929  | -6.0026943 | 7.698640e-08 | 4.309583e-06 |
| ## ATAD2    | 1.14366378  | 7.142250  | 5.9985278  | 7.830228e-08 | 4.371492e-06 |
| ## USP28    | 0.52573195  | 5.358504  | 5.9978100  | 7.853123e-08 | 4.372552e-06 |
| ## ANGPTL1  | -1.30141390 | 5.199496  | -5.9939672 | 7.976813e-08 | 4.428129e-06 |
| ## CRY2     | -0.43114737 | 6.934286  | -5.9925704 | 8.022249e-08 | 4.428129e-06 |
| ## NOP58    | 0.47433256  | 10.378164 | 5.9923794  | 8.028483e-08 | 4.428129e-06 |
| ## CPSF6    | 0.40902031  | 8.928231  | 5.9920881  | 8.037999e-08 | 4.428129e-06 |
| ## PPIL1    | 0.58723701  | 7.840135  | 5.9904260  | 8.092501e-08 | 4.446391e-06 |
| ## GPR155   | -1.50796918 | 7.181548  | -5.9860583 | 8.237478e-08 | 4.514138e-06 |
| ## RBPMS2   | -1.36723224 | 6.746325  | -5.9838209 | 8.312735e-08 | 4.531400e-06 |
| ## PPP1R3C  | -1.59031359 | 7.553538  | -5.9834535 | 8.325159e-08 | 4.531400e-06 |
| ## ATIC     | 0.51189243  | 9.281865  | 5.9831846  | 8.334260e-08 | 4.531400e-06 |
| ## PLCL2    | -0.82910409 | 7.627749  | -5.9823270 | 8.363362e-08 | 4.535381e-06 |
| ## KNTC1    | 0.71600996  | 6.698661  | 5.9763182  | 8.570094e-08 | 4.635419e-06 |
| ## CDK1     | 1.14349020  | 8.774280  | 5.9738746  | 8.655602e-08 | 4.669540e-06 |
| ## DCLK1    | -1.36594486 | 6.396098  | -5.9729405 | 8.688511e-08 | 4.673683e-06 |
| ## RMND1    | 0.50948183  | 6.104897  | 5.9719478  | 8.723617e-08 | 4.673683e-06 |
| ## COL4A5   | -1.52941633 | 7.245242  | -5.9717506 | 8.730611e-08 | 4.673683e-06 |
| ## GPRASP1  | -1.42815884 | 6.853727  | -5.9699363 | 8.795190e-08 | 4.696180e-06 |
| ## FANCA    | 0.67584671  | 6.156568  | 5.9681961  | 8.857579e-08 | 4.717397e-06 |
| ## RMND5A   | 0.44735665  | 5.202749  | 5.9605333  | 9.137537e-08 | 4.854084e-06 |
| ## RSRC1    | 0.67317713  | 6.505516  | 5.9552850  | 9.334315e-08 | 4.945999e-06 |
| ## PTGER1   | -0.45695451 | 6.570403  | -5.9530045 | 9.421119e-08 | 4.979324e-06 |
| ## HGF      | -1.03996968 | 5.092828  | -5.9521771 | 9.452809e-08 | 4.983425e-06 |
| ## PKM      | 0.82954947  | 9.972685  | 5.9399807  | 9.932351e-08 | 5.223012e-06 |
| ## SPON1    | -1.45876178 | 9.141070  | -5.9344477 | 1.015776e-07 | 5.324506e-06 |
| ## GSN      | -0.43865946 | 6.396540  | -5.9339931 | 1.017650e-07 | 5.324506e-06 |
| ## SALL2    | -0.78618623 | 5.968219  | -5.9318985 | 1.026330e-07 | 5.356463e-06 |
| ## HKDC1    | 0.84529769  | 5.344054  | 5.9311778  | 1.029333e-07 | 5.358709e-06 |
| ## SAMD1    | 0.46200223  | 6.814959  | 5.9272919  | 1.045678e-07 | 5.430168e-06 |
| ## LIX1L    | -0.74730556 | 8.610107  | -5.9266799 | 1.048275e-07 | 5.430168e-06 |
| ## ECHDC2   | -0.79090813 | 9.011500  | -5.9260660 | 1.050887e-07 | 5.430191e-06 |
| ## KIFC1    | 0.71311120  | 7.475032  | 5.9242474  | 1.058662e-07 | 5.456826e-06 |
| ## TFAM     | 0.76642050  | 7.013403  | 5.9233435  | 1.062548e-07 | 5.463332e-06 |
| ## YDJC     | 0.51762896  | 6.318738  | 5.9224658  | 1.066334e-07 | 5.468024e-06 |
| ## DKC1     | 0.64180406  | 8.551058  | 5.9216183  | 1.070003e-07 | 5.468024e-06 |
| ## OSBPL3   | 0.85196464  | 7.746201  | 5.9201312  | 1.076471e-07 | 5.468024e-06 |
| ## BID      | 0.80102039  | 7.226806  | 5.9197407  | 1.078176e-07 | 5.468024e-06 |
| ## PTGIS    | -1.62019006 | 7.888715  | -5.9193403 | 1.079926e-07 | 5.468024e-06 |
| ## TMEM185B | 0.84163960  | 6.854741  | 5.9190480  | 1.081206e-07 | 5.468024e-06 |
| ## AURKA    | 1.18943653  | 7.723137  | 5.9189032  | 1.081841e-07 | 5.468024e-06 |
| ## BYSL     | 0.88053762  | 7.127257  | 5.9170351  | 1.090061e-07 | 5.496230e-06 |
| ## NEK2     | 1.34495801  | 6.792889  | 5.9140287  | 1.103419e-07 | 5.550147e-06 |
| ## NR2F1    | -1.31011735 | 7.801165  | -5.9121138 | 1.112012e-07 | 5.579888e-06 |
| ## DUSP12   | 0.44458335  | 7.997158  | 5.9098269  | 1.122361e-07 | 5.602705e-06 |
| ## SHCBP1   | 0.83685219  | 5.583798  | 5.9094802  | 1.123938e-07 | 5.602705e-06 |
| ## ABHD11   | 0.61093589  | 4.200831  | 5.9093281  | 1.124631e-07 | 5.602705e-06 |
| ## PRCC     | 0.46764260  | 6.742392  | 5.9079584  | 1.130887e-07 | 5.620427e-06 |
| ## ELAVL1   | 0.32637551  | 9.872317  | 5.9059055  | 1.140328e-07 | 5.653854e-06 |
| ## DACT3    | -0.93279674 | 7.418186  | -5.9002112 | 1.166925e-07 | 5.771984e-06 |
| ## CASQ2    | -1.06608473 | 5.885884  | -5.8872463 | 1.229790e-07 | 6.068520e-06 |



|             |             |           |            |              |              |
|-------------|-------------|-----------|------------|--------------|--------------|
| ## ORC6     | 0.67606593  | 7.527723  | 5.8858114  | 1.236950e-07 | 6.089421e-06 |
| ## RFWD3    | 0.58211477  | 5.342690  | 5.8839163  | 1.246470e-07 | 6.121812e-06 |
| ## FAM114A1 | -0.56985488 | 9.318510  | -5.8827944 | 1.252139e-07 | 6.135188e-06 |
| ## NBEA     | -1.36825453 | 5.725154  | -5.8815019 | 1.258703e-07 | 6.152871e-06 |
| ## PLEKHG4  | 0.95565512  | 6.486626  | 5.8808661  | 1.261944e-07 | 6.154266e-06 |
| ## LMNB2    | 0.78449592  | 6.764422  | 5.8790963  | 1.271009e-07 | 6.183993e-06 |
| ## CIRBP    | -0.58130930 | 10.292101 | -5.8783938 | 1.274625e-07 | 6.187131e-06 |
| ## BRIX1    | 0.50648804  | 7.174020  | 5.8754836  | 1.289714e-07 | 6.239510e-06 |
| ## CCNI     | -0.44378082 | 10.929082 | -5.8751589 | 1.291408e-07 | 6.239510e-06 |
| ## TOMM34   | 0.58924341  | 7.851136  | 5.8690120  | 1.323904e-07 | 6.381705e-06 |
| ## DBF4     | 0.73143373  | 7.562960  | 5.8669933  | 1.334750e-07 | 6.419132e-06 |
| ## KIF22    | 0.57133059  | 6.969151  | 5.8651906  | 1.344511e-07 | 6.451175e-06 |
| ## GLE1     | 0.61515130  | 6.207382  | 5.8643048  | 1.349333e-07 | 6.459426e-06 |
| ## PURA     | -0.64646549 | 8.873022  | -5.8623591 | 1.359984e-07 | 6.494910e-06 |
| ## RFC2     | 0.52649085  | 6.770734  | 5.8618140  | 1.362983e-07 | 6.494910e-06 |
| ## ACKR1    | -1.42190121 | 7.268568  | -5.8541236 | 1.405995e-07 | 6.645254e-06 |
| ## DAXX     | 0.40977178  | 7.440002  | 5.8541067  | 1.406091e-07 | 6.645254e-06 |
| ## NDRG2    | -0.82205639 | 8.589419  | -5.8539604 | 1.406922e-07 | 6.645254e-06 |
| ## CKS2     | 1.10115483  | 9.626183  | 5.8538943  | 1.407298e-07 | 6.645254e-06 |
| ## ADORA2B  | 1.17285236  | 5.525147  | 5.8514790  | 1.421094e-07 | 6.695216e-06 |
| ## MCM5     | 0.57270712  | 6.470621  | 5.8507196  | 1.425459e-07 | 6.700621e-06 |
| ## CENPW    | 0.82769751  | 8.705678  | 5.8498437  | 1.430510e-07 | 6.709220e-06 |
| ## TFDP1    | 0.60276676  | 7.153721  | 5.8491527  | 1.434507e-07 | 6.712850e-06 |
| ## ZNF367   | 0.88812607  | 6.718500  | 5.8480132  | 1.441124e-07 | 6.723357e-06 |
| ## NFASC    | -1.50676265 | 6.174480  | -5.8476549 | 1.443210e-07 | 6.723357e-06 |
| ## URB2     | 0.46385488  | 6.662529  | 5.8458153  | 1.453970e-07 | 6.758362e-06 |
| ## MND1     | 0.88045809  | 4.638357  | 5.8430984  | 1.470006e-07 | 6.817685e-06 |
| ## ELN      | -1.02017609 | 7.426790  | -5.8341743 | 1.523918e-07 | 7.052017e-06 |
| ## ZWINT    | 0.90113018  | 9.016337  | 5.8311934  | 1.542358e-07 | 7.121522e-06 |
| ## ECM2     | -0.25355704 | 5.314840  | -5.8300639 | 1.549403e-07 | 7.138223e-06 |
| ## VRK2     | 0.63203334  | 7.613229  | 5.8207066  | 1.608997e-07 | 7.396414e-06 |
| ## ABCE1    | 0.57977484  | 8.829795  | 5.8175342  | 1.629711e-07 | 7.475133e-06 |
| ## KIF11    | 1.13607927  | 6.571475  | 5.8129129  | 1.660357e-07 | 7.598959e-06 |
| ## TMSB10   | 0.34208802  | 13.260297 | 5.8115896  | 1.669236e-07 | 7.622845e-06 |
| ## CTSF     | -0.65216860 | 7.908686  | -5.8095204 | 1.683215e-07 | 7.669862e-06 |
| ## GSK3B    | 0.52377032  | 7.343764  | 5.8077768  | 1.695084e-07 | 7.707081e-06 |
| ## PSMD12   | 0.53438883  | 8.888043  | 5.8039059  | 1.721730e-07 | 7.811176e-06 |
| ## SHISA3   | -1.33216244 | 5.163142  | -5.8002886 | 1.747004e-07 | 7.908610e-06 |
| ## THBS4    | -2.32806892 | 8.094651  | -5.7913040 | 1.811373e-07 | 8.182221e-06 |
| ## PSRC1    | 0.90450828  | 6.067968  | 5.7903426  | 1.818398e-07 | 8.196175e-06 |
| ## DHCR7    | 0.85864900  | 6.772578  | 5.7824922  | 1.876778e-07 | 8.441040e-06 |
| ## SNRPA1   | 0.46838392  | 9.268673  | 5.7777666  | 1.912807e-07 | 8.578591e-06 |
| ## SNRPD3   | 0.36544416  | 10.047051 | 5.7774040  | 1.915600e-07 | 8.578591e-06 |
| ## WDR12    | 0.56485456  | 8.394542  | 5.7747915  | 1.935839e-07 | 8.650627e-06 |
| ## PRPF19   | 0.41418379  | 8.624900  | 5.7727256  | 1.951994e-07 | 8.697935e-06 |
| ## TMEM237  | 0.51785629  | 5.808358  | 5.7723710  | 1.954780e-07 | 8.697935e-06 |
| ## EFNA4    | 0.73695959  | 6.606031  | 5.7706850  | 1.968080e-07 | 8.738444e-06 |
| ## HMBS     | 0.48362422  | 7.731244  | 5.7698079  | 1.975036e-07 | 8.750669e-06 |
| ## LRRN4CL  | -1.14104707 | 6.281009  | -5.7672017 | 1.995844e-07 | 8.824089e-06 |
| ## GNL3     | 0.49398975  | 9.514368  | 5.7562958  | 2.085293e-07 | 9.200031e-06 |
| ## GCHFR    | 0.78551387  | 6.739005  | 5.7545758  | 2.099757e-07 | 9.244256e-06 |
| ## WLS      | -1.14207466 | 8.357597  | -5.7528834 | 2.114085e-07 | 9.287702e-06 |
| ## HASPIN   | 0.37660462  | 4.613529  | 5.7507658  | 2.132149e-07 | 9.347343e-06 |
| ## ASB2     | -0.99515637 | 6.823564  | -5.7466910 | 2.167338e-07 | 9.481650e-06 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## TAPBP     | 0.70098023  | 6.330446  | 5.7441623  | 2.189464e-07 | 9.551984e-06 |
| ## RAD54L    | 0.61050761  | 6.264259  | 5.7431978  | 2.197962e-07 | 9.551984e-06 |
| ## RERGL     | -0.81217188 | 4.703170  | -5.7428354 | 2.201163e-07 | 9.551984e-06 |
| ## BLM       | 0.68535800  | 6.366409  | 5.7423721  | 2.205261e-07 | 9.551984e-06 |
| ## PPP3CB    | -0.50088701 | 9.115914  | -5.7422492 | 2.206350e-07 | 9.551984e-06 |
| ## SRPX      | -1.80203440 | 7.726030  | -5.7341975 | 2.278842e-07 | 9.845353e-06 |
| ## LRCH2     | -0.88553391 | 5.143964  | -5.7291299 | 2.325666e-07 | 1.002685e-05 |
| ## LTBP4     | -0.83197179 | 7.674810  | -5.7255777 | 2.359052e-07 | 1.013928e-05 |
| ## CTSG      | -0.87076508 | 5.988026  | -5.7253211 | 2.361482e-07 | 1.013928e-05 |
| ## PSMB7     | 0.42391297  | 10.338642 | 5.7238476  | 2.375484e-07 | 1.017841e-05 |
| ## LHFPL6    | -1.13995729 | 8.466722  | -5.7222325 | 2.390926e-07 | 1.021258e-05 |
| ## ZNF677    | -0.59178428 | 4.665007  | -5.7219884 | 2.393268e-07 | 1.021258e-05 |
| ## XRN2      | 0.44671477  | 8.527661  | 5.7190083  | 2.422047e-07 | 1.031426e-05 |
| ## GGH       | 1.13183177  | 8.074255  | 5.7149230  | 2.462057e-07 | 1.046324e-05 |
| ## NELFCD    | 0.65487804  | 9.510991  | 5.7143282  | 2.467935e-07 | 1.046686e-05 |
| ## PLIN4     | -0.75347506 | 6.127379  | -5.7137869 | 2.473298e-07 | 1.046699e-05 |
| ## SLC7A6    | 0.44184256  | 4.399711  | 5.7133113  | 2.478019e-07 | 1.046699e-05 |
| ## HAT1      | 0.38340723  | 8.901037  | 5.7126967  | 2.484133e-07 | 1.047158e-05 |
| ## DTL       | 0.99452195  | 7.077248  | 5.7113152  | 2.497930e-07 | 1.048283e-05 |
| ## PRICKLE1  | -1.12405553 | 7.012331  | -5.7107873 | 2.503223e-07 | 1.048283e-05 |
| ## HSPE1     | 0.53571450  | 10.017316 | 5.7106231  | 2.504870e-07 | 1.048283e-05 |
| ## CARMN     | -1.58338152 | 7.735582  | -5.7104171 | 2.506940e-07 | 1.048283e-05 |
| ## POLR1C    | 0.65017316  | 7.695667  | 5.7068193  | 2.543357e-07 | 1.060277e-05 |
| ## FAT4      | -0.96487083 | 6.318295  | -5.7065793 | 2.545804e-07 | 1.060277e-05 |
| ## PSMF1     | 0.50124694  | 8.524971  | 5.7050473  | 2.561484e-07 | 1.064678e-05 |
| ## ZSWIM6    | -0.59387922 | 8.992752  | -5.7015949 | 2.597169e-07 | 1.077359e-05 |
| ## KNL1      | 0.75896060  | 4.300624  | 5.6959679  | 2.656384e-07 | 1.097646e-05 |
| ## MAGEH1    | -0.75174399 | 7.732732  | -5.6959461 | 2.656615e-07 | 1.097646e-05 |
| ## MRPL47    | 0.46192367  | 9.861366  | 5.6929339  | 2.688863e-07 | 1.108770e-05 |
| ## SAE1      | 0.60526051  | 8.639237  | 5.6883369  | 2.738819e-07 | 1.127138e-05 |
| ## NSUN2     | 0.48072513  | 8.538014  | 5.6873213  | 2.749980e-07 | 1.129498e-05 |
| ## INSYN1    | -0.37705632 | 5.174405  | -5.6839378 | 2.787483e-07 | 1.142649e-05 |
| ## MTHFD2    | 0.66551141  | 9.631904  | 5.6828792  | 2.799321e-07 | 1.145247e-05 |
| ## ARHGAP11A | 0.47169034  | 3.959738  | 5.6777237  | 2.857681e-07 | 1.164977e-05 |
| ## SCO1      | 0.48843161  | 7.739368  | 5.6773834  | 2.861575e-07 | 1.164977e-05 |
| ## MCM7      | 0.69531545  | 8.609187  | 5.6768496  | 2.867694e-07 | 1.164977e-05 |
| ## FAM117A   | -0.61679162 | 7.539869  | -5.6766552 | 2.869926e-07 | 1.164977e-05 |
| ## CAND2     | -0.91779685 | 5.556570  | -5.6754865 | 2.883377e-07 | 1.166137e-05 |
| ## PTBP3     | 1.29391308  | 5.928613  | 5.6754341  | 2.883982e-07 | 1.166137e-05 |
| ## ADRM1     | 0.61119838  | 8.640098  | 5.6721602  | 2.922005e-07 | 1.179201e-05 |
| ## ZBTB20    | -0.73384445 | 9.146680  | -5.6716806 | 2.927617e-07 | 1.179201e-05 |
| ## RNASEH2A  | 0.72227937  | 7.662596  | 5.6705718  | 2.940631e-07 | 1.180387e-05 |
| ## SLC24A3   | -1.13189198 | 7.377985  | -5.6704640 | 2.941899e-07 | 1.180387e-05 |
| ## CTPS1     | 0.67136623  | 7.152134  | 5.6699029  | 2.948509e-07 | 1.180765e-05 |
| ## WBP1L     | -0.46764572 | 8.959767  | -5.6675234 | 2.976705e-07 | 1.189768e-05 |
| ## SLC52A3   | 0.71508092  | 6.506001  | 5.6659082  | 2.995996e-07 | 1.193702e-05 |
| ## KARS1     | 0.35835360  | 10.099259 | 5.6656255  | 2.999384e-07 | 1.193702e-05 |
| ## GMPS      | 0.49592646  | 8.544506  | 5.6652622  | 3.003745e-07 | 1.193702e-05 |
| ## CSRP1     | -1.00167743 | 10.368832 | -5.6645488 | 3.012327e-07 | 1.194832e-05 |
| ## STMN2     | -0.87729278 | 4.654462  | -5.6623889 | 3.038455e-07 | 1.202905e-05 |
| ## BRCA2     | 0.64287471  | 4.397820  | 5.6610746  | 3.054462e-07 | 1.206947e-05 |
| ## DNMT1     | 0.60057749  | 8.451496  | 5.6579771  | 3.092519e-07 | 1.219565e-05 |
| ## FABP4     | -2.04218502 | 7.639179  | -5.6575254 | 3.098108e-07 | 1.219565e-05 |
| ## ENO1      | 0.65300560  | 11.193929 | 5.6560941  | 3.115883e-07 | 1.224248e-05 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## TOMM40     | 0.47593699  | 7.994290  | 5.6552893  | 3.125921e-07 | 1.225879e-05 |
| ## RBBP8      | 0.54932398  | 8.576575  | 5.6546030  | 3.134507e-07 | 1.226935e-05 |
| ## STARD9     | -0.74542922 | 5.659518  | -5.6532382 | 3.151649e-07 | 1.227948e-05 |
| ## PNPT1      | 0.60629332  | 8.871712  | 5.6530596  | 3.153900e-07 | 1.227948e-05 |
| ## DES        | -2.30216785 | 8.466957  | -5.6529281 | 3.155557e-07 | 1.227948e-05 |
| ## CRYAB      | -1.25465762 | 7.881856  | -5.6525221 | 3.160682e-07 | 1.227948e-05 |
| ## GGCT       | 0.49799075  | 10.222941 | 5.6473040  | 3.227268e-07 | 1.251483e-05 |
| ## TEDC2      | 0.33957553  | 6.128692  | 5.6455021  | 3.250582e-07 | 1.258181e-05 |
| ## MYRIP      | -1.00234982 | 4.828243  | -5.6378119 | 3.351959e-07 | 1.295013e-05 |
| ## MICU3      | -0.77287297 | 4.078095  | -5.6372927 | 3.358915e-07 | 1.295297e-05 |
| ## MIR29B2CHG | -1.31215856 | 6.624205  | -5.6337258 | 3.407086e-07 | 1.311445e-05 |
| ## SNHG1      | 0.56171883  | 9.191332  | 5.6303628  | 3.453127e-07 | 1.326714e-05 |
| ## HSPB8      | -1.41037839 | 8.272166  | -5.6259003 | 3.515169e-07 | 1.348064e-05 |
| ## RTKN       | 0.81633147  | 6.939055  | 5.6190950  | 3.611903e-07 | 1.382615e-05 |
| ## MALT1      | 0.73343416  | 6.666382  | 5.6183664  | 3.622414e-07 | 1.384095e-05 |
| ## MTX1       | 0.48019831  | 8.413920  | 5.6177093  | 3.631919e-07 | 1.385185e-05 |
| ## PRPF31     | 0.53899372  | 6.845170  | 5.6092337  | 3.756748e-07 | 1.430174e-05 |
| ## TRIM27     | 0.53756225  | 7.735441  | 5.6050087  | 3.820545e-07 | 1.449306e-05 |
| ## FBF1       | 0.28626056  | 5.932270  | 5.6049839  | 3.820923e-07 | 1.449306e-05 |
| ## BUB3       | 0.66794754  | 8.555082  | 5.6021875  | 3.863737e-07 | 1.462881e-05 |
| ## GYPC       | -0.78440480 | 7.660849  | -5.5986253 | 3.918961e-07 | 1.478801e-05 |
| ## POLD2      | 0.63518685  | 7.964530  | 5.5985596  | 3.919988e-07 | 1.478801e-05 |
| ## FARSA      | 0.36408762  | 7.095824  | 5.5979391  | 3.929689e-07 | 1.479780e-05 |
| ## CSNK2B     | 0.35700907  | 10.284521 | 5.5948541  | 3.978274e-07 | 1.493476e-05 |
| ## LTC4S      | -0.35419381 | 5.292466  | -5.5947198 | 3.980403e-07 | 1.493476e-05 |
| ## OSER1      | 0.48928518  | 8.148107  | 5.5939260  | 3.993005e-07 | 1.495510e-05 |
| ## NUP205     | 0.48269587  | 7.921994  | 5.5912593  | 4.035635e-07 | 1.508762e-05 |
| ## KIF20A     | 1.02165393  | 6.462283  | 5.5904304  | 4.048977e-07 | 1.511037e-05 |
| ## TRIB3      | 0.56503361  | 5.008003  | 5.5837482  | 4.158128e-07 | 1.546697e-05 |
| ## PSMB3      | 0.40428136  | 10.606509 | 5.5836723  | 4.159386e-07 | 1.546697e-05 |
| ## NUP155     | 0.70462262  | 6.649586  | 5.5828313  | 4.173332e-07 | 1.549117e-05 |
| ## FANCE      | 0.39179927  | 5.931392  | 5.5783720  | 4.248048e-07 | 1.574045e-05 |
| ## RPP40      | 0.62997213  | 7.068630  | 5.5754266  | 4.298120e-07 | 1.589770e-05 |
| ## SYNCRIP    | 0.58274557  | 7.288231  | 5.5749408  | 4.306435e-07 | 1.590021e-05 |
| ## HMGB3P1    | 0.55784442  | 5.777968  | 5.5736441  | 4.328706e-07 | 1.595415e-05 |
| ## KLF2       | -0.76801443 | 9.361627  | -5.5728071 | 4.343142e-07 | 1.597908e-05 |
| ## CACYBP     | 0.48080286  | 9.228002  | 5.5656537  | 4.468464e-07 | 1.641116e-05 |
| ## ACAP2      | 0.56747536  | 5.672370  | 5.5647665  | 4.484254e-07 | 1.642017e-05 |
| ## ENOPH1     | 0.40682850  | 9.209727  | 5.5646300  | 4.486687e-07 | 1.642017e-05 |
| ## ESPL1      | 0.74251744  | 6.809000  | 5.5638954  | 4.499809e-07 | 1.643930e-05 |
| ## ZW10       | 0.36258187  | 7.464426  | 5.5591691  | 4.585143e-07 | 1.672172e-05 |
| ## SNRPG      | 0.37911430  | 11.032620 | 5.5548319  | 4.664853e-07 | 1.698174e-05 |
| ## USP24      | 0.39379581  | 6.880639  | 5.5542947  | 4.674821e-07 | 1.698174e-05 |
| ## PRKCSH     | 0.41112777  | 8.547675  | 5.5538011  | 4.683999e-07 | 1.698174e-05 |
| ## POP7       | 0.47058962  | 8.007564  | 5.5535292  | 4.689060e-07 | 1.698174e-05 |
| ## PLSCR4     | -0.97903839 | 7.780428  | -5.5520652 | 4.716411e-07 | 1.705114e-05 |
| ## MSH2       | 0.74668691  | 6.864186  | 5.5497563  | 4.759868e-07 | 1.717842e-05 |
| ## SIGLEC17P  | -0.39562353 | 4.740075  | -5.5453692 | 4.843528e-07 | 1.743114e-05 |
| ## SOD3       | -0.62345583 | 7.267664  | -5.5452078 | 4.846635e-07 | 1.743114e-05 |
| ## RAD18      | 0.34983548  | 5.037103  | 5.5418364  | 4.911947e-07 | 1.762576e-05 |
| ## CAPN9      | -1.83659039 | 6.647937  | -5.5415429 | 4.917676e-07 | 1.762576e-05 |
| ## SCRG1      | -1.95273029 | 6.703747  | -5.5400924 | 4.946075e-07 | 1.769709e-05 |
| ## HSD17B6    | -1.08038796 | 5.771215  | -5.5368577 | 5.009990e-07 | 1.789503e-05 |
| ## TWNK       | 0.58700775  | 6.166142  | 5.5355567  | 5.035925e-07 | 1.795687e-05 |

|            |             |           |            |              |              |
|------------|-------------|-----------|------------|--------------|--------------|
| ## PDE2A   | -0.78529101 | 6.316548  | -5.5344856 | 5.057377e-07 | 1.800253e-05 |
| ## ACTG2   | -1.89253522 | 10.829559 | -5.5337560 | 5.072040e-07 | 1.802392e-05 |
| ## ZNF423  | -1.10069874 | 7.024496  | -5.5329873 | 5.087535e-07 | 1.804818e-05 |
| ## WDR46   | 0.34275726  | 7.469016  | 5.5325281  | 5.096813e-07 | 1.805035e-05 |
| ## ZBTB16  | -1.03563224 | 5.378960  | -5.5260709 | 5.229062e-07 | 1.848726e-05 |
| ## RHOBTB1 | -0.96707355 | 7.076456  | -5.5250687 | 5.249889e-07 | 1.852944e-05 |
| ## PLA2G10 | -1.39021251 | 8.399924  | -5.5230773 | 5.291514e-07 | 1.864475e-05 |
| ## POC1A   | 0.48133563  | 6.291262  | 5.5223567  | 5.306657e-07 | 1.866652e-05 |
| ## FAM229B | -0.76798228 | 6.150751  | -5.5194470 | 5.368236e-07 | 1.885129e-05 |
| ## ICAM1   | 0.86561147  | 7.856403  | 5.5179886  | 5.399364e-07 | 1.892868e-05 |
| ## SAPCD2  | 0.68747067  | 7.482716  | 5.5168513  | 5.423763e-07 | 1.895758e-05 |
| ## GTSE1   | 0.50482078  | 5.215776  | 5.5167558  | 5.425815e-07 | 1.895758e-05 |
| ## CCDC107 | -0.38111254 | 6.861669  | -5.5157447 | 5.447606e-07 | 1.900183e-05 |
| ## NOLC1   | 0.73781013  | 7.622410  | 5.5152137  | 5.459084e-07 | 1.901003e-05 |
| ## CTSO    | -0.74353387 | 7.884429  | -5.5125646 | 5.516702e-07 | 1.917860e-05 |
| ## PTCO3   | 0.39918846  | 8.442115  | 5.5100894  | 5.571080e-07 | 1.933536e-05 |
| ## SCG5    | -1.33729793 | 6.896315  | -5.5095880 | 5.582159e-07 | 1.934158e-05 |
| ## SDE2    | 0.60982098  | 4.864230  | 5.5033940  | 5.720828e-07 | 1.978580e-05 |
| ## U2SURP  | 0.40936741  | 9.581706  | 5.5030174  | 5.729368e-07 | 1.978580e-05 |
| ## GPD1L   | -0.72897093 | 8.844435  | -5.4992562 | 5.815348e-07 | 2.004947e-05 |
| ## RELN    | -0.62197370 | 5.801254  | -5.4968558 | 5.870881e-07 | 2.011304e-05 |
| ## SPRTN   | 0.37377253  | 5.046900  | 5.4966979  | 5.874552e-07 | 2.011304e-05 |
| ## HTR2A   | -0.87189404 | 5.144558  | -5.4966169 | 5.876437e-07 | 2.011304e-05 |
| ## TSEN34  | 0.42310841  | 8.193925  | 5.4963624  | 5.882360e-07 | 2.011304e-05 |
| ## PHYH    | -0.87244135 | 9.043943  | -5.4959919 | 5.890995e-07 | 2.011304e-05 |
| ## TSN     | 0.65391894  | 7.709001  | 5.4957241  | 5.897244e-07 | 2.011304e-05 |
| ## RPAP3   | 0.73599589  | 5.248250  | 5.4955463  | 5.901396e-07 | 2.011304e-05 |
| ## RRP1    | 0.27157179  | 7.156573  | 5.4945868  | 5.923855e-07 | 2.015659e-05 |
| ## DSN1    | 0.48197794  | 6.555130  | 5.4931677  | 5.957226e-07 | 2.023708e-05 |
| ## BHMT2   | -1.12521427 | 5.909272  | -5.4920314 | 5.984079e-07 | 2.029519e-05 |
| ## EIF4A3  | 0.41309671  | 9.605552  | 5.4894976  | 6.044391e-07 | 2.046641e-05 |
| ## IMP4    | 0.36102967  | 8.863792  | 5.4872870  | 6.097496e-07 | 2.061270e-05 |
| ## ORC1    | 0.46591246  | 4.334621  | 5.4862532  | 6.122488e-07 | 2.066364e-05 |
| ## TGIF1   | 0.64239606  | 8.648689  | 5.4849310  | 6.154599e-07 | 2.073841e-05 |
| ## CHD9    | -0.56470008 | 7.615902  | -5.4834007 | 6.191973e-07 | 2.083064e-05 |
| ## TAP1    | 0.87343116  | 8.996239  | 5.4816662  | 6.234603e-07 | 2.094022e-05 |
| ## WDR75   | 0.34937950  | 7.782575  | 5.4784280  | 6.314963e-07 | 2.117597e-05 |
| ## DNAJB1  | 0.76112088  | 8.434657  | 5.4741106  | 6.423694e-07 | 2.150001e-05 |
| ## LRRC17  | -1.29651954 | 6.194088  | -5.4737742 | 6.432245e-07 | 2.150001e-05 |
| ## DDX18   | 0.43341829  | 8.032179  | 5.4720417  | 6.476448e-07 | 2.161307e-05 |
| ## NKX2-3  | -0.64038095 | 4.105449  | -5.4681629 | 6.576507e-07 | 2.191187e-05 |
| ## USP43   | 0.38766028  | 4.901198  | 5.4677221  | 6.587972e-07 | 2.191500e-05 |
| ## SORBS1  | -0.49396870 | 8.131892  | -5.4672004 | 6.601569e-07 | 2.192521e-05 |
| ## KPNA2   | 0.65609855  | 10.232116 | 5.4663851  | 6.622872e-07 | 2.196094e-05 |
| ## NUS1P3  | 0.35031233  | 4.479011  | 5.4650335  | 6.658338e-07 | 2.204344e-05 |
| ## ATL3    | 0.72347195  | 6.990623  | 5.4617138  | 6.746242e-07 | 2.229901e-05 |
| ## CHAF1B  | 0.43460102  | 6.044840  | 5.4611014  | 6.762582e-07 | 2.231759e-05 |
| ## CFH     | -1.46622074 | 8.199734  | -5.4605460 | 6.777437e-07 | 2.233123e-05 |
| ## COX7A1  | -0.98710249 | 7.963955  | -5.4592824 | 6.811349e-07 | 2.240751e-05 |
| ## RIF1    | 0.52818680  | 7.142152  | 5.4580128  | 6.845589e-07 | 2.246694e-05 |
| ## PGM2    | 0.48999875  | 6.882121  | 5.4578130  | 6.850994e-07 | 2.246694e-05 |
| ## MEN1    | 0.43399414  | 7.465607  | 5.4549232  | 6.929627e-07 | 2.268908e-05 |
| ## PCLAF   | 0.95327679  | 9.728794  | 5.4523476  | 7.000457e-07 | 2.288501e-05 |
| ## EID1    | -0.54904390 | 9.874974  | -5.4518202 | 7.015049e-07 | 2.289677e-05 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## XRN1       | 0.77446628  | 4.952670  | 5.4488158  | 7.098743e-07 | 2.312192e-05 |
| ## TCP1       | 0.41832751  | 10.140916 | 5.4485485  | 7.106237e-07 | 2.312192e-05 |
| ## NAMPT      | 1.20804332  | 7.824278  | 5.4478218  | 7.126649e-07 | 2.315216e-05 |
| ## FAM172A    | -0.72035620 | 7.659347  | -5.4406058 | 7.332495e-07 | 2.378378e-05 |
| ## FBXL5      | -0.44589486 | 9.347056  | -5.4376554 | 7.418335e-07 | 2.402479e-05 |
| ## RPN2       | 0.45709814  | 10.951158 | 5.4340511  | 7.524539e-07 | 2.433090e-05 |
| ## SLBP       | 0.50342663  | 8.988256  | 5.4319309  | 7.587711e-07 | 2.449713e-05 |
| ## HSPA14     | 0.53728706  | 7.866928  | 5.4280887  | 7.703524e-07 | 2.483254e-05 |
| ## GSPT2      | -1.09627727 | 5.991702  | -5.4240488 | 7.827167e-07 | 2.519211e-05 |
| ## MIF        | 0.51176470  | 11.367382 | 5.4169675  | 8.048624e-07 | 2.585230e-05 |
| ## AMD1       | 0.53870523  | 8.298581  | 5.4166997  | 8.057119e-07 | 2.585230e-05 |
| ## PHYHD1     | -0.47516613 | 5.876990  | -5.4147322 | 8.119802e-07 | 2.601335e-05 |
| ## DLGAP5     | 1.26503645  | 6.755823  | 5.4127570  | 8.183211e-07 | 2.615199e-05 |
| ## FDPS       | 0.55001714  | 9.215334  | 5.4126024  | 8.188196e-07 | 2.615199e-05 |
| ## LIMS2      | -0.70734047 | 6.748804  | -5.4116182 | 8.219990e-07 | 2.620158e-05 |
| ## MEOX2      | -1.45049278 | 4.654178  | -5.4113435 | 8.228888e-07 | 2.620158e-05 |
| ## SNRPA      | 0.41446050  | 8.696395  | 5.4095280  | 8.287923e-07 | 2.634927e-05 |
| ## TNFRSF12A  | 0.68822735  | 7.954830  | 5.4082541  | 8.329594e-07 | 2.644138e-05 |
| ## RIOX2      | 0.43348266  | 5.179735  | 5.4078416  | 8.343131e-07 | 2.644404e-05 |
| ## CD1C       | -0.65455425 | 6.482274  | -5.4067912 | 8.377701e-07 | 2.651326e-05 |
| ## C1QTNF7    | -0.71035601 | 5.192696  | -5.4026071 | 8.516813e-07 | 2.691261e-05 |
| ## GNG11      | -0.75869210 | 8.240991  | -5.4015436 | 8.552530e-07 | 2.694534e-05 |
| ## GAPDH      | 0.37256793  | 13.035433 | 5.4015282  | 8.553048e-07 | 2.694534e-05 |
| ## NMI        | 0.59780087  | 9.463896  | 5.4007844  | 8.578120e-07 | 2.698350e-05 |
| ## PIGU       | 0.50863147  | 7.407240  | 5.3911245  | 8.910354e-07 | 2.798631e-05 |
| ## KCNT2      | -0.78949694 | 4.540900  | -5.3906673 | 8.926388e-07 | 2.799444e-05 |
| ## CNIH4      | 0.55652021  | 7.921205  | 5.3896264  | 8.962998e-07 | 2.806699e-05 |
| ## DCUN1D5    | 0.53027197  | 8.891168  | 5.3881996  | 9.013420e-07 | 2.818250e-05 |
| ## CLDN1      | 1.18416769  | 5.881734  | 5.3861600  | 9.085985e-07 | 2.836680e-05 |
| ## COL14A1    | -1.71079312 | 7.962868  | -5.3848165 | 9.134100e-07 | 2.847433e-05 |
| ## PNO1       | 0.59654891  | 8.295539  | 5.3829087  | 9.202850e-07 | 2.864576e-05 |
| ## TYW5       | 0.37896416  | 6.629142  | 5.3821565  | 9.230095e-07 | 2.868769e-05 |
| ## NUP188     | 0.35678093  | 7.476023  | 5.3807093  | 9.282742e-07 | 2.880832e-05 |
| ## PTTG1      | 0.85526254  | 9.235086  | 5.3802571  | 9.299253e-07 | 2.881661e-05 |
| ## SYNM       | -2.26256417 | 9.011638  | -5.3781587 | 9.376243e-07 | 2.895527e-05 |
| ## DEDD       | 0.36266362  | 6.574168  | 5.3779583  | 9.383628e-07 | 2.895527e-05 |
| ## GPBAR1     | -0.54171322 | 5.835560  | -5.3779018 | 9.385712e-07 | 2.895527e-05 |
| ## AIMP2      | 0.46444680  | 9.093806  | 5.3773500  | 9.406082e-07 | 2.897518e-05 |
| ## TARS2      | 0.38028996  | 6.905683  | 5.3743234  | 9.518587e-07 | 2.927844e-05 |
| ## NAP1L3     | -1.26927635 | 5.137757  | -5.3660515 | 9.832862e-07 | 3.020052e-05 |
| ## FIP1L1     | 0.34405174  | 4.197602  | 5.3652942  | 9.862139e-07 | 3.024583e-05 |
| ## ZNF790-AS1 | -0.27754253 | 4.151490  | -5.3644788 | 9.893758e-07 | 3.029818e-05 |
| ## ORC2       | 0.59554910  | 6.879608  | 5.3636033  | 9.927817e-07 | 3.033378e-05 |
| ## SETBP1-DT  | -0.33165315 | 3.912032  | -5.3634314 | 9.934516e-07 | 3.033378e-05 |
| ## FREM1      | -0.90629958 | 4.868407  | -5.3545682 | 1.028611e-06 | 3.132286e-05 |
| ## CPQ        | -0.91398582 | 7.599821  | -5.3545083 | 1.028853e-06 | 3.132286e-05 |
| ## SLC25A39   | 0.48752167  | 8.495939  | 5.3520531  | 1.038809e-06 | 3.157980e-05 |
| ## CCDC159    | -0.37975832 | 6.538038  | -5.3480558 | 1.055222e-06 | 3.203199e-05 |
| ## RAD54B     | 0.74380594  | 6.285735  | 5.3469857  | 1.059659e-06 | 3.211985e-05 |
| ## MRPL19     | 0.49677989  | 7.929255  | 5.3452098  | 1.067063e-06 | 3.229726e-05 |
| ## ITM2B      | -0.33561506 | 11.717802 | -5.3433965 | 1.074675e-06 | 3.247118e-05 |
| ## TRNT1      | 0.52564879  | 6.394818  | 5.3430993  | 1.075928e-06 | 3.247118e-05 |
| ## RPH3AL-AS1 | -0.31644350 | 3.948399  | -5.3405404 | 1.086773e-06 | 3.272517e-05 |
| ## TOPBP1     | 0.47853522  | 8.215688  | 5.3401265  | 1.088537e-06 | 3.272517e-05 |

|            |             |          |            |              |              |
|------------|-------------|----------|------------|--------------|--------------|
| ## ZC4H2   | -0.49660894 | 6.527229 | -5.3400045 | 1.089058e-06 | 3.272517e-05 |
| ## EPHA3   | -1.70175486 | 6.156103 | -5.3385209 | 1.095408e-06 | 3.286855e-05 |
| ## MGLL    | -0.88590629 | 8.683739 | -5.3361288 | 1.105723e-06 | 3.313033e-05 |
| ## TM9SF4  | 0.65362126  | 7.694239 | 5.3356866  | 1.107641e-06 | 3.314010e-05 |
| ## DHRS3   | -0.56711037 | 8.244116 | -5.3346399 | 1.112192e-06 | 3.322853e-05 |
| ## SSRP1   | 0.47708341  | 8.418036 | 5.3324104  | 1.121948e-06 | 3.347198e-05 |
| ## PUS1    | 0.47820270  | 7.064380 | 5.3318822  | 1.124272e-06 | 3.349333e-05 |
| ## SASS6   | 0.33492747  | 4.505707 | 5.3313559  | 1.126591e-06 | 3.351448e-05 |
| ## OXSR1   | 0.38187825  | 8.665046 | 5.3265788  | 1.147865e-06 | 3.409864e-05 |
| ## HSPB7   | -1.46403361 | 6.080347 | -5.3242570 | 1.158347e-06 | 3.433013e-05 |
| ## UTP20   | 0.53789049  | 6.555077 | 5.3241230  | 1.158955e-06 | 3.433013e-05 |
| ## EGFL6   | 1.35746500  | 6.020979 | 5.3221471  | 1.167954e-06 | 3.454754e-05 |
| ## PUS7    | 0.73178712  | 8.085574 | 5.3198227  | 1.178628e-06 | 3.481382e-05 |
| ## NOP56   | 0.36730092  | 6.941119 | 5.3193929  | 1.180612e-06 | 3.482304e-05 |
| ## CRBN    | -0.44458753 | 8.523308 | -5.3173934 | 1.189886e-06 | 3.497417e-05 |
| ## NFIB    | -0.77697786 | 8.940724 | -5.3172906 | 1.190364e-06 | 3.497417e-05 |
| ## TRIM11  | 0.43216163  | 6.666190 | 5.3172026  | 1.190774e-06 | 3.497417e-05 |
| ## SH3BGR  | -0.79469077 | 5.864423 | -5.3153741 | 1.199324e-06 | 3.517566e-05 |
| ## MCM8    | 0.80126054  | 6.554654 | 5.3146219  | 1.202859e-06 | 3.522972e-05 |
| ## NIT2    | 0.38071193  | 8.804892 | 5.3133180  | 1.209010e-06 | 3.532201e-05 |
| ## NPR3    | -0.46734565 | 5.259942 | -5.3132351 | 1.209402e-06 | 3.532201e-05 |
| ## HUS1    | 0.52354625  | 7.449244 | 5.3118229  | 1.216102e-06 | 3.545499e-05 |
| ## DDX21   | 0.67795583  | 9.469562 | 5.3115583  | 1.217361e-06 | 3.545499e-05 |
| ## COMMD4  | 0.35911671  | 8.670332 | 5.3058643  | 1.244771e-06 | 3.620268e-05 |
| ## NAT10   | 0.43613820  | 7.960279 | 5.3038186  | 1.254767e-06 | 3.644249e-05 |
| ## ABCA8   | -0.29936047 | 4.045780 | -5.3026315 | 1.260603e-06 | 3.656100e-05 |
| ## ZFX     | 0.47053276  | 5.804726 | 5.3012462  | 1.267448e-06 | 3.667469e-05 |
| ## GAR1    | 0.37289090  | 8.215634 | 5.3011256  | 1.268045e-06 | 3.667469e-05 |
| ## CXCL1   | 1.54897515  | 7.818098 | 5.2991717  | 1.277765e-06 | 3.685357e-05 |
| ## MTCH2   | 0.49275294  | 9.638711 | 5.2991708  | 1.277770e-06 | 3.685357e-05 |
| ## PDLIM3  | -1.14854733 | 8.648058 | -5.2981303 | 1.282976e-06 | 3.694090e-05 |
| ## DAP3    | 0.42295953  | 9.642696 | 5.2978573  | 1.284346e-06 | 3.694090e-05 |
| ## DCLRE1A | 0.43873347  | 5.926025 | 5.2928325  | 1.309808e-06 | 3.762131e-05 |
| ## INMT    | -1.23177414 | 6.553661 | -5.2922727 | 1.312676e-06 | 3.765173e-05 |
| ## MYZAP   | -0.86929685 | 6.496565 | -5.2910092 | 1.319170e-06 | 3.778597e-05 |
| ## HDC     | -0.88408442 | 5.992866 | -5.2899390 | 1.324696e-06 | 3.784982e-05 |
| ## AHCTF1  | 0.40244652  | 7.046886 | 5.2898735  | 1.325035e-06 | 3.784982e-05 |
| ## DLAT    | 0.62115145  | 7.333142 | 5.2885360  | 1.331974e-06 | 3.799592e-05 |
| ## LRR1    | 0.69770948  | 7.021193 | 5.2868987  | 1.340517e-06 | 3.818731e-05 |
| ## MGME1   | 0.54478783  | 8.139374 | 5.2846035  | 1.352583e-06 | 3.847841e-05 |
| ## LRIG1   | -0.77898678 | 9.010732 | -5.2841354 | 1.355057e-06 | 3.849620e-05 |
| ## API5    | 0.54924180  | 6.600619 | 5.2778189  | 1.388880e-06 | 3.940332e-05 |
| ## SAC3D1  | 0.67322434  | 6.780503 | 5.2768437  | 1.394175e-06 | 3.941723e-05 |
| ## NOL11   | 0.35118408  | 9.021620 | 5.2767090  | 1.394908e-06 | 3.941723e-05 |
| ## POLE2   | 0.76845305  | 6.287005 | 5.2766831  | 1.395049e-06 | 3.941723e-05 |
| ## STX6    | 0.46093350  | 6.997656 | 5.2761464  | 1.397973e-06 | 3.944633e-05 |
| ## GTPBP2  | 0.65089522  | 7.199628 | 5.2730054  | 1.415209e-06 | 3.987865e-05 |
| ## HMMR    | 1.08353185  | 7.400127 | 5.2724686  | 1.418176e-06 | 3.990823e-05 |
| ## KIF20B  | 0.40282464  | 6.892187 | 5.2720715  | 1.420374e-06 | 3.991615e-05 |
| ## GINS3   | 0.54271505  | 5.724040 | 5.2677716  | 1.444394e-06 | 4.053647e-05 |
| ## TUBGCP3 | 0.33854840  | 4.343277 | 5.2631186  | 1.470836e-06 | 4.122299e-05 |
| ## DNTTIP1 | 0.56026271  | 8.083455 | 5.2621387  | 1.476465e-06 | 4.132513e-05 |
| ## FXYD6   | -1.09158075 | 7.730481 | -5.2611637 | 1.482087e-06 | 4.139761e-05 |
| ## PMS2P3  | 0.41984942  | 8.028154 | 5.2610004  | 1.483030e-06 | 4.139761e-05 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## GGTA1     | -0.94156885 | 6.787929  | -5.2594982 | 1.491738e-06 | 4.158494e-05 |
| ## LSM12     | 0.71439378  | 6.380752  | 5.2585043  | 1.497527e-06 | 4.169051e-05 |
| ## WAPL      | 0.53595906  | 7.423939  | 5.2579535  | 1.500744e-06 | 4.172430e-05 |
| ## NUDT1     | 0.50998422  | 6.882864  | 5.2566044  | 1.508654e-06 | 4.188413e-05 |
| ## LRP8      | 0.87638200  | 4.731285  | 5.2561091  | 1.511569e-06 | 4.188413e-05 |
| ## SNHG15    | 0.51812257  | 7.275505  | 5.2556133  | 1.514491e-06 | 4.188413e-05 |
| ## PSAPL1    | -0.98153647 | 6.956017  | -5.2556053 | 1.514538e-06 | 4.188413e-05 |
| ## SLC16A2   | -0.90640550 | 6.265906  | -5.2545076 | 1.521029e-06 | 4.200070e-05 |
| ## PGRMC2    | -0.55381766 | 8.365845  | -5.2542110 | 1.522788e-06 | 4.200070e-05 |
| ## CAPN1     | 0.45903633  | 8.059220  | 5.2532875  | 1.528276e-06 | 4.209633e-05 |
| ## LDB2      | -0.73469436 | 7.356539  | -5.2522538 | 1.534442e-06 | 4.221034e-05 |
| ## CBX3      | 0.83582340  | 5.534168  | 5.2510639  | 1.541570e-06 | 4.235047e-05 |
| ## HNRNPF    | 0.44796918  | 9.300190  | 5.2497789  | 1.549304e-06 | 4.236709e-05 |
| ## MYOC      | -1.38860187 | 5.674121  | -5.2496752 | 1.549930e-06 | 4.236709e-05 |
| ## SERINC1   | -0.41584748 | 9.992743  | -5.2494109 | 1.551526e-06 | 4.236709e-05 |
| ## SPART     | -0.92377096 | 6.606193  | -5.2493533 | 1.551874e-06 | 4.236709e-05 |
| ## PPP1R35   | 0.45459666  | 7.503747  | 5.2492750  | 1.552348e-06 | 4.236709e-05 |
| ## MRPS26    | 0.48201164  | 8.561470  | 5.2483990  | 1.557652e-06 | 4.245622e-05 |
| ## RPRD1A    | 0.56846660  | 4.682316  | 5.2474160  | 1.563626e-06 | 4.256332e-05 |
| ## DZIP1     | -0.62802716 | 6.514673  | -5.2445619 | 1.581098e-06 | 4.298275e-05 |
| ## NR2F2-AS1 | -0.59884239 | 5.567121  | -5.2431190 | 1.590004e-06 | 4.316850e-05 |
| ## RSP03     | -1.46905047 | 7.450386  | -5.2422244 | 1.595550e-06 | 4.326267e-05 |
| ## MZT1      | 0.65044763  | 8.228705  | 5.2415305  | 1.599865e-06 | 4.332325e-05 |
| ## AZI2      | -0.42020738 | 6.661626  | -5.2404753 | 1.606449e-06 | 4.344506e-05 |
| ## PPP1R36   | -0.84644675 | 6.684212  | -5.2383854 | 1.619567e-06 | 4.366115e-05 |
| ## HCAR3     | 1.81128604  | 5.707269  | 5.2383691  | 1.619670e-06 | 4.366115e-05 |
| ## DCX       | -0.55660746 | 4.255207  | -5.2382011 | 1.620729e-06 | 4.366115e-05 |
| ## WDR26     | 0.31274669  | 9.382920  | 5.2365913  | 1.630913e-06 | 4.387504e-05 |
| ## TMTC1     | -0.35488410 | 5.287376  | -5.2362810 | 1.632883e-06 | 4.387504e-05 |
| ## NFKBIE    | 0.51133685  | 6.902571  | 5.2338383  | 1.648474e-06 | 4.423687e-05 |
| ## GOLT1B    | 0.55934579  | 8.113083  | 5.2327897  | 1.655212e-06 | 4.427874e-05 |
| ## CDK4      | 0.59831328  | 9.434473  | 5.2326434  | 1.656154e-06 | 4.427874e-05 |
| ## C14orf28  | -0.58869316 | 5.767954  | -5.2326032 | 1.656413e-06 | 4.427874e-05 |
| ## MS4A2     | -0.79872185 | 4.415179  | -5.2318213 | 1.661458e-06 | 4.435666e-05 |
| ## C5orf34   | 0.58041250  | 5.037345  | 5.2306859  | 1.668811e-06 | 4.449593e-05 |
| ## SLC25A22  | 0.41210888  | 6.717878  | 5.2293168  | 1.677719e-06 | 4.467625e-05 |
| ## LARP6     | -0.89738065 | 6.354739  | -5.2274202 | 1.690138e-06 | 4.494947e-05 |
| ## TFG       | 0.33612003  | 10.497232 | 5.2245105  | 1.709366e-06 | 4.537580e-05 |
| ## MASTL     | 0.80151019  | 5.820016  | 5.2243359  | 1.710526e-06 | 4.537580e-05 |
| ## WNT2B     | -0.86950184 | 4.553589  | -5.2239325 | 1.713211e-06 | 4.538919e-05 |
| ## MTF2      | 0.38207210  | 8.674375  | 5.2223953  | 1.723478e-06 | 4.560319e-05 |
| ## DPAGT1    | 0.42842923  | 8.213984  | 5.2210730  | 1.732358e-06 | 4.577999e-05 |
| ## THYN1     | -0.45795630 | 8.461493  | -5.2183927 | 1.750497e-06 | 4.620068e-05 |
| ## ZC3H8     | 0.48211729  | 6.974639  | 5.2146427  | 1.776186e-06 | 4.681937e-05 |
| ## NUP93     | 0.35880789  | 7.896740  | 5.2134652  | 1.784329e-06 | 4.697454e-05 |
| ## AMMECR1   | 0.44297273  | 4.176443  | 5.2098489  | 1.809566e-06 | 4.757879e-05 |
| ## CHR1      | -0.30881942 | 5.739880  | -5.2073359 | 1.827310e-06 | 4.798473e-05 |
| ## AGTR1     | -1.11436644 | 4.878236  | -5.2034441 | 1.855125e-06 | 4.865382e-05 |
| ## ATL1      | -0.77035143 | 5.995298  | -5.1999705 | 1.880303e-06 | 4.925212e-05 |
| ## MAP1A     | -0.89686169 | 6.229986  | -5.1995133 | 1.883642e-06 | 4.927759e-05 |
| ## PRMT5     | 0.52959189  | 7.433209  | 5.1987923  | 1.888919e-06 | 4.935363e-05 |
| ## POLR1F    | 0.27674432  | 3.732684  | 5.1961012  | 1.908744e-06 | 4.980912e-05 |
| ## NR2F1-AS1 | -0.33283288 | 3.518878  | -5.1926732 | 1.934293e-06 | 5.041265e-05 |
| ## IGFBP5    | -0.46073639 | 4.610481  | -5.1921691 | 1.938078e-06 | 5.044818e-05 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## MAGI2-AS3 | -0.77280884 | 6.198977  | -5.1906843 | 1.949270e-06 | 5.066842e-05 |
| ## RPL23AP32 | -0.49944664 | 6.627155  | -5.1904019 | 1.951406e-06 | 5.066842e-05 |
| ## CALR      | 0.71840920  | 6.732297  | 5.1878123  | 1.971097e-06 | 5.111598e-05 |
| ## FBXL22    | -0.52956148 | 4.684827  | -5.1869516 | 1.977686e-06 | 5.122304e-05 |
| ## MRM2      | 0.35963365  | 8.034026  | 5.1864877  | 1.981245e-06 | 5.125149e-05 |
| ## DNAAF5    | 0.48668048  | 5.844581  | 5.1837158  | 2.002647e-06 | 5.174085e-05 |
| ## CHAF1A    | 0.45697834  | 6.285555  | 5.1828339  | 2.009504e-06 | 5.185366e-05 |
| ## PSMD2     | 0.39675790  | 9.655198  | 5.1816698  | 2.018590e-06 | 5.202365e-05 |
| ## ZNF8      | 0.34487806  | 6.190720  | 5.1798744  | 2.032681e-06 | 5.232207e-05 |
| ## TCEAL2    | -1.63643762 | 5.540143  | -5.1759794 | 2.063586e-06 | 5.300086e-05 |
| ## DCAF17    | 0.37185267  | 4.069787  | 5.1759099  | 2.064142e-06 | 5.300086e-05 |
| ## PLP1      | -0.81003452 | 4.486867  | -5.1752458 | 2.069459e-06 | 5.302523e-05 |
| ## USP39     | 0.31823728  | 7.554057  | 5.1751553  | 2.070184e-06 | 5.302523e-05 |
| ## SMU1      | 0.50556417  | 7.048967  | 5.1742427  | 2.077514e-06 | 5.314762e-05 |
| ## C8orf88   | -1.25519647 | 4.662942  | -5.1724301 | 2.092149e-06 | 5.340006e-05 |
| ## ARPC5L    | 0.38663917  | 9.640078  | 5.1723855  | 2.092511e-06 | 5.340006e-05 |
| ## SLC4A11   | 1.14679253  | 6.247979  | 5.1715093  | 2.099622e-06 | 5.351596e-05 |
| ## MIS18A    | 0.58953180  | 5.850590  | 5.1700742  | 2.111322e-06 | 5.369340e-05 |
| ## SHMT2     | 0.60257494  | 6.130927  | 5.1700230  | 2.111741e-06 | 5.369340e-05 |
| ## RECQL4    | 0.49815772  | 6.596507  | 5.1696527  | 2.114771e-06 | 5.370486e-05 |
| ## PJA2      | -0.61778813 | 9.313067  | -5.1682355 | 2.126405e-06 | 5.393455e-05 |
| ## ZDHHC23   | 0.75893476  | 6.327992  | 5.1647290  | 2.155464e-06 | 5.460508e-05 |
| ## EEF1E1    | 0.47816694  | 8.424517  | 5.1621586  | 2.177012e-06 | 5.508205e-05 |
| ## CAPRIN1   | 0.63975360  | 8.589531  | 5.1618536  | 2.179582e-06 | 5.508205e-05 |
| ## HSP90AB1  | 1.04022275  | 10.758159 | 5.1613533  | 2.183806e-06 | 5.512191e-05 |
| ## MSI2      | 0.66085592  | 4.953850  | 5.1599375  | 2.195801e-06 | 5.535758e-05 |
| ## PYGM      | -0.51015431 | 4.914199  | -5.1564226 | 2.225861e-06 | 5.598000e-05 |
| ## PAK3      | -0.51105901 | 3.895911  | -5.1564220 | 2.225866e-06 | 5.598000e-05 |
| ## NANP      | 0.45197690  | 7.093793  | 5.1519427  | 2.264760e-06 | 5.686464e-05 |
| ## WASF3     | -1.20709166 | 6.345874  | -5.1516005 | 2.267758e-06 | 5.686464e-05 |
| ## GNB1      | 0.52876972  | 9.219613  | 5.1514323  | 2.269234e-06 | 5.686464e-05 |
| ## CLDN7     | 1.32318947  | 9.061964  | 5.1504021  | 2.278290e-06 | 5.702297e-05 |
| ## SLIT3     | -0.74562692 | 6.289891  | -5.1480257 | 2.299316e-06 | 5.747022e-05 |
| ## CKB       | -1.37482363 | 8.152376  | -5.1477599 | 2.301679e-06 | 5.747022e-05 |
| ## FZD4      | -0.68647504 | 7.018584  | -5.1473218 | 2.305580e-06 | 5.749868e-05 |
| ## MTURN     | -0.98273453 | 6.848806  | -5.1437582 | 2.337553e-06 | 5.820007e-05 |
| ## BPNT2     | 0.45180216  | 7.130086  | 5.1435655  | 2.339294e-06 | 5.820007e-05 |
| ## CKMT2     | -1.02208465 | 5.397041  | -5.1413513 | 2.359393e-06 | 5.863007e-05 |
| ## PALB2     | 0.49438653  | 7.438850  | 5.1399585  | 2.372123e-06 | 5.887615e-05 |
| ## NOL9      | 0.47213777  | 6.622105  | 5.1383132  | 2.387246e-06 | 5.918097e-05 |
| ## TMEM47    | -0.98215530 | 7.678365  | -5.1374438 | 2.395276e-06 | 5.929416e-05 |
| ## SENP1     | 0.48305054  | 5.185554  | 5.1368035  | 2.401208e-06 | 5.929416e-05 |
| ## TRMT6     | 0.63531883  | 7.087936  | 5.1366719  | 2.402428e-06 | 5.929416e-05 |
| ## C1QTNF2   | -0.96442431 | 5.297685  | -5.1363100 | 2.405788e-06 | 5.929416e-05 |
| ## MYH11     | -1.68172849 | 6.483679  | -5.1360968 | 2.407770e-06 | 5.929416e-05 |
| ## SLITRK5   | -0.66590234 | 4.297148  | -5.1359757 | 2.408896e-06 | 5.929416e-05 |
| ## PRPH2     | -0.31432179 | 5.293744  | -5.1318513 | 2.447566e-06 | 6.015463e-05 |
| ## ARHGEF26  | -0.42628262 | 3.744316  | -5.1316328 | 2.449631e-06 | 6.015463e-05 |
| ## PANX1     | 0.54985948  | 5.827112  | 5.1311812  | 2.453906e-06 | 6.018863e-05 |
| ## RAB9B     | -0.67885876 | 6.168538  | -5.1307511 | 2.457984e-06 | 6.021772e-05 |
| ## PHB1      | 0.49527515  | 9.327995  | 5.1298737  | 2.466323e-06 | 6.035101e-05 |
| ## SLC04A1   | 0.93674196  | 7.505184  | 5.1290299  | 2.474369e-06 | 6.047682e-05 |
| ## MTBP      | 0.33889381  | 4.438362  | 5.1283183  | 2.481175e-06 | 6.052584e-05 |
| ## NTMT1     | 0.46351820  | 8.150099  | 5.1282126  | 2.482187e-06 | 6.052584e-05 |



|             |             |           |            |              |              |
|-------------|-------------|-----------|------------|--------------|--------------|
| ## ZC3H15   | 0.36858103  | 9.981969  | 5.1214839  | 2.547476e-06 | 6.204520e-05 |
| ## IGF2BP2  | 0.85528006  | 7.564422  | 5.1185364  | 2.576604e-06 | 6.268132e-05 |
| ## SLC3A2   | 0.47848107  | 8.267382  | 5.1180656  | 2.581287e-06 | 6.272195e-05 |
| ## MARS1    | 0.42061366  | 8.797768  | 5.1148028  | 2.613969e-06 | 6.344207e-05 |
| ## EFEMP1   | -1.54691238 | 9.554895  | -5.1135894 | 2.626227e-06 | 6.366537e-05 |
| ## E2F6     | 0.42862225  | 6.930518  | 5.1100121  | 2.662692e-06 | 6.441823e-05 |
| ## MARS2    | 0.52464878  | 5.352880  | 5.1099363  | 2.663470e-06 | 6.441823e-05 |
| ## HSPB6    | -1.09811890 | 5.320879  | -5.1068115 | 2.695738e-06 | 6.512302e-05 |
| ## KCNN3    | -0.79560373 | 5.967305  | -5.1059404 | 2.704801e-06 | 6.526626e-05 |
| ## YPEL5    | -0.43137171 | 9.661811  | -5.1029040 | 2.736628e-06 | 6.590985e-05 |
| ## SRSF2    | 0.41898943  | 9.215647  | 5.1027925  | 2.737803e-06 | 6.590985e-05 |
| ## DARS2    | 0.66462107  | 6.497983  | 5.1016355  | 2.750032e-06 | 6.612780e-05 |
| ## ASF1B    | 0.68317421  | 6.982316  | 5.0993603  | 2.774235e-06 | 6.663284e-05 |
| ## CENPH    | 0.63270730  | 6.356218  | 5.0966367  | 2.803484e-06 | 6.725777e-05 |
| ## AOX1     | -0.53529176 | 5.941604  | -5.0948768 | 2.822544e-06 | 6.760286e-05 |
| ## DNAJC11  | 0.36520377  | 7.124649  | 5.0947096  | 2.824361e-06 | 6.760286e-05 |
| ## ACTA2    | -0.83945306 | 12.344476 | -5.0942912 | 2.828914e-06 | 6.761512e-05 |
| ## SLC35A2  | 0.74426432  | 5.638005  | 5.0940660  | 2.831367e-06 | 6.761512e-05 |
| ## TOP2A    | 1.38416419  | 8.812171  | 5.0896901  | 2.879457e-06 | 6.868477e-05 |
| ## MRGPRF   | -1.32777273 | 7.394630  | -5.0892664 | 2.884155e-06 | 6.871813e-05 |
| ## IGIP     | -0.72392707 | 8.142462  | -5.0868019 | 2.911634e-06 | 6.929356e-05 |
| ## SLC25A51 | 0.36390816  | 5.425870  | 5.0856528  | 2.924535e-06 | 6.952113e-05 |
| ## TXNDC9   | 0.40906277  | 4.348058  | 5.0849401  | 2.932564e-06 | 6.963251e-05 |
| ## ZNF281   | 0.62968302  | 5.051060  | 5.0811854  | 2.975220e-06 | 7.056490e-05 |
| ## AKIRIN2  | 0.53638974  | 4.707750  | 5.0782127  | 3.009424e-06 | 7.129493e-05 |
| ## TTYH3    | 0.47121440  | 7.771269  | 5.0766019  | 3.028117e-06 | 7.165627e-05 |
| ## IARS1    | 0.38267540  | 10.448592 | 5.0737101  | 3.061965e-06 | 7.237498e-05 |
| ## PIK3C2G  | -1.39781578 | 6.407196  | -5.0707742 | 3.096707e-06 | 7.311318e-05 |
| ## TRABD2B  | -0.38971496 | 4.777663  | -5.0683564 | 3.125607e-06 | 7.371195e-05 |
| ## FRY      | -0.43130252 | 4.406440  | -5.0678372 | 3.131847e-06 | 7.377554e-05 |
| ## NISCH    | -0.54925113 | 9.321878  | -5.0673974 | 3.137144e-06 | 7.381681e-05 |
| ## FBXL7    | -0.75618334 | 6.406529  | -5.0658251 | 3.156147e-06 | 7.418013e-05 |
| ## CNPY3    | 0.71375737  | 7.055030  | 5.0651219  | 3.164683e-06 | 7.429690e-05 |
| ## MIR100HG | -1.73566015 | 6.909716  | -5.0640795 | 3.177378e-06 | 7.451095e-05 |
| ## RAE1     | 0.51084953  | 8.988787  | 5.0633215  | 3.186640e-06 | 7.464409e-05 |
| ## PDP2     | 0.34368305  | 6.465141  | 5.0626056  | 3.195413e-06 | 7.476548e-05 |
| ## UBAP2L   | 0.45160110  | 7.906533  | 5.0597847  | 3.230210e-06 | 7.549484e-05 |
| ## ABT1     | 0.34143211  | 7.779552  | 5.0591404  | 3.238210e-06 | 7.559696e-05 |
| ## MREG     | 0.81519262  | 6.601362  | 5.0574398  | 3.259419e-06 | 7.600689e-05 |
| ## CELF1    | 0.56534731  | 6.366631  | 5.0562270  | 3.274627e-06 | 7.627611e-05 |
| ## ARRDC4   | -0.89228669 | 7.979753  | -5.0539444 | 3.303438e-06 | 7.686122e-05 |
| ## NEXN     | -1.28524995 | 7.135683  | -5.0536358 | 3.307352e-06 | 7.686641e-05 |
| ## MAP2K1   | 0.32833090  | 8.735246  | 5.0523491  | 3.323722e-06 | 7.713153e-05 |
| ## DCN      | -0.85060589 | 12.042039 | -5.0521574 | 3.326168e-06 | 7.713153e-05 |
| ## PDCL     | 0.36819405  | 6.719676  | 5.0472803  | 3.388981e-06 | 7.850072e-05 |
| ## IGF1     | -1.53510226 | 7.069126  | -5.0463597 | 3.400969e-06 | 7.869085e-05 |
| ## ARHGEF37 | -0.97630013 | 6.880434  | -5.0438951 | 3.433264e-06 | 7.934992e-05 |
| ## GANAB    | 0.30499356  | 9.822922  | 5.0432226  | 3.442127e-06 | 7.946658e-05 |
| ## CGAS     | 0.80207532  | 5.426383  | 5.0402113  | 3.482093e-06 | 8.030023e-05 |
| ## ATG2A    | 0.34016213  | 7.758490  | 5.0390387  | 3.497780e-06 | 8.056738e-05 |
| ## ABCF1    | 0.33196739  | 8.686788  | 5.0387676  | 3.501416e-06 | 8.056738e-05 |
| ## MRPS14   | 0.37582074  | 8.824668  | 5.0383352  | 3.507224e-06 | 8.061195e-05 |
| ## UHRF1    | 0.84339968  | 7.968261  | 5.0374518  | 3.519117e-06 | 8.079614e-05 |
| ## SAAL1    | 0.49498036  | 7.236787  | 5.0364298  | 3.532927e-06 | 8.102388e-05 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## TTLL7     | -0.70581848 | 5.254276  | -5.0351840 | 3.549833e-06 | 8.127174e-05 |
| ## NLGN1     | -0.32753596 | 3.479653  | -5.0350584 | 3.551541e-06 | 8.127174e-05 |
| ## APOD      | -1.64594343 | 8.379122  | -5.0340121 | 3.565806e-06 | 8.150862e-05 |
| ## HHIP      | -0.53164970 | 4.323298  | -5.0297470 | 3.624544e-06 | 8.261767e-05 |
| ## TP53RK    | 0.58595095  | 6.980284  | 5.0295054  | 3.627898e-06 | 8.261767e-05 |
| ## NPEPL1    | 0.67857093  | 5.560164  | 5.0294390  | 3.628822e-06 | 8.261767e-05 |
| ## TMOD1     | -0.76489942 | 6.024012  | -5.0293402 | 3.630194e-06 | 8.261767e-05 |
| ## ANAPC16   | -0.33344170 | 10.331387 | -5.0280037 | 3.648822e-06 | 8.295095e-05 |
| ## SSB       | 0.47538434  | 9.165269  | 5.0276895  | 3.653215e-06 | 8.296025e-05 |
| ## FRRS1L    | -0.28397496 | 3.911454  | -5.0227677 | 3.722706e-06 | 8.436141e-05 |
| ## ACADL     | -0.40400799 | 4.281157  | -5.0227458 | 3.723019e-06 | 8.436141e-05 |
| ## PSMC4     | 0.45220547  | 8.894317  | 5.0218755  | 3.735442e-06 | 8.447702e-05 |
| ## NFS1      | 0.57456765  | 5.341779  | 5.0218201  | 3.736234e-06 | 8.447702e-05 |
| ## COL4A3    | -0.54216243 | 4.619281  | -5.0198956 | 3.763854e-06 | 8.500922e-05 |
| ## TMEM35A   | -0.94702273 | 4.547413  | -5.0192691 | 3.772889e-06 | 8.512096e-05 |
| ## CFL2      | -1.20213457 | 7.810092  | -5.0182471 | 3.787672e-06 | 8.536200e-05 |
| ## IPO4      | 0.52877622  | 6.890945  | 5.0171141  | 3.804129e-06 | 8.564019e-05 |
| ## RNF217    | -0.84640860 | 5.639788  | -5.0155624 | 3.826778e-06 | 8.605704e-05 |
| ## PSMB6     | 0.26537019  | 9.602924  | 5.0129323  | 3.865472e-06 | 8.683344e-05 |
| ## SFT2D2    | 0.45080397  | 6.323832  | 5.0105737  | 3.900497e-06 | 8.752581e-05 |
| ## EIF2B2    | 0.38545523  | 8.065710  | 5.0073381  | 3.949050e-06 | 8.851993e-05 |
| ## SEMA3G    | -0.55323859 | 5.966865  | -5.0058014 | 3.972317e-06 | 8.894574e-05 |
| ## STUM      | -0.52640529 | 5.206236  | -5.0050005 | 3.984497e-06 | 8.912262e-05 |
| ## LYAR      | 0.66766362  | 7.441935  | 5.0038386  | 4.002231e-06 | 8.942324e-05 |
| ## MYOM1     | -0.69266159 | 5.062520  | -5.0012217 | 4.042456e-06 | 9.022519e-05 |
| ## RFC3      | 0.80198636  | 8.020782  | 5.0007895  | 4.049137e-06 | 9.027754e-05 |
| ## CCT7      | 0.36177495  | 9.929552  | 5.0002218  | 4.057930e-06 | 9.028369e-05 |
| ## ATP1A2    | -0.72069605 | 4.720532  | -4.9999739 | 4.061776e-06 | 9.028369e-05 |
| ## SNORA21   | 0.56309065  | 5.378085  | 4.9999324  | 4.062419e-06 | 9.028369e-05 |
| ## SLC31A1   | 0.49596588  | 7.968853  | 4.9996360  | 4.067022e-06 | 9.028962e-05 |
| ## DDX39A    | 0.51874398  | 9.616202  | 4.9987089  | 4.081452e-06 | 9.051349e-05 |
| ## NDNF      | -0.96452329 | 5.190338  | -4.9980639 | 4.091522e-06 | 9.064027e-05 |
| ## EBPL      | 0.51242547  | 9.447873  | 4.9970442  | 4.107491e-06 | 9.089733e-05 |
| ## CPSF3     | 0.35933661  | 8.152612  | 4.9963011  | 4.119166e-06 | 9.105639e-05 |
| ## PSAT1     | 0.97399688  | 6.670992  | 4.9960306  | 4.123424e-06 | 9.105639e-05 |
| ## RNGTT     | 0.49427606  | 6.381553  | 4.9937146  | 4.160058e-06 | 9.176807e-05 |
| ## MAP7      | 0.70539758  | 6.944252  | 4.9928973  | 4.173062e-06 | 9.195751e-05 |
| ## GPR146    | -0.37412396 | 5.134857  | -4.9921142 | 4.185558e-06 | 9.213536e-05 |
| ## EXOSC3    | 0.36813061  | 6.549554  | 4.9911614  | 4.200812e-06 | 9.237350e-05 |
| ## NMT1      | 0.38617051  | 8.727979  | 4.9894196  | 4.228840e-06 | 9.289173e-05 |
| ## RBM28     | 0.46797905  | 7.735455  | 4.9873419  | 4.262511e-06 | 9.344090e-05 |
| ## MAN1C1    | -0.54323555 | 6.539022  | -4.9873232 | 4.262815e-06 | 9.344090e-05 |
| ## HNRNPA2B1 | 0.25873464  | 11.478175 | 4.9865538  | 4.275351e-06 | 9.361714e-05 |
| ## C17orf75  | 0.49291611  | 5.125819  | 4.9860382  | 4.283772e-06 | 9.370301e-05 |
| ## TMEM177   | 0.55871145  | 6.242687  | 4.9840246  | 4.316815e-06 | 9.425990e-05 |
| ## SOX10     | -0.30195475 | 4.564223  | -4.9839354 | 4.318284e-06 | 9.425990e-05 |
| ## MRGBP     | 0.66261672  | 6.342501  | 4.9836131  | 4.323598e-06 | 9.427707e-05 |
| ## LDHA      | 0.43020327  | 12.215471 | 4.9824897  | 4.342171e-06 | 9.450695e-05 |
| ## PRIM1     | 0.70397387  | 6.992394  | 4.9824265  | 4.343217e-06 | 9.450695e-05 |
| ## CMSS1     | 0.55977527  | 7.376497  | 4.9817167  | 4.354994e-06 | 9.466429e-05 |
| ## PLCXD3    | -0.58127680 | 3.765500  | -4.9810606 | 4.365908e-06 | 9.477070e-05 |
| ## MAZ       | 0.50477064  | 5.573028  | 4.9807723  | 4.370713e-06 | 9.477070e-05 |
| ## SLC7A8    | -0.67396542 | 7.760900  | -4.9806026 | 4.373542e-06 | 9.477070e-05 |
| ## ZMYND19   | 0.46196033  | 7.172758  | 4.9799920  | 4.383742e-06 | 9.489298e-05 |

|            |             |           |            |              |              |
|------------|-------------|-----------|------------|--------------|--------------|
| ## CCDC25  | -0.47558894 | 7.104495  | -4.9784071 | 4.410322e-06 | 9.536921e-05 |
| ## PSMD10  | 0.43384145  | 8.754649  | 4.9774113  | 4.427103e-06 | 9.561469e-05 |
| ## TFB1M   | 0.39277215  | 7.462671  | 4.9771890  | 4.430857e-06 | 9.561469e-05 |
| ## CBF8    | 0.38283655  | 8.822863  | 4.9745767  | 4.475214e-06 | 9.647190e-05 |
| ## MSX2    | 0.61168114  | 4.804061  | 4.9739778  | 4.485444e-06 | 9.659243e-05 |
| ## DONSON  | 0.51328839  | 6.588388  | 4.9722524  | 4.515046e-06 | 9.712946e-05 |
| ## PTGES3  | 0.30523717  | 11.935053 | 4.9717346  | 4.523967e-06 | 9.722094e-05 |
| ## CDKN3   | 1.00813467  | 7.477988  | 4.9675611  | 4.596500e-06 | 9.867785e-05 |
| ## CXCL8   | 1.78411564  | 9.753454  | 4.9642816  | 4.654293e-06 | 9.981566e-05 |
| ## ADAR    | 0.35463652  | 10.800717 | 4.9596941  | 4.736330e-06 | 1.014705e-04 |
| ## CCDC167 | 0.35964290  | 7.162250  | 4.9586551  | 4.755105e-06 | 1.017680e-04 |
| ## IPW     | -0.68244580 | 5.905401  | -4.9576445 | 4.773439e-06 | 1.020555e-04 |
| ## UTP6    | 0.30231772  | 8.997470  | 4.9572309  | 4.780960e-06 | 1.021115e-04 |
| ## GK3P    | 0.70563163  | 5.123386  | 4.9561420  | 4.800822e-06 | 1.024307e-04 |
| ## SOSTDC1 | -2.28734847 | 6.962604  | -4.9557105 | 4.808713e-06 | 1.024940e-04 |
| ## STOML2  | 0.41327366  | 8.923009  | 4.9551373  | 4.819217e-06 | 1.025385e-04 |
| ## NUP62   | 0.42790691  | 8.296354  | 4.9550593  | 4.820648e-06 | 1.025385e-04 |
| ## POLR1A  | 0.39231029  | 6.496615  | 4.9536821  | 4.845986e-06 | 1.028214e-04 |
| ## HEATR1  | 0.29169444  | 3.506394  | 4.9535827  | 4.847819e-06 | 1.028214e-04 |
| ## HMCN1   | -1.25166181 | 6.585450  | -4.9535316 | 4.848761e-06 | 1.028214e-04 |
| ## CYS1    | -1.01254820 | 4.877930  | -4.9512994 | 4.890129e-06 | 1.035646e-04 |
| ## NUDT21  | 0.54947649  | 7.938563  | 4.9511045  | 4.893757e-06 | 1.035646e-04 |
| ## BEX4    | -0.94918683 | 6.988574  | -4.9472749 | 4.965582e-06 | 1.049779e-04 |
| ## SCN1B   | -0.34123752 | 6.139068  | -4.9465428 | 4.979430e-06 | 1.051639e-04 |
| ## NAPG    | 0.58894244  | 6.441618  | 4.9460534  | 4.988709e-06 | 1.052532e-04 |
| ## CDK5    | 0.51615117  | 6.724590  | 4.9438952  | 5.029826e-06 | 1.059501e-04 |
| ## MYOT    | -0.53066085 | 3.938050  | -4.9437858 | 5.031919e-06 | 1.059501e-04 |
| ## MUC5AC  | -2.29469149 | 8.894470  | -4.9429028 | 5.048844e-06 | 1.061571e-04 |
| ## FANCM   | 0.25444878  | 3.584126  | 4.9427413  | 5.051946e-06 | 1.061571e-04 |
| ## BNC2    | -0.91514875 | 5.958592  | -4.9422589 | 5.061222e-06 | 1.062448e-04 |
| ## NAP1L5  | -0.92988871 | 5.202474  | -4.9407568 | 5.090209e-06 | 1.067457e-04 |
| ## TRAM1L1 | -0.36530693 | 4.798761  | -4.9399309 | 5.106218e-06 | 1.069737e-04 |
| ## RNF11   | -0.39105795 | 9.212887  | -4.9386809 | 5.130541e-06 | 1.073753e-04 |
| ## ZCCHC18 | -0.26985811 | 4.767897  | -4.9362514 | 5.178136e-06 | 1.082626e-04 |
| ## MRRF    | 0.50226963  | 7.335204  | 4.9357416  | 5.188178e-06 | 1.083637e-04 |
| ## CLCN4   | 0.56768579  | 4.359342  | 4.9342087  | 5.218489e-06 | 1.088876e-04 |
| ## POLE3   | 0.49023332  | 8.139109  | 4.9331640  | 5.239245e-06 | 1.091288e-04 |
| ## FAM110B | -0.56141458 | 4.906155  | -4.9330995 | 5.240529e-06 | 1.091288e-04 |
| ## SHC1    | 0.57820476  | 6.659784  | 4.9302060  | 5.298455e-06 | 1.102248e-04 |
| ## ITIH5   | -0.62252701 | 5.559551  | -4.9290727 | 5.321312e-06 | 1.105898e-04 |
| ## FOXRED1 | 0.39501782  | 7.235080  | 4.9282379  | 5.338210e-06 | 1.108304e-04 |
| ## VTA1    | 0.55905011  | 7.923410  | 4.9263241  | 5.377149e-06 | 1.114731e-04 |
| ## DHX33   | 0.45975982  | 8.246269  | 4.9261908  | 5.379872e-06 | 1.114731e-04 |
| ## MN1     | -1.22613531 | 5.987660  | -4.9249780 | 5.404704e-06 | 1.117769e-04 |
| ## CDC5L   | 0.69126938  | 7.669730  | 4.9249505  | 5.405268e-06 | 1.117769e-04 |
| ## SGCE    | -0.91426798 | 7.570739  | -4.9204624 | 5.498149e-06 | 1.135848e-04 |
| ## NIF3L1  | 0.30233049  | 8.114177  | 4.9171088  | 5.568571e-06 | 1.148583e-04 |
| ## SYNE1   | -0.77380916 | 7.573747  | -4.9170020 | 5.570827e-06 | 1.148583e-04 |
| ## CD46    | 0.86731903  | 8.883433  | 4.9157203  | 5.597983e-06 | 1.153041e-04 |
| ## PFDN5   | -0.30748541 | 11.130872 | -4.9141834 | 5.630719e-06 | 1.158623e-04 |
| ## RPL3    | -0.19367895 | 13.113412 | -4.9139263 | 5.636213e-06 | 1.158623e-04 |
| ## TOMM70  | 0.45083649  | 7.709833  | 4.9133626  | 5.648276e-06 | 1.159958e-04 |
| ## MPDZ    | -0.83463377 | 6.723828  | -4.9126237 | 5.664130e-06 | 1.162067e-04 |
| ## SLC35F5 | 0.39530558  | 3.777312  | 4.9123454  | 5.670111e-06 | 1.162150e-04 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## DENND1A   | 0.93716908  | 5.600394  | 4.9116931  | 5.684156e-06 | 1.163883e-04 |
| ## LONP2     | -0.62341669 | 7.989590  | -4.9098079 | 5.724939e-06 | 1.171082e-04 |
| ## MAGOHB    | 0.55685100  | 5.977529  | 4.9094890  | 5.731867e-06 | 1.171348e-04 |
| ## AKAP8     | 0.30042173  | 6.865503  | 4.9077327  | 5.770163e-06 | 1.178018e-04 |
| ## LINC01798 | -0.86526794 | 5.475582  | -4.9072611 | 5.780489e-06 | 1.178971e-04 |
| ## ZNF25     | -0.67498667 | 6.494220  | -4.9063360 | 5.800798e-06 | 1.181955e-04 |
| ## MAPRE1    | 0.56842775  | 8.419602  | 4.9058979  | 5.810440e-06 | 1.182763e-04 |
| ## XPO4      | 0.72829689  | 5.329480  | 4.9049488  | 5.831380e-06 | 1.185866e-04 |
| ## ZNRD2     | 0.37958655  | 7.345352  | 4.9040902  | 5.850389e-06 | 1.188571e-04 |
| ## FILIP1    | -1.12875559 | 4.795114  | -4.9036262 | 5.860686e-06 | 1.189502e-04 |
| ## BRCC3     | 0.81650382  | 5.933462  | 4.9025767  | 5.884044e-06 | 1.192293e-04 |
| ## MXRA7     | -0.86010597 | 10.619387 | -4.9024941 | 5.885886e-06 | 1.192293e-04 |
| ## CCT4      | 0.34253453  | 10.924175 | 4.9017470  | 5.902572e-06 | 1.194070e-04 |
| ## YEATS4    | 0.65480248  | 5.916833  | 4.9014487  | 5.909248e-06 | 1.194070e-04 |
| ## RBL2      | -0.35733897 | 9.294527  | -4.9013321 | 5.911861e-06 | 1.194070e-04 |
| ## GTF3C5    | 0.29569516  | 5.611038  | 4.8994193  | 5.954862e-06 | 1.201590e-04 |
| ## NUP153    | 0.44075932  | 8.530601  | 4.8967434  | 6.015533e-06 | 1.212657e-04 |
| ## HSPBP1    | 0.31438086  | 7.450932  | 4.8957765  | 6.037603e-06 | 1.215929e-04 |
| ## F8        | -0.70401514 | 5.583739  | -4.8951605 | 6.051705e-06 | 1.217124e-04 |
| ## IGSF10    | -0.58030547 | 5.038560  | -4.8950067 | 6.055229e-06 | 1.217124e-04 |
| ## SKP2      | 0.70475313  | 8.177053  | 4.8931065  | 6.098960e-06 | 1.224732e-04 |
| ## ALDH2     | -0.64336513 | 10.458669 | -4.8912269 | 6.142518e-06 | 1.231737e-04 |
| ## GPSM2     | 0.71469836  | 7.416047  | 4.8909481  | 6.149006e-06 | 1.231737e-04 |
| ## CXCL16    | 0.70740075  | 8.708126  | 4.8908373  | 6.151586e-06 | 1.231737e-04 |
| ## MYL9      | -1.35056500 | 9.961153  | -4.8885612 | 6.204817e-06 | 1.241202e-04 |
| ## TPSAB1    | -0.96745521 | 8.162604  | -4.8865654 | 6.251863e-06 | 1.249413e-04 |
| ## EXOC2     | 0.45774978  | 5.899756  | 4.8837390  | 6.319084e-06 | 1.261636e-04 |
| ## CYB5B     | 0.72936695  | 7.620406  | 4.8825832  | 6.346778e-06 | 1.265692e-04 |
| ## PPP1R1A   | -0.88651892 | 5.487146  | -4.8823842 | 6.351558e-06 | 1.265692e-04 |
| ## SMOG2     | -1.42853463 | 8.689618  | -4.8803071 | 6.401658e-06 | 1.274204e-04 |
| ## NUDT13    | 0.29221761  | 4.925203  | 4.8801067  | 6.406512e-06 | 1.274204e-04 |
| ## XPO1      | 0.26879783  | 10.496352 | 4.8782448  | 6.451785e-06 | 1.281984e-04 |
| ## GDF10     | -0.33984940 | 3.741451  | -4.8769158 | 6.484289e-06 | 1.287215e-04 |
| ## ADIRF     | -1.20374613 | 8.956970  | -4.8745783 | 6.541851e-06 | 1.297405e-04 |
| ## ASB7      | 0.34064649  | 4.978276  | 4.8738282  | 6.560427e-06 | 1.299851e-04 |
| ## KAT2B     | -0.68261037 | 7.423388  | -4.8714332 | 6.620085e-06 | 1.310424e-04 |
| ## TMCC1     | 0.52232986  | 6.300328  | 4.8694823  | 6.669074e-06 | 1.318056e-04 |
| ## PDIA6     | 0.41551569  | 10.624333 | 4.8693941  | 6.671298e-06 | 1.318056e-04 |
| ## CCDC178   | -0.29747758 | 4.393516  | -4.8685003 | 6.693867e-06 | 1.321261e-04 |
| ## COLCA1    | -0.65089443 | 5.944128  | -4.8679826 | 6.706973e-06 | 1.322595e-04 |
| ## ITGA2     | 0.62129433  | 7.179325  | 4.8672001  | 6.726831e-06 | 1.325256e-04 |
| ## CMYA5     | -0.39246434 | 4.959899  | -4.8665344 | 6.743770e-06 | 1.327337e-04 |
| ## SPAST     | 0.51540964  | 4.606500  | 4.8659721  | 6.758109e-06 | 1.328903e-04 |
| ## PLPP3     | -0.58020354 | 8.711732  | -4.8631400 | 6.830792e-06 | 1.341928e-04 |
| ## OLA1      | 0.37979453  | 10.198722 | 4.8623050  | 6.852365e-06 | 1.344898e-04 |
| ## CYR1      | -0.69651822 | 6.692240  | -4.8619392 | 6.861839e-06 | 1.345489e-04 |
| ## PDRG1     | 0.41067848  | 7.647826  | 4.8608376  | 6.890441e-06 | 1.349826e-04 |
| ## PTPRM     | -0.58846995 | 8.317882  | -4.8605447 | 6.898065e-06 | 1.350050e-04 |
| ## MAP1B     | -1.09444592 | 8.186853  | -4.8596937 | 6.920267e-06 | 1.353123e-04 |
| ## MLEC      | 0.57126563  | 9.636263  | 4.8582056  | 6.959255e-06 | 1.358784e-04 |
| ## THUMP3    | 0.33427279  | 7.585298  | 4.8580910  | 6.962265e-06 | 1.358784e-04 |
| ## CLDN5     | -0.52335025 | 6.881778  | -4.8577033 | 6.972462e-06 | 1.359048e-04 |
| ## UHMK1     | 0.93173068  | 5.634558  | 4.8575434  | 6.976671e-06 | 1.359048e-04 |
| ## SFMBT1    | 0.55031671  | 6.795462  | 4.8572526  | 6.984336e-06 | 1.359269e-04 |

|                |             |           |            |              |              |
|----------------|-------------|-----------|------------|--------------|--------------|
| ## SERTAD4-AS1 | -0.86690459 | 5.435530  | -4.8542249 | 7.064605e-06 | 1.373607e-04 |
| ## CLIC1       | 0.30807711  | 11.531459 | 4.8526967  | 7.105461e-06 | 1.380262e-04 |
| ## PMS2P1      | 0.35952506  | 7.642868  | 4.8511221  | 7.147800e-06 | 1.387193e-04 |
| ## SYNGR1      | -0.31258418 | 6.336421  | -4.8494925 | 7.191877e-06 | 1.394447e-04 |
| ## PSMB5       | 0.34553057  | 9.561826  | 4.8482682  | 7.225166e-06 | 1.399599e-04 |
| ## CSE1L       | 0.72169738  | 8.204467  | 4.8460176  | 7.286752e-06 | 1.410217e-04 |
| ## REEP1       | -1.44231190 | 6.478439  | -4.8430971 | 7.367437e-06 | 1.424508e-04 |
| ## ZNF781      | -0.16014861 | 3.741932  | -4.8412869 | 7.417884e-06 | 1.432576e-04 |
| ## ADK         | 0.56978807  | 8.445697  | 4.8411067  | 7.422923e-06 | 1.432576e-04 |
| ## NADK2       | 0.59673060  | 7.001051  | 4.8405610  | 7.438207e-06 | 1.434197e-04 |
| ## IGFBP4      | -0.87752321 | 9.733515  | -4.8381603 | 7.505812e-06 | 1.445309e-04 |
| ## TBX2-AS1    | -0.33848068 | 4.854378  | -4.8380221 | 7.509720e-06 | 1.445309e-04 |
| ## RBM12       | 0.31808754  | 8.770491  | 4.8375344  | 7.523536e-06 | 1.446631e-04 |
| ## PMS2P5      | 0.38643167  | 7.798423  | 4.8363760  | 7.556446e-06 | 1.451618e-04 |
| ## H2AZ1       | 0.45060150  | 10.909828 | 4.8312809  | 7.702877e-06 | 1.478333e-04 |
| ## HELLS       | 0.91042367  | 5.998391  | 4.8310455  | 7.709708e-06 | 1.478333e-04 |
| ## LSM2        | 0.39968784  | 7.884076  | 4.8300194  | 7.739557e-06 | 1.482607e-04 |
| ## SIDT2       | -0.54111114 | 7.655781  | -4.8297903 | 7.746238e-06 | 1.482607e-04 |
| ## TIMM23      | 0.40541877  | 8.708406  | 4.8281060  | 7.795519e-06 | 1.490669e-04 |
| ## ADCY9       | -0.52451428 | 7.203970  | -4.8267325 | 7.835935e-06 | 1.497023e-04 |
| ## ERF         | 0.42836757  | 7.176535  | 4.8258446  | 7.862169e-06 | 1.500658e-04 |
| ## FASTKD5     | 0.40252581  | 7.377084  | 4.8255344  | 7.871355e-06 | 1.501036e-04 |
| ## MRPL18      | 0.34286481  | 9.356605  | 4.8206905  | 8.016157e-06 | 1.527250e-04 |
| ## SHE         | -0.57746237 | 6.773275  | -4.8204219 | 8.024262e-06 | 1.527397e-04 |
| ## TKT         | 0.56721499  | 9.136809  | 4.8200522  | 8.035433e-06 | 1.528126e-04 |
| ## NXPH3       | -0.36450857 | 6.384256  | -4.8195588 | 8.050362e-06 | 1.529569e-04 |
| ## PLN         | -1.74941657 | 6.322550  | -4.8190054 | 8.067138e-06 | 1.531359e-04 |
| ## SBN02       | 0.50356685  | 6.907900  | 4.8181233  | 8.093953e-06 | 1.534635e-04 |
| ## AMT         | -0.54063472 | 7.291744  | -4.8179531 | 8.099136e-06 | 1.534635e-04 |
| ## BCL2L1      | 0.88284909  | 5.864660  | 4.8172568  | 8.120375e-06 | 1.537261e-04 |
| ## RPL7L1      | 0.52113237  | 10.376757 | 4.8167625  | 8.135488e-06 | 1.538267e-04 |
| ## GPR107      | 0.54386843  | 5.840279  | 4.8164733  | 8.144341e-06 | 1.538267e-04 |
| ## DUSP3       | -0.46588167 | 9.124537  | -4.8163587 | 8.147853e-06 | 1.538267e-04 |
| ## PTGER3      | -0.23861932 | 4.856912  | -4.8139364 | 8.222413e-06 | 1.550938e-04 |
| ## PDCD5       | 0.37455850  | 7.656832  | 4.8128712  | 8.255414e-06 | 1.555753e-04 |
| ## TRPC1       | -0.85091961 | 5.991064  | -4.8070780 | 8.437154e-06 | 1.588565e-04 |
| ## UNG         | 0.49415464  | 7.318558  | 4.8045252  | 8.518473e-06 | 1.601802e-04 |
| ## NDUFB1      | -0.27822004 | 11.177308 | -4.8043888 | 8.522840e-06 | 1.601802e-04 |
| ## MRPL12      | 0.40338516  | 7.860254  | 4.8038882  | 8.538883e-06 | 1.603192e-04 |
| ## H2AC13      | 0.40765749  | 5.607717  | 4.8035510  | 8.549706e-06 | 1.603192e-04 |
| ## PSMA3       | 0.38686280  | 10.399248 | 4.8034380  | 8.553337e-06 | 1.603192e-04 |
| ## C1QBP       | 0.53887680  | 9.613728  | 4.8024864  | 8.583968e-06 | 1.607487e-04 |
| ## SST         | -2.23014656 | 6.983587  | -4.7976277 | 8.742037e-06 | 1.635617e-04 |
| ## ATG4C       | -0.43120707 | 6.039239  | -4.7926626 | 8.906500e-06 | 1.664892e-04 |
| ## EZH1        | -0.32020290 | 7.380835  | -4.7922862 | 8.919093e-06 | 1.665751e-04 |
| ## DCAF12      | 0.42995675  | 8.364916  | 4.7906056  | 8.975519e-06 | 1.674787e-04 |
| ## ADAMTS1     | -0.89855733 | 8.896385  | -4.7890070 | 9.029516e-06 | 1.683354e-04 |
| ## NCBP1       | 0.20769820  | 3.468305  | 4.7879936  | 9.063911e-06 | 1.688255e-04 |
| ## R3HDM1      | 0.31829031  | 8.351280  | 4.7875102  | 9.080362e-06 | 1.689808e-04 |
| ## BRAP        | 0.40494622  | 4.612449  | 4.7866942  | 9.108198e-06 | 1.692271e-04 |
| ## SMG5        | 0.33075986  | 7.321634  | 4.7866458  | 9.109851e-06 | 1.692271e-04 |
| ## PALM        | -0.38260237 | 6.791104  | -4.7859610 | 9.133281e-06 | 1.695111e-04 |
| ## PBK         | 1.16245832  | 7.693976  | 4.7850036  | 9.166134e-06 | 1.699693e-04 |
| ## HP1BP3      | 0.44978537  | 6.350551  | 4.7840504  | 9.198959e-06 | 1.704263e-04 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## PSMA7     | 0.41096998  | 10.379674 | 4.7818262  | 9.276000e-06 | 1.715759e-04 |
| ## RGM8      | -1.01437480 | 8.297600  | -4.7816969 | 9.280498e-06 | 1.715759e-04 |
| ## MOSPD1    | 0.65155218  | 6.651592  | 4.7815466  | 9.285730e-06 | 1.715759e-04 |
| ## LARP4     | 0.64959577  | 5.732596  | 4.7811134  | 9.300825e-06 | 1.717025e-04 |
| ## SNX10     | 0.98795375  | 7.778738  | 4.7798205  | 9.346013e-06 | 1.723839e-04 |
| ## USP51     | -0.46594765 | 5.346389  | -4.7794953 | 9.357411e-06 | 1.724414e-04 |
| ## PHLDB1    | -0.38343173 | 7.493286  | -4.7782988 | 9.399474e-06 | 1.730634e-04 |
| ## PAM       | -0.64028595 | 10.546213 | -4.7770879 | 9.442229e-06 | 1.736970e-04 |
| ## SOCS4     | 0.23268806  | 3.816654  | 4.7766303  | 9.458433e-06 | 1.738415e-04 |
| ## CDC6      | 1.28682472  | 5.565865  | 4.7716095  | 9.638041e-06 | 1.766952e-04 |
| ## TNFAIP8L3 | -0.26975325 | 3.876333  | -4.7715479 | 9.640267e-06 | 1.766952e-04 |
| ## CXCL10    | 1.41238538  | 8.302502  | 4.7711553  | 9.654455e-06 | 1.766952e-04 |
| ## FAM149A   | -0.81120477 | 6.049477  | -4.7711509 | 9.654612e-06 | 1.766952e-04 |
| ## CLPX      | 0.42853109  | 7.398524  | 4.7711091  | 9.656123e-06 | 1.766952e-04 |
| ## PRICKLE2  | -0.84999029 | 6.495964  | -4.7646474 | 9.892614e-06 | 1.808637e-04 |
| ## ZMIZ1     | -0.37204277 | 9.941435  | -4.7619771 | 9.991981e-06 | 1.825202e-04 |
| ## RNF150    | -0.75146414 | 5.225514  | -4.7597108 | 1.007708e-05 | 1.839134e-04 |
| ## CDK16     | 0.57721926  | 6.289622  | 4.7581443  | 1.013632e-05 | 1.848325e-04 |
| ## CDH3      | 1.12188181  | 7.484466  | 4.7566068  | 1.019478e-05 | 1.856421e-04 |
| ## TSPAN18   | -0.69278562 | 6.682850  | -4.7565081 | 1.019855e-05 | 1.856421e-04 |
| ## CCDC150   | 0.26872974  | 3.997372  | 4.7562028  | 1.021020e-05 | 1.856919e-04 |
| ## AHS1      | 0.42792740  | 9.162647  | 4.7543762  | 1.028019e-05 | 1.868017e-04 |
| ## SUCLG2    | -0.55028380 | 9.378157  | -4.7514227 | 1.039436e-05 | 1.887116e-04 |
| ## UFSP2     | -0.34577929 | 7.741093  | -4.7469587 | 1.056926e-05 | 1.915818e-04 |
| ## PHYKPL    | -0.46877583 | 7.862802  | -4.7469183 | 1.057086e-05 | 1.915818e-04 |
| ## PAK2      | 0.70700047  | 5.727934  | 4.7454311  | 1.062977e-05 | 1.924488e-04 |
| ## GTF2E1    | 0.32652367  | 7.623659  | 4.7452447  | 1.063717e-05 | 1.924488e-04 |
| ## EFHD1     | -0.66490020 | 6.496485  | -4.7437731 | 1.069582e-05 | 1.931461e-04 |
| ## EBNA1BP2  | 0.51593949  | 8.052065  | 4.7436665  | 1.070008e-05 | 1.931461e-04 |
| ## ADGRG2    | -1.33461392 | 5.208919  | -4.7434743 | 1.070777e-05 | 1.931461e-04 |
| ## LANCL2    | 0.55143276  | 7.451883  | 4.7433482  | 1.071282e-05 | 1.931461e-04 |
| ## LRPPRC    | 0.50540300  | 7.739459  | 4.7422757  | 1.075583e-05 | 1.934395e-04 |
| ## RMI2      | 0.68032609  | 7.497681  | 4.7419673  | 1.076823e-05 | 1.934395e-04 |
| ## PPP4C     | 0.41712087  | 9.188471  | 4.7419330  | 1.076961e-05 | 1.934395e-04 |
| ## MEIS1     | -0.90137640 | 7.038442  | -4.7418829 | 1.077162e-05 | 1.934395e-04 |
| ## ITCH      | 0.78475078  | 5.444912  | 4.7417855  | 1.077554e-05 | 1.934395e-04 |
| ## UGGT1     | 0.42435848  | 6.884607  | 4.7405703  | 1.082456e-05 | 1.941356e-04 |
| ## TCEAL1    | -0.60875557 | 7.600694  | -4.7401352 | 1.084217e-05 | 1.941356e-04 |
| ## PCDH18    | -0.80921703 | 8.397282  | -4.7401323 | 1.084229e-05 | 1.941356e-04 |
| ## TADA2A    | 0.27798683  | 5.161616  | 4.7376140  | 1.094473e-05 | 1.958016e-04 |
| ## CDCA2     | 0.89302070  | 6.350213  | 4.7363395  | 1.099694e-05 | 1.965668e-04 |
| ## AKIP1     | 0.43424161  | 7.245446  | 4.7360655  | 1.100820e-05 | 1.965992e-04 |
| ## ZBED1     | 0.48089595  | 4.811100  | 4.7324012  | 1.115980e-05 | 1.991360e-04 |
| ## BARX1     | -0.84638757 | 6.042567  | -4.7319261 | 1.117961e-05 | 1.993186e-04 |
| ## DSEL      | -0.77897188 | 4.389850  | -4.7298179 | 1.126790e-05 | 2.007210e-04 |
| ## H3C8      | 0.33748995  | 6.221348  | 4.7295533  | 1.127904e-05 | 2.007475e-04 |
| ## ALKAL2    | -0.47242023 | 4.315411  | -4.7288164 | 1.131009e-05 | 2.011283e-04 |
| ## SKA3      | 0.62873386  | 6.302869  | 4.7252039  | 1.146353e-05 | 2.036831e-04 |
| ## FOXF2     | -1.16069213 | 7.111844  | -4.7248511 | 1.147862e-05 | 2.037774e-04 |
| ## PLAU      | 0.89189971  | 8.028973  | 4.7242015  | 1.150647e-05 | 2.040977e-04 |
| ## CCNB1     | 1.04621680  | 7.904516  | 4.7219913  | 1.160169e-05 | 2.056116e-04 |
| ## UBAP2     | 0.47253881  | 8.696152  | 4.7180722  | 1.177243e-05 | 2.084602e-04 |
| ## CCT6A     | 0.48378228  | 9.297228  | 4.7174233  | 1.180094e-05 | 2.087874e-04 |
| ## MTHFD1    | 0.47880866  | 9.393518  | 4.7162468  | 1.185279e-05 | 2.094138e-04 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## EVA1A     | 0.49762993  | 4.563060  | 4.7161639  | 1.185646e-05 | 2.094138e-04 |
| ## RRM2      | 0.93791211  | 9.374393  | 4.7140353  | 1.195087e-05 | 2.109025e-04 |
| ## GARS1     | 0.38032272  | 10.074492 | 4.7120616  | 1.203906e-05 | 2.122790e-04 |
| ## ERO1A     | 0.78654527  | 7.672475  | 4.7099728  | 1.213310e-05 | 2.137560e-04 |
| ## GPX3      | -1.05497799 | 8.995930  | -4.7091323 | 1.217113e-05 | 2.140616e-04 |
| ## EFCAB6    | -0.15685364 | 3.926496  | -4.7089843 | 1.217784e-05 | 2.140616e-04 |
| ## SNHG17    | 0.53192445  | 8.075392  | 4.7089085  | 1.218128e-05 | 2.140616e-04 |
| ## PRPF40A   | 0.40366313  | 9.901121  | 4.7076702  | 1.223758e-05 | 2.148696e-04 |
| ## PLOD3     | 0.54925927  | 9.274850  | 4.7069423  | 1.227079e-05 | 2.152713e-04 |
| ## TCEAL4    | -0.60678447 | 9.544779  | -4.7052740 | 1.234724e-05 | 2.164301e-04 |
| ## GAS7      | -0.76087453 | 7.134506  | -4.7033523 | 1.243588e-05 | 2.178005e-04 |
| ## TMEM139   | 0.91903481  | 6.643634  | 4.7018112  | 1.250741e-05 | 2.188692e-04 |
| ## CAMLG     | -0.37984346 | 9.296689  | -4.7004956 | 1.256879e-05 | 2.197586e-04 |
| ## LINC02381 | -1.06823164 | 8.513448  | -4.7000360 | 1.259031e-05 | 2.199501e-04 |
| ## GEMIN6    | 0.37183773  | 7.455933  | 4.6992163  | 1.262876e-05 | 2.202761e-04 |
| ## PTGER2    | -0.82121588 | 6.634260  | -4.6991874 | 1.263012e-05 | 2.202761e-04 |
| ## DPH3      | 0.59068016  | 6.843402  | 4.6986924  | 1.265340e-05 | 2.203805e-04 |
| ## DDR2      | -0.85274582 | 7.740258  | -4.6986102 | 1.265727e-05 | 2.203805e-04 |
| ## SLU7      | -0.35449395 | 8.078438  | -4.6966766 | 1.274864e-05 | 2.215939e-04 |
| ## FBP2      | -0.93705204 | 5.263430  | -4.6965830 | 1.275308e-05 | 2.215939e-04 |
| ## PZP       | -0.35010668 | 4.968296  | -4.6960085 | 1.278036e-05 | 2.215939e-04 |
| ## GNAO1     | -0.25482710 | 4.212967  | -4.6959333 | 1.278394e-05 | 2.215939e-04 |
| ## C12orf57  | -0.54280612 | 10.063454 | -4.6959008 | 1.278548e-05 | 2.215939e-04 |
| ## SARAF     | -0.33066324 | 11.286457 | -4.6956319 | 1.279827e-05 | 2.215939e-04 |
| ## MYMX      | -0.30675696 | 5.242692  | -4.6955652 | 1.280145e-05 | 2.215939e-04 |
| ## BICD1     | 0.76584562  | 4.941905  | 4.6952528  | 1.281633e-05 | 2.216672e-04 |
| ## PSMD13    | 0.37114377  | 8.971553  | 4.6920920  | 1.296786e-05 | 2.239445e-04 |
| ## AGPS      | 0.66311317  | 6.886320  | 4.6920577  | 1.296951e-05 | 2.239445e-04 |
| ## GAD1      | 1.19695328  | 4.226445  | 4.6916160  | 1.299083e-05 | 2.241268e-04 |
| ## ADGRL3    | -0.73332825 | 5.142222  | -4.6896894 | 1.308420e-05 | 2.254329e-04 |
| ## DHX9      | 0.21376714  | 8.013086  | 4.6896076  | 1.308819e-05 | 2.254329e-04 |
| ## RASGRP2   | -0.49716549 | 6.411918  | -4.6887091 | 1.313197e-05 | 2.259872e-04 |
| ## WDR18     | 0.45758851  | 7.076847  | 4.6884016  | 1.314698e-05 | 2.259872e-04 |
| ## LTV1      | 0.34361917  | 7.947345  | 4.6882801  | 1.315292e-05 | 2.259872e-04 |
| ## ZNF662    | -0.71358924 | 4.836518  | -4.6835327 | 1.338700e-05 | 2.298194e-04 |
| ## CTDSPL2   | 0.61071690  | 4.678309  | 4.6824746  | 1.343972e-05 | 2.305345e-04 |
| ## GCFC2     | 0.38199495  | 5.342484  | 4.6805852  | 1.353437e-05 | 2.319668e-04 |
| ## WBP11     | 0.47454904  | 7.658880  | 4.6790925  | 1.360961e-05 | 2.330645e-04 |
| ## YWHAG     | 0.37123053  | 11.099444 | 4.6785825  | 1.363540e-05 | 2.333144e-04 |
| ## ZNF418    | -0.27515606 | 4.453762  | -4.6783075 | 1.364933e-05 | 2.333610e-04 |
| ## MRPL14    | 0.55178420  | 9.278284  | 4.6775805  | 1.368623e-05 | 2.337998e-04 |
| ## BATF2     | 0.99258808  | 6.698072  | 4.6766720  | 1.373246e-05 | 2.343974e-04 |
| ## PAICS     | 0.60782058  | 8.930337  | 4.6758861  | 1.377259e-05 | 2.348898e-04 |
| ## SRSF3     | 0.39195893  | 10.147978 | 4.6751371  | 1.381093e-05 | 2.353427e-04 |
| ## EIF4G1    | 0.49598562  | 6.852157  | 4.6749262  | 1.382175e-05 | 2.353427e-04 |
| ## CD80      | 0.70981486  | 4.952527  | 4.6742916  | 1.385434e-05 | 2.357050e-04 |
| ## CPOX      | 0.46317477  | 7.383673  | 4.6737753  | 1.388092e-05 | 2.358965e-04 |
| ## NOL6      | 0.31420988  | 7.148358  | 4.6736329  | 1.388826e-05 | 2.358965e-04 |
| ## MAL       | -1.26831720 | 5.954956  | -4.6729949 | 1.392118e-05 | 2.360976e-04 |
| ## MMP28     | -0.52976594 | 4.493030  | -4.6729641 | 1.392277e-05 | 2.360976e-04 |
| ## PI16      | -0.38446251 | 6.425259  | -4.6722741 | 1.395847e-05 | 2.365103e-04 |
| ## QSER1     | 0.24602768  | 4.190431  | 4.6718515  | 1.398038e-05 | 2.366889e-04 |
| ## STON1     | -1.13333459 | 7.063149  | -4.6707809 | 1.403603e-05 | 2.373531e-04 |
| ## PSPH      | 0.64484412  | 5.105439  | 4.6706584  | 1.404240e-05 | 2.373531e-04 |

|              |             |          |            |              |              |
|--------------|-------------|----------|------------|--------------|--------------|
| ## MTPAP     | 0.43654107  | 7.393330 | 4.6681827  | 1.417197e-05 | 2.393489e-04 |
| ## ZNF300P1  | -0.33952516 | 4.106000 | -4.6666452 | 1.425302e-05 | 2.405226e-04 |
| ## GFRA2     | -0.25360941 | 4.969788 | -4.6656627 | 1.430505e-05 | 2.412052e-04 |
| ## EFS       | -0.63924650 | 5.485932 | -4.6648770 | 1.434680e-05 | 2.417133e-04 |
| ## SENP2     | 0.43268562  | 6.842949 | 4.6645650  | 1.436340e-05 | 2.417975e-04 |
| ## CXCL2     | 0.88073010  | 5.188121 | 4.6638450  | 1.440180e-05 | 2.422480e-04 |
| ## MTRF1L    | -0.44063988 | 7.278085 | -4.6611746 | 1.454509e-05 | 2.444608e-04 |
| ## CYP4F12   | -0.56089646 | 6.991077 | -4.6608698 | 1.456154e-05 | 2.445398e-04 |
| ## TMEM220   | -0.86154701 | 6.501834 | -4.6583725 | 1.469694e-05 | 2.466148e-04 |
| ## MFSD4A    | -2.14796246 | 8.028906 | -4.6578707 | 1.472429e-05 | 2.468749e-04 |
| ## ALMS1-IT1 | 0.33069042  | 4.000584 | 4.6572916  | 1.475592e-05 | 2.470456e-04 |
| ## VAT1L     | -0.54562496 | 5.581296 | -4.6571184 | 1.476540e-05 | 2.470456e-04 |
| ## Clorf43   | 0.52143591  | 4.832051 | 4.6570332  | 1.477006e-05 | 2.470456e-04 |
| ## TNFAIP6   | 1.17187675  | 7.216141 | 4.6567886  | 1.478345e-05 | 2.470711e-04 |
| ## CFHR2     | -0.41011790 | 5.156315 | -4.6554837 | 1.485510e-05 | 2.480695e-04 |
| ## TBCEL     | -0.57577975 | 6.638822 | -4.6532683 | 1.497752e-05 | 2.499133e-04 |
| ## VKORC1L1  | 0.50704311  | 4.235904 | 4.6529747  | 1.499381e-05 | 2.499849e-04 |
| ## PTBP1     | 0.32698260  | 9.952532 | 4.6525144  | 1.501940e-05 | 2.502112e-04 |
| ## MAP3K1    | 0.46908402  | 4.339409 | 4.6519594  | 1.505030e-05 | 2.505256e-04 |
| ## FAM13B    | -0.63673349 | 8.168795 | -4.6513571 | 1.508391e-05 | 2.508845e-04 |
| ## CSNK1D    | 0.39686664  | 7.955023 | 4.6508882  | 1.511013e-05 | 2.511199e-04 |
| ## YIF1B     | 0.49054105  | 6.816207 | 4.6461680  | 1.537651e-05 | 2.553433e-04 |
| ## HAUS8     | 0.34915281  | 6.002019 | 4.6448763  | 1.545020e-05 | 2.563625e-04 |
| ## CBFA2T3   | -0.35887166 | 4.565424 | -4.6444879 | 1.547243e-05 | 2.565269e-04 |
| ## CEP78     | 0.36021425  | 5.458835 | 4.6435811  | 1.552444e-05 | 2.571845e-04 |
| ## NAA25     | 0.47021145  | 7.312581 | 4.6431744  | 1.554782e-05 | 2.572173e-04 |
| ## GCLM      | 0.72559561  | 7.671186 | 4.6431169  | 1.555112e-05 | 2.572173e-04 |
| ## PDE1A     | -0.69678286 | 4.980989 | -4.6422392 | 1.560171e-05 | 2.578492e-04 |
| ## CRKL      | 0.42524930  | 4.556752 | 4.6406616  | 1.569304e-05 | 2.591530e-04 |
| ## PRDM6     | -0.68447356 | 6.300790 | -4.6401056 | 1.572536e-05 | 2.594808e-04 |
| ## SNRPF     | 0.46319178  | 9.641779 | 4.6392279  | 1.577650e-05 | 2.601186e-04 |
| ## VIT       | -0.37091298 | 4.500819 | -4.6386152 | 1.581229e-05 | 2.605024e-04 |
| ## SLC7A1    | 0.35574923  | 4.049250 | 4.6377187  | 1.586480e-05 | 2.611610e-04 |
| ## TUBG1     | 0.51023387  | 7.803496 | 4.6367520  | 1.592162e-05 | 2.618894e-04 |
| ## DLG3      | 0.63570562  | 6.059856 | 4.6362381  | 1.595191e-05 | 2.621804e-04 |
| ## IRAG1     | -0.97550819 | 6.682348 | -4.6352626 | 1.600955e-05 | 2.629203e-04 |
| ## CBLL1     | 0.38962909  | 4.977847 | 4.6339882  | 1.608517e-05 | 2.638944e-04 |
| ## PLTP      | -0.72306790 | 8.477939 | -4.6334565 | 1.611682e-05 | 2.638944e-04 |
| ## CCL20     | 1.74217915  | 8.324060 | 4.6334245  | 1.611873e-05 | 2.638944e-04 |
| ## SLC9A9    | -0.63141439 | 6.419119 | -4.6334106 | 1.611956e-05 | 2.638944e-04 |
| ## STRIP2    | 0.61515357  | 3.975253 | 4.6329775  | 1.614538e-05 | 2.641096e-04 |
| ## IQGAP2    | -1.02874473 | 8.532889 | -4.6323926 | 1.618033e-05 | 2.644735e-04 |
| ## LDB3      | -1.26616341 | 4.791284 | -4.6313105 | 1.624518e-05 | 2.651908e-04 |
| ## FNDC5     | -0.74790746 | 5.177605 | -4.6309424 | 1.626729e-05 | 2.651908e-04 |
| ## RAB37     | -0.51205481 | 5.241524 | -4.6309142 | 1.626899e-05 | 2.651908e-04 |
| ## CCNT1     | 0.34622486  | 6.169633 | 4.6308116  | 1.627516e-05 | 2.651908e-04 |
| ## POLR2H    | 0.35124541  | 9.142169 | 4.6305883  | 1.628860e-05 | 2.652023e-04 |
| ## NAPSB     | -0.79237174 | 6.427810 | -4.6299258 | 1.632852e-05 | 2.656447e-04 |
| ## MTERF2    | -0.49546994 | 6.317763 | -4.6292539 | 1.636912e-05 | 2.660973e-04 |
| ## TECPR2    | -0.26464437 | 5.616043 | -4.6288292 | 1.639483e-05 | 2.663073e-04 |
| ## HDAC2     | 0.31843162  | 8.885565 | 4.6278437  | 1.645464e-05 | 2.670705e-04 |
| ## GPN1      | 0.25957843  | 8.452287 | 4.6238795  | 1.669738e-05 | 2.707993e-04 |
| ## POGK      | 0.48681386  | 8.226116 | 4.6218615  | 1.682228e-05 | 2.726125e-04 |
| ## PSCA      | -2.50545576 | 9.544770 | -4.6209860 | 1.687675e-05 | 2.732826e-04 |



|             |             |           |            |              |              |
|-------------|-------------|-----------|------------|--------------|--------------|
| ## TROAP    | 0.61256419  | 6.970308  | 4.6203375  | 1.691721e-05 | 2.737093e-04 |
| ## COA4     | 0.30388022  | 8.724172  | 4.6201426  | 1.692939e-05 | 2.737093e-04 |
| ## GNPDA2   | -0.54429624 | 6.446225  | -4.6175039 | 1.709510e-05 | 2.761741e-04 |
| ## PKMYT1   | 0.33713022  | 6.362535  | 4.6155886  | 1.721637e-05 | 2.779176e-04 |
| ## CPEB2    | -0.65571218 | 8.438364  | -4.6123741 | 1.742179e-05 | 2.810157e-04 |
| ## PTRH2    | 0.38784943  | 8.344624  | 4.6117323  | 1.746308e-05 | 2.814638e-04 |
| ## PARP1    | 0.31392603  | 8.513870  | 4.6112022  | 1.749727e-05 | 2.817967e-04 |
| ## WDR43    | 0.51478625  | 7.395497  | 4.6108239  | 1.752170e-05 | 2.819720e-04 |
| ## SRSF5    | -0.33094130 | 9.964001  | -4.6095402 | 1.760485e-05 | 2.830915e-04 |
| ## PCDH9    | -0.22977946 | 3.551482  | -4.6088113 | 1.765224e-05 | 2.836345e-04 |
| ## FAM110A  | 0.46151989  | 6.057352  | 4.6083570  | 1.768184e-05 | 2.838910e-04 |
| ## CEP43    | 0.59724830  | 7.052341  | 4.6069275  | 1.777529e-05 | 2.850614e-04 |
| ## OTULIN   | 0.38018451  | 5.413937  | 4.6068234  | 1.778212e-05 | 2.850614e-04 |
| ## SMARCA2  | -0.57448494 | 8.393628  | -4.6063176 | 1.781531e-05 | 2.853738e-04 |
| ## POGLUT1  | 0.35173230  | 6.703271  | 4.6041839  | 1.795600e-05 | 2.872452e-04 |
| ## RFC5     | 0.60792712  | 7.408490  | 4.6040989  | 1.796162e-05 | 2.872452e-04 |
| ## ITM2A    | -1.11197538 | 7.998458  | -4.6039194 | 1.797351e-05 | 2.872452e-04 |
| ## MRPS18B  | 0.40481718  | 8.291064  | 4.6021314  | 1.809235e-05 | 2.887606e-04 |
| ## PSMB8    | 0.67600304  | 9.436233  | 4.6020756  | 1.809607e-05 | 2.887606e-04 |
| ## PTPN14   | 0.29265818  | 4.245370  | 4.6017203  | 1.811978e-05 | 2.889175e-04 |
| ## SLC25A12 | -0.49782014 | 6.518290  | -4.6010617 | 1.816381e-05 | 2.893980e-04 |
| ## SERPINH1 | 0.63330669  | 9.448262  | 4.6005419  | 1.819864e-05 | 2.895660e-04 |
| ## CXCL11   | 1.56140101  | 4.688628  | 4.6004893  | 1.820217e-05 | 2.895660e-04 |
| ## C1QTNF6  | 0.37690468  | 5.358601  | 4.5991435  | 1.829265e-05 | 2.907833e-04 |
| ## PFAS     | 0.47952939  | 6.697707  | 4.5986772  | 1.832410e-05 | 2.910611e-04 |
| ## CPA3     | -1.36394977 | 8.770748  | -4.5977935 | 1.838386e-05 | 2.917877e-04 |
| ## PLEKHH2  | -0.84601633 | 6.338501  | -4.5936784 | 1.866461e-05 | 2.960181e-04 |
| ## STT3A    | 0.55688632  | 8.742420  | 4.5933777  | 1.868528e-05 | 2.961205e-04 |
| ## ARHGEF6  | -0.55978239 | 8.061461  | -4.5930824 | 1.870561e-05 | 2.961435e-04 |
| ## PDGFRA   | -0.15890631 | 3.716887  | -4.5929435 | 1.871518e-05 | 2.961435e-04 |
| ## ASXL3    | -0.36633527 | 4.351726  | -4.5923671 | 1.875494e-05 | 2.965473e-04 |
| ## CCDC126  | 0.47708301  | 6.165017  | 4.5903998  | 1.889127e-05 | 2.984763e-04 |
| ## F13A1    | -1.09850451 | 7.845893  | -4.5886575 | 1.901280e-05 | 3.001687e-04 |
| ## MRPL9    | 0.37968299  | 9.464064  | 4.5865398  | 1.916156e-05 | 3.022881e-04 |
| ## SMARCD3  | -0.65518128 | 6.269888  | -4.5853978 | 1.924224e-05 | 3.033311e-04 |
| ## EPM2A    | -0.65468828 | 5.640400  | -4.5845182 | 1.930461e-05 | 3.039021e-04 |
| ## PKIG     | -0.66203507 | 8.591911  | -4.5844754 | 1.930765e-05 | 3.039021e-04 |
| ## TCF7L1   | -0.55455584 | 5.643340  | -4.5836154 | 1.936883e-05 | 3.046348e-04 |
| ## GNS      | 0.79690471  | 6.956328  | 4.5824790  | 1.944996e-05 | 3.056800e-04 |
| ## MAGOH    | 0.54251707  | 7.389709  | 4.5808372  | 1.956776e-05 | 3.070758e-04 |
| ## PTGES2   | 0.33043164  | 7.799789  | 4.5808302  | 1.956827e-05 | 3.070758e-04 |
| ## USP33    | -0.22632809 | 9.489172  | -4.5806107 | 1.958407e-05 | 3.070924e-04 |
| ## IFIH1    | 0.52450487  | 4.139948  | 4.5761532  | 1.990766e-05 | 3.117646e-04 |
| ## TBCE     | 0.43033173  | 8.313852  | 4.5760944  | 1.991197e-05 | 3.117646e-04 |
| ## STAT1    | 0.61321539  | 10.889725 | 4.5752509  | 1.997380e-05 | 3.124976e-04 |
| ## PPA2     | 0.29006498  | 4.254822  | 4.5732775  | 2.011919e-05 | 3.145360e-04 |
| ## MUCL3    | -2.27010527 | 7.981036  | -4.5705871 | 2.031905e-05 | 3.174223e-04 |
| ## ATAD5    | 0.45195622  | 5.279916  | 4.5676313  | 2.054086e-05 | 3.206468e-04 |
| ## BARD1    | 0.49286916  | 7.709162  | 4.5673607  | 2.056128e-05 | 3.207252e-04 |
| ## MMRN2    | -0.52207964 | 6.436404  | -4.5662047 | 2.064875e-05 | 3.217067e-04 |
| ## PDCD11   | 0.36628418  | 7.061367  | 4.5659831  | 2.066557e-05 | 3.217067e-04 |
| ## MRPS23   | 0.35187616  | 8.810990  | 4.5659174  | 2.067055e-05 | 3.217067e-04 |
| ## TFF1     | -2.24535859 | 12.024215 | -4.5650439 | 2.073695e-05 | 3.224991e-04 |
| ## EIPR1    | 0.36794197  | 7.363541  | 4.5628978  | 2.090099e-05 | 3.247562e-04 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LMBRD1       | -0.30707315 | 10.020229 | -4.5627376 | 2.091328e-05 | 3.247562e-04 |
| ## MAP6         | -0.38482828 | 4.508506  | -4.5592666 | 2.118140e-05 | 3.286747e-04 |
| ## GLI1         | -0.35299849 | 6.550067  | -4.5588416 | 2.121445e-05 | 3.288289e-04 |
| ## WARS1        | 1.00627814  | 8.852138  | 4.5587329  | 2.122292e-05 | 3.288289e-04 |
| ## GKN2         | -3.32857583 | 9.785280  | -4.5578434 | 2.129230e-05 | 3.296586e-04 |
| ## HTR2B        | -1.13726279 | 4.867465  | -4.5568348 | 2.137123e-05 | 3.306348e-04 |
| ## ANGPT2       | 0.64944163  | 5.829277  | 4.5560672  | 2.143150e-05 | 3.310883e-04 |
| ## OMD          | -1.57290411 | 5.496823  | -4.5560565 | 2.143234e-05 | 3.310883e-04 |
| ## HDGFL3       | -0.59547569 | 4.860179  | -4.5558229 | 2.145071e-05 | 3.311264e-04 |
| ## APOBEC3B     | 1.26736451  | 6.715090  | 4.5550414  | 2.151228e-05 | 3.318309e-04 |
| ## PLPP7        | -0.41172941 | 5.436146  | -4.5522602 | 2.173283e-05 | 3.349848e-04 |
| ## SFRP1        | -1.01030568 | 4.758399  | -4.5511949 | 2.181789e-05 | 3.360471e-04 |
| ## THOC6        | 0.47646431  | 6.304429  | 4.5509732  | 2.183563e-05 | 3.360718e-04 |
| ## ZNF142       | 0.24449776  | 7.003251  | 4.5478376  | 2.208806e-05 | 3.395371e-04 |
| ## E2F5         | 0.66207989  | 6.790583  | 4.5477718  | 2.209339e-05 | 3.395371e-04 |
| ## EFNA3        | 0.45158151  | 6.395278  | 4.5457412  | 2.225841e-05 | 3.418209e-04 |
| ## RPL9         | -0.16284293 | 13.319618 | -4.5445633 | 2.235469e-05 | 3.428829e-04 |
| ## PPA1         | 0.44063817  | 11.824301 | 4.5444925  | 2.236049e-05 | 3.428829e-04 |
| ## PROSER1      | 0.50572474  | 7.154691  | 4.5437140  | 2.242436e-05 | 3.436092e-04 |
| ## CHL1         | -0.73308394 | 4.448647  | -4.5425979 | 2.251624e-05 | 3.447633e-04 |
| ## ZBTB4        | -0.59783448 | 8.860538  | -4.5409302 | 2.265420e-05 | 3.466209e-04 |
| ## LOC105379448 | -0.17647578 | 3.706226  | -4.5401859 | 2.271604e-05 | 3.473119e-04 |
| ## ORC4         | 0.33817985  | 8.254703  | 4.5398243  | 2.274614e-05 | 3.475169e-04 |
| ## H3C11        | 0.16489997  | 3.604358  | 4.5385891  | 2.284926e-05 | 3.488365e-04 |
| ## MAN1A2       | 0.36895625  | 4.257992  | 4.5382706  | 2.287592e-05 | 3.489877e-04 |
| ## BCAS1        | -1.28419704 | 7.158214  | -4.5367789 | 2.300120e-05 | 3.505222e-04 |
| ## UNC5C-AS1    | -0.15732022 | 3.408443  | -4.5365045 | 2.302432e-05 | 3.505222e-04 |
| ## RNASE1       | -1.07093119 | 10.757818 | -4.5364726 | 2.302701e-05 | 3.505222e-04 |
| ## VPS72        | 0.40663962  | 7.810272  | 4.5355041  | 2.310880e-05 | 3.515103e-04 |
| ## ESR1         | -0.61379388 | 4.493619  | -4.5351805 | 2.313619e-05 | 3.516700e-04 |
| ## ZNF664       | 0.39752793  | 6.249707  | 4.5349358  | 2.315691e-05 | 3.517284e-04 |
| ## LY6E         | 0.87370146  | 8.585730  | 4.5341770  | 2.322132e-05 | 3.524496e-04 |
| ## PSMB1        | 0.27146580  | 10.954916 | 4.5333766  | 2.328944e-05 | 3.532260e-04 |
| ## SLC39A6      | 0.70420841  | 6.453090  | 4.5323217  | 2.337953e-05 | 3.543343e-04 |
| ## MIEF1        | 0.38039313  | 6.956336  | 4.5313684  | 2.346122e-05 | 3.553138e-04 |
| ## CZIB         | -0.30248596 | 8.446493  | -4.5294504 | 2.362644e-05 | 3.575559e-04 |
| ## NSDHL        | 0.52507717  | 6.569202  | 4.5286259  | 2.369780e-05 | 3.583754e-04 |
| ## UPP1         | 0.71706972  | 6.779478  | 4.5281047  | 2.374302e-05 | 3.587987e-04 |
| ## SORD         | 0.77097472  | 7.141373  | 4.5267971  | 2.385684e-05 | 3.602574e-04 |
| ## SOCS2-AS1    | -0.17922876 | 3.529428  | -4.5264452 | 2.388757e-05 | 3.604600e-04 |
| ## CLEC10A      | -0.73902448 | 5.946627  | -4.5252130 | 2.399545e-05 | 3.618256e-04 |
| ## IGFBP6       | -0.80841308 | 7.659322  | -4.5249598 | 2.401767e-05 | 3.618987e-04 |
| ## TACR2        | -1.04046748 | 5.718190  | -4.5244647 | 2.406119e-05 | 3.621722e-04 |
| ## NEURL3       | 0.60343144  | 6.107609  | 4.5243141  | 2.407444e-05 | 3.621722e-04 |
| ## CA2          | -1.82297279 | 10.858401 | -4.5240444 | 2.409820e-05 | 3.621722e-04 |
| ## PBX2         | 0.40862990  | 6.621239  | 4.5239628  | 2.410539e-05 | 3.621722e-04 |
| ## MBNL1-AS1    | -1.43518905 | 5.332526  | -4.5235599 | 2.414093e-05 | 3.624446e-04 |
| ## CILP         | -1.28347582 | 6.682140  | -4.5219072 | 2.428722e-05 | 3.643783e-04 |
| ## ZBTB26       | 0.42760892  | 4.672842  | 4.5200311  | 2.445433e-05 | 3.666213e-04 |
| ## VARS2        | 0.37879226  | 8.558877  | 4.5195958  | 2.449327e-05 | 3.669408e-04 |
| ## LOC728392    | -0.64614543 | 6.839156  | -4.5163101 | 2.478909e-05 | 3.711057e-04 |
| ## WDHD1        | 0.34838437  | 3.829657  | 4.5144495  | 2.495815e-05 | 3.733682e-04 |
| ## LRRC18       | -0.17283122 | 4.103608  | -4.5101098 | 2.535682e-05 | 3.787889e-04 |
| ## NUDT15       | 0.49251415  | 7.826407  | 4.5099291  | 2.537356e-05 | 3.787889e-04 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## TUBA1A     | -0.65646347 | 10.986804 | -4.5099082 | 2.537549e-05 | 3.787889e-04 |
| ## NRAS       | 0.92598945  | 7.599472  | 4.5097164  | 2.539326e-05 | 3.787889e-04 |
| ## SNRPE      | 0.33228982  | 10.590004 | 4.5088931  | 2.546970e-05 | 3.796571e-04 |
| ## PER1       | -0.56250802 | 7.670449  | -4.5081394 | 2.553987e-05 | 3.804307e-04 |
| ## ZNF710-AS1 | -0.66413362 | 5.857315  | -4.5078793 | 2.556413e-05 | 3.805200e-04 |
| ## SLC1A5     | 0.48904137  | 7.767157  | 4.5072204  | 2.562568e-05 | 3.811637e-04 |
| ## WFDC1      | -0.88457407 | 8.010174  | -4.5067707 | 2.566778e-05 | 3.812747e-04 |
| ## SRRT       | 0.43629871  | 5.405999  | 4.5067495  | 2.566976e-05 | 3.812747e-04 |
| ## ARL6IP6    | 0.40818091  | 8.638390  | 4.5053245  | 2.580360e-05 | 3.827863e-04 |
| ## SCGB2A1    | -1.72601382 | 5.815487  | -4.5052033 | 2.581502e-05 | 3.827863e-04 |
| ## UQCC2      | 0.37878080  | 8.517359  | 4.5050795  | 2.582668e-05 | 3.827863e-04 |
| ## S100A11    | 0.53173508  | 11.264528 | 4.5043120  | 2.589911e-05 | 3.835867e-04 |
| ## GRB2       | 0.40746714  | 8.129554  | 4.5029174  | 2.603122e-05 | 3.852694e-04 |
| ## CCDC80     | -1.08440588 | 7.397888  | -4.4998792 | 2.632130e-05 | 3.892861e-04 |
| ## MRPL30     | 0.56548010  | 7.219844  | 4.4995269  | 2.635514e-05 | 3.895098e-04 |
| ## DCTPP1     | 0.45732947  | 8.974191  | 4.4990956  | 2.639662e-05 | 3.898463e-04 |
| ## MRPL37     | 0.35947832  | 8.880771  | 4.4985159  | 2.645249e-05 | 3.903945e-04 |
| ## SEC61G     | 0.35320443  | 10.296497 | 4.4981077  | 2.649189e-05 | 3.904906e-04 |
| ## TPI1       | 0.41918979  | 10.918000 | 4.4980599  | 2.649651e-05 | 3.904906e-04 |
| ## MIX23      | 0.76866510  | 6.701841  | 4.4976145  | 2.653957e-05 | 3.908486e-04 |
| ## RPS23      | -0.13357133 | 13.378195 | -4.4961971 | 2.667707e-05 | 3.925959e-04 |
| ## RRP36      | 0.50892819  | 8.100444  | 4.4958476  | 2.671108e-05 | 3.927619e-04 |
| ## ASCC3      | 0.46056986  | 7.883876  | 4.4956938  | 2.672606e-05 | 3.927619e-04 |
| ## STOX2      | -0.42742007 | 5.666754  | -4.4952121 | 2.677303e-05 | 3.931746e-04 |
| ## MCAT       | 0.37176196  | 6.659705  | 4.4949724  | 2.679644e-05 | 3.932410e-04 |
| ## ARHGAP10   | -0.37112765 | 6.436962  | -4.4947013 | 2.682292e-05 | 3.933525e-04 |
| ## MCM6       | 0.46716388  | 9.331449  | 4.4935882  | 2.693197e-05 | 3.946736e-04 |
| ## ACER2      | -1.53653309 | 6.981742  | -4.4920257 | 2.708576e-05 | 3.966483e-04 |
| ## NCSTN      | 0.37926899  | 8.429397  | 4.4891297  | 2.737307e-05 | 4.005740e-04 |
| ## TMEM61     | -0.39111425 | 5.135456  | -4.4888156 | 2.740440e-05 | 4.007509e-04 |
| ## SSX2IP     | 0.51677484  | 5.338366  | 4.4878740  | 2.749856e-05 | 4.013738e-04 |
| ## DPY30      | 0.30397845  | 9.560714  | 4.4878302  | 2.750295e-05 | 4.013738e-04 |
| ## CEBPB      | 0.53713676  | 10.915366 | 4.4878115  | 2.750482e-05 | 4.013738e-04 |
| ## TRPC4AP    | 0.28636718  | 7.350833  | 4.4875911  | 2.752691e-05 | 4.014148e-04 |
| ## CLCN5      | 0.56871896  | 4.877440  | 4.4869002  | 2.759626e-05 | 4.018926e-04 |
| ## TSPYL2     | -0.47870923 | 7.695441  | -4.4868802 | 2.759827e-05 | 4.018926e-04 |
| ## ZNF671     | -0.26258031 | 5.921167  | -4.4856118 | 2.772605e-05 | 4.034712e-04 |
| ## FGD4       | -0.66899928 | 9.142645  | -4.4853953 | 2.774791e-05 | 4.035074e-04 |
| ## IQCN       | -0.35056332 | 4.685041  | -4.4829282 | 2.799829e-05 | 4.068642e-04 |
| ## SMG9       | 0.36870113  | 6.540285  | 4.4812530  | 2.816954e-05 | 4.090673e-04 |
| ## KCMF1      | 0.27539162  | 9.935446  | 4.4778938  | 2.851601e-05 | 4.137005e-04 |
| ## ACAT2      | 0.58789907  | 7.514781  | 4.4777752  | 2.852833e-05 | 4.137005e-04 |
| ## FBNP1      | -0.81907278 | 8.640184  | -4.4774857 | 2.855839e-05 | 4.138482e-04 |
| ## MAPK1IP1L  | 0.40562941  | 5.520918  | 4.4772263  | 2.858535e-05 | 4.139509e-04 |
| ## DGKG       | -0.20607998 | 4.079517  | -4.4762095 | 2.869129e-05 | 4.151963e-04 |
| ## ILF3       | 0.65356826  | 6.913439  | 4.4702914  | 2.931549e-05 | 4.239345e-04 |
| ## CASK       | 0.65126544  | 7.091474  | 4.4695582  | 2.939374e-05 | 4.247711e-04 |
| ## ZNF106     | -0.44913477 | 8.327029  | -4.4687712 | 2.947794e-05 | 4.256926e-04 |
| ## GSTA4      | -0.84270583 | 8.657860  | -4.4684220 | 2.951539e-05 | 4.259379e-04 |
| ## RASL12     | -0.62335574 | 6.677395  | -4.4676532 | 2.959798e-05 | 4.268340e-04 |
| ## AMOTL1     | -0.83294147 | 8.073435  | -4.4673735 | 2.962808e-05 | 4.269724e-04 |
| ## ARHGEF25   | -0.42977464 | 6.309087  | -4.4657724 | 2.980098e-05 | 4.291670e-04 |
| ## CASP2      | 0.72571361  | 5.273151  | 4.4624251  | 3.016561e-05 | 4.341179e-04 |
| ## NME5       | -0.58924456 | 4.892186  | -4.4611406 | 3.030667e-05 | 4.358468e-04 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## NPC1         | 0.60852041  | 8.321530  | 4.4605302  | 3.037394e-05 | 4.365128e-04 |
| ## SLC5A6       | 0.46383540  | 7.524349  | 4.4596871  | 3.046709e-05 | 4.373268e-04 |
| ## MRPL45       | 0.33269844  | 8.066205  | 4.4596374  | 3.047259e-05 | 4.373268e-04 |
| ## GDF7         | -0.21586580 | 4.968460  | -4.4589514 | 3.054858e-05 | 4.379317e-04 |
| ## PAK1IP1      | 0.40689968  | 7.513781  | 4.4588774  | 3.055680e-05 | 4.379317e-04 |
| ## HK2          | 0.83480537  | 7.939018  | 4.4565950  | 3.081106e-05 | 4.412720e-04 |
| ## COL21A1      | -1.03832783 | 5.760552  | -4.4544777 | 3.104877e-05 | 4.443709e-04 |
| ## GART         | 0.39283620  | 5.565676  | 4.4539125  | 3.111253e-05 | 4.449776e-04 |
| ## FAM86B2-DT   | -0.64071641 | 8.241192  | -4.4529010 | 3.122694e-05 | 4.462153e-04 |
| ## ENPP2        | -0.83559626 | 8.888393  | -4.4527688 | 3.124193e-05 | 4.462153e-04 |
| ## SLITRK6      | -0.95523029 | 4.722829  | -4.4519407 | 3.133595e-05 | 4.472514e-04 |
| ## SMIM13       | 0.26330001  | 4.271486  | 4.4516211  | 3.137231e-05 | 4.474529e-04 |
| ## MFSD14CP     | 0.47547406  | 6.838447  | 4.4514390  | 3.139304e-05 | 4.474529e-04 |
| ## ACOX2        | -0.67573384 | 6.635572  | -4.4509814 | 3.144521e-05 | 4.478899e-04 |
| ## IFFO2        | 0.50620513  | 6.080989  | 4.4504050  | 3.151103e-05 | 4.485206e-04 |
| ## LGI2         | -0.30578324 | 6.274643  | -4.4492072 | 3.164824e-05 | 4.501660e-04 |
| ## RFX7         | 0.51079971  | 4.618289  | 4.4486502  | 3.171225e-05 | 4.506049e-04 |
| ## PRPS1        | 0.52946422  | 6.606342  | 4.4485622  | 3.172237e-05 | 4.506049e-04 |
| ## ROR2         | -0.60833017 | 5.338101  | -4.4477951 | 3.181075e-05 | 4.514296e-04 |
| ## CD36         | -0.97808303 | 7.097806  | -4.4476821 | 3.182379e-05 | 4.514296e-04 |
| ## UTP4         | 0.41260706  | 8.705274  | 4.4461712  | 3.199865e-05 | 4.536010e-04 |
| ## POLD1        | 0.48198049  | 6.518556  | 4.4452160  | 3.210966e-05 | 4.546120e-04 |
| ## WDR76        | 0.41304937  | 4.923498  | 4.4451819  | 3.211363e-05 | 4.546120e-04 |
| ## PPM1G        | 0.32860208  | 8.098681  | 4.4434381  | 3.231731e-05 | 4.571845e-04 |
| ## RPS25        | -0.22032431 | 12.393357 | -4.4430528 | 3.236248e-05 | 4.575127e-04 |
| ## TSPAN11      | -0.61232432 | 5.857516  | -4.4425006 | 3.242731e-05 | 4.581183e-04 |
| ## SUPT16H      | 0.36521088  | 8.663341  | 4.4408203  | 3.262541e-05 | 4.606044e-04 |
| ## LSM4         | 0.44001435  | 8.836568  | 4.4399235  | 3.273160e-05 | 4.616096e-04 |
| ## TTPAL        | 0.55627122  | 6.012280  | 4.4398448  | 3.274094e-05 | 4.616096e-04 |
| ## HLF          | -0.96146033 | 5.197570  | -4.4365873 | 3.312964e-05 | 4.667737e-04 |
| ## CHCHD2       | 0.34122731  | 11.637024 | 4.4341885  | 3.341874e-05 | 4.705286e-04 |
| ## TRA2B        | 0.28978717  | 9.354750  | 4.4334842  | 3.350409e-05 | 4.711461e-04 |
| ## SOX15        | -0.31168389 | 5.602097  | -4.4334532 | 3.350785e-05 | 4.711461e-04 |
| ## HSP90B1      | 0.58748912  | 10.126391 | 4.4327107  | 3.359806e-05 | 4.720958e-04 |
| ## CEP152       | 0.41938854  | 5.026292  | 4.4319808  | 3.368696e-05 | 4.728185e-04 |
| ## MTX2         | 0.32565976  | 8.407027  | 4.4319157  | 3.369490e-05 | 4.728185e-04 |
| ## LOC102723722 | -0.27039221 | 5.565612  | -4.4315671 | 3.373745e-05 | 4.730968e-04 |
| ## WTAP         | 0.34179720  | 4.444131  | 4.4308230  | 3.382847e-05 | 4.740538e-04 |
| ## UCA1         | 1.07724342  | 5.647780  | 4.4300470  | 3.392363e-05 | 4.750676e-04 |
| ## C5orf22      | 0.78145955  | 5.445687  | 4.4261754  | 3.440230e-05 | 4.814473e-04 |
| ## UBE2M        | 0.53668403  | 7.882245  | 4.4258711  | 3.444019e-05 | 4.816538e-04 |
| ## TMEM200B     | -0.64572006 | 5.671392  | -4.4256808 | 3.446392e-05 | 4.816621e-04 |
| ## BMX          | -0.50919176 | 4.573643  | -4.4250367 | 3.454432e-05 | 4.824621e-04 |
| ## FAM117B      | 0.37115421  | 4.200884  | 4.4239744  | 3.467734e-05 | 4.839952e-04 |
| ## ARMH3        | 0.25790913  | 4.714541  | 4.4231993  | 3.477470e-05 | 4.848384e-04 |
| ## SERPINF1     | -0.97853293 | 10.151509 | -4.4231228 | 3.478432e-05 | 4.848384e-04 |
| ## SCD          | 0.63658773  | 7.600952  | 4.4225271  | 3.485935e-05 | 4.854877e-04 |
| ## TIMM8A       | 0.35037448  | 4.952056  | 4.4223830  | 3.487753e-05 | 4.854877e-04 |
| ## HFE          | 0.20665128  | 3.550643  | 4.4208244  | 3.507467e-05 | 4.878216e-04 |
| ## SLC35C2      | 0.31213673  | 7.309116  | 4.4206875  | 3.509205e-05 | 4.878216e-04 |
| ## PAXBP1       | 0.49539115  | 5.759903  | 4.4182099  | 3.540782e-05 | 4.916787e-04 |
| ## GRHL1        | 0.48465947  | 4.968446  | 4.4181403  | 3.541673e-05 | 4.916787e-04 |
| ## PSMG3        | 0.30366260  | 7.885242  | 4.4124378  | 3.615421e-05 | 5.015824e-04 |
| ## USP32        | 0.27877805  | 6.040826  | 4.4120999  | 3.619837e-05 | 5.018607e-04 |

|             |             |           |            |              |              |
|-------------|-------------|-----------|------------|--------------|--------------|
| ## ENTREP1  | -0.85136571 | 6.159109  | -4.4108245 | 3.636554e-05 | 5.038429e-04 |
| ## GMFB     | 0.75408549  | 7.588259  | 4.4105624  | 3.639998e-05 | 5.039848e-04 |
| ## NR3C1    | -0.55028956 | 9.061640  | -4.4093487 | 3.655989e-05 | 5.058626e-04 |
| ## SYNC     | -1.22837947 | 5.820411  | -4.4087535 | 3.663857e-05 | 5.066146e-04 |
| ## MXRA8    | -0.63314384 | 8.208296  | -4.4068240 | 3.689474e-05 | 5.097555e-04 |
| ## LYVE1    | -0.85841475 | 6.144612  | -4.4066743 | 3.691468e-05 | 5.097555e-04 |
| ## SKP1     | -0.33661952 | 9.456731  | -4.4052224 | 3.710869e-05 | 5.120950e-04 |
| ## ERAL1    | 0.42948081  | 7.011283  | 4.4029139  | 3.741920e-05 | 5.160380e-04 |
| ## DPT      | -0.99290794 | 6.624532  | -4.4019470 | 3.755000e-05 | 5.174991e-04 |
| ## MRPL3    | 0.33617261  | 10.685643 | 4.4017413  | 3.757788e-05 | 5.175409e-04 |
| ## YWHAЕ    | 0.94545919  | 7.493368  | 4.3997975  | 3.784237e-05 | 5.208275e-04 |
| ## XPO6     | 0.23414259  | 8.806606  | 4.3996206  | 3.786654e-05 | 5.208275e-04 |
| ## GMNN     | 0.72116107  | 8.324812  | 4.3975924  | 3.814461e-05 | 5.242942e-04 |
| ## PA2G4    | 0.36468715  | 8.587463  | 4.3974156  | 3.816894e-05 | 5.242942e-04 |
| ## GJB2     | 1.18930391  | 8.363415  | 4.3951885  | 3.847674e-05 | 5.281738e-04 |
| ## EFCC1    | -0.33088854 | 5.779063  | -4.3944324 | 3.858178e-05 | 5.292668e-04 |
| ## NPM3     | 0.48867187  | 7.038959  | 4.3941060  | 3.862722e-05 | 5.295413e-04 |
| ## BEX3     | -0.66274731 | 10.738098 | -4.3930037 | 3.878104e-05 | 5.313003e-04 |
| ## TMEM138  | 0.29692246  | 8.073653  | 4.3924561  | 3.885768e-05 | 5.320002e-04 |
| ## GID8     | 0.37309564  | 8.175328  | 4.3913620  | 3.901123e-05 | 5.337515e-04 |
| ## ZFPM2    | -1.12866860 | 5.645992  | -4.3896004 | 3.925970e-05 | 5.367984e-04 |
| ## KIAA1217 | 0.53659200  | 5.384686  | 4.3884345  | 3.942499e-05 | 5.385774e-04 |
| ## RPL36AL  | -0.27847322 | 11.190118 | -4.3883181 | 3.944153e-05 | 5.385774e-04 |
| ## C22orf39 | -0.50810014 | 7.140108  | -4.3880565 | 3.947873e-05 | 5.387321e-04 |
| ## LARS1    | -0.34861484 | 7.982032  | -4.3875763 | 3.954710e-05 | 5.389802e-04 |
| ## CDCA7    | 0.95638244  | 8.836373  | 4.3875652  | 3.954868e-05 | 5.389802e-04 |
| ## HSPA4    | -0.57054520 | 6.425305  | -4.3852213 | 3.988404e-05 | 5.431950e-04 |
| ## ITGA7    | -0.86670134 | 6.321010  | -4.3846132 | 3.997149e-05 | 5.440302e-04 |
| ## MRPS7    | 0.30587470  | 8.279075  | 4.3837954  | 4.008940e-05 | 5.451480e-04 |
| ## SPATA18  | -0.76079177 | 5.149108  | -4.3836806 | 4.010597e-05 | 5.451480e-04 |
| ## RGN      | -0.66348091 | 5.973196  | -4.3822376 | 4.031493e-05 | 5.471047e-04 |
| ## SLC25A19 | 0.29673193  | 6.948796  | 4.3822371  | 4.031500e-05 | 5.471047e-04 |
| ## CENPQ    | 0.41342081  | 3.980462  | 4.3818401  | 4.037267e-05 | 5.471047e-04 |
| ## LAGE3    | 0.43198413  | 7.664047  | 4.3817858  | 4.038057e-05 | 5.471047e-04 |
| ## PPP2R5C  | 0.20776253  | 3.655628  | 4.3817808  | 4.038129e-05 | 5.471047e-04 |
| ## VRK1     | 0.46443297  | 7.859865  | 4.3815832  | 4.041003e-05 | 5.471381e-04 |
| ## MMP12    | 1.85067542  | 8.864153  | 4.3808320  | 4.051948e-05 | 5.481234e-04 |
| ## ADD1     | -0.33252465 | 8.859168  | -4.3805950 | 4.055407e-05 | 5.481234e-04 |
| ## EHF      | 1.04404330  | 7.030246  | 4.3805423  | 4.056176e-05 | 5.481234e-04 |
| ## NAE1     | 0.32605520  | 9.490941  | 4.3771895  | 4.105425e-05 | 5.541326e-04 |
| ## ARPP19   | 0.48782354  | 6.659473  | 4.3770729  | 4.107147e-05 | 5.541326e-04 |
| ## PGM3     | 0.55618301  | 7.333571  | 4.3769727  | 4.108628e-05 | 5.541326e-04 |
| ## ZNF317   | 0.40443189  | 5.114041  | 4.3748075  | 4.140765e-05 | 5.581054e-04 |
| ## MIR22HG  | -0.58208195 | 8.495973  | -4.3744207 | 4.146531e-05 | 5.585211e-04 |
| ## STARD13  | -0.65973185 | 7.334290  | -4.3734721 | 4.160706e-05 | 5.600682e-04 |
| ## GRIA1    | -0.25463256 | 3.759915  | -4.3708406 | 4.200273e-05 | 5.650290e-04 |
| ## ETV6     | 0.42136537  | 6.143713  | 4.3696925  | 4.217651e-05 | 5.670004e-04 |
| ## HSPA5    | 0.31409559  | 11.698907 | 4.3691472  | 4.225929e-05 | 5.677467e-04 |
| ## MED20    | 0.52924150  | 5.623323  | 4.3688220  | 4.230873e-05 | 5.680445e-04 |
| ## SPINDOC  | 0.26016892  | 5.970194  | 4.3674878  | 4.251215e-05 | 5.704079e-04 |
| ## USP30    | 0.41290714  | 5.730947  | 4.3650751  | 4.288245e-05 | 5.750058e-04 |
| ## EFEMP2   | -0.64895342 | 8.301968  | -4.3638025 | 4.307900e-05 | 5.772697e-04 |
| ## GAS6     | -0.52930829 | 9.312958  | -4.3630136 | 4.320129e-05 | 5.785361e-04 |
| ## PSMA5    | 0.36426176  | 9.964230  | 4.3618688  | 4.337936e-05 | 5.805475e-04 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## CKLF      | 0.39562598  | 7.883873  | 4.3592751  | 4.378540e-05 | 5.856052e-04 |
| ## EIF3B     | 0.38502822  | 9.810326  | 4.3570606  | 4.413501e-05 | 5.896680e-04 |
| ## LRRC37A4P | 0.32971692  | 3.744307  | 4.3569924  | 4.414581e-05 | 5.896680e-04 |
| ## RCN2      | 0.36846214  | 8.999517  | 4.3560449  | 4.429626e-05 | 5.912982e-04 |
| ## EPHA7     | -0.26361569 | 3.701222  | -4.3535841 | 4.468930e-05 | 5.961233e-04 |
| ## CCNJ      | 0.55954382  | 5.947467  | 4.3534241  | 4.471497e-05 | 5.961233e-04 |
| ## MAP3K12   | -0.37031110 | 5.820595  | -4.3531917 | 4.475228e-05 | 5.962389e-04 |
| ## TAB3      | 0.21533635  | 3.689159  | 4.3525798  | 4.485067e-05 | 5.971678e-04 |
| ## NACC1     | 0.35597674  | 6.480753  | 4.3513601  | 4.504742e-05 | 5.994042e-04 |
| ## LGI4      | -0.23374755 | 6.266189  | -4.3508349 | 4.513239e-05 | 6.001513e-04 |
| ## EIF3L     | -0.28365444 | 12.051860 | -4.3505740 | 4.517467e-05 | 6.003301e-04 |
| ## SLC16A3   | 0.89884778  | 6.523649  | 4.3493339  | 4.537610e-05 | 6.026224e-04 |
| ## GPN3      | 0.34267370  | 7.682307  | 4.3486213  | 4.549226e-05 | 6.037264e-04 |
| ## BCAP31    | 0.43200476  | 9.825893  | 4.3484684  | 4.551721e-05 | 6.037264e-04 |
| ## POLR1H    | 0.35226751  | 8.082966  | 4.3482299  | 4.555618e-05 | 6.038586e-04 |
| ## PCMTD1    | -0.40737927 | 9.628268  | -4.3449397 | 4.609694e-05 | 6.106378e-04 |
| ## H2AC14    | 0.42922587  | 6.371338  | 4.3432598  | 4.637543e-05 | 6.135812e-04 |
| ## TUBGCP4   | 0.42588549  | 6.401012  | 4.3432439  | 4.637807e-05 | 6.135812e-04 |
| ## TRAIIP    | 0.33754048  | 4.947369  | 4.3417362  | 4.662942e-05 | 6.165149e-04 |
| ## ATAD3A    | 0.25129538  | 6.919698  | 4.3406922  | 4.680423e-05 | 6.184292e-04 |
| ## CORO1C    | 0.52078621  | 9.562545  | 4.3405172  | 4.683360e-05 | 6.184292e-04 |
| ## MSH6      | 0.36259758  | 8.274979  | 4.3397355  | 4.696497e-05 | 6.197710e-04 |
| ## ZNF239    | 0.73587200  | 6.527438  | 4.3395518  | 4.699591e-05 | 6.197864e-04 |
| ## GEM       | -0.91806775 | 9.663410  | -4.3391621 | 4.706159e-05 | 6.202598e-04 |
| ## MT1M      | -1.52445411 | 6.998587  | -4.3374620 | 4.734914e-05 | 6.236550e-04 |
| ## RNASE4    | -0.91538350 | 9.098852  | -4.3369083 | 4.744315e-05 | 6.244982e-04 |
| ## CLMP      | -1.14410054 | 6.913650  | -4.3357404 | 4.764206e-05 | 6.267203e-04 |
| ## ENTPD6    | 0.41574093  | 8.616622  | 4.3337425  | 4.798421e-05 | 6.308227e-04 |
| ## PSMG3-AS1 | -0.31517466 | 4.812065  | -4.3332490 | 4.806908e-05 | 6.315397e-04 |
| ## FUBP1     | 0.33007939  | 7.931481  | 4.3312140  | 4.842062e-05 | 6.355500e-04 |
| ## BSG       | 0.51553076  | 9.121464  | 4.3311290  | 4.843535e-05 | 6.355500e-04 |
| ## COMMD2    | 0.48585889  | 6.273551  | 4.3306292  | 4.852210e-05 | 6.362873e-04 |
| ## AATF      | 0.36418000  | 8.463174  | 4.3301280  | 4.860924e-05 | 6.370288e-04 |
| ## RBP5      | -0.37545570 | 5.929383  | -4.3256993 | 4.938582e-05 | 6.466938e-04 |
| ## ZUP1      | 0.42645676  | 6.735448  | 4.3255690  | 4.940885e-05 | 6.466938e-04 |
| ## DNM3OS    | -1.05065278 | 5.459575  | -4.3243704 | 4.962119e-05 | 6.490651e-04 |
| ## DAGLB     | 0.29019104  | 4.978407  | 4.3233752  | 4.979816e-05 | 6.509710e-04 |
| ## EPSTI1    | 0.94453662  | 8.785032  | 4.3224628  | 4.996094e-05 | 6.523739e-04 |
| ## PRKD1     | -0.66211714 | 5.057865  | -4.3224226 | 4.996813e-05 | 6.523739e-04 |
| ## IGFBP2    | -1.32797001 | 8.516813  | -4.3221845 | 5.001069e-05 | 6.525204e-04 |
| ## TPD52L2   | 0.46603328  | 8.727978  | 4.3212781  | 5.017307e-05 | 6.542292e-04 |
| ## CDC25C    | 0.59769335  | 5.090309  | 4.3206861  | 5.027940e-05 | 6.552054e-04 |
| ## NANOG     | -0.41212029 | 4.435111  | -4.3187203 | 5.063404e-05 | 6.594142e-04 |
| ## UBE2Q1    | 0.34491869  | 9.496022  | 4.3182693  | 5.071574e-05 | 6.600654e-04 |
| ## SLC25A17  | 0.29714722  | 6.494556  | 4.3160732  | 5.111543e-05 | 6.648518e-04 |
| ## POLA2     | 0.36298428  | 6.603192  | 4.3157353  | 5.117719e-05 | 6.652396e-04 |
| ## NEK3      | 0.68733571  | 4.982488  | 4.3154040  | 5.123783e-05 | 6.656123e-04 |
| ## RNF138    | 0.33403876  | 8.817832  | 4.3140881  | 5.147933e-05 | 6.683327e-04 |
| ## MRPS10    | 0.52908510  | 8.392621  | 4.3130783  | 5.166539e-05 | 6.703303e-04 |
| ## NOP53     | -0.38066632 | 12.232627 | -4.3085999 | 5.249850e-05 | 6.807154e-04 |
| ## ISG15     | 0.83552447  | 9.935753  | 4.3068992  | 5.281828e-05 | 6.844355e-04 |
| ## TMOD3     | 0.67173169  | 5.286578  | 4.3042147  | 5.332686e-05 | 6.904008e-04 |
| ## FZD1      | -0.61366731 | 7.645705  | -4.3041197 | 5.334494e-05 | 6.904008e-04 |
| ## BBLN      | 0.54248559  | 8.050834  | 4.3018516  | 5.377848e-05 | 6.952973e-04 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## MIPEP     | 0.49590554  | 7.188783  | 4.3016831  | 5.381082e-05 | 6.952973e-04 |
| ## NAP1L2    | -0.83268574 | 4.220323  | -4.3016083 | 5.382517e-05 | 6.952973e-04 |
| ## UPK1B     | -1.17738059 | 4.985583  | -4.3014435 | 5.385682e-05 | 6.952973e-04 |
| ## NACAD     | -0.26883160 | 5.235452  | -4.3011201 | 5.391901e-05 | 6.956688e-04 |
| ## JAZF1     | -0.64523240 | 7.318550  | -4.2994615 | 5.423901e-05 | 6.993642e-04 |
| ## PLAGL2    | 0.46605526  | 4.908080  | 4.2988950  | 5.434872e-05 | 7.003452e-04 |
| ## LOC202181 | -0.70661634 | 5.181391  | -4.2986701 | 5.439233e-05 | 7.004737e-04 |
| ## MMP11     | 0.89984328  | 5.944708  | 4.2980064  | 5.452125e-05 | 7.016999e-04 |
| ## COMMD5    | 0.32151283  | 7.423613  | 4.2977477  | 5.457158e-05 | 7.019138e-04 |
| ## AKR1B10   | -2.41773238 | 10.280600 | -4.2964983 | 5.481527e-05 | 7.046131e-04 |
| ## SRSF9     | 0.27630250  | 9.624260  | 4.2955596  | 5.499905e-05 | 7.064223e-04 |
| ## BCHE      | -1.30789928 | 4.524796  | -4.2953402 | 5.504209e-05 | 7.064223e-04 |
| ## PPAT      | 0.78603849  | 6.860202  | 4.2952602  | 5.505779e-05 | 7.064223e-04 |
| ## SELP      | -0.67183966 | 6.397661  | -4.2943654 | 5.523373e-05 | 7.081552e-04 |
| ## OXCT1     | -0.78576817 | 7.897419  | -4.2942276 | 5.526086e-05 | 7.081552e-04 |
| ## TGFBR3    | -0.82332555 | 6.590573  | -4.2929487 | 5.551337e-05 | 7.109535e-04 |
| ## HMGA1     | 0.70195356  | 9.304729  | 4.2925790  | 5.558656e-05 | 7.112698e-04 |
| ## SUV39H1   | 0.41801940  | 5.834284  | 4.2924046  | 5.562114e-05 | 7.112698e-04 |
| ## ADH1C     | -2.15355696 | 9.423816  | -4.2923068 | 5.564054e-05 | 7.112698e-04 |
| ## ZNFX1     | 0.38857335  | 8.368058  | 4.2910509  | 5.589014e-05 | 7.140223e-04 |
| ## P3H2      | -1.02849691 | 6.954751  | -4.2904174 | 5.601645e-05 | 7.151971e-04 |
| ## AAMP      | 0.25504070  | 8.731512  | 4.2891978  | 5.626040e-05 | 7.178716e-04 |
| ## VSIG2     | -1.61087649 | 8.632088  | -4.2887480 | 5.635063e-05 | 7.185827e-04 |
| ## PTGDR2    | -0.43476475 | 5.877795  | -4.2871949 | 5.666327e-05 | 7.212121e-04 |
| ## RGS2      | -0.77685116 | 10.485883 | -4.2871272 | 5.667695e-05 | 7.212121e-04 |
| ## VCP       | 0.36208106  | 8.577364  | 4.2868904  | 5.672476e-05 | 7.212121e-04 |
| ## BEND5     | -0.20737587 | 4.576756  | -4.2868702 | 5.672885e-05 | 7.212121e-04 |
| ## PIGO      | 0.38196001  | 7.021324  | 4.2868645  | 5.673000e-05 | 7.212121e-04 |
| ## UBE2N     | 0.50249386  | 9.009033  | 4.2844749  | 5.721487e-05 | 7.269325e-04 |
| ## SIGMAR1   | 0.40761224  | 7.791263  | 4.2830082  | 5.751445e-05 | 7.302933e-04 |
| ## CDC123    | 0.38180469  | 9.057479  | 4.2815045  | 5.782316e-05 | 7.336412e-04 |
| ## SYT4      | -0.49465468 | 4.550098  | -4.2813811 | 5.784858e-05 | 7.336412e-04 |
| ## SPINK2    | -0.57766265 | 4.840716  | -4.2811719 | 5.789167e-05 | 7.337408e-04 |
| ## MRPS12    | 0.24762859  | 4.683035  | 4.2793520  | 5.826787e-05 | 7.380597e-04 |
| ## BAP1      | 0.38598216  | 6.171419  | 4.2786063  | 5.842271e-05 | 7.395712e-04 |
| ## TMEM33    | 0.44235334  | 7.463691  | 4.2768746  | 5.878379e-05 | 7.436900e-04 |
| ## ANO7      | -0.45303888 | 6.662753  | -4.2764935 | 5.886356e-05 | 7.442470e-04 |
| ## INVS      | 0.46762227  | 5.572804  | 4.2759729  | 5.897269e-05 | 7.451743e-04 |
| ## OLFML1    | -0.76782150 | 6.772811  | -4.2750296 | 5.917090e-05 | 7.472255e-04 |
| ## TSEN54    | 0.27625542  | 7.702751  | 4.2747754  | 5.922442e-05 | 7.474481e-04 |
| ## METTL26   | 0.46081527  | 7.346910  | 4.2735600  | 5.948100e-05 | 7.502316e-04 |
| ## C19orf48  | 0.51160080  | 7.470862  | 4.2720894  | 5.979286e-05 | 7.533115e-04 |
| ## MFSD14B   | 0.34736379  | 8.714785  | 4.2719449  | 5.982360e-05 | 7.533115e-04 |
| ## AGFG1     | 0.62304214  | 5.933813  | 4.2718974  | 5.983371e-05 | 7.533115e-04 |
| ## AGO2      | 0.19812846  | 3.642848  | 4.2713514  | 5.994998e-05 | 7.543192e-04 |
| ## MRPL49    | 0.27223807  | 9.107087  | 4.2699031  | 6.025945e-05 | 7.574312e-04 |
| ## ZNF354C   | -0.39617337 | 5.642824  | -4.2698537 | 6.027005e-05 | 7.574312e-04 |
| ## SNRNP200  | 0.23211278  | 9.894795  | 4.2694713  | 6.035202e-05 | 7.580039e-04 |
| ## ISG20L2   | 0.42813890  | 8.281268  | 4.2687992  | 6.049638e-05 | 7.593591e-04 |
| ## SRSF1     | 0.24371596  | 4.980892  | 4.2684147  | 6.057911e-05 | 7.599394e-04 |
| ## ZC3H12A   | 0.65611838  | 7.555700  | 4.2674042  | 6.079707e-05 | 7.622144e-04 |
| ## SGCA      | -0.40841148 | 5.146855  | -4.2669396 | 6.089753e-05 | 7.630145e-04 |
| ## LRFN5     | -0.33722492 | 4.201203  | -4.2666301 | 6.096455e-05 | 7.633950e-04 |
| ## GGCX      | 0.41770061  | 6.656275  | 4.2661634  | 6.106573e-05 | 7.642024e-04 |

|               |             |          |            |              |              |
|---------------|-------------|----------|------------|--------------|--------------|
| ## ITGA1      | -0.85692986 | 4.924609 | -4.2651716 | 6.128131e-05 | 7.664396e-04 |
| ## FLNC       | -1.00795777 | 7.662442 | -4.2634989 | 6.164655e-05 | 7.705449e-04 |
| ## SSR1       | 0.53316517  | 8.496360 | 4.2622008  | 6.193146e-05 | 7.736417e-04 |
| ## SRSF11     | -0.50934431 | 7.384175 | -4.2614782 | 6.209060e-05 | 7.751647e-04 |
| ## ADH1A      | -0.89325137 | 4.433448 | -4.2596708 | 6.249039e-05 | 7.796883e-04 |
| ## EPS15      | -0.39399932 | 7.740425 | -4.2591473 | 6.260665e-05 | 7.806711e-04 |
| ## CTPS2      | 0.35977108  | 6.471108 | 4.2564518  | 6.320858e-05 | 7.877052e-04 |
| ## CHGA       | -1.37664605 | 8.041675 | -4.2557249 | 6.337186e-05 | 7.889858e-04 |
| ## TPR        | 0.80387283  | 5.471673 | 4.2556571  | 6.338711e-05 | 7.889858e-04 |
| ## ST6GALNAC6 | -0.38843996 | 6.105287 | -4.2543494 | 6.368193e-05 | 7.921820e-04 |
| ## CCDC69     | -0.85058385 | 5.880704 | -4.2538913 | 6.378555e-05 | 7.929972e-04 |
| ## MLF2       | 0.41950647  | 8.559122 | 4.2531354  | 6.395684e-05 | 7.946523e-04 |
| ## TRAF3      | 0.26465558  | 6.169462 | 4.2517761  | 6.426602e-05 | 7.980176e-04 |
| ## CCL19      | -1.47678051 | 7.637174 | -4.2511305 | 6.441334e-05 | 7.993703e-04 |
| ## EBF1       | -0.94082058 | 6.597107 | -4.2509097 | 6.446381e-05 | 7.995202e-04 |
| ## GRPEL1     | 0.48923173  | 8.243173 | 4.2498360  | 6.470978e-05 | 8.020931e-04 |
| ## TMEM182    | 0.16485182  | 3.534080 | 4.2473584  | 6.528079e-05 | 8.086895e-04 |
| ## TIMM17A    | 0.42306620  | 8.859414 | 4.2452509  | 6.577033e-05 | 8.142695e-04 |
| ## FEZ1       | -0.81145667 | 7.007410 | -4.2448148 | 6.587207e-05 | 8.150446e-04 |
| ## OIP5-AS1   | -0.37351698 | 9.340790 | -4.2443361 | 6.598393e-05 | 8.159438e-04 |
| ## TSPAN2     | -0.24849284 | 3.610201 | -4.2436097 | 6.615402e-05 | 8.175616e-04 |
| ## MAIP1      | 0.32766412  | 8.592173 | 4.2428830  | 6.632460e-05 | 8.191835e-04 |
| ## ZNF583     | -0.24667963 | 4.755685 | -4.2424889 | 6.641728e-05 | 8.198420e-04 |
| ## DNP1       | 0.57316705  | 8.409734 | 4.2420362  | 6.652391e-05 | 8.206717e-04 |
| ## FOLR2      | -0.52039823 | 7.241634 | -4.2412664 | 6.670560e-05 | 8.224260e-04 |
| ## LMNB1      | 0.69159578  | 7.403690 | 4.2399674  | 6.701328e-05 | 8.257305e-04 |
| ## MRPL50     | 0.60843173  | 6.810646 | 4.2389050  | 6.726593e-05 | 8.283535e-04 |
| ## ORC5       | 0.38731515  | 8.163891 | 4.2381922  | 6.743597e-05 | 8.299567e-04 |
| ## YTHDF1     | 0.35001716  | 9.623796 | 4.2369738  | 6.772756e-05 | 8.330530e-04 |
| ## PDZRN3-AS1 | -0.28509077 | 4.705939 | -4.2362475 | 6.790198e-05 | 8.347054e-04 |
| ## LPAR1      | -0.87884079 | 7.517117 | -4.2355471 | 6.807057e-05 | 8.362841e-04 |
| ## UCHL3      | 0.47588696  | 9.621081 | 4.2353507  | 6.811793e-05 | 8.363725e-04 |
| ## FIGN       | -0.22602279 | 4.112143 | -4.2330299 | 6.867985e-05 | 8.427750e-04 |
| ## POLR2G     | 0.26013585  | 9.498682 | 4.2308040  | 6.922301e-05 | 8.489398e-04 |
| ## IPO7       | 0.37807583  | 9.873377 | 4.2300059  | 6.941876e-05 | 8.505092e-04 |
| ## PKNOX2     | -0.27263529 | 5.977151 | -4.2298698 | 6.945219e-05 | 8.505092e-04 |
| ## TGFB1I1    | -0.79141778 | 8.509948 | -4.2297831 | 6.947350e-05 | 8.505092e-04 |
| ## TP53BP2    | 0.33088293  | 8.289190 | 4.2293981  | 6.956819e-05 | 8.511680e-04 |
| ## ZNF536     | -0.22053550 | 4.409955 | -4.2276143 | 7.000856e-05 | 8.560530e-04 |
| ## TMEM88     | -0.29911955 | 6.046994 | -4.2267324 | 7.022729e-05 | 8.582236e-04 |
| ## DOP1B      | -0.61225039 | 6.360284 | -4.2263351 | 7.032604e-05 | 8.589263e-04 |
| ## MEIS2      | -0.87677841 | 8.396656 | -4.2261432 | 7.037377e-05 | 8.590055e-04 |
| ## SINHCAF    | 0.76888558  | 9.293021 | 4.2258901  | 7.043679e-05 | 8.592710e-04 |
| ## SHMT1      | 0.47984833  | 6.780722 | 4.2249653  | 7.066753e-05 | 8.615812e-04 |
| ## SSC5D      | -0.32306122 | 6.417426 | -4.2243844 | 7.081282e-05 | 8.628474e-04 |
| ## BRAT1      | 0.30703517  | 6.719782 | 4.2238024  | 7.095869e-05 | 8.641192e-04 |
| ## ZNF318     | 0.48628507  | 6.025976 | 4.2231729  | 7.111677e-05 | 8.655380e-04 |
| ## CDC7       | 0.68315710  | 6.221372 | 4.2228954  | 7.118658e-05 | 8.658817e-04 |
| ## LINC00261  | -1.74224876 | 7.187587 | -4.2226153 | 7.125711e-05 | 8.662335e-04 |
| ## ZCCHC4     | 0.33144662  | 4.864266 | 4.2223145  | 7.133291e-05 | 8.666491e-04 |
| ## METTL1     | 0.35532649  | 6.651294 | 4.2217468  | 7.147621e-05 | 8.678837e-04 |
| ## MAP9       | -0.46393782 | 4.049244 | -4.2214573 | 7.154937e-05 | 8.682658e-04 |
| ## PSMC3      | 0.42204781  | 8.824808 | 4.2211116  | 7.163685e-05 | 8.688210e-04 |
| ## NOP14      | 0.34026079  | 7.226336 | 4.2204210  | 7.181192e-05 | 8.704374e-04 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## SEC61A2      | 0.31370315  | 5.774575  | 4.2199706  | 7.192632e-05 | 8.713168e-04 |
| ## NAA20        | 0.36586693  | 9.543460  | 4.2197847  | 7.197356e-05 | 8.713822e-04 |
| ## SURF6        | 0.37263616  | 7.050127  | 4.2193890  | 7.207428e-05 | 8.720533e-04 |
| ## TCEA3        | -1.15680717 | 8.321508  | -4.2192380 | 7.211275e-05 | 8.720533e-04 |
| ## LINC01354    | -0.16950716 | 3.573091  | -4.2178792 | 7.245980e-05 | 8.757417e-04 |
| ## ETFRF1       | -0.71959755 | 8.833785  | -4.2172374 | 7.262428e-05 | 8.772204e-04 |
| ## LTBP1        | -0.73088953 | 7.840054  | -4.2146654 | 7.328705e-05 | 8.847128e-04 |
| ## DEK          | 0.34156147  | 10.814066 | 4.2131685  | 7.367548e-05 | 8.888866e-04 |
| ## CDC73        | 0.38841192  | 7.674624  | 4.2127068  | 7.379569e-05 | 8.898213e-04 |
| ## TPM2         | -1.06809085 | 10.635817 | -4.2121418 | 7.394304e-05 | 8.910821e-04 |
| ## DESI1        | 0.47815750  | 6.729706  | 4.2104419  | 7.438811e-05 | 8.956048e-04 |
| ## TRABD        | 0.36459105  | 6.764715  | 4.2103800  | 7.440436e-05 | 8.956048e-04 |
| ## CCN5         | -0.54213144 | 4.961590  | -4.2100326 | 7.449566e-05 | 8.961858e-04 |
| ## VIP          | -0.79986333 | 4.129519  | -4.2085803 | 7.487848e-05 | 9.002710e-04 |
| ## PPFIA2       | -0.29260335 | 4.095070  | -4.2083812 | 7.493111e-05 | 9.003840e-04 |
| ## LRFN4        | 0.38307301  | 6.575294  | 4.2074933  | 7.516625e-05 | 9.025602e-04 |
| ## DYNC2I2      | 0.53503009  | 7.470870  | 4.2073702  | 7.519890e-05 | 9.025602e-04 |
| ## B4GALT3      | 0.32023328  | 7.829802  | 4.2068526  | 7.533637e-05 | 9.036893e-04 |
| ## PRKAR1A      | -0.27564218 | 10.984758 | -4.2048218 | 7.587804e-05 | 9.096628e-04 |
| ## CLSPN        | 0.11598720  | 3.434197  | 4.2045049  | 7.596292e-05 | 9.101564e-04 |
| ## FOXN2        | 0.28039458  | 4.054750  | 4.2030953  | 7.634152e-05 | 9.141667e-04 |
| ## ACTC1        | -0.79909098 | 6.941593  | -4.2017612 | 7.670153e-05 | 9.174568e-04 |
| ## MORC2        | 0.40180384  | 8.201711  | 4.2017506  | 7.670439e-05 | 9.174568e-04 |
| ## RPP38        | 0.37846321  | 7.472683  | 4.1984969  | 7.758931e-05 | 9.275084e-04 |
| ## TNPO2        | 0.20839485  | 4.432628  | 4.1978487  | 7.776677e-05 | 9.290965e-04 |
| ## SLFN5        | 0.60910990  | 4.508801  | 4.1969247  | 7.802041e-05 | 9.315924e-04 |
| ## ADCY4        | -0.32772265 | 7.074638  | -4.1956939 | 7.835955e-05 | 9.351056e-04 |
| ## LDHC         | 0.27533367  | 4.743698  | 4.1952234  | 7.848955e-05 | 9.361205e-04 |
| ## AFF1         | -0.35096117 | 9.733238  | -4.1950589 | 7.853506e-05 | 9.361271e-04 |
| ## IQCB1        | 0.28935841  | 7.691659  | 4.1945783  | 7.866815e-05 | 9.367653e-04 |
| ## UBL3         | -0.54444612 | 9.471754  | -4.1945407 | 7.867857e-05 | 9.367653e-04 |
| ## HSD3B7       | 0.48588527  | 7.485827  | 4.1939403  | 7.884517e-05 | 9.382125e-04 |
| ## CARTPT       | -0.30602892 | 5.752105  | -4.1926769 | 7.919684e-05 | 9.418589e-04 |
| ## POLR3G       | 0.58537447  | 4.685091  | 4.1913668  | 7.956311e-05 | 9.456747e-04 |
| ## KCNE2        | -1.84356084 | 7.523149  | -4.1905013 | 7.980596e-05 | 9.480201e-04 |
| ## FAM83B       | 0.30506523  | 3.691584  | 4.1903135  | 7.985876e-05 | 9.481065e-04 |
| ## RRS1         | 0.35226322  | 8.386498  | 4.1895646  | 8.006962e-05 | 9.500682e-04 |
| ## IL32         | 0.93251022  | 9.420221  | 4.1889269  | 8.024958e-05 | 9.516510e-04 |
| ## MFAP3        | 0.45884729  | 5.114419  | 4.1887683  | 8.029441e-05 | 9.516510e-04 |
| ## RUNDC3B      | -0.47432519 | 4.402517  | -4.1872025 | 8.073821e-05 | 9.563666e-04 |
| ## HNRNPLL      | 0.32411484  | 4.068634  | 4.1865824  | 8.091463e-05 | 9.579115e-04 |
| ## DGKD         | -0.64757033 | 8.080863  | -4.1859268 | 8.110154e-05 | 9.595787e-04 |
| ## MOCOS        | 0.85477371  | 7.034623  | 4.1851051  | 8.133642e-05 | 9.618112e-04 |
| ## GKN1         | -2.97425715 | 10.832531 | -4.1846840 | 8.145703e-05 | 9.626908e-04 |
| ## GBT1         | -0.41052839 | 6.328381  | -4.1830984 | 8.191274e-05 | 9.675274e-04 |
| ## TET1         | -0.35039828 | 4.248591  | -4.1817040 | 8.231552e-05 | 9.717337e-04 |
| ## NIBAN1       | -0.88882310 | 8.146003  | -4.1814707 | 8.238310e-05 | 9.717813e-04 |
| ## ISCU         | -0.32850267 | 10.945394 | -4.1813680 | 8.241288e-05 | 9.717813e-04 |
| ## RNF180       | -0.38894316 | 3.400770  | -4.1808429 | 8.256523e-05 | 9.730268e-04 |
| ## LOC101927263 | -0.70609144 | 5.173897  | -4.1796695 | 8.290666e-05 | 9.760222e-04 |
| ## NR2F2        | -0.52501515 | 6.007925  | -4.1796472 | 8.291314e-05 | 9.760222e-04 |
| ## SNHG16       | 0.42781577  | 8.717489  | 4.1790704  | 8.308151e-05 | 9.774516e-04 |
| ## ACTA2-AS1    | -0.24820964 | 4.407011  | -4.1778344 | 8.344334e-05 | 9.811543e-04 |
| ## RIC8A        | 0.24255112  | 8.630572  | 4.1771410  | 8.364702e-05 | 9.829277e-04 |

|             |             |           |            |              |              |
|-------------|-------------|-----------|------------|--------------|--------------|
| ## SEC22C   | 0.39810582  | 4.707758  | 4.1769997  | 8.368857e-05 | 9.829277e-04 |
| ## XIAP     | 0.69687886  | 4.503023  | 4.1763531  | 8.387902e-05 | 9.846092e-04 |
| ## RNF19B   | 0.58234396  | 7.507381  | 4.1756843  | 8.407645e-05 | 9.859506e-04 |
| ## GK       | 0.89930541  | 5.954749  | 4.1755135  | 8.412693e-05 | 9.859506e-04 |
| ## NIP7     | 0.45214205  | 7.572651  | 4.1754851  | 8.413533e-05 | 9.859506e-04 |
| ## TMC6     | 0.44955672  | 7.052580  | 4.1751877  | 8.422333e-05 | 9.864267e-04 |
| ## ATP6V1C1 | 0.57830139  | 7.139471  | 4.1742166  | 8.451126e-05 | 9.892426e-04 |
| ## OTUB1    | 0.36361740  | 8.128785  | 4.1737420  | 8.465233e-05 | 9.903372e-04 |
| ## PDZRN4   | -1.13022044 | 4.432914  | -4.1734693 | 8.473348e-05 | 9.907299e-04 |
| ## CHTF18   | 0.37871590  | 6.051295  | 4.1732085  | 8.481118e-05 | 9.910819e-04 |
| ## ZBTB33   | 0.12348080  | 3.260735  | 4.1726593  | 8.497500e-05 | 9.924394e-04 |
| ## FAM89A   | 0.42676202  | 6.292594  | 4.1716432  | 8.527889e-05 | 9.954303e-04 |
| ## RCC1     | 0.60280856  | 7.696984  | 4.1707314  | 8.555251e-05 | 9.980647e-04 |
| ## MARCHF5  | 0.39246615  | 7.728765  | 4.1700185  | 8.576700e-05 | 1.000007e-03 |
| ## MANEA    | 0.38911012  | 4.562407  | 4.1692502  | 8.599877e-05 | 1.002148e-03 |
| ## CSDE1    | -0.43190208 | 9.676492  | -4.1686846 | 8.616975e-05 | 1.003087e-03 |
| ## SLC50A1  | 0.43945955  | 7.952132  | 4.1686650  | 8.617569e-05 | 1.003087e-03 |
| ## LHPP     | -0.30458253 | 6.685270  | -4.1684065 | 8.625396e-05 | 1.003402e-03 |
| ## MRPL4    | 0.40852873  | 7.678813  | 4.1681509  | 8.633141e-05 | 1.003402e-03 |
| ## HS2ST1   | 0.39493263  | 5.915272  | 4.1680074  | 8.637492e-05 | 1.003402e-03 |
| ## ITIH3    | -0.46105417 | 4.530950  | -4.1679397 | 8.639547e-05 | 1.003402e-03 |
| ## GUCY1B1  | -0.81188505 | 8.238739  | -4.1676559 | 8.648161e-05 | 1.003842e-03 |
| ## RPL34    | -0.14664726 | 13.034735 | -4.1671942 | 8.662193e-05 | 1.004911e-03 |
| ## CLPB     | 0.39366459  | 6.317481  | 4.1656311  | 8.709860e-05 | 1.009878e-03 |
| ## GPER1    | -0.69661229 | 5.938604  | -4.1625647 | 8.804110e-05 | 1.020238e-03 |
| ## AP2S1    | 0.31037397  | 9.093867  | 4.1621966  | 8.815490e-05 | 1.020989e-03 |
| ## PIK3CB   | 0.32893470  | 8.073092  | 4.1609565  | 8.853933e-05 | 1.024363e-03 |
| ## TRIM28   | 0.43583430  | 9.499802  | 4.1609394  | 8.854463e-05 | 1.024363e-03 |
| ## MSANTD3  | 0.51388862  | 7.052961  | 4.1606508  | 8.863435e-05 | 1.024832e-03 |
| ## DACT1    | -0.94913186 | 7.317718  | -4.1561436 | 9.004669e-05 | 1.040182e-03 |
| ## ZNF165   | 0.89046910  | 6.107278  | 4.1560954  | 9.006188e-05 | 1.040182e-03 |
| ## NGFR     | -0.44944944 | 4.390050  | -4.1542435 | 9.064857e-05 | 1.046164e-03 |
| ## EPOP     | 0.31612494  | 6.119234  | 4.1541436  | 9.068029e-05 | 1.046164e-03 |
| ## SMTN     | -0.26825098 | 5.357321  | -4.1538894 | 9.076114e-05 | 1.046517e-03 |
| ## HOOK1    | 0.44249056  | 4.741088  | 4.1523295  | 9.125875e-05 | 1.051672e-03 |
| ## SLC11A2  | 0.52795874  | 7.900018  | 4.1518695  | 9.140599e-05 | 1.052787e-03 |
| ## RPP25    | 0.61003099  | 6.854073  | 4.1496545  | 9.211823e-05 | 1.060404e-03 |
| ## TAGLN    | -0.98874268 | 11.331914 | -4.1488131 | 9.239016e-05 | 1.062946e-03 |
| ## CEACAM7  | 1.64127746  | 4.341304  | 4.1473505  | 9.286475e-05 | 1.067816e-03 |
| ## CRIM1-DT | -0.50785909 | 5.369123  | -4.1468681 | 9.302180e-05 | 1.069032e-03 |
| ## CPEB3    | -0.15795481 | 4.142081  | -4.1457514 | 9.338629e-05 | 1.072629e-03 |
| ## CTDSP1   | -0.26211724 | 8.972588  | -4.1455681 | 9.344626e-05 | 1.072726e-03 |
| ## ATP11A   | 0.48948719  | 4.558421  | 4.1451989  | 9.356717e-05 | 1.073522e-03 |
| ## PGK1     | 0.48425058  | 4.410993  | 4.1440458  | 9.394570e-05 | 1.077272e-03 |
| ## GASK1A   | -0.39661926 | 4.036064  | -4.1430245 | 9.428222e-05 | 1.080535e-03 |
| ## SORCS2   | -0.48976818 | 5.635117  | -4.1424150 | 9.448359e-05 | 1.081692e-03 |
| ## SLC22A17 | -0.45373175 | 5.256401  | -4.1424045 | 9.448705e-05 | 1.081692e-03 |
| ## PIGW     | 0.42518661  | 6.410266  | 4.1420560  | 9.460241e-05 | 1.081770e-03 |
| ## TARS1    | 0.37506477  | 9.519028  | 4.1420000  | 9.462093e-05 | 1.081770e-03 |
| ## OTUD1    | -0.47222375 | 8.645999  | -4.1418506 | 9.467044e-05 | 1.081770e-03 |
| ## UBE2QL1  | -0.58203136 | 4.972739  | -4.1417564 | 9.470167e-05 | 1.081770e-03 |
| ## CREB3L2  | -0.45512402 | 9.336581  | -4.1415096 | 9.478350e-05 | 1.082112e-03 |
| ## ANKDD1A  | -0.36605188 | 5.551929  | -4.1410468 | 9.493716e-05 | 1.083272e-03 |
| ## CIBAR1   | -0.54619292 | 7.374838  | -4.1382052 | 9.588587e-05 | 1.093498e-03 |

|             |             |          |            |              |              |
|-------------|-------------|----------|------------|--------------|--------------|
| ## ADSS2    | 0.33737291  | 8.024986 | 4.1373035  | 9.618884e-05 | 1.096353e-03 |
| ## NAXE     | 0.31806119  | 9.543729 | 4.1369551  | 9.630614e-05 | 1.097089e-03 |
| ## GGT5     | -0.57611922 | 6.714575 | -4.1364246 | 9.648502e-05 | 1.097985e-03 |
| ## PPIH     | 0.40182241  | 8.697196 | 4.1364093  | 9.649019e-05 | 1.097985e-03 |
| ## MMRN1    | -0.54967506 | 4.107758 | -4.1352462 | 9.688351e-05 | 1.101832e-03 |
| ## GRK5     | -0.38841507 | 5.430173 | -4.1350967 | 9.693417e-05 | 1.101832e-03 |
| ## CDC25B   | 0.69276311  | 9.156935 | 4.1343661  | 9.718216e-05 | 1.104049e-03 |
| ## ZBTB44   | 0.27887678  | 3.818030 | 4.1319354  | 9.801161e-05 | 1.112865e-03 |
| ## ABRACL   | 0.64588071  | 8.630941 | 4.1307304  | 9.842535e-05 | 1.116678e-03 |
| ## RAD21    | 0.67743521  | 9.021652 | 4.1306451  | 9.845467e-05 | 1.116678e-03 |
| ## POLR3GL  | -0.40691280 | 7.554388 | -4.1300066 | 9.867466e-05 | 1.118564e-03 |
| ## MTMR9LP  | -0.34229424 | 6.103240 | -4.1291404 | 9.897383e-05 | 1.121344e-03 |
| ## FXN      | 0.54113894  | 6.157080 | 4.1284845  | 9.920093e-05 | 1.123062e-03 |
| ## DHX16    | 0.21376489  | 8.395163 | 4.1283911  | 9.923332e-05 | 1.123062e-03 |
| ## ISY1     | 0.26117120  | 6.178664 | 4.1266606  | 9.983514e-05 | 1.129260e-03 |
| ## MRPS15   | 0.30007141  | 7.642613 | 4.1261928  | 9.999842e-05 | 1.130493e-03 |
| ## LIG1     | 0.45149092  | 7.182080 | 4.1257559  | 1.001512e-04 | 1.131605e-03 |
| ## SLAIN2   | -0.32765598 | 4.243448 | -4.1251330 | 1.003693e-04 | 1.133455e-03 |
| ## ITSN2    | -0.24757820 | 9.287629 | -4.1241327 | 1.007206e-04 | 1.136805e-03 |
| ## CYP27B1  | 0.74127430  | 4.533117 | 4.1233984  | 1.009792e-04 | 1.139107e-03 |
| ## NELFA    | 0.32160016  | 6.406429 | 4.1226697  | 1.012365e-04 | 1.141391e-03 |
| ## GPRC5A   | 1.07464448  | 9.740904 | 4.1186466  | 1.026684e-04 | 1.156908e-03 |
| ## CMC2     | 0.33285807  | 9.174406 | 4.1169489  | 1.032784e-04 | 1.163153e-03 |
| ## CD1D     | -0.52990251 | 4.724968 | -4.1166201 | 1.033970e-04 | 1.163859e-03 |
| ## RAD1     | 0.41232935  | 7.361820 | 4.1153722  | 1.038481e-04 | 1.168305e-03 |
| ## SLC02A1  | -0.71668614 | 7.846028 | -4.1148199 | 1.040484e-04 | 1.169926e-03 |
| ## FUS      | 0.28979188  | 4.245226 | 4.1144224  | 1.041928e-04 | 1.170917e-03 |
| ## CLEC1A   | -0.30930823 | 4.917378 | -4.1141115 | 1.043058e-04 | 1.171556e-03 |
| ## YKT6     | 0.40610780  | 7.594769 | 4.1121248  | 1.050311e-04 | 1.179066e-03 |
| ## PWP1     | 0.37246623  | 9.647975 | 4.1111814  | 1.053771e-04 | 1.182313e-03 |
| ## TACO1    | 0.26336776  | 6.864488 | 4.1094069  | 1.060311e-04 | 1.189010e-03 |
| ## ADCY5    | -0.69520513 | 4.935918 | -4.1089298 | 1.062076e-04 | 1.190348e-03 |
| ## TRUB1    | 0.31536666  | 7.877262 | 4.1081842  | 1.064840e-04 | 1.192804e-03 |
| ## LAMC2    | 0.99707547  | 7.732069 | 4.1064076  | 1.071453e-04 | 1.199567e-03 |
| ## NCK1-DT  | 0.40696384  | 5.974256 | 4.1058111  | 1.073682e-04 | 1.201417e-03 |
| ## HOXC9    | 0.89887634  | 5.418071 | 4.1038701  | 1.080968e-04 | 1.208919e-03 |
| ## MICB     | 0.83859063  | 6.504114 | 4.1033142  | 1.083063e-04 | 1.210612e-03 |
| ## PPP1R14A | -0.96385944 | 6.614517 | -4.1014894 | 1.089968e-04 | 1.217677e-03 |
| ## PROS1    | -0.71903279 | 7.909331 | -4.1003831 | 1.094176e-04 | 1.221722e-03 |
| ## TRIM26   | 0.26744448  | 7.462146 | 4.0995233  | 1.097456e-04 | 1.224728e-03 |
| ## ADGRA2   | -0.61136032 | 7.301053 | -4.0976465 | 1.104650e-04 | 1.232096e-03 |
| ## HOXB9    | 0.38281220  | 4.614420 | 4.0972973  | 1.105993e-04 | 1.232934e-03 |
| ## PPP2R3A  | -0.51610559 | 6.376084 | -4.0958833 | 1.111450e-04 | 1.238046e-03 |
| ## IRF2BPL  | -0.39138589 | 9.784537 | -4.0958009 | 1.111769e-04 | 1.238046e-03 |
| ## FASN     | 0.46220740  | 7.340615 | 4.0949016  | 1.115253e-04 | 1.241263e-03 |
| ## PLCL1    | -0.42289816 | 4.278295 | -4.0945793 | 1.116504e-04 | 1.241992e-03 |
| ## RFXANK   | 0.31972394  | 8.035986 | 4.0914437  | 1.128750e-04 | 1.254943e-03 |
| ## NBDY     | -0.46830890 | 4.349404 | -4.0902661 | 1.133382e-04 | 1.259421e-03 |
| ## SPC24    | 0.30533944  | 5.737103 | 4.0897038  | 1.135600e-04 | 1.261213e-03 |
| ## BACH2    | -0.46714129 | 4.204947 | -4.0894440 | 1.136627e-04 | 1.261514e-03 |
| ## RBM14    | 0.51860405  | 4.438293 | 4.0893286  | 1.137083e-04 | 1.261514e-03 |
| ## LEMD2    | 0.28067712  | 6.389008 | 4.0889460  | 1.138597e-04 | 1.262521e-03 |
| ## LY9      | -0.29762227 | 4.403041 | -4.0887463 | 1.139388e-04 | 1.262725e-03 |
| ## TMEM119  | -0.84792581 | 6.711708 | -4.0883473 | 1.140969e-04 | 1.263805e-03 |

|             |             |           |            |              |              |
|-------------|-------------|-----------|------------|--------------|--------------|
| ## NROB2    | -0.83463986 | 7.115132  | -4.0878244 | 1.143045e-04 | 1.265432e-03 |
| ## AKR1C2   | -1.57125790 | 10.016727 | -4.0876423 | 1.143769e-04 | 1.265561e-03 |
| ## HLA-B    | 0.43842821  | 12.370881 | 4.0873640  | 1.144876e-04 | 1.266113e-03 |
| ## MAP3K8   | 0.64932112  | 6.914920  | 4.0869351  | 1.146584e-04 | 1.267329e-03 |
| ## IFI6     | 1.06299901  | 8.447397  | 4.0864585  | 1.148486e-04 | 1.268757e-03 |
| ## OSBPL6   | -0.31353882 | 4.257857  | -4.0862971 | 1.149130e-04 | 1.268795e-03 |
| ## TNFAIP3  | 0.63903632  | 8.505372  | 4.0845678  | 1.156057e-04 | 1.275768e-03 |
| ## FLRT2    | -0.63543020 | 5.720470  | -4.0833007 | 1.161158e-04 | 1.280718e-03 |
| ## CCNE1    | 1.07796849  | 6.831967  | 4.0819533  | 1.166606e-04 | 1.286046e-03 |
| ## CHI3L1   | 1.62041107  | 7.508270  | 4.0817201  | 1.167552e-04 | 1.286407e-03 |
| ## TCF19    | 0.51704384  | 6.099972  | 4.0799191  | 1.174879e-04 | 1.293795e-03 |
| ## COLEC12  | -1.08393102 | 6.774587  | -4.0783996 | 1.181094e-04 | 1.299953e-03 |
| ## YTHDF3   | 0.81025816  | 7.030723  | 4.0771742  | 1.186130e-04 | 1.304783e-03 |
| ## CAPN13   | -0.20671907 | 4.108416  | -4.0770271 | 1.186736e-04 | 1.304783e-03 |
| ## RABL6    | 0.37612764  | 5.985810  | 4.0750592  | 1.194870e-04 | 1.312374e-03 |
| ## MRPL36   | 0.31019280  | 9.533207  | 4.0750518  | 1.194901e-04 | 1.312374e-03 |
| ## RAPGEF3  | -0.34809947 | 6.240740  | -4.0746641 | 1.196510e-04 | 1.313449e-03 |
| ## BBS1     | -0.34915238 | 7.478752  | -4.0739488 | 1.199484e-04 | 1.316019e-03 |
| ## COL11A1  | 1.70861259  | 5.944797  | 4.0731535  | 1.202798e-04 | 1.318386e-03 |
| ## PSMA4    | 0.29564927  | 10.295923 | 4.0731274  | 1.202907e-04 | 1.318386e-03 |
| ## PAQR4    | 0.39459409  | 7.126824  | 4.0711547  | 1.211168e-04 | 1.326742e-03 |
| ## ABHD16A  | 0.32060614  | 8.097185  | 4.0708582  | 1.212415e-04 | 1.327410e-03 |
| ## NCKAP5   | -0.15586768 | 3.256823  | -4.0690901 | 1.219873e-04 | 1.334874e-03 |
| ## INTS7    | 0.25690930  | 3.762350  | 4.0669990  | 1.228751e-04 | 1.343882e-03 |
| ## MRPL2    | 0.59434902  | 7.309136  | 4.0665129  | 1.230824e-04 | 1.345442e-03 |
| ## MRPL42   | 0.50900665  | 8.949578  | 4.0651758  | 1.236542e-04 | 1.350984e-03 |
| ## ASCL2    | 0.19122905  | 3.254652  | 4.0647332  | 1.238440e-04 | 1.352348e-03 |
| ## FBX09    | 0.35921808  | 4.782775  | 4.0644069  | 1.239842e-04 | 1.352959e-03 |
| ## SRXN1    | 0.60485801  | 8.376904  | 4.0641999  | 1.240732e-04 | 1.352959e-03 |
| ## MIR99AHG | -0.26175536 | 4.105084  | -4.0641494 | 1.240949e-04 | 1.352959e-03 |
| ## CXCL3    | 1.20903425  | 8.228465  | 4.0631410  | 1.245293e-04 | 1.356985e-03 |
| ## TMEM170B | -0.42056877 | 4.269729  | -4.0627314 | 1.247062e-04 | 1.358178e-03 |
| ## ARHGAP39 | 0.26746189  | 4.805025  | 4.0625857  | 1.247692e-04 | 1.358178e-03 |
| ## HAUS5    | 0.23228402  | 6.163603  | 4.0623901  | 1.248538e-04 | 1.358388e-03 |
| ## MTFP1    | 0.44647113  | 7.331321  | 4.0611639  | 1.253853e-04 | 1.363459e-03 |
| ## POU6F1   | -0.36314241 | 5.393716  | -4.0590674 | 1.262993e-04 | 1.372681e-03 |
| ## ITGB4    | 0.79750277  | 6.160942  | 4.0585391  | 1.265306e-04 | 1.374477e-03 |
| ## LYPLA1   | 0.49538954  | 9.347351  | 4.0581872  | 1.266849e-04 | 1.375436e-03 |
| ## CDC42BPA | -0.57706127 | 8.486507  | -4.0555626 | 1.278415e-04 | 1.387270e-03 |
| ## OTUD3    | 0.45133896  | 6.768380  | 4.0553384  | 1.279407e-04 | 1.387624e-03 |
| ## OLFML3   | -0.78337070 | 8.294351  | -4.0542938 | 1.284042e-04 | 1.391926e-03 |
| ## MOB1A    | 0.44971009  | 6.558646  | 4.0539812  | 1.285432e-04 | 1.392409e-03 |
| ## RNF185   | -0.22588352 | 7.727013  | -4.0537545 | 1.286441e-04 | 1.392409e-03 |
| ## ARHGAP15 | -0.79389575 | 7.691988  | -4.0537426 | 1.286494e-04 | 1.392409e-03 |
| ## CCDC110  | -0.22030071 | 3.762846  | -4.0525639 | 1.291753e-04 | 1.397375e-03 |
| ## UFD1     | 0.25424127  | 9.586394  | 4.0524092  | 1.292445e-04 | 1.397397e-03 |
| ## PRKDC    | 0.44223641  | 8.765987  | 4.0522408  | 1.293198e-04 | 1.397486e-03 |
| ## CDK5RAP1 | 0.27045247  | 7.925412  | 4.0514854  | 1.296583e-04 | 1.400417e-03 |
| ## MBOAT7   | 0.34461192  | 8.095053  | 4.0502893  | 1.301960e-04 | 1.405496e-03 |
| ## BEND3    | 0.39418743  | 6.613883  | 4.0497894  | 1.304214e-04 | 1.407199e-03 |
| ## ATP5PF   | -0.25518697 | 10.933988 | -4.0483383 | 1.310777e-04 | 1.413548e-03 |
| ## CFB      | 1.02153663  | 9.053823  | 4.0477578  | 1.313411e-04 | 1.415655e-03 |
| ## PTGDS    | -0.77860479 | 7.567122  | -4.0465279 | 1.319009e-04 | 1.420954e-03 |
| ## CNOT10   | 0.26777774  | 7.054857  | 4.0458417  | 1.322142e-04 | 1.423593e-03 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## LRRC61    | 0.27135205  | 6.215785  | 4.0446381  | 1.327656e-04 | 1.428791e-03 |
| ## ASB6      | 0.23719209  | 6.800789  | 4.0444831  | 1.328368e-04 | 1.428818e-03 |
| ## PIK3AP1   | 0.73166254  | 5.171373  | 4.0441284  | 1.329997e-04 | 1.429833e-03 |
| ## KRCC1     | -0.45895690 | 9.045963  | -4.0435336 | 1.332734e-04 | 1.432036e-03 |
| ## ABCA5     | -0.57847737 | 7.522323  | -4.0430193 | 1.335106e-04 | 1.433845e-03 |
| ## GALNT11   | -0.43485694 | 8.392910  | -4.0428610 | 1.335836e-04 | 1.433889e-03 |
| ## SLC35F2   | 0.63855229  | 6.984499  | 4.0424872  | 1.337563e-04 | 1.435004e-03 |
| ## USE1      | -0.29197646 | 6.701011  | -4.0414837 | 1.342210e-04 | 1.439247e-03 |
| ## YBX1      | 0.38549617  | 11.312885 | 4.0412939  | 1.343091e-04 | 1.439451e-03 |
| ## BICC1     | -0.99796680 | 6.340001  | -4.0394472 | 1.351688e-04 | 1.447919e-03 |
| ## PRPF38A   | 0.29188721  | 8.078407  | 4.0376898  | 1.359919e-04 | 1.455987e-03 |
| ## STAM2     | 0.26196705  | 4.446592  | 4.0364226  | 1.365884e-04 | 1.461622e-03 |
| ## TALDO1    | 0.38828098  | 10.813286 | 4.0358332  | 1.368667e-04 | 1.463848e-03 |
| ## SNRNP48   | 0.56678146  | 5.893301  | 4.0342686  | 1.376080e-04 | 1.471021e-03 |
| ## UBE2A     | 0.38808623  | 8.700312  | 4.0323326  | 1.385308e-04 | 1.480125e-03 |
| ## PPP1R13B  | -0.37245250 | 6.798817  | -4.0320700 | 1.386564e-04 | 1.480708e-03 |
| ## DUSP7     | 0.36868951  | 6.363697  | 4.0308223  | 1.392547e-04 | 1.486335e-03 |
| ## TRMT10C   | 0.35038567  | 8.030061  | 4.0296872  | 1.398012e-04 | 1.491404e-03 |
| ## MIR9-1HG  | 0.17340327  | 5.377603  | 4.0293541  | 1.399620e-04 | 1.492354e-03 |
| ## TRIM25    | 0.30658778  | 6.101750  | 4.0284819  | 1.403838e-04 | 1.496086e-03 |
| ## NIFK      | 0.30660743  | 7.773829  | 4.0277911  | 1.407187e-04 | 1.498888e-03 |
| ## TCF20     | 0.25163989  | 8.240851  | 4.0276252  | 1.407993e-04 | 1.498979e-03 |
| ## RALA      | 0.52229455  | 8.779775  | 4.0267607  | 1.412197e-04 | 1.502687e-03 |
| ## ODF2      | 0.39097493  | 5.556152  | 4.0263211  | 1.414340e-04 | 1.504199e-03 |
| ## GTF2I     | 0.68387389  | 6.278737  | 4.0250993  | 1.420312e-04 | 1.509724e-03 |
| ## BORCS7    | -0.41428696 | 8.226889  | -4.0249618 | 1.420985e-04 | 1.509724e-03 |
| ## ATF6      | 0.25337436  | 8.142849  | 4.0244624  | 1.423434e-04 | 1.511299e-03 |
| ## DEPDC1B   | 0.74074187  | 5.566557  | 4.0243637  | 1.423919e-04 | 1.511299e-03 |
| ## HSPA2     | -0.89581138 | 6.442355  | -4.0235697 | 1.427822e-04 | 1.514670e-03 |
| ## ICMT      | 0.34813320  | 8.704938  | 4.0228846  | 1.431198e-04 | 1.517478e-03 |
| ## LINC00663 | -0.34555615 | 4.156143  | -4.0219519 | 1.435807e-04 | 1.521591e-03 |
| ## TUSC1     | -0.46587621 | 8.352727  | -4.0217387 | 1.436863e-04 | 1.521643e-03 |
| ## YARS1     | 0.33997560  | 9.294201  | 4.0216468  | 1.437318e-04 | 1.521643e-03 |
| ## Clorf21   | -0.49889208 | 5.339288  | -4.0202408 | 1.444300e-04 | 1.528257e-03 |
| ## ADAM10    | 0.36324558  | 10.175748 | 4.0195287  | 1.447848e-04 | 1.531234e-03 |
| ## SHC2      | -0.41432447 | 6.942203  | -4.0182697 | 1.454142e-04 | 1.536829e-03 |
| ## KIF2A     | 0.33202500  | 5.369052  | 4.0181709  | 1.454637e-04 | 1.536829e-03 |
| ## TARBP2    | 0.29106246  | 7.081027  | 4.0180281  | 1.455353e-04 | 1.536829e-03 |
| ## DNAJB4    | -0.53599604 | 7.182599  | -4.0168821 | 1.461110e-04 | 1.542126e-03 |
| ## DNAJC14   | 0.54669137  | 5.976090  | 4.0137764  | 1.476821e-04 | 1.557919e-03 |
| ## DNMT3A    | 0.22961052  | 5.323849  | 4.0127869  | 1.481861e-04 | 1.562444e-03 |
| ## KCNA5     | -0.45214366 | 4.768297  | -4.0118557 | 1.486619e-04 | 1.566667e-03 |
| ## CLCN2     | 0.34544121  | 5.577184  | 4.0102066  | 1.495081e-04 | 1.574788e-03 |
| ## OSGIN2    | 0.55225010  | 6.720124  | 4.0100022  | 1.496133e-04 | 1.575100e-03 |
| ## OAS3      | 0.33599540  | 4.659738  | 4.0095867  | 1.498274e-04 | 1.576556e-03 |
| ## CENPU     | 0.73577260  | 8.434184  | 4.0091277  | 1.500642e-04 | 1.577771e-03 |
| ## NUP42     | 0.31107927  | 6.998967  | 4.0088141  | 1.502262e-04 | 1.577771e-03 |
| ## MRPL13    | 0.39221323  | 9.016286  | 4.0088056  | 1.502306e-04 | 1.577771e-03 |
| ## ACSL3     | -0.51208996 | 8.752309  | -4.0087760 | 1.502459e-04 | 1.577771e-03 |
| ## HELZ2     | 0.39764956  | 6.798138  | 4.0083663  | 1.504578e-04 | 1.578709e-03 |
| ## RNFT1     | 0.53718772  | 6.322059  | 4.0083104  | 1.504868e-04 | 1.578709e-03 |
| ## MRPL15    | 0.42465246  | 9.538230  | 4.0081622  | 1.505636e-04 | 1.578719e-03 |
| ## FXYD5     | 0.55170506  | 5.178744  | 4.0073035  | 1.510090e-04 | 1.582593e-03 |
| ## LIF       | 0.69280334  | 7.080337  | 4.0065582  | 1.513967e-04 | 1.585857e-03 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## PART1      | -0.43849630 | 5.261676  | -4.0058854 | 1.517474e-04 | 1.588732e-03 |
| ## ASPH       | 0.64898935  | 5.995675  | 4.0048481  | 1.522898e-04 | 1.593549e-03 |
| ## PATJ       | 0.32243090  | 4.921786  | 4.0047129  | 1.523606e-04 | 1.593549e-03 |
| ## MAP3K9     | 0.53718191  | 4.979441  | 4.0044707  | 1.524876e-04 | 1.594077e-03 |
| ## SMNDC1     | 0.30419291  | 9.286219  | 4.0041067  | 1.526786e-04 | 1.595273e-03 |
| ## M6PR       | 0.55753292  | 8.300873  | 4.0038867  | 1.527941e-04 | 1.595679e-03 |
| ## TMEM265    | 0.43631038  | 5.927303  | 4.0024877  | 1.535308e-04 | 1.602259e-03 |
| ## PREP       | 0.41621921  | 8.328022  | 4.0023983  | 1.535780e-04 | 1.602259e-03 |
| ## MCUR1      | 0.56649110  | 8.273409  | 4.0012297  | 1.541962e-04 | 1.607903e-03 |
| ## PYCR1      | 0.41547878  | 7.893492  | 4.0009350  | 1.543525e-04 | 1.608727e-03 |
| ## PUSL1      | 0.35783905  | 6.371941  | 4.0006540  | 1.545017e-04 | 1.609476e-03 |
| ## NFXL1      | 0.46386944  | 7.151586  | 3.9993069  | 1.552186e-04 | 1.616136e-03 |
| ## PRR7       | 0.31150967  | 4.970582  | 3.9988842  | 1.554443e-04 | 1.617677e-03 |
| ## SH3BGR1    | -0.55885429 | 8.950066  | -3.9982965 | 1.557585e-04 | 1.620137e-03 |
| ## TXN        | 0.40425954  | 11.459437 | 3.9975628  | 1.561516e-04 | 1.623416e-03 |
| ## NRK        | -1.15185794 | 4.706642  | -3.9963796 | 1.567876e-04 | 1.629215e-03 |
| ## BHLHE40    | 0.83867340  | 7.052020  | 3.9954474  | 1.572905e-04 | 1.633624e-03 |
| ## GLRB       | -0.35383246 | 4.371851  | -3.9945184 | 1.577932e-04 | 1.638029e-03 |
| ## NF1        | 0.24165839  | 4.903417  | 3.9942218  | 1.579540e-04 | 1.638688e-03 |
| ## CMBL       | -1.29899486 | 9.446825  | -3.9941110 | 1.580141e-04 | 1.638688e-03 |
| ## ARF1       | 0.19730806  | 11.594067 | 3.9937999  | 1.581830e-04 | 1.639623e-03 |
| ## KCNK3      | -1.01968726 | 4.349079  | -3.9916844 | 1.593362e-04 | 1.650754e-03 |
| ## NOXO1      | 0.45173474  | 5.466713  | 3.9902821  | 1.601050e-04 | 1.657625e-03 |
| ## FAM222B    | 0.31901346  | 7.493587  | 3.9901373  | 1.601846e-04 | 1.657625e-03 |
| ## TIAL1      | 0.28593999  | 6.553359  | 3.9900399  | 1.602381e-04 | 1.657625e-03 |
| ## CRYBG3     | -0.43376615 | 7.650088  | -3.9897216 | 1.604133e-04 | 1.658613e-03 |
| ## ADNP       | 0.36483450  | 9.366331  | 3.9890467  | 1.607853e-04 | 1.661634e-03 |
| ## PTCH2      | -0.22775134 | 5.366397  | -3.9884057 | 1.611394e-04 | 1.664467e-03 |
| ## SUMO1      | 0.23457261  | 9.730744  | 3.9874836  | 1.616500e-04 | 1.668914e-03 |
| ## SECISBP2L  | -0.41805479 | 7.727710  | -3.9873119 | 1.617453e-04 | 1.669070e-03 |
| ## TFF2       | -2.35109193 | 11.027842 | -3.9866439 | 1.621164e-04 | 1.672071e-03 |
| ## MAD1L1     | 0.58363280  | 6.349608  | 3.9853673  | 1.628279e-04 | 1.678578e-03 |
| ## TUBGCP2    | 0.28821114  | 5.914930  | 3.9848024  | 1.631437e-04 | 1.681001e-03 |
| ## LINC00924  | -0.34729166 | 3.954544  | -3.9843427 | 1.634011e-04 | 1.682821e-03 |
| ## BCL7A      | 0.36310272  | 5.608302  | 3.9835399  | 1.638516e-04 | 1.686626e-03 |
| ## ERG        | -0.23019233 | 5.391478  | -3.9831302 | 1.640820e-04 | 1.688164e-03 |
| ## DPY19L3    | -0.43726829 | 7.284922  | -3.9825003 | 1.644368e-04 | 1.690524e-03 |
| ## IKZF5      | 0.32787544  | 6.073575  | 3.9822862  | 1.645575e-04 | 1.690524e-03 |
| ## BIRC5      | 0.53069117  | 5.425003  | 3.9822547  | 1.645753e-04 | 1.690524e-03 |
| ## GLDN       | -0.63154771 | 5.507974  | -3.9821468 | 1.646362e-04 | 1.690524e-03 |
| ## TYMP       | 0.82776864  | 7.345877  | 3.9819960  | 1.647213e-04 | 1.690565e-03 |
| ## CYSTM1     | -0.85472668 | 11.959137 | -3.9773917 | 1.673414e-04 | 1.716610e-03 |
| ## PKD2       | -0.61872118 | 8.095481  | -3.9770177 | 1.675560e-04 | 1.717965e-03 |
| ## SCO2       | 0.52360352  | 8.056297  | 3.9764918  | 1.678582e-04 | 1.720216e-03 |
| ## C2orf74    | -0.81964825 | 5.692433  | -3.9755593 | 1.683953e-04 | 1.724871e-03 |
| ## CYP1B1-AS1 | -0.18703343 | 3.551132  | -3.9752367 | 1.685815e-04 | 1.725930e-03 |
| ## BMPER      | -0.21002273 | 3.447460  | -3.9748935 | 1.687798e-04 | 1.727111e-03 |
| ## XRCC5      | 0.20891143  | 10.307245 | 3.9747390  | 1.688691e-04 | 1.727176e-03 |
| ## SLC52A2    | 0.39640402  | 8.087630  | 3.9737737  | 1.694284e-04 | 1.731211e-03 |
| ## ASB5       | -0.87594644 | 3.886607  | -3.9737711 | 1.694299e-04 | 1.731211e-03 |
| ## SNTB1      | 0.50436513  | 4.581173  | 3.9734896  | 1.695933e-04 | 1.732031e-03 |
| ## GPATCH11   | 0.19069062  | 3.675306  | 3.9732900  | 1.697093e-04 | 1.732366e-03 |
| ## S1PR1      | -0.35767229 | 6.643869  | -3.9720940 | 1.704057e-04 | 1.738623e-03 |
| ## SMYD5      | 0.27833850  | 6.405572  | 3.9716607  | 1.706587e-04 | 1.740351e-03 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## PDCD10    | 0.35190937  | 10.472638 | 3.9700682  | 1.715917e-04 | 1.749009e-03 |
| ## ABLIM1    | -0.55106712 | 10.039705 | -3.9698007 | 1.717488e-04 | 1.749754e-03 |
| ## SRSF6     | 1.21874401  | 7.368984  | 3.9690885  | 1.721680e-04 | 1.753167e-03 |
| ## SUCO      | 0.33360466  | 8.529718  | 3.9683849  | 1.725831e-04 | 1.756245e-03 |
| ## IL1A      | 0.37260667  | 4.443221  | 3.9682903  | 1.726390e-04 | 1.756245e-03 |
| ## KCNJ8     | -0.74792032 | 6.399627  | -3.9679326 | 1.728505e-04 | 1.757538e-03 |
| ## AP1S2     | -0.51615802 | 6.577585  | -3.9670675 | 1.733629e-04 | 1.761888e-03 |
| ## GSPT1     | 0.44599877  | 8.825730  | 3.9667832  | 1.735316e-04 | 1.762743e-03 |
| ## CTSA      | 0.47201486  | 10.162580 | 3.9644242  | 1.749377e-04 | 1.776159e-03 |
| ## RASSF2    | -0.67624366 | 7.603394  | -3.9626845 | 1.759817e-04 | 1.785888e-03 |
| ## ZSCAN18   | -0.53120411 | 6.206020  | -3.9624285 | 1.761358e-04 | 1.786582e-03 |
| ## HLA-G     | 0.35846215  | 10.389688 | 3.9621599  | 1.762977e-04 | 1.787353e-03 |
| ## CACNA2D3  | -0.41494172 | 4.650204  | -3.9594619 | 1.779313e-04 | 1.803037e-03 |
| ## TFAP2A    | 1.07239633  | 6.927029  | 3.9560908  | 1.799930e-04 | 1.823042e-03 |
| ## TMEM63A   | 0.51409284  | 7.776681  | 3.9555997  | 1.802953e-04 | 1.825216e-03 |
| ## PPM1K     | -0.46153078 | 7.800705  | -3.9551871 | 1.805496e-04 | 1.826902e-03 |
| ## DHX29     | -0.30037860 | 8.181582  | -3.9549585 | 1.806906e-04 | 1.827441e-03 |
| ## ACBD5     | 0.65040536  | 5.171000  | 3.9545563  | 1.809390e-04 | 1.829065e-03 |
| ## CPEB1     | -0.38767771 | 4.572301  | -3.9538237 | 1.813924e-04 | 1.832758e-03 |
| ## CDK14     | -0.60860085 | 7.255412  | -3.9536218 | 1.815175e-04 | 1.832980e-03 |
| ## KAT14     | -0.42635667 | 6.740363  | -3.9535044 | 1.815903e-04 | 1.832980e-03 |
| ## CSTB      | 0.53917623  | 11.271168 | 3.9532224  | 1.817653e-04 | 1.833856e-03 |
| ## IFITM3    | 0.47087340  | 11.967422 | 3.9525498  | 1.821833e-04 | 1.837184e-03 |
| ## SH3BGR2   | -0.71075171 | 8.985709  | -3.9515473 | 1.828080e-04 | 1.842591e-03 |
| ## TNN       | -0.65882520 | 4.496976  | -3.9502649 | 1.836101e-04 | 1.849781e-03 |
| ## CASQ1     | -0.17394669 | 3.664535  | -3.9492747 | 1.842318e-04 | 1.855147e-03 |
| ## ERH       | 0.24200379  | 11.075395 | 3.9488317  | 1.845106e-04 | 1.857056e-03 |
| ## TMEM178A  | -0.74798719 | 5.066624  | -3.9483871 | 1.847909e-04 | 1.858978e-03 |
| ## GUF1      | 0.54006596  | 4.730611  | 3.9476545  | 1.852534e-04 | 1.862732e-03 |
| ## AMN1      | -0.47837776 | 5.895905  | -3.9467149 | 1.858484e-04 | 1.867404e-03 |
| ## UPF3B     | 0.39847092  | 8.019617  | 3.9466375  | 1.858975e-04 | 1.867404e-03 |
| ## BZW1      | 0.47245618  | 9.773105  | 3.9447824  | 1.870778e-04 | 1.878355e-03 |
| ## ZNF516    | -0.41999455 | 5.833937  | -3.9428278 | 1.883291e-04 | 1.890008e-03 |
| ## MIR497HG  | -0.27562253 | 5.052136  | -3.9424521 | 1.885706e-04 | 1.891520e-03 |
| ## RTL10     | 0.25232706  | 6.030956  | 3.9417867  | 1.889990e-04 | 1.894904e-03 |
| ## IFITM1    | 0.71167477  | 10.708844 | 3.9410358  | 1.894835e-04 | 1.898847e-03 |
| ## HYOU1     | 0.36983729  | 9.492854  | 3.9408060  | 1.896320e-04 | 1.899189e-03 |
| ## TUBB3     | 0.34427410  | 9.559498  | 3.9406628  | 1.897246e-04 | 1.899189e-03 |
| ## TLE3      | 0.36356983  | 5.912564  | 3.9405600  | 1.897912e-04 | 1.899189e-03 |
| ## SMC1A     | 0.26056075  | 3.697040  | 3.9402961  | 1.899620e-04 | 1.899283e-03 |
| ## RIT1      | 0.58373000  | 7.315636  | 3.9402636  | 1.899831e-04 | 1.899283e-03 |
| ## PRICKLE3  | 0.30632540  | 4.868614  | 3.9389451  | 1.908389e-04 | 1.905240e-03 |
| ## TNNI3K    | -0.29666703 | 3.700103  | -3.9388032 | 1.909312e-04 | 1.905240e-03 |
| ## CACNA2D2  | -0.39734241 | 5.772634  | -3.9387992 | 1.909338e-04 | 1.905240e-03 |
| ## EOLA1-DT  | -0.21764648 | 3.387630  | -3.9387822 | 1.909449e-04 | 1.905240e-03 |
| ## RAB35     | 0.39404948  | 5.075942  | 3.9354502  | 1.931253e-04 | 1.926074e-03 |
| ## ARMCX4    | -0.41608388 | 4.265366  | -3.9346331 | 1.936637e-04 | 1.930518e-03 |
| ## CUL4A     | 0.34697596  | 8.465243  | 3.9342001  | 1.939496e-04 | 1.932443e-03 |
| ## ADAM12    | 0.70008473  | 4.598460  | 3.9325155  | 1.950656e-04 | 1.942633e-03 |
| ## RTL8C     | -0.48431491 | 8.979785  | -3.9309636 | 1.960992e-04 | 1.951993e-03 |
| ## RNF126    | 0.40080960  | 7.307318  | 3.9298715  | 1.968297e-04 | 1.958328e-03 |
| ## EMG1      | 0.39616661  | 8.642532  | 3.9288705  | 1.975015e-04 | 1.964074e-03 |
| ## MIOS      | 0.25742813  | 7.586470  | 3.9275954  | 1.983605e-04 | 1.971675e-03 |
| ## C10orf143 | -0.41031526 | 5.417734  | -3.9247435 | 2.002947e-04 | 1.989115e-03 |

|             |             |           |            |              |              |
|-------------|-------------|-----------|------------|--------------|--------------|
| ## CXCL9    | 1.32559372  | 8.441235  | 3.9246728  | 2.003429e-04 | 1.989115e-03 |
| ## STK32B   | -0.48236846 | 5.263503  | -3.9245867 | 2.004016e-04 | 1.989115e-03 |
| ## DUSP14   | 0.52532592  | 6.749662  | 3.9237214  | 2.009924e-04 | 1.994028e-03 |
| ## NECTIN2  | 0.32859432  | 7.552861  | 3.9233177  | 2.012685e-04 | 1.995817e-03 |
| ## ZC3HAV1L | 0.11287658  | 3.133102  | 3.9228890  | 2.015622e-04 | 1.997778e-03 |
| ## SPATA5L1 | 0.37138202  | 4.335061  | 3.9224773  | 2.018447e-04 | 1.999626e-03 |
| ## TMEM30A  | 0.73698001  | 7.747876  | 3.9209885  | 2.028691e-04 | 2.008819e-03 |
| ## FNDC3B   | 0.20167146  | 3.775571  | 3.9205002  | 2.032062e-04 | 2.011201e-03 |
| ## SEMA4B   | 0.52549352  | 8.504892  | 3.9194823  | 2.039107e-04 | 2.017214e-03 |
| ## MAD2L1BP | 0.45061639  | 8.271340  | 3.9183990  | 2.046629e-04 | 2.023694e-03 |
| ## INHBA    | 0.20481119  | 3.792551  | 3.9182050  | 2.047979e-04 | 2.023807e-03 |
| ## PDS5A    | 0.32767610  | 8.537934  | 3.9179907  | 2.049471e-04 | 2.023807e-03 |
| ## ANKRD65  | -0.14595672 | 4.797367  | -3.9179638 | 2.049659e-04 | 2.023807e-03 |
| ## HMGB2    | 0.47395699  | 10.664510 | 3.9176870  | 2.051588e-04 | 2.024752e-03 |
| ## KCNB1    | -0.38678799 | 4.014907  | -3.9171500 | 2.055336e-04 | 2.026905e-03 |
| ## TUBB4B   | 0.38209075  | 10.873728 | 3.9170954  | 2.055717e-04 | 2.026905e-03 |
| ## VANG1    | 0.49216375  | 6.175405  | 3.9162530  | 2.061610e-04 | 2.031616e-03 |
| ## OLFM1    | -0.48413072 | 5.976194  | -3.9161338 | 2.062445e-04 | 2.031616e-03 |
| ## TAMM41   | 0.27423055  | 4.954497  | 3.9154893  | 2.066967e-04 | 2.035107e-03 |
| ## SGSM2    | -0.27385767 | 6.402052  | -3.9151837 | 2.069114e-04 | 2.036258e-03 |
| ## TRUB2    | 0.36676832  | 7.418300  | 3.9130605  | 2.084092e-04 | 2.050029e-03 |
| ## PMF1     | 0.30328216  | 7.406250  | 3.9127412  | 2.086352e-04 | 2.051284e-03 |
| ## DCBLD1   | 0.43364460  | 6.203982  | 3.9122530  | 2.089815e-04 | 2.053719e-03 |
| ## ZBED2    | 0.55273404  | 4.337028  | 3.9117651  | 2.093280e-04 | 2.056154e-03 |
| ## B3GALT6  | 0.35035365  | 7.905707  | 3.9100271  | 2.105670e-04 | 2.067349e-03 |
| ## SLC20A1  | 0.49345845  | 9.212113  | 3.9096824  | 2.108135e-04 | 2.068794e-03 |
| ## TSPAN7   | -0.89514432 | 6.634138  | -3.9083651 | 2.117583e-04 | 2.077087e-03 |
| ## HOXA4    | -0.46293798 | 6.235395  | -3.9076054 | 2.123050e-04 | 2.081469e-03 |
| ## MEOX1    | -0.67990733 | 5.780198  | -3.9070756 | 2.126872e-04 | 2.084234e-03 |
| ## LAMP3    | 0.91214305  | 7.006722  | 3.9063913  | 2.131816e-04 | 2.087457e-03 |
| ## CKAP2    | 0.22587425  | 3.496549  | 3.9063431  | 2.132165e-04 | 2.087457e-03 |
| ## OGFR     | 0.26137253  | 7.463249  | 3.9050640  | 2.141439e-04 | 2.094256e-03 |
| ## NUP88    | 0.34374296  | 8.545096  | 3.9050237  | 2.141731e-04 | 2.094256e-03 |
| ## GNG7     | -0.39732659 | 6.289752  | -3.9049692 | 2.142128e-04 | 2.094256e-03 |
| ## RGS9     | -0.23811029 | 4.588660  | -3.9027874 | 2.158040e-04 | 2.108823e-03 |
| ## PGAP2    | 0.27951466  | 7.477744  | 3.9025655  | 2.159664e-04 | 2.108844e-03 |
| ## TMEM167B | -0.28430790 | 8.969882  | -3.9024488 | 2.160520e-04 | 2.108844e-03 |
| ## WPCP     | -0.32368063 | 5.303961  | -3.9023697 | 2.161099e-04 | 2.108844e-03 |
| ## SLC45A3  | -0.50252424 | 6.521476  | -3.9016535 | 2.166354e-04 | 2.112982e-03 |
| ## ZNF575   | -0.27259929 | 6.229433  | -3.9009199 | 2.171750e-04 | 2.117101e-03 |
| ## PRPF6    | 0.51022311  | 6.687389  | 3.9008030  | 2.172611e-04 | 2.117101e-03 |
| ## TRIM13   | 0.45068295  | 4.509901  | 3.8990321  | 2.185694e-04 | 2.128854e-03 |
| ## USP10    | 0.71198017  | 6.917672  | 3.8987148  | 2.188047e-04 | 2.129661e-03 |
| ## TMPO     | 0.56214669  | 8.482716  | 3.8986445  | 2.188568e-04 | 2.129661e-03 |
| ## NSMAF    | 0.38926582  | 4.565767  | 3.8983205  | 2.190973e-04 | 2.131005e-03 |
| ## MADCAM1  | -0.39664510 | 5.899442  | -3.8979334 | 2.193850e-04 | 2.132807e-03 |
| ## WNT5A    | 0.83350301  | 7.775500  | 3.8973005  | 2.198561e-04 | 2.136390e-03 |
| ## CRMA     | -0.26266997 | 4.643084  | -3.8963139 | 2.205923e-04 | 2.142544e-03 |
| ## ACTR2    | 0.80418940  | 8.335469  | 3.8960564  | 2.207849e-04 | 2.143414e-03 |
| ## KL       | -0.47311426 | 3.956006  | -3.8956141 | 2.211160e-04 | 2.144074e-03 |
| ## MARCO    | 0.33897694  | 5.838846  | 3.8955582  | 2.211579e-04 | 2.144074e-03 |
| ## MACC1    | 1.06328469  | 5.688012  | 3.8955532  | 2.211617e-04 | 2.144074e-03 |
| ## XPOT     | 0.47698438  | 9.197509  | 3.8947193  | 2.217874e-04 | 2.149140e-03 |
| ## FERMT2   | -0.83933587 | 7.442537  | -3.8932770 | 2.228736e-04 | 2.158184e-03 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## EIF1AD       | 0.23516373  | 5.159896  | 3.8932050  | 2.229280e-04 | 2.158184e-03 |
| ## RDH12        | -0.86694304 | 5.254830  | -3.8926621 | 2.233383e-04 | 2.161151e-03 |
| ## NCL          | 0.25319544  | 10.837768 | 3.8920970  | 2.237661e-04 | 2.163390e-03 |
| ## LOC101928419 | -0.24634388 | 4.685552  | -3.8920820 | 2.237775e-04 | 2.163390e-03 |
| ## SCN7A        | -0.17213630 | 3.354504  | -3.8916831 | 2.240800e-04 | 2.165309e-03 |
| ## IARS2        | 0.31189941  | 9.654507  | 3.8909260  | 2.246552e-04 | 2.169861e-03 |
| ## NUDCD1       | 0.32505209  | 4.093173  | 3.8904391  | 2.250259e-04 | 2.172433e-03 |
| ## SETD6        | 0.41925210  | 6.571238  | 3.8901246  | 2.252656e-04 | 2.173740e-03 |
| ## HAUS3        | 0.42528596  | 7.384665  | 3.8892702  | 2.259181e-04 | 2.178952e-03 |
| ## ITPA         | 0.27611916  | 8.673099  | 3.8891436  | 2.260150e-04 | 2.178952e-03 |
| ## DSG2-AS1     | 0.39332571  | 3.572106  | 3.8867641  | 2.278426e-04 | 2.195555e-03 |
| ## DHX8         | 0.30233204  | 7.301454  | 3.8865516  | 2.280065e-04 | 2.196118e-03 |
| ## ADGRF4       | 0.41691007  | 4.235698  | 3.8859449  | 2.284751e-04 | 2.199614e-03 |
| ## LACTB        | 0.64921612  | 5.360127  | 3.8850689  | 2.291532e-04 | 2.205123e-03 |
| ## METRNL       | 0.42726194  | 7.875578  | 3.8848165  | 2.293490e-04 | 2.205988e-03 |
| ## DMAC1        | -0.37802834 | 5.170468  | -3.8845579 | 2.295497e-04 | 2.206899e-03 |
| ## ZNF322       | 0.44740373  | 6.022378  | 3.8834610  | 2.304031e-04 | 2.214081e-03 |
| ## DLC1         | -0.60256891 | 9.014924  | -3.8813445 | 2.320582e-04 | 2.228957e-03 |
| ## B3GALNT2     | 0.35551194  | 3.916043  | 3.8811409  | 2.322180e-04 | 2.229464e-03 |
| ## CNR2         | -0.18871554 | 5.052156  | -3.8806910 | 2.325715e-04 | 2.231829e-03 |
| ## EDC3         | 0.34539314  | 5.423835  | 3.8801177  | 2.330228e-04 | 2.235130e-03 |
| ## POLR3D       | 0.27809274  | 6.353458  | 3.8798402  | 2.332414e-04 | 2.236197e-03 |
| ## ALDOA        | 0.27826949  | 11.735676 | 3.8784731  | 2.343218e-04 | 2.245155e-03 |
| ## NOB1         | 0.32881315  | 8.629532  | 3.8783853  | 2.343914e-04 | 2.245155e-03 |
| ## G3BP2        | 0.64707634  | 6.604936  | 3.8776506  | 2.349742e-04 | 2.249702e-03 |
| ## DDA1         | 0.51647701  | 7.050832  | 3.8765468  | 2.358523e-04 | 2.257072e-03 |
| ## GNAZ         | -0.50393651 | 5.867885  | -3.8759876 | 2.362984e-04 | 2.259729e-03 |
| ## PPIB         | 0.25809064  | 11.912494 | 3.8759267  | 2.363470e-04 | 2.259729e-03 |
| ## ZFP69B       | 0.24662369  | 3.749058  | 3.8745781  | 2.374264e-04 | 2.269007e-03 |
| ## CIP2A        | 0.25154113  | 3.467494  | 3.8742249  | 2.377099e-04 | 2.269729e-03 |
| ## SMDT1        | -0.28181632 | 9.894087  | -3.8741116 | 2.378008e-04 | 2.269729e-03 |
| ## ITGA8        | -0.83656518 | 6.716217  | -3.8738332 | 2.380246e-04 | 2.269729e-03 |
| ## PITPNC1      | 0.31816885  | 5.899856  | 3.8738059  | 2.380465e-04 | 2.269729e-03 |
| ## HGS          | 0.36709075  | 8.568194  | 3.8738054  | 2.380469e-04 | 2.269729e-03 |
| ## BPI          | -0.19895306 | 4.147333  | -3.8732308 | 2.385094e-04 | 2.273098e-03 |
| ## TPT1         | -0.09369910 | 13.640443 | -3.8722275 | 2.393190e-04 | 2.279770e-03 |
| ## CYFIP2       | -0.47429241 | 7.506110  | -3.8709794 | 2.403297e-04 | 2.288096e-03 |
| ## BAMBI        | 1.14765907  | 6.697528  | 3.8708772  | 2.404127e-04 | 2.288096e-03 |
| ## FCRLA        | -0.48187852 | 5.482575  | -3.8704859 | 2.407305e-04 | 2.290074e-03 |
| ## PPM1L        | -0.80986029 | 6.151787  | -3.8698280 | 2.412658e-04 | 2.293517e-03 |
| ## EIF4A2       | 0.79454375  | 6.637936  | 3.8697703  | 2.413128e-04 | 2.293517e-03 |
| ## ATG5         | 0.32950648  | 8.860573  | 3.8688138  | 2.420932e-04 | 2.299885e-03 |
| ## PRKCB        | -0.94022491 | 6.104229  | -3.8686665 | 2.422136e-04 | 2.299980e-03 |
| ## PTCHD1       | -0.65417099 | 4.086195  | -3.8677260 | 2.429837e-04 | 2.306241e-03 |
| ## GTF2H5       | -0.26967561 | 3.505249  | -3.8664698 | 2.440160e-04 | 2.314984e-03 |
| ## BORCS5       | 0.26101019  | 6.473222  | 3.8657321  | 2.446241e-04 | 2.319696e-03 |
| ## PPM1M        | -0.33871147 | 6.861110  | -3.8654746 | 2.448367e-04 | 2.320655e-03 |
| ## FGF10        | -0.27962661 | 3.999381  | -3.8640118 | 2.460479e-04 | 2.331075e-03 |
| ## TMX1         | 0.57287651  | 8.132191  | 3.8637738  | 2.462456e-04 | 2.331886e-03 |
| ## MOAP1        | -0.35225565 | 8.409277  | -3.8622242 | 2.475359e-04 | 2.343040e-03 |
| ## MINPP1       | 0.46976967  | 6.964367  | 3.8619483  | 2.477663e-04 | 2.344155e-03 |
| ## TRIM14       | 0.40089039  | 6.475533  | 3.8613847  | 2.482376e-04 | 2.347548e-03 |
| ## DUSP16       | 0.22534978  | 7.030783  | 3.8601460  | 2.492766e-04 | 2.356303e-03 |
| ## GTF3C2       | 0.23594516  | 8.715020  | 3.8596438  | 2.496990e-04 | 2.359225e-03 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## ARRDC1    | 0.40821731  | 7.389688  | 3.8591048  | 2.501531e-04 | 2.362443e-03 |
| ## COG3      | 0.61791589  | 4.952066  | 3.8586205  | 2.505617e-04 | 2.365230e-03 |
| ## PSMD1     | 0.36153928  | 8.840225  | 3.8582178  | 2.509021e-04 | 2.367370e-03 |
| ## PHTF2     | 0.21055642  | 5.765887  | 3.8562605  | 2.525625e-04 | 2.381958e-03 |
| ## ANG       | -0.91972985 | 8.085919  | -3.8550095 | 2.536293e-04 | 2.390137e-03 |
| ## HPS5      | 0.39891225  | 7.651819  | 3.8549743  | 2.536593e-04 | 2.390137e-03 |
| ## FOXP1     | -0.40042725 | 5.697591  | -3.8541549 | 2.543605e-04 | 2.395659e-03 |
| ## ATP1B3    | 0.42250355  | 10.853711 | 3.8536832  | 2.547649e-04 | 2.398384e-03 |
| ## METTL4    | 0.32599998  | 6.524631  | 3.8531990  | 2.551808e-04 | 2.401092e-03 |
| ## TAF5L     | 0.31648261  | 5.735354  | 3.8530798  | 2.552832e-04 | 2.401092e-03 |
| ## FBXL20    | -0.30929179 | 7.556730  | -3.8522089 | 2.560331e-04 | 2.407058e-03 |
| ## CDC37     | 0.26464592  | 8.762214  | 3.8518991  | 2.563003e-04 | 2.408483e-03 |
| ## OSMR      | 0.74038802  | 5.811754  | 3.8510623  | 2.570235e-04 | 2.413188e-03 |
| ## TEK       | -0.52041188 | 5.850526  | -3.8510516 | 2.570328e-04 | 2.413188e-03 |
| ## NDFIP2    | 0.66744876  | 8.380520  | 3.8507879  | 2.572611e-04 | 2.414243e-03 |
| ## PAPLN     | -0.96599402 | 6.735847  | -3.8505882 | 2.574341e-04 | 2.414778e-03 |
| ## NEDD1     | 0.53011218  | 5.673178  | 3.8499196  | 2.580143e-04 | 2.419131e-03 |
| ## DTX2      | 0.36970259  | 6.462733  | 3.8496603  | 2.582395e-04 | 2.420153e-03 |
| ## KDM1A     | 0.27644338  | 8.359640  | 3.8488610  | 2.589353e-04 | 2.425582e-03 |
| ## ZFR       | 0.31234335  | 7.296145  | 3.8482074  | 2.595056e-04 | 2.429798e-03 |
| ## MFSD10    | 0.30496753  | 7.104644  | 3.8480779  | 2.596187e-04 | 2.429798e-03 |
| ## SURF4     | 0.33450370  | 9.085920  | 3.8462566  | 2.612147e-04 | 2.443560e-03 |
| ## PBX3      | -0.72737462 | 7.848924  | -3.8460793 | 2.613706e-04 | 2.443560e-03 |
| ## AR        | -0.19030881 | 4.873657  | -3.8459990 | 2.614412e-04 | 2.443560e-03 |
| ## FAM114A2  | -0.29595557 | 6.706856  | -3.8455792 | 2.618108e-04 | 2.445917e-03 |
| ## Clorf74   | 0.19448243  | 4.482056  | 3.8452360  | 2.621132e-04 | 2.446997e-03 |
| ## LINC00092 | -0.21232333 | 4.428990  | -3.8451813 | 2.621614e-04 | 2.446997e-03 |
| ## COLEC11   | -0.40825717 | 5.534729  | -3.8439897 | 2.632144e-04 | 2.455724e-03 |
| ## ZNF626    | -0.25020315 | 4.620288  | -3.8432556 | 2.638651e-04 | 2.460602e-03 |
| ## EED       | 0.30772888  | 8.562304  | 3.8431335  | 2.639735e-04 | 2.460602e-03 |
| ## LINC01550 | -0.16306642 | 4.056083  | -3.8426975 | 2.643608e-04 | 2.463109e-03 |
| ## HAND2-AS1 | -1.12253915 | 4.564711  | -3.8424993 | 2.645371e-04 | 2.463650e-03 |
| ## GLIPR2    | -0.50479608 | 7.445832  | -3.8406175 | 2.662162e-04 | 2.478179e-03 |
| ## BAZ2A     | 0.34883686  | 7.388559  | 3.8403697  | 2.664381e-04 | 2.479136e-03 |
| ## MAPKAPK3  | 0.40653347  | 6.637148  | 3.8398157  | 2.669348e-04 | 2.482648e-03 |
| ## JADE1     | -0.41520941 | 7.139435  | -3.8392598 | 2.674341e-04 | 2.486182e-03 |
| ## RBM34     | 0.13691344  | 3.499390  | 3.8391112  | 2.675677e-04 | 2.486314e-03 |
| ## RIPK2-DT  | 0.38227449  | 5.089033  | 3.8388424  | 2.678095e-04 | 2.486629e-03 |
| ## THNSL2    | -0.42275843 | 6.125964  | -3.8388081 | 2.678404e-04 | 2.486629e-03 |
| ## SMARCA5   | 0.34645508  | 8.012377  | 3.8383895  | 2.682175e-04 | 2.488799e-03 |
| ## TGIF2     | 0.41165632  | 6.966223  | 3.8382834  | 2.683132e-04 | 2.488799e-03 |
| ## SCARA3    | -0.53221353 | 6.613199  | -3.8348036 | 2.714687e-04 | 2.516439e-03 |
| ## ZNF436    | -0.42037371 | 7.057914  | -3.8347313 | 2.715347e-04 | 2.516439e-03 |
| ## CSTF3     | 0.24698212  | 7.917568  | 3.8343869  | 2.718490e-04 | 2.518231e-03 |
| ## EYA3      | 0.16723648  | 4.182184  | 3.8340807  | 2.721287e-04 | 2.519701e-03 |
| ## TAC1      | -0.84003700 | 3.930627  | -3.8333154 | 2.728291e-04 | 2.523409e-03 |
| ## FOXP2     | -0.31065586 | 4.330599  | -3.8333068 | 2.728370e-04 | 2.523409e-03 |
| ## KIAA0408  | -0.11281012 | 3.371942  | -3.8332461 | 2.728926e-04 | 2.523409e-03 |
| ## STX16     | 0.57055264  | 8.142177  | 3.8329535  | 2.731609e-04 | 2.524364e-03 |
| ## ABRAXAS2  | 0.43070656  | 6.877558  | 3.8328690  | 2.732385e-04 | 2.524364e-03 |
| ## SMC2      | 0.22662463  | 4.633222  | 3.8319479  | 2.740848e-04 | 2.531061e-03 |
| ## MRNIP     | -0.24631122 | 6.531839  | -3.8309066 | 2.750448e-04 | 2.538800e-03 |
| ## MDK       | 0.76363418  | 8.593175  | 3.8302583  | 2.756440e-04 | 2.543204e-03 |
| ## SNX21     | -0.58456241 | 6.045358  | -3.8288628 | 2.769383e-04 | 2.553403e-03 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ETS1         | 0.67163342  | 6.981409  | 3.8288021  | 2.769947e-04 | 2.553403e-03 |
| ## YME1L1       | 0.36344467  | 9.564679  | 3.8286200  | 2.771641e-04 | 2.553834e-03 |
| ## MORN5        | -0.65290035 | 4.556290  | -3.8284821 | 2.772923e-04 | 2.553886e-03 |
| ## HOXA10       | 0.70209518  | 6.736856  | 3.8276681  | 2.780508e-04 | 2.559740e-03 |
| ## CHTOP        | 0.24447180  | 9.264166  | 3.8254950  | 2.800856e-04 | 2.577332e-03 |
| ## GLMN         | 0.30101029  | 6.366494  | 3.8248085  | 2.807313e-04 | 2.582133e-03 |
| ## SOX9         | 0.86369334  | 9.813316  | 3.8210216  | 2.843191e-04 | 2.613978e-03 |
| ## LAPTM4A      | -0.20961950 | 11.833813 | -3.8204403 | 2.848737e-04 | 2.617921e-03 |
| ## AP5B1        | 0.19189464  | 4.845007  | 3.8193051  | 2.859598e-04 | 2.626743e-03 |
| ## ZNF568       | -0.15392638 | 3.549613  | -3.8186162 | 2.866207e-04 | 2.631653e-03 |
| ## C1orf131     | 0.34676763  | 8.757334  | 3.8172062  | 2.879782e-04 | 2.642952e-03 |
| ## FAM120A      | 0.31683542  | 4.280020  | 3.8165308  | 2.886306e-04 | 2.647773e-03 |
| ## MED28        | 0.35725921  | 7.438377  | 3.8160634  | 2.890829e-04 | 2.650754e-03 |
| ## TNNT1        | 0.58469808  | 4.750039  | 3.8156206  | 2.895121e-04 | 2.653521e-03 |
| ## TEX30        | 0.46459671  | 6.587020  | 3.8153510  | 2.897737e-04 | 2.654750e-03 |
| ## ARPC5        | 0.51161299  | 8.846526  | 3.8150992  | 2.900181e-04 | 2.655821e-03 |
| ## GRB7         | 0.86883265  | 6.845018  | 3.8147127  | 2.903939e-04 | 2.658094e-03 |
| ## GEN1         | 0.53233320  | 3.769187  | 3.8142594  | 2.908351e-04 | 2.660962e-03 |
| ## GMEB1        | 0.24462898  | 6.593439  | 3.8139281  | 2.911579e-04 | 2.662156e-03 |
| ## ABCA9        | -0.26947432 | 3.596977  | -3.8138632 | 2.912213e-04 | 2.662156e-03 |
| ## EPB41L4A-AS1 | -0.41108337 | 8.613417  | -3.8128445 | 2.922164e-04 | 2.670081e-03 |
| ## PCSK9        | 0.50472290  | 6.080388  | 3.8114295  | 2.936041e-04 | 2.681584e-03 |
| ## FHL2         | -0.52666934 | 10.299369 | -3.8108694 | 2.941552e-04 | 2.685440e-03 |
| ## CYBA         | 0.47863603  | 10.632040 | 3.8103785  | 2.946390e-04 | 2.688678e-03 |
| ## ZNF19        | -0.19870106 | 5.459495  | -3.8096760 | 2.953326e-04 | 2.693827e-03 |
| ## MYL6         | -0.20518659 | 12.482368 | -3.8094051 | 2.956005e-04 | 2.695090e-03 |
| ## NRAV         | 0.27853990  | 5.640513  | 3.8091454  | 2.958575e-04 | 2.696253e-03 |
| ## ME3          | -0.44845505 | 7.310404  | -3.8088646 | 2.961357e-04 | 2.697607e-03 |
| ## ESRRG        | -1.70720462 | 5.785682  | -3.8086734 | 2.963252e-04 | 2.698153e-03 |
| ## RYR3         | -0.62868428 | 3.868512  | -3.8070989 | 2.978905e-04 | 2.711220e-03 |
| ## PES1         | 0.26443305  | 7.778745  | 3.8068438  | 2.981449e-04 | 2.711231e-03 |
| ## CSRP2        | -0.70081242 | 8.789660  | -3.8067677 | 2.982208e-04 | 2.711231e-03 |
| ## IL17D        | -0.51647013 | 5.205949  | -3.8067060 | 2.982823e-04 | 2.711231e-03 |
| ## NEGR1        | -0.43832358 | 4.058850  | -3.8064310 | 2.985569e-04 | 2.712543e-03 |
| ## TARDBP       | 0.22163653  | 9.559035  | 3.8048567  | 3.001332e-04 | 2.725676e-03 |
| ## AKT1S1       | 0.24055112  | 4.481060  | 3.8045610  | 3.004303e-04 | 2.727184e-03 |
| ## PON2         | 0.60657165  | 10.035913 | 3.8033431  | 3.016564e-04 | 2.737121e-03 |
| ## GID4         | 0.21560860  | 4.390304  | 3.8029886  | 3.020142e-04 | 2.739174e-03 |
| ## GUCY1A1      | -0.91753421 | 8.534259  | -3.8023390 | 3.026709e-04 | 2.743935e-03 |
| ## IFNGR1       | 0.35858854  | 10.446247 | 3.8017811  | 3.032359e-04 | 2.747861e-03 |
| ## ELL          | 0.26358190  | 4.139726  | 3.8015561  | 3.034641e-04 | 2.748522e-03 |
| ## DYRK2        | 0.49165485  | 7.304789  | 3.8014490  | 3.035728e-04 | 2.748522e-03 |
| ## FARP1        | -0.45532435 | 7.882212  | -3.8009140 | 3.041162e-04 | 2.752245e-03 |
| ## PTPN2        | 0.24879308  | 3.442586  | 3.8003450  | 3.046952e-04 | 2.754518e-03 |
| ## CTSV         | 0.76197875  | 7.711140  | 3.8003123  | 3.047285e-04 | 2.754518e-03 |
| ## BZW2         | 0.37928284  | 10.616568 | 3.8002772  | 3.047642e-04 | 2.754518e-03 |
| ## ACTN2        | -0.52707780 | 5.440194  | -3.7985524 | 3.065260e-04 | 2.769240e-03 |
| ## DHX30        | 0.27083373  | 4.427880  | 3.7983537  | 3.067296e-04 | 2.769877e-03 |
| ## ZNF529       | -0.32289317 | 3.915521  | -3.7981275 | 3.069615e-04 | 2.770770e-03 |
| ## TRIM15       | 0.56027073  | 7.492442  | 3.7978344  | 3.072623e-04 | 2.771113e-03 |
| ## TOR1AIP2     | 0.21359074  | 4.099304  | 3.7978312  | 3.072656e-04 | 2.771113e-03 |
| ## BMS1         | 0.28981293  | 8.523195  | 3.7955812  | 3.095839e-04 | 2.790129e-03 |
| ## ATXN7L3      | 0.18696066  | 7.545517  | 3.7954762  | 3.096925e-04 | 2.790129e-03 |
| ## ADRA2A       | -1.22490802 | 6.159929  | -3.7952803 | 3.098952e-04 | 2.790129e-03 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## AADAC        | -1.46241771 | 7.393074  | -3.7952659 | 3.099101e-04 | 2.790129e-03 |
| ## IDH3A        | 0.49003688  | 8.187562  | 3.7945905  | 3.106099e-04 | 2.794358e-03 |
| ## ZBTB47       | -0.37797095 | 6.380365  | -3.7945536 | 3.106482e-04 | 2.794358e-03 |
| ## TOGARAM1     | -0.45617502 | 7.216997  | -3.7941203 | 3.110980e-04 | 2.797196e-03 |
| ## MARK2        | 0.32409923  | 5.846353  | 3.7936653  | 3.115711e-04 | 2.800240e-03 |
| ## LAMTOR2      | 0.30450587  | 8.582266  | 3.7926821  | 3.125956e-04 | 2.808236e-03 |
| ## CDCP1        | 0.40799361  | 4.884952  | 3.7923308  | 3.129624e-04 | 2.810319e-03 |
| ## LOC102723678 | -0.20605472 | 5.534122  | -3.7920066 | 3.133014e-04 | 2.812150e-03 |
| ## MPC1         | -0.42422735 | 9.257770  | -3.7908990 | 3.144619e-04 | 2.821350e-03 |
| ## SLC6A6       | 0.40764982  | 4.387805  | 3.7903511  | 3.150374e-04 | 2.825297e-03 |
| ## APTX         | 0.32324317  | 7.364017  | 3.7882519  | 3.172521e-04 | 2.842542e-03 |
| ## SERPINB2     | 0.91723829  | 4.157468  | 3.7882212  | 3.172846e-04 | 2.842542e-03 |
| ## CMA1         | -0.46095919 | 4.292415  | -3.7881407 | 3.173699e-04 | 2.842542e-03 |
| ## TP53INP2     | -0.53021269 | 8.678957  | -3.7876611 | 3.178780e-04 | 2.845869e-03 |
| ## ZNF473       | 0.36562995  | 5.347417  | 3.7868894  | 3.186975e-04 | 2.851980e-03 |
| ## ALKBH2       | 0.36573658  | 6.762331  | 3.7863474  | 3.192742e-04 | 2.855913e-03 |
| ## PSMD3        | 0.52226212  | 8.484081  | 3.7860267  | 3.196159e-04 | 2.857633e-03 |
| ## VSTM2A       | -0.22121284 | 3.648417  | -3.7859095 | 3.197409e-04 | 2.857633e-03 |
| ## ABI2         | 0.26807036  | 6.966330  | 3.7846677  | 3.210678e-04 | 2.867262e-03 |
| ## NSA2         | -0.26626639 | 10.909514 | -3.7846436 | 3.210936e-04 | 2.867262e-03 |
| ## PHF20L1      | 0.42641291  | 5.550390  | 3.7841913  | 3.215783e-04 | 2.869522e-03 |
| ## UBE2L6       | 0.58246348  | 9.248842  | 3.7841502  | 3.216224e-04 | 2.869522e-03 |
| ## AQP9         | 0.98840769  | 6.579323  | 3.7829123  | 3.229526e-04 | 2.879451e-03 |
| ## POLR3E       | 0.31189362  | 8.306690  | 3.7828574  | 3.230117e-04 | 2.879451e-03 |
| ## MRPS2        | 0.46576073  | 7.514138  | 3.7813690  | 3.246184e-04 | 2.892535e-03 |
| ## MAFG         | 0.30683003  | 6.400468  | 3.7801832  | 3.259038e-04 | 2.902747e-03 |
| ## DNAL1        | 0.14961093  | 3.946276  | 3.7797448  | 3.263803e-04 | 2.905748e-03 |
| ## EXOSC2       | 0.37907507  | 6.263668  | 3.7787257  | 3.274905e-04 | 2.914385e-03 |
| ## PFDN6        | 0.30770122  | 4.654127  | 3.7779432  | 3.283454e-04 | 2.920746e-03 |
| ## TRIM59       | 0.71683271  | 5.451577  | 3.7777977  | 3.285046e-04 | 2.920914e-03 |
| ## ZNF385B      | -0.73014904 | 4.257165  | -3.7773459 | 3.289994e-04 | 2.924065e-03 |
| ## BAX          | 0.47326568  | 6.659758  | 3.7769204  | 3.294660e-04 | 2.926963e-03 |
| ## RNF114       | 0.27413940  | 8.417341  | 3.7766061  | 3.298112e-04 | 2.928779e-03 |
| ## EPRS1        | 0.66809411  | 7.105644  | 3.7758518  | 3.306408e-04 | 2.934895e-03 |
| ## PGP          | 0.36045436  | 7.190770  | 3.7748056  | 3.317948e-04 | 2.943884e-03 |
| ## SS18         | 0.40352650  | 7.799345  | 3.7738204  | 3.328849e-04 | 2.952298e-03 |
| ## SVEP1        | -0.33004947 | 3.622623  | -3.7727036 | 3.341250e-04 | 2.962034e-03 |
| ## MMP3         | 1.57476779  | 7.764645  | 3.7712841  | 3.357074e-04 | 2.974796e-03 |
| ## TASOR        | 0.28104733  | 8.503416  | 3.7695321  | 3.376703e-04 | 2.990918e-03 |
| ## TRIAP1       | 0.27857233  | 8.652307  | 3.7666571  | 3.409154e-04 | 3.018377e-03 |
| ## ARHGAP27P1   | 0.26291607  | 5.381323  | 3.7663207  | 3.412970e-04 | 3.020471e-03 |
| ## DNPEP        | 0.31681626  | 8.053566  | 3.7659258  | 3.417456e-04 | 3.023156e-03 |
| ## MS4A8        | -1.02924449 | 6.243686  | -3.7650571 | 3.427341e-04 | 3.030614e-03 |
| ## EMILIN1      | -0.68013404 | 7.306781  | -3.7644857 | 3.433860e-04 | 3.035089e-03 |
| ## CCN3         | -0.32098741 | 4.829229  | -3.7640471 | 3.438871e-04 | 3.038228e-03 |
| ## ATP6V1F      | 0.29032936  | 9.897018  | 3.7635649  | 3.444388e-04 | 3.041812e-03 |
| ## C11orf96     | -0.63207532 | 10.741404 | -3.7620047 | 3.462297e-04 | 3.056332e-03 |
| ## TRHDE        | -0.65787498 | 4.301119  | -3.7617040 | 3.465760e-04 | 3.057310e-03 |
| ## SH2D2A       | 0.39964673  | 5.926665  | 3.7616535  | 3.466341e-04 | 3.057310e-03 |
| ## RHBDF2       | 0.37090838  | 7.151849  | 3.7614463  | 3.468729e-04 | 3.058121e-03 |
| ## AKAP6        | -0.30395126 | 4.081981  | -3.7598881 | 3.486736e-04 | 3.072695e-03 |
| ## PDCD2        | 0.37832037  | 6.664304  | 3.7593827  | 3.492596e-04 | 3.076557e-03 |
| ## ELOVL4       | -0.34429445 | 4.123400  | -3.7589971 | 3.497073e-04 | 3.079199e-03 |
| ## NF2          | 0.15813260  | 4.691086  | 3.7586439  | 3.501179e-04 | 3.081244e-03 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## ADH7      | -0.73928558 | 4.131348  | -3.7585427 | 3.502356e-04 | 3.081244e-03 |
| ## SCLT1     | 0.27740957  | 3.929141  | 3.7570668  | 3.519568e-04 | 3.095079e-03 |
| ## CACFD1    | -0.33824284 | 6.917652  | -3.7568631 | 3.521950e-04 | 3.095867e-03 |
| ## PLEK      | 0.62887823  | 7.594091  | 3.7564247  | 3.527081e-04 | 3.098491e-03 |
| ## MYO7A     | 0.35408005  | 6.079843  | 3.7563538  | 3.527911e-04 | 3.098491e-03 |
| ## CPA2      | -1.38053033 | 6.558948  | -3.7549759 | 3.544090e-04 | 3.110356e-03 |
| ## H2BC17    | 0.15370866  | 3.510803  | 3.7549489  | 3.544408e-04 | 3.110356e-03 |
| ## SLC16A9   | -0.66124643 | 5.105040  | -3.7543540 | 3.551415e-04 | 3.115192e-03 |
| ## TUBA3C    | 0.19552847  | 7.158420  | 3.7540129  | 3.555438e-04 | 3.116391e-03 |
| ## TMTC2     | -0.39726287 | 6.777030  | -3.7539845 | 3.555774e-04 | 3.116391e-03 |
| ## CENPO     | 0.15765931  | 5.242117  | 3.7536870  | 3.559287e-04 | 3.118157e-03 |
| ## PSMG1     | 0.47760492  | 7.875936  | 3.7527995  | 3.569789e-04 | 3.126042e-03 |
| ## GSTO1     | 0.32500900  | 10.176960 | 3.7522082  | 3.576801e-04 | 3.130866e-03 |
| ## ATP4A     | -2.15062666 | 6.986472  | -3.7514284 | 3.586069e-04 | 3.137657e-03 |
| ## RPA1      | 0.32943303  | 9.484488  | 3.7513020  | 3.587573e-04 | 3.137657e-03 |
| ## GATA6-AS1 | -1.06333508 | 7.413203  | -3.7495392 | 3.608618e-04 | 3.154738e-03 |
| ## BLACAT1   | 0.64908544  | 5.141251  | 3.7480381  | 3.626632e-04 | 3.169156e-03 |
| ## LARS2     | 0.29290149  | 6.495892  | 3.7465635  | 3.644411e-04 | 3.183356e-03 |
| ## SNX8      | 0.43060434  | 6.288495  | 3.7462018  | 3.648784e-04 | 3.185840e-03 |
| ## MAP2K4    | 0.33851379  | 6.107337  | 3.7449698  | 3.663718e-04 | 3.197539e-03 |
| ## PI3       | 1.70002261  | 8.265671  | 3.7426158  | 3.692417e-04 | 3.221236e-03 |
| ## FZD10-AS1 | -0.26896981 | 4.566065  | -3.7416577 | 3.704159e-04 | 3.230126e-03 |
| ## DAZAP1    | 0.34197906  | 7.678777  | 3.7412099  | 3.709659e-04 | 3.233568e-03 |
| ## CD274     | 0.45052495  | 5.360093  | 3.7384901  | 3.743234e-04 | 3.261468e-03 |
| ## CEBPG     | 0.56216998  | 7.804960  | 3.7382988  | 3.745605e-04 | 3.262170e-03 |
| ## A2M-AS1   | -0.49024097 | 4.770380  | -3.7377735 | 3.752127e-04 | 3.265692e-03 |
| ## FOXK2     | 0.32766794  | 7.573265  | 3.7377205  | 3.752786e-04 | 3.265692e-03 |
| ## ASXL2     | 0.44399765  | 4.842732  | 3.7360748  | 3.773292e-04 | 3.282165e-03 |
| ## ALDH1A3   | -0.86695045 | 8.737839  | -3.7354652 | 3.780914e-04 | 3.287422e-03 |
| ## TLCD1     | 0.57897614  | 6.054066  | 3.7347214  | 3.790236e-04 | 3.294151e-03 |
| ## WWTR1     | -0.62104781 | 7.186102  | -3.7340960 | 3.798090e-04 | 3.299601e-03 |
| ## LINC03013 | -0.18987100 | 3.738936  | -3.7336364 | 3.803872e-04 | 3.303245e-03 |
| ## COLGALT1  | 0.32971364  | 8.429371  | 3.7330584  | 3.811155e-04 | 3.308191e-03 |
| ## NUP85     | 0.32556349  | 8.191564  | 3.7322156  | 3.821799e-04 | 3.316047e-03 |
| ## POMP      | 0.31934862  | 11.472423 | 3.7320775  | 3.823545e-04 | 3.316181e-03 |
| ## SCIN      | -1.25717539 | 5.825618  | -3.7313301 | 3.833012e-04 | 3.323008e-03 |
| ## TBC1D31   | 0.25336358  | 3.969006  | 3.7309422  | 3.837934e-04 | 3.325890e-03 |
| ## ACTL6A    | 0.46674256  | 8.324198  | 3.7307843  | 3.839939e-04 | 3.326115e-03 |
| ## LIMD1     | 0.49481335  | 5.266098  | 3.7306703  | 3.841388e-04 | 3.326115e-03 |
| ## GREB1     | -0.31014250 | 3.475692  | -3.7303894 | 3.844959e-04 | 3.327823e-03 |
| ## MYBBP1A   | 0.22479796  | 7.154399  | 3.7280255  | 3.875138e-04 | 3.352411e-03 |
| ## RNA45SN5  | 0.74713562  | 7.046026  | 3.7279124  | 3.876588e-04 | 3.352411e-03 |
| ## ARF6      | 0.48006438  | 8.304078  | 3.7264237  | 3.895716e-04 | 3.367555e-03 |
| ## KCTD20    | 0.45522798  | 5.671934  | 3.7239397  | 3.927833e-04 | 3.393908e-03 |
| ## SYNDIG1   | -0.62839866 | 5.563755  | -3.7238111 | 3.929503e-04 | 3.393943e-03 |
| ## METTL8    | 0.41854510  | 6.786451  | 3.7229000  | 3.941352e-04 | 3.402766e-03 |
| ## TIMM29    | 0.26987897  | 6.457009  | 3.7220106  | 3.952951e-04 | 3.411365e-03 |
| ## NOC3L     | 0.34654947  | 8.177006  | 3.7215213  | 3.959346e-04 | 3.415469e-03 |
| ## AGL       | -0.36367278 | 8.488509  | -3.7212276 | 3.963189e-04 | 3.416839e-03 |
| ## MARCHF6   | 0.35365648  | 8.745788  | 3.7211492  | 3.964216e-04 | 3.416839e-03 |
| ## TNFRSF10A | 0.54127979  | 6.554541  | 3.7205287  | 3.972349e-04 | 3.422433e-03 |
| ## MRPL35    | 0.34559120  | 8.061612  | 3.7201569  | 3.977230e-04 | 3.425221e-03 |
| ## ELAPOR1   | -1.28904691 | 6.648821  | -3.7198998 | 3.980608e-04 | 3.426713e-03 |
| ## SELENOM   | -0.60653154 | 9.514334  | -3.7196405 | 3.984019e-04 | 3.428232e-03 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## TAF5      | 0.38201604  | 5.800327  | 3.7188721  | 3.994142e-04 | 3.435523e-03 |
| ## TMEM41A   | 0.39817565  | 7.507824  | 3.7173765  | 4.013915e-04 | 3.451105e-03 |
| ## BACE1     | -0.52613266 | 6.973403  | -3.7167484 | 4.022246e-04 | 3.456841e-03 |
| ## SENP3     | 0.25099985  | 7.094478  | 3.7162679  | 4.028631e-04 | 3.460900e-03 |
| ## CHORDC1   | 0.35840351  | 8.531915  | 3.7152865  | 4.041702e-04 | 3.470697e-03 |
| ## PIGC      | 0.29829768  | 8.350370  | 3.7148958  | 4.046917e-04 | 3.473743e-03 |
| ## PAIP2B    | -0.60680042 | 5.837597  | -3.7146631 | 4.050025e-04 | 3.474979e-03 |
| ## ZNF853    | -0.21194872 | 4.747750  | -3.7144647 | 4.052679e-04 | 3.475823e-03 |
| ## POLR3K    | 0.41358892  | 7.833514  | 3.7134739  | 4.065950e-04 | 3.484404e-03 |
| ## HMGB1     | 0.36264144  | 11.195619 | 3.7134679  | 4.066030e-04 | 3.484404e-03 |
| ## BCL2A1    | 1.07011452  | 7.051527  | 3.7133271  | 4.067919e-04 | 3.484589e-03 |
| ## MED19     | 0.28370639  | 7.773439  | 3.7128779  | 4.073953e-04 | 3.488322e-03 |
| ## NUP35     | 0.31143859  | 8.273217  | 3.7125260  | 4.078686e-04 | 3.490940e-03 |
| ## MTRR      | 0.31248901  | 6.984980  | 3.7120429  | 4.085191e-04 | 3.495071e-03 |
| ## MYO19     | 0.30065818  | 5.384722  | 3.7111466  | 4.097286e-04 | 3.503456e-03 |
| ## SYPL2     | -0.26605328 | 4.867358  | -3.7110674 | 4.098358e-04 | 3.503456e-03 |
| ## RBM45     | 0.16712339  | 7.286489  | 3.7107975  | 4.102007e-04 | 3.505137e-03 |
| ## NXT2      | 0.47289471  | 7.160873  | 3.7092288  | 4.123283e-04 | 3.521872e-03 |
| ## CD207     | -0.22107602 | 4.218101  | -3.7090917 | 4.125148e-04 | 3.522020e-03 |
| ## DMKN      | 0.76871577  | 5.810849  | 3.7079781  | 4.140321e-04 | 3.533526e-03 |
| ## TYRP1     | -1.34509073 | 6.397928  | -3.7078144 | 4.142556e-04 | 3.533986e-03 |
| ## MAGEE1    | -0.43805843 | 4.764243  | -3.7076383 | 4.144962e-04 | 3.534590e-03 |
| ## MSRB3     | -0.32176200 | 7.074693  | -3.7069578 | 4.154270e-04 | 3.541077e-03 |
| ## AGPAT3    | 0.28397770  | 5.572406  | 3.7058094  | 4.170025e-04 | 3.553052e-03 |
| ## NRROS     | -0.32899681 | 5.836045  | -3.7047421 | 4.184717e-04 | 3.564112e-03 |
| ## ZNF451    | 0.36844330  | 8.537090  | 3.7031210  | 4.207128e-04 | 3.581735e-03 |
| ## HINFP     | 0.30250114  | 6.614448  | 3.7028753  | 4.210534e-04 | 3.583170e-03 |
| ## TMEM160   | 0.30899181  | 6.843368  | 3.7020806  | 4.221571e-04 | 3.591094e-03 |
| ## GNAI3     | 0.35779341  | 7.734759  | 3.7012910  | 4.232564e-04 | 3.598976e-03 |
| ## ULBP2     | 0.37169960  | 4.780104  | 3.7000782  | 4.249502e-04 | 3.611904e-03 |
| ## ETFDH     | -0.57069395 | 6.363990  | -3.6998428 | 4.252797e-04 | 3.612903e-03 |
| ## COA1      | 0.27277936  | 4.086110  | 3.6997464  | 4.254148e-04 | 3.612903e-03 |
| ## ACADM     | -0.38936446 | 8.729880  | -3.6995604 | 4.256753e-04 | 3.613642e-03 |
| ## MRPL48    | 0.35002841  | 8.342776  | 3.6977368  | 4.282385e-04 | 3.633919e-03 |
| ## PTTG3P    | 0.36114671  | 4.760766  | 3.6973454  | 4.287906e-04 | 3.637123e-03 |
| ## CAT       | -0.38727332 | 10.559791 | -3.6970133 | 4.292595e-04 | 3.639617e-03 |
| ## MRPS5     | 0.25208786  | 8.616043  | 3.6968758  | 4.294539e-04 | 3.639784e-03 |
| ## BAK1      | 0.35419362  | 6.779366  | 3.6955723  | 4.313000e-04 | 3.653943e-03 |
| ## DDRGK1    | 0.29690350  | 8.477314  | 3.6951079  | 4.319595e-04 | 3.657112e-03 |
| ## ATG3      | 0.14371036  | 3.760585  | 3.6950616  | 4.320253e-04 | 3.657112e-03 |
| ## NOL7      | 0.26427008  | 9.824611  | 3.6943881  | 4.329838e-04 | 3.663736e-03 |
| ## FGF14-AS2 | -0.30563412 | 4.079848  | -3.6939133 | 4.336606e-04 | 3.667973e-03 |
| ## SUPV3L1   | 0.31095308  | 7.343498  | 3.6931323  | 4.347762e-04 | 3.674631e-03 |
| ## AP3M1     | 0.22675706  | 8.528407  | 3.6931151  | 4.348007e-04 | 3.674631e-03 |
| ## IL1RAP    | 0.37063289  | 6.184104  | 3.6927499  | 4.353234e-04 | 3.676348e-03 |
| ## HDHD5     | 0.39406604  | 7.652193  | 3.6927264  | 4.353571e-04 | 3.676348e-03 |
| ## CEP85     | 0.36388001  | 6.220060  | 3.6910025  | 4.378321e-04 | 3.695750e-03 |
| ## PLAGL1    | -0.85087567 | 7.185065  | -3.6893746 | 4.401818e-04 | 3.714078e-03 |
| ## JMY       | -0.43070144 | 7.947828  | -3.6890470 | 4.406562e-04 | 3.716575e-03 |
| ## IPPK      | 0.21484755  | 6.161046  | 3.6884277  | 4.415541e-04 | 3.722641e-03 |
| ## RBM33     | 0.44713703  | 5.044281  | 3.6880930  | 4.420401e-04 | 3.725230e-03 |
| ## CCDC77    | 0.37714984  | 4.998823  | 3.6877800  | 4.424951e-04 | 3.727555e-03 |
| ## EI24      | 0.23589586  | 8.593279  | 3.6875460  | 4.428356e-04 | 3.728915e-03 |
| ## EPPK1     | 0.54315099  | 6.317308  | 3.6871674  | 4.433868e-04 | 3.732048e-03 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## AHCY      | 0.40228535  | 9.288763  | 3.6863730  | 4.445459e-04 | 3.740292e-03 |
| ## TARS3     | -0.43967408 | 6.866014  | -3.6843485 | 4.475125e-04 | 3.763732e-03 |
| ## DIABLO    | 0.24778721  | 8.994439  | 3.6836074  | 4.486031e-04 | 3.771381e-03 |
| ## PSMB9     | 0.68563616  | 9.704794  | 3.6834738  | 4.488000e-04 | 3.771514e-03 |
| ## C1orf109  | 0.27069138  | 5.564111  | 3.6830522  | 4.494219e-04 | 3.775217e-03 |
| ## LRRN3     | -0.20932407 | 4.636697  | -3.6827998 | 4.497946e-04 | 3.776824e-03 |
| ## EZR       | 1.07186917  | 8.373375  | 3.6815327  | 4.516700e-04 | 3.789665e-03 |
| ## DUS3L     | 0.34342561  | 6.479650  | 3.6815206  | 4.516879e-04 | 3.789665e-03 |
| ## KCNK17    | -0.22899828 | 4.854726  | -3.6810806 | 4.523410e-04 | 3.792622e-03 |
| ## ASIC5     | -0.13685334 | 3.436569  | -3.6810378 | 4.524045e-04 | 3.792622e-03 |
| ## KIAA1755  | -0.35695890 | 4.999380  | -3.6807275 | 4.528656e-04 | 3.794527e-03 |
| ## FBX045    | 0.41747129  | 7.625945  | 3.6806397  | 4.529962e-04 | 3.794527e-03 |
| ## IDO1      | 1.54717853  | 7.560090  | 3.6802096  | 4.536363e-04 | 3.798360e-03 |
| ## SLC28A2   | -1.34753055 | 5.836881  | -3.6797551 | 4.543136e-04 | 3.802503e-03 |
| ## H2AC16    | 0.12931045  | 3.451188  | 3.6788827  | 4.556164e-04 | 3.810531e-03 |
| ## TRRAP     | 0.37213746  | 7.798348  | 3.6788677  | 4.556388e-04 | 3.810531e-03 |
| ## B4GALT5   | 0.42271198  | 8.519073  | 3.6784872  | 4.562082e-04 | 3.813761e-03 |
| ## CDH10     | -0.21844706 | 3.798955  | -3.6778649 | 4.571409e-04 | 3.819432e-03 |
| ## SELENBP1  | -0.83462458 | 8.737253  | -3.6777899 | 4.572533e-04 | 3.819432e-03 |
| ## MTAP      | 0.45032465  | 4.333442  | 3.6774069  | 4.578284e-04 | 3.822702e-03 |
| ## HSBP1L1   | 0.42890754  | 7.209563  | 3.6760262  | 4.599071e-04 | 3.838519e-03 |
| ## TMX2      | 0.24524907  | 9.912540  | 3.6754016  | 4.608504e-04 | 3.844301e-03 |
| ## SERBP1    | 0.27049477  | 9.763416  | 3.6753231  | 4.609691e-04 | 3.844301e-03 |
| ## GNAI1     | -0.50702040 | 6.099368  | -3.6748605 | 4.616691e-04 | 3.848582e-03 |
| ## BMAL2     | 0.85488302  | 6.668591  | 3.6747398  | 4.618520e-04 | 3.848582e-03 |
| ## SERTM1    | -0.11574364 | 3.258654  | -3.6739628 | 4.630304e-04 | 3.855918e-03 |
| ## LINC03040 | 0.40337243  | 4.698637  | 3.6739152  | 4.631027e-04 | 3.855918e-03 |
| ## AFDN      | 0.29086131  | 4.181031  | 3.6728109  | 4.647827e-04 | 3.867250e-03 |
| ## GPPD3     | -0.83984106 | 6.758453  | -3.6727765 | 4.648352e-04 | 3.867250e-03 |
| ## CYB5D2    | -0.36712513 | 6.830692  | -3.6725725 | 4.651463e-04 | 3.868294e-03 |
| ## BRMS1     | 0.34477599  | 7.731630  | 3.6712093  | 4.672299e-04 | 3.882817e-03 |
| ## PIK3C2A   | 0.62353613  | 6.561437  | 3.6711859  | 4.672656e-04 | 3.882817e-03 |
| ## CEBPZOS   | 0.31189780  | 4.140469  | 3.6707931  | 4.678678e-04 | 3.886270e-03 |
| ## BCAT1     | 0.28384128  | 4.965140  | 3.6705458  | 4.682471e-04 | 3.887870e-03 |
| ## NRXN3     | -0.65450283 | 4.254809  | -3.6694840 | 4.698796e-04 | 3.899869e-03 |
| ## RIMKLB    | -0.54351558 | 5.101108  | -3.6687747 | 4.709730e-04 | 3.907387e-03 |
| ## UBE2D1    | 0.38441957  | 8.183327  | 3.6680142  | 4.721482e-04 | 3.915577e-03 |
| ## RBAK      | 0.35958098  | 3.753033  | 3.6676380  | 4.727305e-04 | 3.918846e-03 |
| ## IFNG      | 0.75631330  | 4.950543  | 3.6668310  | 4.739821e-04 | 3.927658e-03 |
| ## DNM3      | -0.52517867 | 4.167980  | -3.6664257 | 4.746119e-04 | 3.931312e-03 |
| ## SULT1C2   | -1.73859673 | 8.515205  | -3.6656988 | 4.757431e-04 | 3.939115e-03 |
| ## RTN4IP1   | 0.42012519  | 5.858483  | 3.6649973  | 4.768375e-04 | 3.946607e-03 |
| ## HNRNPR    | 0.28952969  | 9.801991  | 3.6631631  | 4.797102e-04 | 3.968806e-03 |
| ## VPREB3    | -0.51280323 | 5.321237  | -3.6623569 | 4.809780e-04 | 3.977158e-03 |
| ## DPH2      | 0.25715234  | 7.680105  | 3.6622783  | 4.811017e-04 | 3.977158e-03 |
| ## MDH2      | 0.34396299  | 10.697378 | 3.6618848  | 4.817218e-04 | 3.980705e-03 |
| ## MAGEA3    | 2.11738202  | 5.222865  | 3.6613953  | 4.824944e-04 | 3.985507e-03 |
| ## MMUT      | -0.44580208 | 7.012999  | -3.6608425 | 4.833682e-04 | 3.991142e-03 |
| ## FEM1B     | -0.36888189 | 7.803967  | -3.6588541 | 4.865237e-04 | 4.015604e-03 |
| ## ZNF285    | -0.29788300 | 4.215272  | -3.6578610 | 4.881071e-04 | 4.025761e-03 |
| ## SYNGR3    | 0.63794712  | 4.870322  | 3.6578398  | 4.881409e-04 | 4.025761e-03 |
| ## NCR3LG1   | 0.68930405  | 5.810463  | 3.6568948  | 4.896522e-04 | 4.036626e-03 |
| ## ERIH5     | -0.57342169 | 4.291615  | -3.6566575 | 4.900323e-04 | 4.037482e-03 |
| ## SNX19     | 0.33383036  | 4.192166  | 3.6565880  | 4.901437e-04 | 4.037482e-03 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## H2BC6     | 0.69742350  | 6.745274  | 3.6561141  | 4.909041e-04 | 4.042146e-03 |
| ## LOXL2     | 0.36177832  | 5.339684  | 3.6550358  | 4.926383e-04 | 4.054822e-03 |
| ## RAD51-AS1 | -0.28764149 | 6.575047  | -3.6549100 | 4.928409e-04 | 4.054887e-03 |
| ## PAMR1     | -0.42053997 | 6.740190  | -3.6542590 | 4.938911e-04 | 4.061923e-03 |
| ## LINC02878 | 0.15159532  | 4.692412  | 3.6540506  | 4.942278e-04 | 4.063084e-03 |
| ## PNPLA7    | -0.29993134 | 5.219174  | -3.6539301 | 4.944226e-04 | 4.063084e-03 |
| ## POLG2     | 0.24763334  | 6.534569  | 3.6536042  | 4.949496e-04 | 4.065811e-03 |
| ## HMGCS2    | -1.65430149 | 8.842596  | -3.6524931 | 4.967507e-04 | 4.078997e-03 |
| ## SLC25A33  | 0.50587663  | 7.915067  | 3.6504197  | 5.001281e-04 | 4.105111e-03 |
| ## H2AC4     | 0.17346238  | 4.862120  | 3.6488014  | 5.027794e-04 | 4.125248e-03 |
| ## BOP1      | 0.58795579  | 6.756486  | 3.6480158  | 5.040715e-04 | 4.134220e-03 |
| ## HMGXB4    | 0.42696937  | 7.700157  | 3.6471537  | 5.054927e-04 | 4.144244e-03 |
| ## MAGEA6    | 2.10734422  | 5.192736  | 3.6463225  | 5.068668e-04 | 4.153503e-03 |
| ## PMPCA     | 0.29439981  | 8.381746  | 3.6462294  | 5.070210e-04 | 4.153503e-03 |
| ## H4C5      | 0.33468189  | 5.272789  | 3.6454480  | 5.083162e-04 | 4.162476e-03 |
| ## PNPLA3    | 0.28354104  | 4.554646  | 3.6437144  | 5.112012e-04 | 4.184455e-03 |
| ## PCBD1     | 0.39787937  | 8.582515  | 3.6431445  | 5.121530e-04 | 4.190599e-03 |
| ## RBM27     | -0.23579913 | 8.801727  | -3.6423653 | 5.134572e-04 | 4.199620e-03 |
| ## OSTF1     | 0.41359871  | 7.629524  | 3.6418884  | 5.142569e-04 | 4.204510e-03 |
| ## FHIT      | -0.35863621 | 5.042001  | -3.6414179 | 5.150471e-04 | 4.209318e-03 |
| ## BHLHE41   | -0.83712250 | 8.059888  | -3.6398995 | 5.176049e-04 | 4.228562e-03 |
| ## CFAP36    | -0.34123391 | 7.696734  | -3.6390771 | 5.189955e-04 | 4.237319e-03 |
| ## ZNF200    | 0.31262628  | 7.060942  | 3.6390249  | 5.190838e-04 | 4.237319e-03 |
| ## AMPD1     | -0.73054882 | 4.955783  | -3.6383291 | 5.202631e-04 | 4.245282e-03 |
| ## FOXRED2   | 0.27996039  | 4.576146  | 3.6371404  | 5.222839e-04 | 4.260102e-03 |
| ## GZMB      | 1.03296948  | 6.885287  | 3.6366908  | 5.230501e-04 | 4.263352e-03 |
| ## TRMT1     | 0.35509219  | 7.250128  | 3.6366664  | 5.230918e-04 | 4.263352e-03 |
| ## TFDP2     | 0.36649376  | 7.311860  | 3.6363367  | 5.236544e-04 | 4.264932e-03 |
| ## AEN       | 0.26387986  | 6.969163  | 3.6363127  | 5.236953e-04 | 4.264932e-03 |
| ## H2BC7     | 0.71109463  | 6.861515  | 3.6358307  | 5.245189e-04 | 4.269969e-03 |
| ## ZNF202    | 0.29563949  | 6.180876  | 3.6355823  | 5.249439e-04 | 4.271759e-03 |
| ## YWHAZ     | 0.43256267  | 11.302843 | 3.6350115  | 5.259216e-04 | 4.278043e-03 |
| ## PPP4R2    | 0.37502931  | 8.697217  | 3.6346432  | 5.265533e-04 | 4.281510e-03 |
| ## MPHOSPH9  | 0.42762646  | 4.662622  | 3.6342388  | 5.272479e-04 | 4.285484e-03 |
| ## C8orf76   | 0.39719250  | 6.382871  | 3.6340477  | 5.275764e-04 | 4.286481e-03 |
| ## RUSC1     | 0.38015645  | 8.128836  | 3.6339137  | 5.278069e-04 | 4.286682e-03 |
| ## MMP9      | 0.87897375  | 7.956450  | 3.6335308  | 5.284659e-04 | 4.290360e-03 |
| ## PRR34-AS1 | -0.39969070 | 8.040818  | -3.6321473 | 5.308538e-04 | 4.306452e-03 |
| ## COPZ2     | -0.46885614 | 7.106889  | -3.6320272 | 5.310616e-04 | 4.306452e-03 |
| ## RGS4      | -1.10106274 | 6.711407  | -3.6320233 | 5.310684e-04 | 4.306452e-03 |
| ## INTS6L    | -0.44137976 | 6.477446  | -3.6308998 | 5.330158e-04 | 4.320561e-03 |
| ## TPRA1     | 0.25297498  | 6.497497  | 3.6276128  | 5.387525e-04 | 4.365362e-03 |
| ## C1QTNF4   | -0.18025288 | 3.770842  | -3.6272610 | 5.393699e-04 | 4.368665e-03 |
| ## RBP7      | -0.63622316 | 5.872755  | -3.6261324 | 5.413553e-04 | 4.383041e-03 |
| ## PLEKHS1   | 0.64603373  | 4.337602  | 3.6259330  | 5.417069e-04 | 4.384183e-03 |
| ## CCNG1     | -0.37930564 | 10.200156 | -3.6249457 | 5.434504e-04 | 4.396586e-03 |
| ## DSG2      | 0.97393150  | 7.830792  | 3.6241092  | 5.449319e-04 | 4.406859e-03 |
| ## H4C2      | 0.17852618  | 4.066372  | 3.6237235  | 5.456161e-04 | 4.410679e-03 |
| ## IL1R1     | -0.58699787 | 9.465415  | -3.6235289 | 5.459617e-04 | 4.411761e-03 |
| ## TOMM22    | 0.41478984  | 7.837842  | 3.6233337  | 5.463087e-04 | 4.412852e-03 |
| ## UBE3C     | 0.10367849  | 3.143186  | 3.6225297  | 5.477397e-04 | 4.422695e-03 |
| ## CENPX     | 0.29034032  | 9.236290  | 3.6219052  | 5.488536e-04 | 4.428800e-03 |
| ## PAXIP1    | 0.34207624  | 7.584345  | 3.6218674  | 5.489210e-04 | 4.428800e-03 |
| ## LINC00926 | -0.60079825 | 6.417966  | -3.6216198 | 5.493632e-04 | 4.430651e-03 |



|            |             |           |            |              |              |
|------------|-------------|-----------|------------|--------------|--------------|
| ## AZIN1   | 0.40446678  | 9.368809  | 3.6210893  | 5.503122e-04 | 4.436586e-03 |
| ## LRWD1   | 0.23515113  | 7.198596  | 3.6205673  | 5.512473e-04 | 4.442404e-03 |
| ## FKBP1B  | -0.95618381 | 7.409925  | -3.6177341 | 5.563490e-04 | 4.481784e-03 |
| ## DTX3L   | 0.39246281  | 9.746754  | 3.6175590  | 5.566658e-04 | 4.482163e-03 |
| ## NOSTRIN | -0.72036369 | 7.388839  | -3.6174074 | 5.569402e-04 | 4.482163e-03 |
| ## PALMD   | -0.59783447 | 6.417374  | -3.6173513 | 5.570418e-04 | 4.482163e-03 |
| ## G6PC3   | 0.32939319  | 6.458978  | 3.6159714  | 5.595458e-04 | 4.500572e-03 |
| ## SCYL2   | 0.76859195  | 5.601634  | 3.6143934  | 5.624225e-04 | 4.521964e-03 |
| ## ASS1    | 0.90490197  | 10.059329 | 3.6141251  | 5.629129e-04 | 4.524160e-03 |
| ## STAT2   | 0.45760028  | 5.131092  | 3.6137881  | 5.635296e-04 | 4.527369e-03 |
| ## AQR     | -0.30073729 | 5.587439  | -3.6134758 | 5.641016e-04 | 4.530217e-03 |
| ## CST1    | 1.51100318  | 6.794547  | 3.6133097  | 5.644062e-04 | 4.530915e-03 |
| ## PIP4P2  | -0.62899548 | 5.547740  | -3.6126580 | 5.656022e-04 | 4.538767e-03 |
| ## OSR1    | -0.63521711 | 4.678949  | -3.6123843 | 5.661052e-04 | 4.541054e-03 |
| ## GALNT16 | -0.25487180 | 4.311070  | -3.6122190 | 5.664093e-04 | 4.541743e-03 |
| ## H2BC9   | 0.72004020  | 6.719545  | 3.6077855  | 5.746219e-04 | 4.604171e-03 |
| ## MMS19   | 0.22863240  | 7.572708  | 3.6076752  | 5.748275e-04 | 4.604171e-03 |
| ## LYSMD2  | 0.36939566  | 8.859791  | 3.6076589  | 5.748580e-04 | 4.604171e-03 |
| ## SLC01C1 | -0.17466666 | 3.786692  | -3.6073220 | 5.754870e-04 | 4.607436e-03 |
| ## EIF5    | 0.43330368  | 8.448055  | 3.6070550  | 5.759858e-04 | 4.609657e-03 |
| ## DPY19L2 | -0.48518903 | 4.007302  | -3.6050969 | 5.796571e-04 | 4.637257e-03 |
| ## COL16A1 | -0.66621664 | 8.150837  | -3.6040259 | 5.816746e-04 | 4.651005e-03 |
| ## DTD2    | 0.32705952  | 4.304600  | 3.6039476  | 5.818224e-04 | 4.651005e-03 |
| ## LRRC8B  | 0.28897490  | 3.888587  | 3.5998675  | 5.895714e-04 | 4.711141e-03 |
| ## ZSCAN26 | -0.34394901 | 6.048343  | -3.5994677 | 5.903359e-04 | 4.713954e-03 |
| ## TPTEP1  | -0.24746432 | 3.711125  | -3.5993807 | 5.905025e-04 | 4.713954e-03 |
| ## SPNS1   | 0.29568608  | 7.462854  | 3.5993083  | 5.906410e-04 | 4.713954e-03 |
| ## PASK    | 0.21567550  | 4.667284  | 3.5992102  | 5.908289e-04 | 4.713954e-03 |
| ## MYLK    | -0.54982600 | 3.984110  | -3.5985778 | 5.920411e-04 | 4.721817e-03 |
| ## REPIN1  | 0.41245030  | 9.639111  | 3.5980594  | 5.930366e-04 | 4.727946e-03 |
| ## TMEM199 | 0.24527178  | 7.450331  | 3.5978013  | 5.935329e-04 | 4.730091e-03 |
| ## CAMSAP2 | 0.33052959  | 5.427928  | 3.5972054  | 5.946800e-04 | 4.735849e-03 |
| ## GPD2    | 0.48533791  | 5.376672  | 3.5971898  | 5.947102e-04 | 4.735849e-03 |
| ## FAM220A | 0.27540803  | 8.546361  | 3.5968521  | 5.953612e-04 | 4.739221e-03 |
| ## STARD7  | 0.19809524  | 10.056651 | 3.5966466  | 5.957578e-04 | 4.740565e-03 |
| ## OAF     | -0.33779343 | 8.052709  | -3.5955601 | 5.978585e-04 | 4.754763e-03 |
| ## MCL1    | 0.95473748  | 6.801889  | 3.5954878  | 5.979987e-04 | 4.754763e-03 |
| ## OCEL1   | -0.30406048 | 7.382025  | -3.5945153 | 5.998853e-04 | 4.767943e-03 |
| ## LIMA1   | -0.43307715 | 10.220950 | -3.5939656 | 6.009543e-04 | 4.773743e-03 |
| ## MGAT2   | 0.26954396  | 5.244880  | 3.5939043  | 6.010735e-04 | 4.773743e-03 |
| ## MFAP5   | -1.11848689 | 7.806581  | -3.5937552 | 6.013639e-04 | 4.774229e-03 |
| ## PCGF5   | -0.35117077 | 8.070836  | -3.5933019 | 6.022473e-04 | 4.778074e-03 |
| ## ZNF232  | 0.42121237  | 7.402623  | 3.5932712  | 6.023072e-04 | 4.778074e-03 |
| ## BUD23   | 0.36342444  | 9.243718  | 3.5928654  | 6.030991e-04 | 4.782535e-03 |
| ## P2RY6   | 0.25709604  | 5.443087  | 3.5922898  | 6.042241e-04 | 4.789632e-03 |
| ## TTC27   | 0.30064743  | 7.290628  | 3.5917186  | 6.053426e-04 | 4.796672e-03 |
| ## PDGFRL  | -0.89301487 | 6.133059  | -3.5893939 | 6.099149e-04 | 4.831064e-03 |
| ## KRT80   | 0.59437204  | 5.272548  | 3.5882770  | 6.121232e-04 | 4.846712e-03 |
| ## PRRC2C  | 0.55751343  | 7.879831  | 3.5874916  | 6.136806e-04 | 4.857171e-03 |
| ## ETV7    | 0.35115237  | 6.252910  | 3.5873758  | 6.139106e-04 | 4.857171e-03 |
| ## MOCS3   | 0.34930882  | 5.513597  | 3.5867807  | 6.150935e-04 | 4.863575e-03 |
| ## HDAC1   | 0.29539445  | 10.445988 | 3.5867337  | 6.151872e-04 | 4.863575e-03 |
| ## RBBP4   | 0.38970725  | 9.061035  | 3.5862993  | 6.160521e-04 | 4.868115e-03 |
| ## CENPK   | 0.65620340  | 6.397301  | 3.5862106  | 6.162289e-04 | 4.868115e-03 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## IL4I1     | 0.54144339  | 5.999021  | 3.5837241  | 6.212042e-04 | 4.905558e-03 |
| ## ACTR3B    | 0.29227152  | 6.539594  | 3.5832924  | 6.220717e-04 | 4.910546e-03 |
| ## ENAM      | -0.19011374 | 4.117714  | -3.5830085 | 6.226431e-04 | 4.913194e-03 |
| ## MROH8     | -0.20700151 | 5.122163  | -3.5828668 | 6.229283e-04 | 4.913583e-03 |
| ## PIRT      | -0.18052770 | 4.609276  | -3.5826956 | 6.232731e-04 | 4.914441e-03 |
| ## TRPM2     | 0.30460717  | 6.424456  | 3.5823279  | 6.240144e-04 | 4.916905e-03 |
| ## ZFP82     | -0.47757583 | 5.154911  | -3.5823064 | 6.240579e-04 | 4.916905e-03 |
| ## CRHBP     | -0.16178095 | 3.860703  | -3.5812136 | 6.262659e-04 | 4.932436e-03 |
| ## CDK7      | 0.33838587  | 8.112437  | 3.5808101  | 6.270832e-04 | 4.935986e-03 |
| ## IQGAP3    | 0.21615578  | 3.929759  | 3.5807571  | 6.271906e-04 | 4.935986e-03 |
| ## RARB      | -0.38129890 | 5.561532  | -3.5805614 | 6.275874e-04 | 4.937242e-03 |
| ## PREX2     | -0.12594693 | 3.255419  | -3.5802904 | 6.281372e-04 | 4.939701e-03 |
| ## E2F1      | 0.22682666  | 5.662599  | 3.5800381  | 6.286496e-04 | 4.941864e-03 |
| ## ZDHHC5    | 0.19276697  | 9.010451  | 3.5787900  | 6.311898e-04 | 4.959961e-03 |
| ## EVL       | -0.52524664 | 7.719206  | -3.5784988 | 6.317840e-04 | 4.962156e-03 |
| ## PDE7B     | -0.17576286 | 4.521653  | -3.5784196 | 6.319457e-04 | 4.962156e-03 |
| ## MOV10     | 0.39803725  | 7.001452  | 3.5774444  | 6.339395e-04 | 4.975935e-03 |
| ## FBX017    | -0.34797185 | 5.133285  | -3.5762048 | 6.364825e-04 | 4.994013e-03 |
| ## CELSR2    | 0.36609866  | 5.675479  | 3.5751283  | 6.386989e-04 | 5.009516e-03 |
| ## RNF139    | -0.22380863 | 8.725851  | -3.5738387 | 6.413636e-04 | 5.028522e-03 |
| ## ANKRD40   | 0.24957675  | 6.212505  | 3.5736898  | 6.416720e-04 | 5.029047e-03 |
| ## ZNF644    | 0.38091885  | 5.700248  | 3.5730882  | 6.429192e-04 | 5.035898e-03 |
| ## KRT12     | -0.12446685 | 3.467441  | -3.5730195 | 6.430619e-04 | 5.035898e-03 |
| ## SLC25A11  | 0.24506611  | 7.515293  | 3.5729184  | 6.432717e-04 | 5.035898e-03 |
| ## HILPDA    | 0.70609567  | 7.472976  | 3.5725863  | 6.439617e-04 | 5.039405e-03 |
| ## CAVIN1    | -0.58255243 | 8.252485  | -3.5723362 | 6.444815e-04 | 5.041579e-03 |
| ## CAPN8     | -1.19594553 | 8.881643  | -3.5718871 | 6.454164e-04 | 5.046997e-03 |
| ## HOXB6     | 0.18437579  | 4.142424  | 3.5715038  | 6.462153e-04 | 5.050349e-03 |
| ## POLR2E    | 0.35110236  | 8.215538  | 3.5714487  | 6.463302e-04 | 5.050349e-03 |
| ## ANXA8     | 0.39013222  | 3.613638  | 3.5699806  | 6.493989e-04 | 5.072424e-03 |
| ## ASPN      | -0.97168808 | 10.191426 | -3.5693200 | 6.507843e-04 | 5.081339e-03 |
| ## LIN7C     | 0.47333606  | 6.945354  | 3.5689063  | 6.516533e-04 | 5.086217e-03 |
| ## FIBIN     | -0.81202067 | 7.385600  | -3.5686422 | 6.522086e-04 | 5.088645e-03 |
| ## ZEB2      | -0.78127878 | 6.576190  | -3.5669335 | 6.558126e-04 | 5.114847e-03 |
| ## PEMT      | 0.28664254  | 6.960006  | 3.5665840  | 6.565521e-04 | 5.118697e-03 |
| ## TRAP1     | 0.35245896  | 8.923279  | 3.5663874  | 6.569683e-04 | 5.120025e-03 |
| ## KLHL12    | 0.34277001  | 6.352591  | 3.5660428  | 6.576988e-04 | 5.123801e-03 |
| ## PKN2      | 0.37928861  | 4.038292  | 3.5646102  | 6.607432e-04 | 5.145593e-03 |
| ## RIC1      | 0.11705157  | 3.246596  | 3.5644377  | 6.611107e-04 | 5.146531e-03 |
| ## CCNE2     | 0.60012333  | 5.736577  | 3.5629295  | 6.643318e-04 | 5.169673e-03 |
| ## PSMC3IP   | 0.20716630  | 6.424354  | 3.5625327  | 6.651819e-04 | 5.174355e-03 |
| ## ATR       | 0.27518101  | 6.587110  | 3.5609301  | 6.686254e-04 | 5.198079e-03 |
| ## HOXB7     | 0.49339515  | 6.155297  | 3.5608810  | 6.687310e-04 | 5.198079e-03 |
| ## ACD       | 0.39624095  | 7.411562  | 3.5601214  | 6.703693e-04 | 5.208869e-03 |
| ## VAV2      | 0.28880139  | 6.173788  | 3.5590893  | 6.726013e-04 | 5.222520e-03 |
| ## MFSD4B    | 0.20352516  | 4.177890  | 3.5590771  | 6.726277e-04 | 5.222520e-03 |
| ## ATP6V1A   | 0.61558564  | 7.647740  | 3.5569913  | 6.771605e-04 | 5.255755e-03 |
| ## FBXL19    | 0.22912111  | 6.623953  | 3.5565582  | 6.781053e-04 | 5.261127e-03 |
| ## TENT5A    | -0.64703532 | 9.657851  | -3.5562356 | 6.788096e-04 | 5.264630e-03 |
| ## CHRNA3    | -0.72164023 | 5.304228  | -3.5560152 | 6.792914e-04 | 5.266405e-03 |
| ## PABPC4L   | -0.50645299 | 4.506397  | -3.5557099 | 6.799593e-04 | 5.269000e-03 |
| ## SLC26A10P | -0.23879633 | 5.449262  | -3.5556309 | 6.801322e-04 | 5.269000e-03 |
| ## TAP2      | 0.51016386  | 7.136473  | 3.5553201  | 6.808130e-04 | 5.272313e-03 |
| ## ANXA10    | -1.82072446 | 10.070882 | -3.5542333 | 6.831981e-04 | 5.288817e-03 |

|               |             |          |            |              |              |
|---------------|-------------|----------|------------|--------------|--------------|
| ## PPP4R3B    | 0.33615654  | 4.280885 | 3.5507773  | 6.908363e-04 | 5.345959e-03 |
| ## UBR1       | -0.27266897 | 8.636224 | -3.5490986 | 6.945757e-04 | 5.372899e-03 |
| ## NFKBIZ     | 0.55092442  | 9.490090 | 3.5483179  | 6.963210e-04 | 5.384400e-03 |
| ## SLC12A7    | 0.28590935  | 8.899288 | 3.5461224  | 7.012523e-04 | 5.418978e-03 |
| ## CRLF3      | 0.28697319  | 8.578785 | 3.5460954  | 7.013132e-04 | 5.418978e-03 |
| ## HAUS1      | 0.40764456  | 8.006357 | 3.5455379  | 7.025706e-04 | 5.426680e-03 |
| ## SLC8B1     | 0.21640435  | 7.009389 | 3.5450880  | 7.035870e-04 | 5.432516e-03 |
| ## KAZALD1    | -0.47973189 | 5.440585 | -3.5444626 | 7.050022e-04 | 5.441425e-03 |
| ## ADAP1      | 0.39338070  | 7.208426 | 3.5440649  | 7.059037e-04 | 5.446364e-03 |
| ## POLB       | 0.32696220  | 8.796089 | 3.5438223  | 7.064539e-04 | 5.448591e-03 |
| ## PTPN12     | 0.43410980  | 9.126647 | 3.5435864  | 7.069894e-04 | 5.450703e-03 |
| ## SH3KBP1    | 0.53564995  | 8.574438 | 3.5434225  | 7.073618e-04 | 5.451555e-03 |
| ## STEAP4     | -0.40326462 | 3.852414 | -3.5432967 | 7.076477e-04 | 5.451741e-03 |
| ## HAPLN4     | -0.34698845 | 4.561850 | -3.5430484 | 7.082123e-04 | 5.454073e-03 |
| ## DOLK       | 0.25940463  | 6.875258 | 3.5428216  | 7.087284e-04 | 5.455136e-03 |
| ## APH1A      | 0.63062595  | 6.505568 | 3.5427575  | 7.088743e-04 | 5.455136e-03 |
| ## PCGF1      | 0.24025935  | 7.216854 | 3.5417296  | 7.112184e-04 | 5.471153e-03 |
| ## GAN        | 0.15353958  | 3.657189 | 3.5400300  | 7.151101e-04 | 5.499059e-03 |
| ## STEAP3     | 0.38094224  | 4.427249 | 3.5397400  | 7.157761e-04 | 5.502149e-03 |
| ## CNP        | -0.18996504 | 5.218692 | -3.5394105 | 7.165337e-04 | 5.505771e-03 |
| ## BAG4       | 0.40251247  | 4.369483 | 3.5393052  | 7.167760e-04 | 5.505771e-03 |
| ## KMT5B      | -0.37151265 | 8.812966 | -3.5389925 | 7.174958e-04 | 5.509267e-03 |
| ## TENM2      | -0.45976386 | 4.385320 | -3.5351114 | 7.264872e-04 | 5.576251e-03 |
| ## COL23A1    | -0.21612248 | 5.015818 | -3.5333459 | 7.306128e-04 | 5.603907e-03 |
| ## PRRG4      | 0.38466760  | 5.585940 | 3.5333392  | 7.306285e-04 | 5.603907e-03 |
| ## ABCC4      | 0.55358984  | 4.794905 | 3.5321990  | 7.333046e-04 | 5.621946e-03 |
| ## GPM6B      | -0.76549219 | 6.194411 | -3.5321073 | 7.335204e-04 | 5.621946e-03 |
| ## RASAL2     | 0.48763571  | 6.208677 | 3.5319106  | 7.339830e-04 | 5.623422e-03 |
| ## FTO        | -0.26028087 | 8.455235 | -3.5303220 | 7.377304e-04 | 5.649978e-03 |
| ## SLC12A2-DT | -0.55720151 | 5.863746 | -3.5302115 | 7.379918e-04 | 5.649978e-03 |
| ## NEK6       | 0.42251086  | 8.022479 | 3.5294118  | 7.398858e-04 | 5.662397e-03 |
| ## ANKRD44    | -0.71176100 | 6.770020 | -3.5290291 | 7.407937e-04 | 5.667263e-03 |
| ## DPP3       | 0.35505070  | 7.580205 | 3.5287771  | 7.413921e-04 | 5.668506e-03 |
| ## EXOC5      | 0.63043067  | 5.717816 | 3.5287314  | 7.415007e-04 | 5.668506e-03 |
| ## DNAJC10    | 0.46145103  | 8.238124 | 3.5283419  | 7.424268e-04 | 5.673503e-03 |
| ## OAS2       | 0.76610342  | 7.346661 | 3.5269616  | 7.457173e-04 | 5.696558e-03 |
| ## GUSBP1     | -0.15843941 | 3.763732 | -3.5260727 | 7.478437e-04 | 5.710707e-03 |
| ## CCDC137    | 0.34697351  | 6.853156 | 3.5256377  | 7.488863e-04 | 5.716572e-03 |
| ## TNFSF12    | -0.32063267 | 5.965212 | -3.5248772 | 7.507125e-04 | 5.726857e-03 |
| ## NAT9       | 0.19524421  | 6.943355 | 3.5248476  | 7.507837e-04 | 5.726857e-03 |
| ## AKT3       | -0.62695485 | 7.200022 | -3.5244508 | 7.517384e-04 | 5.732040e-03 |
| ## NSG2       | -0.18602569 | 4.763122 | -3.5238950 | 7.530773e-04 | 5.740147e-03 |
| ## C16orf87   | 0.33785639  | 5.375842 | 3.5235972  | 7.537959e-04 | 5.743522e-03 |
| ## NOM1       | 0.41670403  | 6.445899 | 3.5233144  | 7.544787e-04 | 5.746180e-03 |
| ## VPS13B     | 0.32004959  | 4.265137 | 3.5232242  | 7.546966e-04 | 5.746180e-03 |
| ## ZNF862     | -0.27828876 | 6.673830 | -3.5230934 | 7.550127e-04 | 5.746486e-03 |
| ## UBL7       | 0.19013072  | 7.656989 | 3.5220593  | 7.575161e-04 | 5.763433e-03 |
| ## EPM2A-DT   | -0.36389330 | 3.988678 | -3.5217051 | 7.583753e-04 | 5.767863e-03 |
| ## SIX2       | -0.80036936 | 5.620634 | -3.5214646 | 7.589594e-04 | 5.770197e-03 |
| ## MED25      | 0.42861918  | 8.174460 | 3.5213309  | 7.592842e-04 | 5.770560e-03 |
| ## KRT6B      | 0.66352880  | 6.682740 | 3.5203278  | 7.617257e-04 | 5.787003e-03 |
| ## NYNRIN     | -0.49793080 | 5.610147 | -3.5199645 | 7.626118e-04 | 5.791622e-03 |
| ## YRDC       | 0.30358747  | 7.620011 | 3.5195581  | 7.636041e-04 | 5.795431e-03 |
| ## C15orf39   | 0.29604197  | 6.268732 | 3.5195311  | 7.636699e-04 | 5.795431e-03 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## PPP1R26   | 0.33706417  | 6.988617  | 3.5191863  | 7.645130e-04 | 5.799715e-03 |
| ## TIGAR     | 0.50854225  | 7.604722  | 3.5186520  | 7.658208e-04 | 5.807521e-03 |
| ## EXOSC7    | 0.21846123  | 8.395590  | 3.5181208  | 7.671233e-04 | 5.815281e-03 |
| ## APOO      | 0.38023790  | 7.518785  | 3.5179449  | 7.675550e-04 | 5.816436e-03 |
| ## LINC01278 | -0.42424523 | 5.860751  | -3.5174579 | 7.687516e-04 | 5.823384e-03 |
| ## RASGEF1B  | 0.21393522  | 3.898329  | 3.5168488  | 7.702507e-04 | 5.832618e-03 |
| ## PRR5L     | 0.47032881  | 6.086268  | 3.5167305  | 7.705423e-04 | 5.832706e-03 |
| ## HTT       | 0.27034545  | 6.732607  | 3.5161929  | 7.718682e-04 | 5.840619e-03 |
| ## SEPSECS   | 0.41090150  | 4.671817  | 3.5154148  | 7.737910e-04 | 5.850934e-03 |
| ## RASA2     | 0.45655285  | 5.924727  | 3.5154138  | 7.737933e-04 | 5.850934e-03 |
| ## UCKL1     | 0.35519866  | 8.207156  | 3.5152104  | 7.742969e-04 | 5.852617e-03 |
| ## MEX3A     | 0.32138483  | 5.030533  | 3.5150173  | 7.747749e-04 | 5.854105e-03 |
| ## SMAD3     | 0.29584345  | 5.154648  | 3.5138047  | 7.777843e-04 | 5.874712e-03 |
| ## EEF1A1    | -0.17090066 | 5.303401  | -3.5130427 | 7.796809e-04 | 5.886902e-03 |
| ## UBALD2    | 0.35680090  | 8.387677  | 3.5128297  | 7.802120e-04 | 5.888777e-03 |
| ## CWH43     | -0.67685693 | 4.682030  | -3.5121336 | 7.819495e-04 | 5.899752e-03 |
| ## SAA4      | 0.52732080  | 5.410135  | 3.5115212  | 7.834813e-04 | 5.909169e-03 |
| ## APMAP     | 0.27240414  | 9.201870  | 3.5107658  | 7.853745e-04 | 5.921303e-03 |
| ## SLC7A11   | 0.61493802  | 4.505262  | 3.5096002  | 7.883044e-04 | 5.941242e-03 |
| ## SIGLEC11  | -0.42898326 | 3.883877  | -3.5089917 | 7.898381e-04 | 5.950647e-03 |
| ## PLOD1     | 0.35277643  | 7.933605  | 3.5076786  | 7.931574e-04 | 5.973494e-03 |
| ## LINC01614 | 0.87467759  | 4.307988  | 3.5072668  | 7.942011e-04 | 5.978560e-03 |
| ## PARP14    | 0.48258215  | 8.409797  | 3.5071866  | 7.944043e-04 | 5.978560e-03 |
| ## SYNE2     | 0.22228418  | 4.595374  | 3.5061488  | 7.970410e-04 | 5.995211e-03 |
| ## H2BC10    | 0.58894789  | 6.171158  | 3.5060892  | 7.971926e-04 | 5.995211e-03 |
| ## ENPP6     | -0.17307557 | 3.521047  | -3.5057109 | 7.981559e-04 | 6.000288e-03 |
| ## BRMS1L    | 0.26595896  | 3.929772  | 3.5046055  | 8.009771e-04 | 6.019324e-03 |
| ## FBLN2     | -0.69467989 | 7.386026  | -3.5035321 | 8.037257e-04 | 6.037573e-03 |
| ## FAM193B   | -0.25567057 | 8.140724  | -3.5034309 | 8.039852e-04 | 6.037573e-03 |
| ## SMPX      | -1.15825694 | 4.872122  | -3.5031795 | 8.046307e-04 | 6.040241e-03 |
| ## ANAPC1    | 0.28501296  | 6.839452  | 3.5021845  | 8.071890e-04 | 6.057263e-03 |
| ## PPP1R13L  | 0.44966894  | 6.523763  | 3.4990183  | 8.153819e-04 | 6.116539e-03 |
| ## ALDH3A1   | -1.23010864 | 7.498515  | -3.4979024 | 8.182880e-04 | 6.136129e-03 |
| ## RWDD1     | -0.23412331 | 9.345524  | -3.4973661 | 8.196884e-04 | 6.144417e-03 |
| ## MAPKAPK5  | 0.35883563  | 7.163320  | 3.4967740  | 8.212369e-04 | 6.153809e-03 |
| ## CLIC2     | -0.59522307 | 6.476151  | -3.4960689 | 8.230846e-04 | 6.165437e-03 |
| ## ERCC6     | 0.23434378  | 4.850436  | 3.4949042  | 8.261454e-04 | 6.184196e-03 |
| ## KLHL5     | 0.17694953  | 3.986898  | 3.4948899  | 8.261830e-04 | 6.184196e-03 |
| ## PGM1      | -0.42302861 | 9.051557  | -3.4938589 | 8.289014e-04 | 6.202315e-03 |
| ## CDH1      | 1.04444232  | 6.596155  | 3.4934295  | 8.300363e-04 | 6.208576e-03 |
| ## GLT8D2    | -0.65481057 | 7.546194  | -3.4920635 | 8.336556e-04 | 6.233409e-03 |
| ## PHYHIPL   | -0.27520141 | 4.564582  | -3.4911483 | 8.360892e-04 | 6.249362e-03 |
| ## ENOX1     | -0.51786244 | 5.084688  | -3.4903737 | 8.381539e-04 | 6.262547e-03 |
| ## LARP4B    | 0.40563568  | 7.789235  | 3.4893179  | 8.409761e-04 | 6.281380e-03 |
| ## ZBED4     | 0.46710920  | 5.966327  | 3.4889071  | 8.420765e-04 | 6.281729e-03 |
| ## G2E3      | 0.61972250  | 6.939779  | 3.4888562  | 8.422130e-04 | 6.281729e-03 |
| ## HYAL1     | -0.88534701 | 6.365933  | -3.4886545 | 8.427539e-04 | 6.281729e-03 |
| ## CENPS     | 0.43520549  | 6.582172  | 3.4886367  | 8.428017e-04 | 6.281729e-03 |
| ## FUNDC2    | -0.30683746 | 9.589352  | -3.4886253 | 8.428321e-04 | 6.281729e-03 |
| ## CCT8      | 0.21261955  | 10.351288 | 3.4886251  | 8.428328e-04 | 6.281729e-03 |
| ## OSM       | 0.27316717  | 5.145548  | 3.4872790  | 8.464516e-04 | 6.306443e-03 |
| ## TMEM263   | -0.41387090 | 9.097919  | -3.4853310 | 8.517143e-04 | 6.343383e-03 |
| ## PAIP1     | 0.45534931  | 8.564216  | 3.4850771  | 8.524027e-04 | 6.345983e-03 |
| ## IRF7      | 0.57934408  | 7.490767  | 3.4849510  | 8.527448e-04 | 6.345983e-03 |

|             |             |           |            |              |              |
|-------------|-------------|-----------|------------|--------------|--------------|
| ## IWS1     | 0.62383940  | 4.880650  | 3.4848652  | 8.529776e-04 | 6.345983e-03 |
| ## TMEM131  | -0.27226313 | 9.548657  | -3.4844411 | 8.541290e-04 | 6.350723e-03 |
| ## SGSM3    | -0.32293722 | 7.113593  | -3.4844059 | 8.542247e-04 | 6.350723e-03 |
| ## CIAPIN1  | 0.26944490  | 7.147111  | 3.4822289  | 8.601593e-04 | 6.392561e-03 |
| ## GTF2F1   | 0.33668953  | 6.817756  | 3.4819079  | 8.610378e-04 | 6.396808e-03 |
| ## FAM20A   | -0.51289628 | 5.649822  | -3.4814377 | 8.623259e-04 | 6.404092e-03 |
| ## BAZ1A    | 0.42787086  | 8.042873  | 3.4811808  | 8.630306e-04 | 6.404927e-03 |
| ## C1orf35  | 0.20591272  | 6.619876  | 3.4811724  | 8.630535e-04 | 6.404927e-03 |
| ## PIAS1    | -0.39304443 | 7.726471  | -3.4805319 | 8.648127e-04 | 6.415696e-03 |
| ## CALHM5   | -0.32270067 | 6.171521  | -3.4803512 | 8.653096e-04 | 6.417096e-03 |
| ## LOH12CR2 | -0.24695597 | 4.013178  | -3.4800952 | 8.660140e-04 | 6.420034e-03 |
| ## C4BPA    | 0.88111024  | 5.507310  | 3.4794979  | 8.676597e-04 | 6.429945e-03 |
| ## CSAG3    | 0.95373026  | 5.046580  | 3.4787203  | 8.698066e-04 | 6.443562e-03 |
| ## EMCN     | -0.55945382 | 6.586114  | -3.4777989 | 8.723570e-04 | 6.460157e-03 |
| ## C1R      | -0.60800230 | 10.042793 | -3.4740660 | 8.827621e-04 | 6.533949e-03 |
| ## CROT     | -0.35823206 | 7.732091  | -3.4739992 | 8.829492e-04 | 6.533949e-03 |
| ## GPR84    | 0.48238259  | 4.711276  | 3.4738311  | 8.834208e-04 | 6.535117e-03 |
| ## MIDEAS   | -0.26146689 | 7.051557  | -3.4726667 | 8.866927e-04 | 6.556992e-03 |
| ## PDZK1IP1 | 1.08405932  | 8.987680  | 3.4722084  | 8.879836e-04 | 6.564207e-03 |
| ## RRAGA    | -0.24808902 | 9.292929  | -3.4712794 | 8.906058e-04 | 6.581254e-03 |
| ## GHRL     | -1.22028600 | 6.570426  | -3.4709615 | 8.915049e-04 | 6.585562e-03 |
| ## PPP1R15A | 0.42696502  | 7.325015  | 3.4695024  | 8.956423e-04 | 6.613778e-03 |
| ## SPOP     | -0.38291225 | 8.585264  | -3.4692844 | 8.962621e-04 | 6.616009e-03 |
| ## CYLD     | -0.49525796 | 7.379378  | -3.4680778 | 8.996993e-04 | 6.637736e-03 |
| ## ZNF667   | -0.20111517 | 3.897278  | -3.4680275 | 8.998429e-04 | 6.637736e-03 |
| ## ST14     | 0.43006637  | 9.018305  | 3.4676847  | 9.008218e-04 | 6.640254e-03 |
| ## LRRK2    | -0.69097595 | 5.591926  | -3.4676847 | 9.008221e-04 | 6.640254e-03 |
| ## CHRDL2   | -1.03420093 | 6.547152  | -3.4671019 | 9.024888e-04 | 6.646708e-03 |
| ## GBP5     | 0.95824699  | 6.660227  | 3.4670762  | 9.025624e-04 | 6.646708e-03 |
| ## PHLDA3   | -0.41622267 | 7.167727  | -3.4669468 | 9.029328e-04 | 6.646708e-03 |
| ## ATL2     | 0.45752468  | 5.334380  | 3.4669171  | 9.030178e-04 | 6.646708e-03 |
| ## EPHA2    | 0.70118034  | 7.787756  | 3.4668209  | 9.032934e-04 | 6.646708e-03 |
| ## ZNF639   | 0.11837513  | 5.101953  | 3.4661647  | 9.051751e-04 | 6.658201e-03 |
| ## METTL15  | 0.14008679  | 3.879710  | 3.4653347  | 9.075603e-04 | 6.673389e-03 |
| ## DENND2B  | -0.42980219 | 8.410958  | -3.4648590 | 9.089304e-04 | 6.680281e-03 |
| ## ERCC3    | 0.21427682  | 7.402837  | 3.4647865  | 9.091392e-04 | 6.680281e-03 |
| ## ZNF382   | -0.19297052 | 3.739175  | -3.4645355 | 9.098628e-04 | 6.683239e-03 |
| ## KLK6     | 1.20235931  | 5.608477  | 3.4642943  | 9.105590e-04 | 6.685995e-03 |
| ## SMYD1    | -0.89372016 | 4.178549  | -3.4633917 | 9.131680e-04 | 6.702788e-03 |
| ## MAP4K2   | 0.23300219  | 5.396857  | 3.4627229  | 9.151058e-04 | 6.714645e-03 |
| ## KRTCAP3  | 0.59611198  | 7.930945  | 3.4622491  | 9.164808e-04 | 6.722365e-03 |
| ## HSPA1L   | -0.18214172 | 4.758229  | -3.4620687 | 9.170048e-04 | 6.723841e-03 |
| ## ART4     | -0.15580584 | 3.760486  | -3.4619383 | 9.173837e-04 | 6.724252e-03 |
| ## DPM2     | 0.30567351  | 7.330758  | 3.4602141  | 9.224091e-04 | 6.758707e-03 |
| ## ANKS1A   | -0.34744481 | 8.581109  | -3.4596950 | 9.239271e-04 | 6.767449e-03 |
| ## PITX2    | 0.40372844  | 3.348258  | 3.4595233  | 9.244299e-04 | 6.768751e-03 |
| ## TNS3     | 0.34958982  | 9.915940  | 3.4593729  | 9.248703e-04 | 6.769595e-03 |
| ## KPNB1    | 0.32268268  | 10.219968 | 3.4584394  | 9.276089e-04 | 6.786115e-03 |
| ## RCAN3    | 0.19375918  | 4.042046  | 3.4583815  | 9.277790e-04 | 6.786115e-03 |
| ## RNF17    | -0.15196929 | 3.836644  | -3.4579967 | 9.289102e-04 | 6.792004e-03 |
| ## ESCO1    | 0.34166457  | 8.113432  | 3.4573288  | 9.308768e-04 | 6.803994e-03 |
| ## PSMB4    | 0.26525890  | 10.613754 | 3.4569712  | 9.319315e-04 | 6.809313e-03 |
| ## BAIAP2L2 | 0.45159994  | 4.271951  | 3.4566356  | 9.329223e-04 | 6.814161e-03 |
| ## TSPAN14  | 0.31885391  | 7.908183  | 3.4560599  | 9.346241e-04 | 6.824198e-03 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## POPDC2       | -0.67309768 | 4.811889  | -3.4552639 | 9.369819e-04 | 6.836625e-03 |
| ## GEMIN7       | 0.27948516  | 7.337325  | 3.4551897  | 9.372019e-04 | 6.836625e-03 |
| ## SP2-DT       | -0.28693890 | 6.794942  | -3.4551530 | 9.373110e-04 | 6.836625e-03 |
| ## RMI1         | 0.42392625  | 7.406692  | 3.4545921  | 9.389763e-04 | 6.846373e-03 |
| ## R3HCC1L      | 0.26890285  | 4.636130  | 3.4543551  | 9.396809e-04 | 6.849113e-03 |
| ## KIF24        | 0.14317851  | 3.656033  | 3.4539502  | 9.408857e-04 | 6.855495e-03 |
| ## PAXIP1-AS2   | -0.21477588 | 4.245623  | -3.4534960 | 9.422392e-04 | 6.862410e-03 |
| ## TPM3         | 0.13609561  | 4.109882  | 3.4534106  | 9.424938e-04 | 6.862410e-03 |
| ## NABP1        | 0.30988096  | 3.785731  | 3.4530209  | 9.436567e-04 | 6.868475e-03 |
| ## KLHDC2       | -0.36331683 | 9.649452  | -3.4524648 | 9.453184e-04 | 6.878166e-03 |
| ## RPUSD4       | 0.26603131  | 8.096103  | 3.4519753  | 9.467833e-04 | 6.886419e-03 |
| ## HEPACAM2     | -1.56864876 | 5.643694  | -3.4512246 | 9.490343e-04 | 6.900380e-03 |
| ## PSME2        | 0.40269707  | 11.132010 | 3.4503843  | 9.515599e-04 | 6.916329e-03 |
| ## ROGDI        | -0.28820203 | 6.007993  | -3.4500711 | 9.525030e-04 | 6.920769e-03 |
| ## CLP1         | 0.26691555  | 7.545335  | 3.4491417  | 9.553064e-04 | 6.938716e-03 |
| ## SIGLEC6      | -0.11447182 | 3.404668  | -3.4489673 | 9.558334e-04 | 6.940124e-03 |
| ## TGDS         | 0.31478935  | 7.555692  | 3.4487285  | 9.565552e-04 | 6.942944e-03 |
| ## DNAAF3       | 0.36402231  | 4.788433  | 3.4482917  | 9.578771e-04 | 6.950116e-03 |
| ## COMMD6       | -0.24701917 | 10.544650 | -3.4479545 | 9.588991e-04 | 6.954148e-03 |
| ## HIPK3        | 0.34162970  | 4.650352  | 3.4478420  | 9.592399e-04 | 6.954148e-03 |
| ## NDUFAF4      | 0.31470611  | 8.020638  | 3.4477778  | 9.594346e-04 | 6.954148e-03 |
| ## RPUSD1       | 0.20666875  | 6.223461  | 3.4472093  | 9.611603e-04 | 6.964232e-03 |
| ## IL6ST        | -0.56236374 | 7.705950  | -3.4469384 | 9.619836e-04 | 6.966511e-03 |
| ## FERMT1       | 0.76078454  | 9.305296  | 3.4468857  | 9.621440e-04 | 6.966511e-03 |
| ## FRMD5        | 0.38322830  | 5.055044  | 3.4466410  | 9.628883e-04 | 6.969477e-03 |
| ## ZFP64        | 0.25942538  | 8.198354  | 3.4464433  | 9.634902e-04 | 6.969987e-03 |
| ## BBC3         | 0.25456945  | 6.743509  | 3.4463980  | 9.636281e-04 | 6.969987e-03 |
| ## GPS1         | 0.21806296  | 7.632194  | 3.4462257  | 9.641531e-04 | 6.970673e-03 |
| ## FPGS         | 0.26301450  | 7.102882  | 3.4461472  | 9.643925e-04 | 6.970673e-03 |
| ## F11R         | 0.64899101  | 8.547455  | 3.4456948  | 9.657722e-04 | 6.978224e-03 |
| ## HLA-J        | 0.39227315  | 10.435131 | 3.4450202  | 9.678329e-04 | 6.990687e-03 |
| ## PPRC1        | 0.31300328  | 7.408286  | 3.4446614  | 9.689309e-04 | 6.996192e-03 |
| ## CHST10       | -0.22852657 | 5.767820  | -3.4445008 | 9.694227e-04 | 6.997316e-03 |
| ## PLCD4        | -0.29757726 | 4.177151  | -3.4443644 | 9.698405e-04 | 6.997907e-03 |
| ## EGLN1        | 0.32976676  | 6.778642  | 3.4438973  | 9.712727e-04 | 7.005813e-03 |
| ## NUP43        | 0.25154811  | 9.035615  | 3.4432190  | 9.733560e-04 | 7.018409e-03 |
| ## SLC25A10     | 0.32525028  | 6.092847  | 3.4403816  | 9.821168e-04 | 7.079128e-03 |
| ## ZNHIT3       | 0.28218238  | 8.385855  | 3.4402005  | 9.826786e-04 | 7.080726e-03 |
| ## VEGFA        | 0.46854883  | 10.491866 | 3.4382424  | 9.887714e-04 | 7.122164e-03 |
| ## PMP2         | -0.19564148 | 3.687497  | -3.4378393 | 9.900298e-04 | 7.128620e-03 |
| ## FBXL6        | 0.40197771  | 6.733609  | 3.4377361  | 9.903523e-04 | 7.128620e-03 |
| ## ARNT         | 0.22773634  | 4.608173  | 3.4372427  | 9.918955e-04 | 7.137260e-03 |
| ## PRORP        | 0.28134936  | 8.204663  | 3.4357246  | 9.966578e-04 | 7.166684e-03 |
| ## TMEM130      | -0.26946022 | 4.170563  | -3.4357198 | 9.966729e-04 | 7.166684e-03 |
| ## ARHGEF19     | 0.27184468  | 6.115787  | 3.4351688  | 9.984070e-04 | 7.176675e-03 |
| ## MALSU1       | 0.23189694  | 9.639946  | 3.4336088  | 1.003331e-03 | 7.209583e-03 |
| ## LOC101928409 | -0.48770520 | 4.801411  | -3.4322658 | 1.007589e-03 | 7.237680e-03 |
| ## PPP1R12C     | -0.28745548 | 7.121255  | -3.4317524 | 1.009221e-03 | 7.246906e-03 |
| ## HERC1        | -0.30587182 | 8.356940  | -3.4307410 | 1.012444e-03 | 7.267540e-03 |
| ## CISD2        | 0.33167191  | 6.472169  | 3.4303941  | 1.013552e-03 | 7.272620e-03 |
| ## S1PR3        | -0.70810613 | 7.519479  | -3.4303007 | 1.013850e-03 | 7.272620e-03 |
| ## ARMC6        | 0.20239266  | 6.543387  | 3.4296944  | 1.015789e-03 | 7.284019e-03 |
| ## KANK3        | -0.25038874 | 5.305584  | -3.4291759 | 1.017450e-03 | 7.293419e-03 |
| ## SNORD114-3   | -0.36232857 | 4.023092  | -3.4288718 | 1.018426e-03 | 7.297898e-03 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## SUN2      | -0.23403436 | 8.306239  | -3.4286792 | 1.019044e-03 | 7.299818e-03 |
| ## NMB       | 0.38611800  | 7.148181  | 3.4279596  | 1.021357e-03 | 7.313871e-03 |
| ## S100A2    | 1.02582368  | 6.000379  | 3.4267659  | 1.025205e-03 | 7.338902e-03 |
| ## ZNF589    | -0.11925713 | 4.177909  | -3.4250701 | 1.030695e-03 | 7.375666e-03 |
| ## TREM1     | 0.75489402  | 6.246960  | 3.4240471  | 1.034020e-03 | 7.396919e-03 |
| ## TLR5      | -0.42041319 | 6.573356  | -3.4238617 | 1.034624e-03 | 7.398697e-03 |
| ## PDE12     | 0.44894772  | 5.724357  | 3.4235393  | 1.035674e-03 | 7.403667e-03 |
| ## SLC25A34  | -0.35630650 | 5.200151  | -3.4231114 | 1.037070e-03 | 7.411104e-03 |
| ## FLNA      | -0.73460008 | 9.944419  | -3.4229161 | 1.037708e-03 | 7.413116e-03 |
| ## TMEM102   | 0.20125018  | 4.993466  | 3.4219921  | 1.040730e-03 | 7.431627e-03 |
| ## MOSPD2    | 0.34774355  | 6.977479  | 3.4219058  | 1.041013e-03 | 7.431627e-03 |
| ## FAXC      | -0.18685251 | 3.462952  | -3.4214065 | 1.042650e-03 | 7.440763e-03 |
| ## NFKB2     | 0.37948886  | 7.210085  | 3.4184004  | 1.052558e-03 | 7.508448e-03 |
| ## FCRL2     | -0.49756870 | 4.934269  | -3.4183104 | 1.052856e-03 | 7.508448e-03 |
| ## ZFP2      | -0.22686109 | 4.006192  | -3.4176908 | 1.054909e-03 | 7.520517e-03 |
| ## S100A16   | 0.53686746  | 10.556724 | 3.4169292  | 1.057439e-03 | 7.535972e-03 |
| ## ATPAF1    | -0.34311145 | 6.531583  | -3.4162789 | 1.059603e-03 | 7.548812e-03 |
| ## FGD3      | 0.20940702  | 4.113038  | 3.4160017  | 1.060527e-03 | 7.551472e-03 |
| ## MRPS11    | 0.25069615  | 8.377399  | 3.4159493  | 1.060702e-03 | 7.551472e-03 |
| ## GPC3      | -1.14043964 | 6.286269  | -3.4157844 | 1.061252e-03 | 7.552806e-03 |
| ## RELT      | 0.21672391  | 6.247444  | 3.4144080  | 1.065854e-03 | 7.582964e-03 |
| ## SNHG7     | 0.27965573  | 5.103841  | 3.4138058  | 1.067873e-03 | 7.594736e-03 |
| ## NDUFS2    | 0.27661263  | 9.712394  | 3.4134513  | 1.069063e-03 | 7.600604e-03 |
| ## ALG8      | 0.33638756  | 8.221530  | 3.4129658  | 1.070696e-03 | 7.608895e-03 |
| ## SRSF10    | 0.31492502  | 7.239813  | 3.4128872  | 1.070960e-03 | 7.608895e-03 |
| ## ETV4      | 0.54896947  | 6.482713  | 3.4126820  | 1.071651e-03 | 7.611206e-03 |
| ## FGFR2     | -0.78107090 | 8.218594  | -3.4117384 | 1.074833e-03 | 7.627952e-03 |
| ## TAF1A     | 0.46391396  | 5.383400  | 3.4117036  | 1.074950e-03 | 7.627952e-03 |
| ## TMPO-AS1  | 0.16626257  | 3.820644  | 3.4116570  | 1.075107e-03 | 7.627952e-03 |
| ## MRPS16    | 0.35430735  | 8.443883  | 3.4113253  | 1.076228e-03 | 7.633303e-03 |
| ## CT83      | 1.36169300  | 4.959814  | 3.4107309  | 1.078240e-03 | 7.644965e-03 |
| ## MTFMT     | 0.33643244  | 5.651965  | 3.4104720  | 1.079117e-03 | 7.646525e-03 |
| ## CHST11    | 0.48482779  | 5.733971  | 3.4104492  | 1.079194e-03 | 7.646525e-03 |
| ## BHLHE22   | -0.64563508 | 5.749481  | -3.4096974 | 1.081745e-03 | 7.661996e-03 |
| ## RNF213    | 0.44677392  | 9.324967  | 3.4090247  | 1.084033e-03 | 7.673083e-03 |
| ## UBE2Q2P13 | -0.21834489 | 4.331255  | -3.4090204 | 1.084048e-03 | 7.673083e-03 |
| ## LRRC66    | -0.85975792 | 5.212097  | -3.4080085 | 1.087497e-03 | 7.694884e-03 |
| ## RNF112    | -0.28195752 | 4.429465  | -3.4063800 | 1.093071e-03 | 7.731695e-03 |
| ## DDOST     | 0.30174987  | 9.805016  | 3.4057772  | 1.095141e-03 | 7.743708e-03 |
| ## GFRA3     | -0.19585287 | 5.095983  | -3.4049387 | 1.098026e-03 | 7.761474e-03 |
| ## DUSP5P1   | 0.13888213  | 3.365489  | 3.4035226  | 1.102916e-03 | 7.793391e-03 |
| ## FAM241A   | -0.52744770 | 7.926189  | -3.4033640 | 1.103465e-03 | 7.794624e-03 |
| ## SMIM10    | -0.15806356 | 4.119513  | -3.4028178 | 1.105357e-03 | 7.805344e-03 |
| ## GNLY      | 0.72915719  | 5.740101  | 3.4019427  | 1.108395e-03 | 7.822048e-03 |
| ## NRM       | 0.36554709  | 7.423798  | 3.4018299  | 1.108787e-03 | 7.822048e-03 |
| ## MEA1      | 0.40495259  | 9.396637  | 3.4018120  | 1.108850e-03 | 7.822048e-03 |
| ## CRYBG2    | 0.55581143  | 5.978586  | 3.4012014  | 1.110975e-03 | 7.834387e-03 |
| ## KNOP1     | 0.28799492  | 6.746670  | 3.4009252  | 1.111938e-03 | 7.838521e-03 |
| ## DDR1      | 0.34393339  | 9.771545  | 3.4003221  | 1.114042e-03 | 7.850699e-03 |
| ## TLE1      | 0.17052127  | 5.667469  | 3.3999903  | 1.115202e-03 | 7.856212e-03 |
| ## POLR2C    | 0.24026035  | 8.592656  | 3.3989087  | 1.118990e-03 | 7.880229e-03 |
| ## PDGFD     | -0.82081511 | 7.137353  | -3.3985275 | 1.120328e-03 | 7.886986e-03 |
| ## PCGF3     | 0.28503267  | 6.315721  | 3.3983400  | 1.120986e-03 | 7.888955e-03 |
| ## SPEN      | 0.22525772  | 4.973926  | 3.3980101  | 1.122146e-03 | 7.894449e-03 |

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|--------------|-------------|-----------|------------|--------------|--------------|
| ## ZKSCAN5   | 0.30750745  | 5.545221  | 3.3969908  | 1.125736e-03 | 7.916353e-03 |
| ## PLCB4     | -0.96166466 | 7.553435  | -3.3969104 | 1.126020e-03 | 7.916353e-03 |
| ## C18orf25  | 0.14548930  | 4.332305  | 3.3965583  | 1.127263e-03 | 7.922416e-03 |
| ## NCOA4     | -0.23859583 | 11.210988 | -3.3962239 | 1.128444e-03 | 7.928045e-03 |
| ## RCVRN     | -0.21886223 | 4.369095  | -3.3958669 | 1.129707e-03 | 7.934241e-03 |
| ## ANGPTL6   | -0.22661770 | 5.428082  | -3.3953402 | 1.131573e-03 | 7.944664e-03 |
| ## GPR158    | 0.65097026  | 4.677501  | 3.3949741  | 1.132871e-03 | 7.951100e-03 |
| ## LAMA4     | -0.47978544 | 8.710530  | -3.3948207 | 1.133416e-03 | 7.952242e-03 |
| ## RTCA      | 0.34218259  | 8.484598  | 3.3945707  | 1.134304e-03 | 7.955790e-03 |
| ## MRPL39    | 0.32849996  | 8.174655  | 3.3943869  | 1.134957e-03 | 7.956366e-03 |
| ## HCG18     | 0.22863727  | 4.891157  | 3.3943326  | 1.135150e-03 | 7.956366e-03 |
| ## PLIN3     | 0.39900900  | 8.945217  | 3.3937090  | 1.137369e-03 | 7.969239e-03 |
| ## NOS2      | 0.41495369  | 5.353538  | 3.3934349  | 1.138346e-03 | 7.971842e-03 |
| ## UQCRQ     | -0.25010670 | 11.241147 | -3.3933899 | 1.138506e-03 | 7.971842e-03 |
| ## CDC42EP3  | -0.73693645 | 6.744624  | -3.3929027 | 1.140245e-03 | 7.981329e-03 |
| ## SLC49A4   | 0.40781411  | 7.774828  | 3.3916342  | 1.144782e-03 | 8.010398e-03 |
| ## RBMS2     | 0.34115632  | 5.835134  | 3.3912960  | 1.145995e-03 | 8.016190e-03 |
| ## EDEM2     | 0.29370884  | 7.445833  | 3.3906149  | 1.148441e-03 | 8.030603e-03 |
| ## TMEM266   | -0.16163640 | 4.039114  | -3.3904283 | 1.149112e-03 | 8.032597e-03 |
| ## SUPT3H    | 0.30447005  | 6.259453  | 3.3899974  | 1.150663e-03 | 8.040739e-03 |
| ## RRP12     | -0.13317654 | 4.337110  | -3.3897475 | 1.151563e-03 | 8.044330e-03 |
| ## HACD3     | 0.51943796  | 8.049891  | 3.3886774  | 1.155426e-03 | 8.065806e-03 |
| ## PDP1      | 0.60918860  | 7.285747  | 3.3886671  | 1.155463e-03 | 8.065806e-03 |
| ## SLC7A3    | -0.19151203 | 3.932478  | -3.3885383 | 1.155929e-03 | 8.065806e-03 |
| ## ACLY      | 0.33500962  | 7.676577  | 3.3884670  | 1.156187e-03 | 8.065806e-03 |
| ## CTSZ      | 0.49114109  | 5.868337  | 3.3876857  | 1.159016e-03 | 8.082839e-03 |
| ## BMP6      | -0.42843700 | 5.451253  | -3.3874473 | 1.159881e-03 | 8.086161e-03 |
| ## NFKBIB    | 0.24665903  | 7.075520  | 3.3868037  | 1.162218e-03 | 8.099745e-03 |
| ## CREB3L1   | -0.72127110 | 8.501532  | -3.3863287 | 1.163946e-03 | 8.109074e-03 |
| ## FAT1      | 0.42039821  | 9.328033  | 3.3854358  | 1.167201e-03 | 8.129031e-03 |
| ## GEMIN5    | 0.32799927  | 7.406685  | 3.3847397  | 1.169745e-03 | 8.144022e-03 |
| ## MYL4      | -0.14687436 | 4.959219  | -3.3838437 | 1.173027e-03 | 8.163934e-03 |
| ## CEP97     | 0.19028032  | 4.137217  | 3.3837448  | 1.173389e-03 | 8.163934e-03 |
| ## ZNF146    | 0.42772036  | 6.993791  | 3.3835157  | 1.174230e-03 | 8.167057e-03 |
| ## ARMCX2    | -0.66367660 | 7.640476  | -3.3833047 | 1.175005e-03 | 8.169716e-03 |
| ## ARL14     | -1.29616674 | 8.497889  | -3.3830398 | 1.175978e-03 | 8.173755e-03 |
| ## PDZD8     | 0.41327876  | 8.043511  | 3.3829136  | 1.176442e-03 | 8.174251e-03 |
| ## TSPYL4    | -0.43587207 | 8.106559  | -3.3823008 | 1.178698e-03 | 8.185662e-03 |
| ## CYP46A1   | -0.18478952 | 4.359212  | -3.3822539 | 1.178871e-03 | 8.185662e-03 |
| ## DUSP19    | -0.34756977 | 3.698995  | -3.3811080 | 1.183100e-03 | 8.212288e-03 |
| ## NT5C3A    | 0.42077532  | 9.102934  | 3.3809405  | 1.183719e-03 | 8.213852e-03 |
| ## COP1      | 0.30713480  | 7.956844  | 3.3807585  | 1.184392e-03 | 8.215785e-03 |
| ## CGGBP1    | 0.34973188  | 7.668689  | 3.3805825  | 1.185044e-03 | 8.217568e-03 |
| ## GBP1      | 0.76736474  | 9.179339  | 3.3804217  | 1.185640e-03 | 8.218961e-03 |
| ## TBCC      | 0.32235360  | 7.901773  | 3.3796788  | 1.188395e-03 | 8.235318e-03 |
| ## ATG7      | 0.21949215  | 4.019056  | 3.3793744  | 1.189525e-03 | 8.238423e-03 |
| ## GABPA     | 0.36551594  | 5.579053  | 3.3793452  | 1.189634e-03 | 8.238423e-03 |
| ## HOXC6     | 1.30297756  | 7.031038  | 3.3785291  | 1.192670e-03 | 8.256704e-03 |
| ## SPINK13   | -0.35934903 | 4.289189  | -3.3750418 | 1.205728e-03 | 8.343109e-03 |
| ## GTF2H4    | 0.32852217  | 6.415167  | 3.3749822  | 1.205953e-03 | 8.343109e-03 |
| ## LINC01943 | 0.39305242  | 4.899928  | 3.3735423  | 1.211384e-03 | 8.377903e-03 |
| ## PRUNE2    | -1.00269989 | 4.959130  | -3.3729265 | 1.213714e-03 | 8.388883e-03 |
| ## ACOT13    | 0.39461626  | 7.540639  | 3.3729098  | 1.213778e-03 | 8.388883e-03 |
| ## MLKL      | 0.32002671  | 8.021062  | 3.3725303  | 1.215216e-03 | 8.396036e-03 |



|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## QRICH1     | 0.15254422  | 8.319131  | 3.3718185  | 1.217917e-03 | 8.410450e-03 |
| ## LSM8       | 0.24129047  | 9.025517  | 3.3717679  | 1.218110e-03 | 8.410450e-03 |
| ## MAP7D2     | -0.96798482 | 5.225706  | -3.3713458 | 1.219715e-03 | 8.418742e-03 |
| ## ADPGK      | 0.24234216  | 8.839634  | 3.3707697  | 1.221909e-03 | 8.430446e-03 |
| ## FBX06      | 0.68058227  | 7.216589  | 3.3706879  | 1.222220e-03 | 8.430446e-03 |
| ## AP1S1      | 0.59768788  | 5.501425  | 3.3700398  | 1.224693e-03 | 8.444708e-03 |
| ## SLC25A45   | -0.18421462 | 3.502834  | -3.3695376 | 1.226613e-03 | 8.455145e-03 |
| ## DNAJB5     | -0.50036556 | 4.711429  | -3.3692413 | 1.227747e-03 | 8.460161e-03 |
| ## KBTBD12    | -0.51617144 | 4.518903  | -3.3688126 | 1.229389e-03 | 8.468674e-03 |
| ## WDR45B     | 0.24951150  | 9.556498  | 3.3685121  | 1.230542e-03 | 8.473810e-03 |
| ## ERVMER34-1 | 0.36926516  | 4.368715  | 3.3676610  | 1.233811e-03 | 8.493517e-03 |
| ## ATP8B4     | -0.42802933 | 4.397720  | -3.3671199 | 1.235894e-03 | 8.505043e-03 |
| ## PCF11      | -0.35272287 | 7.597297  | -3.3668131 | 1.237077e-03 | 8.510368e-03 |
| ## PLEKHG6    | 0.42575796  | 6.656590  | 3.3664782  | 1.238369e-03 | 8.513763e-03 |
| ## NINJ2-AS1  | -0.42256621 | 6.315924  | -3.3664733 | 1.238388e-03 | 8.513763e-03 |
| ## GLA        | 0.41064969  | 8.398436  | 3.3661139  | 1.239775e-03 | 8.520490e-03 |
| ## GEMIN4     | 0.35102988  | 6.593504  | 3.3646049  | 1.245619e-03 | 8.557826e-03 |
| ## CFAP91     | -0.18726873 | 3.834957  | -3.3630937 | 1.251497e-03 | 8.593964e-03 |
| ## PSENN      | 0.52205824  | 7.419245  | 3.3630405  | 1.251704e-03 | 8.593964e-03 |
| ## ZNF615     | -0.43797246 | 6.071903  | -3.3629178 | 1.252183e-03 | 8.594416e-03 |
| ## TRIL       | -0.65446812 | 5.253295  | -3.3627205 | 1.252953e-03 | 8.596867e-03 |
| ## SGSM1      | -0.14592225 | 4.886940  | -3.3614883 | 1.257771e-03 | 8.627080e-03 |
| ## APEX2      | 0.28303714  | 7.035073  | 3.3605123  | 1.261599e-03 | 8.650487e-03 |
| ## TTC7B      | -0.49041284 | 6.160988  | -3.3597645 | 1.264539e-03 | 8.667796e-03 |
| ## THSD7B     | -0.50260566 | 4.353677  | -3.3594963 | 1.265595e-03 | 8.672181e-03 |
| ## SYNGR2     | 0.34686458  | 9.689188  | 3.3587589  | 1.268503e-03 | 8.689249e-03 |
| ## RBCK1      | 0.32609267  | 7.149307  | 3.3586379  | 1.268981e-03 | 8.689664e-03 |
| ## SIPA1L1    | -0.38076483 | 5.613765  | -3.3579330 | 1.271768e-03 | 8.705886e-03 |
| ## ADSL       | 0.26435286  | 9.095256  | 3.3574046  | 1.273861e-03 | 8.717348e-03 |
| ## LRRC3B     | -0.10945446 | 3.467814  | -3.3571213 | 1.274985e-03 | 8.722170e-03 |
| ## ATP13A2    | 0.37582789  | 6.324013  | 3.3568687  | 1.275988e-03 | 8.726163e-03 |
| ## GAP43      | -0.57400417 | 3.753440  | -3.3567619 | 1.276411e-03 | 8.726195e-03 |
| ## SPOPL      | -0.27726187 | 8.784129  | -3.3554973 | 1.281443e-03 | 8.757720e-03 |
| ## CARMIL1    | 0.13162474  | 3.573955  | 3.3553537  | 1.282016e-03 | 8.758757e-03 |
| ## RBMS3-AS3  | -0.09575809 | 3.374978  | -3.3542955 | 1.286242e-03 | 8.784753e-03 |
| ## CPLANE1    | 0.13000921  | 3.432509  | 3.3529014  | 1.291831e-03 | 8.820026e-03 |
| ## ZNF593     | 0.40978220  | 8.109799  | 3.3522154  | 1.294589e-03 | 8.834115e-03 |
| ## CTSB       | 0.53074178  | 11.176673 | 3.3520806  | 1.295131e-03 | 8.834115e-03 |
| ## HNRNPA0    | -0.26902402 | 9.980787  | -3.3520718 | 1.295167e-03 | 8.834115e-03 |
| ## CNOT6      | 0.27765354  | 7.797130  | 3.3519083  | 1.295825e-03 | 8.835711e-03 |
| ## SEC24A     | -0.33364866 | 9.520463  | -3.3515909 | 1.297104e-03 | 8.839506e-03 |
| ## DDX27      | 0.26283184  | 8.685430  | 3.3514695  | 1.297594e-03 | 8.839506e-03 |
| ## TFRC       | 0.57051205  | 11.137657 | 3.3514543  | 1.297655e-03 | 8.839506e-03 |
| ## ARDC3      | -0.43789621 | 8.542610  | -3.3499073 | 1.303910e-03 | 8.879206e-03 |
| ## UBL4A      | 0.27494104  | 7.958450  | 3.3493048  | 1.306353e-03 | 8.892937e-03 |
| ## ZNF211     | -0.42565053 | 7.283073  | -3.3489898 | 1.307632e-03 | 8.898670e-03 |
| ## ECD        | 0.23305448  | 7.627035  | 3.3488871  | 1.308050e-03 | 8.898670e-03 |
| ## PIK3R1     | -0.48874710 | 7.754141  | -3.3478701 | 1.312189e-03 | 8.923915e-03 |
| ## REEP2      | -0.20944984 | 6.208169  | -3.3473728 | 1.314218e-03 | 8.934793e-03 |
| ## OPCML      | -0.14569460 | 4.052960  | -3.3464887 | 1.317831e-03 | 8.954009e-03 |
| ## SLC5A5     | -0.23319664 | 6.344747  | -3.3464710 | 1.317904e-03 | 8.954009e-03 |
| ## PKIB       | -1.14847264 | 6.863414  | -3.3458578 | 1.320416e-03 | 8.968150e-03 |
| ## NKD2       | 0.29793852  | 6.021213  | 3.3455698  | 1.321597e-03 | 8.973246e-03 |
| ## CARM1      | 0.36900420  | 6.770005  | 3.3437193  | 1.329212e-03 | 9.022007e-03 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ABITRAM      | 0.28011357  | 8.398142  | 3.3419814  | 1.336402e-03 | 9.067848e-03 |
| ## MLIP         | -0.19781387 | 4.089978  | -3.3408665 | 1.341033e-03 | 9.096307e-03 |
| ## NIM1K        | -0.16574198 | 4.318099  | -3.3400645 | 1.344373e-03 | 9.115997e-03 |
| ## CMTM5        | -0.18978301 | 5.701396  | -3.3398598 | 1.345227e-03 | 9.118819e-03 |
| ## EXOSC4       | 0.37497692  | 8.288892  | 3.3395853  | 1.346373e-03 | 9.123619e-03 |
| ## BRINP3       | -0.20269887 | 3.335907  | -3.3391159 | 1.348335e-03 | 9.133938e-03 |
| ## LOC100505728 | 0.43636358  | 4.272355  | 3.3389008  | 1.349235e-03 | 9.137063e-03 |
| ## ZC3H6        | -0.38025171 | 6.757701  | -3.3382863 | 1.351809e-03 | 9.149265e-03 |
| ## SFN          | 0.69023704  | 7.216420  | 3.3382608  | 1.351916e-03 | 9.149265e-03 |
| ## TRIM21       | 0.30846221  | 7.292887  | 3.3379939  | 1.353035e-03 | 9.153866e-03 |
| ## POT1         | 0.35691531  | 6.765550  | 3.3368085  | 1.358017e-03 | 9.182581e-03 |
| ## ZNF485       | 0.26920443  | 3.811965  | 3.3367161  | 1.358406e-03 | 9.182581e-03 |
| ## HSPA12B      | -0.36782985 | 5.798215  | -3.3366696 | 1.358602e-03 | 9.182581e-03 |
| ## TUFM         | 0.24488510  | 10.104638 | 3.3351545  | 1.364998e-03 | 9.221336e-03 |
| ## HMGN4        | 0.22215714  | 9.774013  | 3.3351016  | 1.365222e-03 | 9.221336e-03 |
| ## IKBKE        | 0.28652606  | 6.610561  | 3.3348750  | 1.366181e-03 | 9.224822e-03 |
| ## ZNF668       | 0.20552771  | 5.485590  | 3.3345571  | 1.367528e-03 | 9.230922e-03 |
| ## NFATC2IP     | 0.38708725  | 6.667526  | 3.3339111  | 1.370268e-03 | 9.246422e-03 |
| ## KCNJ16       | -1.52531934 | 5.457148  | -3.3335214 | 1.371924e-03 | 9.254597e-03 |
| ## DYNLRB2      | -0.13274252 | 3.516317  | -3.3328809 | 1.374649e-03 | 9.269977e-03 |
| ## PCSK2        | -0.26315838 | 3.474289  | -3.3326556 | 1.375609e-03 | 9.273448e-03 |
| ## AGT          | -1.06743782 | 8.014124  | -3.3305575 | 1.384577e-03 | 9.330887e-03 |
| ## SNAP91       | -0.17294683 | 3.796889  | -3.3299390 | 1.387232e-03 | 9.345753e-03 |
| ## KLF10        | -0.35646990 | 9.440235  | -3.3296138 | 1.388629e-03 | 9.352141e-03 |
| ## DHRS7        | -0.48370693 | 9.763298  | -3.3264508 | 1.402292e-03 | 9.441104e-03 |
| ## GPM6A        | -0.68203073 | 3.977442  | -3.3258151 | 1.405053e-03 | 9.456636e-03 |
| ## RAB8B        | 0.35299598  | 6.245959  | 3.3253253  | 1.407184e-03 | 9.467918e-03 |
| ## FANCB        | 0.13339745  | 3.503603  | 3.3234324  | 1.415448e-03 | 9.520445e-03 |
| ## DEPTOR       | -0.74937799 | 8.563205  | -3.3227918 | 1.418255e-03 | 9.536245e-03 |
| ## GTF2A2       | 0.27301557  | 9.293397  | 3.3221019  | 1.421285e-03 | 9.553130e-03 |
| ## TMEM141      | 0.30418892  | 7.492990  | 3.3220110  | 1.421684e-03 | 9.553130e-03 |
| ## KBTBD3       | -0.24606630 | 4.848498  | -3.3216350 | 1.423338e-03 | 9.561157e-03 |
| ## CKMT2-AS1    | -0.38455355 | 5.313165  | -3.3205776 | 1.427999e-03 | 9.589372e-03 |
| ## SMARCC2      | 0.39496941  | 4.482215  | 3.3203551  | 1.428981e-03 | 9.590263e-03 |
| ## ABCC10       | 0.34338075  | 7.705120  | 3.3202390  | 1.429494e-03 | 9.590263e-03 |
| ## PARP9        | 0.50095240  | 8.659560  | 3.3202347  | 1.429513e-03 | 9.590263e-03 |
| ## NOC2L        | 0.29992629  | 4.384013  | 3.3201096  | 1.430066e-03 | 9.590882e-03 |
| ## PARS2        | 0.19550792  | 6.096155  | 3.3187009  | 1.436306e-03 | 9.629630e-03 |
| ## HDDC3        | 0.27397653  | 7.329811  | 3.3185768  | 1.436856e-03 | 9.630222e-03 |
| ## NEU1         | 0.61863110  | 7.904345  | 3.3184345  | 1.437488e-03 | 9.631358e-03 |
| ## CLNS1A       | 0.29248857  | 9.560623  | 3.3183292  | 1.437956e-03 | 9.631393e-03 |
| ## AUP1         | 0.19695294  | 9.181945  | 3.3180590  | 1.439157e-03 | 9.636338e-03 |
| ## PTPRU        | 0.27658167  | 6.402246  | 3.3175052  | 1.441622e-03 | 9.649738e-03 |
| ## ACTR3        | 0.24205304  | 10.950740 | 3.3168054  | 1.444742e-03 | 9.667516e-03 |
| ## TOMM5        | 0.30222449  | 9.875691  | 3.3162358  | 1.447286e-03 | 9.681430e-03 |
| ## NUB1         | 0.42052521  | 5.670869  | 3.3152205  | 1.451832e-03 | 9.708719e-03 |
| ## PPP2R1A      | 0.21803876  | 8.963129  | 3.3146249  | 1.454505e-03 | 9.723469e-03 |
| ## SRI          | -0.56533879 | 6.142078  | -3.3143733 | 1.455635e-03 | 9.725444e-03 |
| ## CHCHD1       | 0.26551289  | 9.058790  | 3.3143513  | 1.455734e-03 | 9.725444e-03 |
| ## BHMT         | -0.47527907 | 4.617722  | -3.3138338 | 1.458062e-03 | 9.737872e-03 |
| ## PSME4        | 0.28807000  | 8.307332  | 3.3131185  | 1.461285e-03 | 9.756270e-03 |
| ## NR2F6        | 0.26069196  | 6.258344  | 3.3124413  | 1.464343e-03 | 9.773553e-03 |
| ## ZNF74        | 0.23771102  | 5.196092  | 3.3119959  | 1.466358e-03 | 9.782040e-03 |
| ## VAC14        | 0.21943336  | 5.600986  | 3.3119525  | 1.466554e-03 | 9.782040e-03 |

|                |             |          |            |              |              |
|----------------|-------------|----------|------------|--------------|--------------|
| ## LRRC49      | -0.41922347 | 5.355795 | -3.3114366 | 1.468891e-03 | 9.794490e-03 |
| ## NELFE       | 0.25815011  | 9.081340 | 3.3111265  | 1.470298e-03 | 9.800731e-03 |
| ## CFAP298     | 0.22339890  | 8.479665 | 3.3108226  | 1.471677e-03 | 9.806786e-03 |
| ## BPNT1       | 0.44432996  | 5.896350 | 3.3095661  | 1.477394e-03 | 9.841731e-03 |
| ## BAZ2B       | -0.35792621 | 8.472664 | -3.3093335 | 1.478454e-03 | 9.843168e-03 |
| ## MIOS-DT     | -0.25565495 | 3.758318 | -3.3093115 | 1.478555e-03 | 9.843168e-03 |
| ## GMCL1       | 0.31329759  | 7.504949 | 3.3090318  | 1.479831e-03 | 9.848516e-03 |
| ## SLC25A40    | 0.28786528  | 6.260735 | 3.3088385  | 1.480714e-03 | 9.851242e-03 |
| ## GFRA1       | -0.32836019 | 3.823878 | -3.3070651 | 1.488835e-03 | 9.902108e-03 |
| ## UACA        | 0.28876848  | 4.320523 | 3.3068383  | 1.489876e-03 | 9.905791e-03 |
| ## CNN3-DT     | -0.35270142 | 4.811744 | -3.3067374 | 1.490340e-03 | 9.905791e-03 |
| ## YAF2        | 0.27200182  | 6.027904 | 3.3062659  | 1.492508e-03 | 9.917036e-03 |
| ## PPP1R26-AS1 | 0.18407734  | 3.984837 | 3.3058281  | 1.494524e-03 | 9.927265e-03 |
| ## P4HB        | 0.53805171  | 9.233470 | 3.3053077  | 1.496924e-03 | 9.940034e-03 |
| ## ACTR5       | 0.27917432  | 6.889804 | 3.3041310  | 1.502363e-03 | 9.972972e-03 |
| ## JADE3       | 0.42628751  | 6.407084 | 3.3035538  | 1.505038e-03 | 9.987545e-03 |
| ## PAK6        | 0.43840851  | 5.714938 | 3.3021340  | 1.511637e-03 | 1.002814e-02 |
| ## ADAM28      | -0.89284188 | 8.362928 | -3.3019417 | 1.512533e-03 | 1.003089e-02 |
| ## RAD51D      | 0.23927401  | 5.798120 | 3.3004868  | 1.519327e-03 | 1.007274e-02 |
| ## ZBTB24      | 0.31810672  | 4.198783 | 3.2998367  | 1.522372e-03 | 1.008748e-02 |
| ## SMC3        | 0.19113657  | 3.791327 | 3.2998051  | 1.522520e-03 | 1.008748e-02 |
| ## CYBRD1      | -0.72334902 | 6.768097 | -3.2989164 | 1.526693e-03 | 1.011191e-02 |
| ## ARIH2       | 0.23059547  | 5.388107 | 3.2985349  | 1.528487e-03 | 1.012058e-02 |
| ## DMXL1       | -0.42644995 | 8.270054 | -3.2979352 | 1.531311e-03 | 1.013606e-02 |
| ## DLGAP1-AS2  | 0.43822120  | 4.284581 | 3.2975428  | 1.533162e-03 | 1.014427e-02 |
| ## KIF13B      | -0.34548900 | 8.218340 | -3.2974656 | 1.533527e-03 | 1.014427e-02 |
| ## SH3GLB1     | -0.30792178 | 8.925206 | -3.2968682 | 1.536350e-03 | 1.015972e-02 |
| ## CBX6        | -0.41656867 | 7.437617 | -3.2966076 | 1.537582e-03 | 1.016464e-02 |
| ## FSCN1       | 0.51924405  | 6.728034 | 3.2959810  | 1.540550e-03 | 1.018103e-02 |
| ## SSH2        | 0.13298782  | 3.883159 | 3.2956982  | 1.541892e-03 | 1.018533e-02 |
| ## PMM1        | -0.33076857 | 6.870518 | -3.2956374 | 1.542180e-03 | 1.018533e-02 |
| ## INAFM2      | -0.65569927 | 6.377921 | -3.2954849 | 1.542904e-03 | 1.018689e-02 |
| ## DNM1L       | 0.41645229  | 7.564196 | 3.2952166  | 1.544179e-03 | 1.019198e-02 |
| ## SLC16A7     | -0.76001606 | 6.914856 | -3.2951165 | 1.544654e-03 | 1.019198e-02 |
| ## TMEM106B    | 0.37434536  | 8.680150 | 3.2949652  | 1.545373e-03 | 1.019349e-02 |
| ## IKBKG       | 0.21303949  | 8.032318 | 3.2946896  | 1.546685e-03 | 1.019891e-02 |
| ## FAM241B     | 0.35505425  | 6.353025 | 3.2943156  | 1.548465e-03 | 1.020742e-02 |
| ## ADH4        | -0.66898955 | 7.459045 | -3.2932756 | 1.553427e-03 | 1.023689e-02 |
| ## GSS         | 0.29035487  | 8.725922 | 3.2930121  | 1.554687e-03 | 1.024195e-02 |
| ## RALY        | 0.29690179  | 8.744498 | 3.2925931  | 1.556692e-03 | 1.024906e-02 |
| ## TMEM62      | 0.29336310  | 7.097371 | 3.2925807  | 1.556751e-03 | 1.024906e-02 |
| ## TTC23       | -0.22735253 | 4.896221 | -3.2913384 | 1.562710e-03 | 1.028436e-02 |
| ## SNX4        | 0.34800809  | 7.068178 | 3.2912572  | 1.563100e-03 | 1.028436e-02 |
| ## SAMD5       | 0.66945071  | 4.752581 | 3.2895790  | 1.571185e-03 | 1.033429e-02 |
| ## NUP58       | 0.44301266  | 8.052208 | 3.2888386  | 1.574765e-03 | 1.035457e-02 |
| ## FAM216B     | -0.15197883 | 3.685726 | -3.2876789 | 1.580388e-03 | 1.038825e-02 |
| ## POLA1       | 0.38314659  | 6.645345 | 3.2869782  | 1.583794e-03 | 1.040736e-02 |
| ## LUC7L2      | 0.25333171  | 8.560986 | 3.2863476  | 1.586865e-03 | 1.042310e-02 |
| ## CALHM2      | -0.38111499 | 7.070709 | -3.2862809 | 1.587190e-03 | 1.042310e-02 |
| ## RBMS3       | -0.11231221 | 3.418701 | -3.2860365 | 1.588382e-03 | 1.042764e-02 |
| ## GRIP2       | -0.24915277 | 5.771968 | -3.2854410 | 1.591291e-03 | 1.044344e-02 |
| ## BMP8A       | 0.22193976  | 6.168070 | 3.2843050  | 1.596852e-03 | 1.047664e-02 |
| ## WTIP        | -0.23824760 | 5.956644 | -3.2840833 | 1.597940e-03 | 1.048047e-02 |
| ## TOP3A       | 0.21624545  | 5.622147 | 3.2839132  | 1.598775e-03 | 1.048265e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## MED30        | 0.31619278  | 6.464533  | 3.2833439  | 1.601572e-03 | 1.049629e-02 |
| ## TIMM10B      | 0.30342784  | 7.193914  | 3.2832846  | 1.601864e-03 | 1.049629e-02 |
| ## OBI1         | 0.42291140  | 7.319705  | 3.2828315  | 1.604094e-03 | 1.050760e-02 |
| ## XRCC6        | 0.15683684  | 10.829540 | 3.2823781  | 1.606328e-03 | 1.051892e-02 |
| ## FUCA2        | 0.32606108  | 9.070171  | 3.2816177  | 1.610082e-03 | 1.054019e-02 |
| ## TAX1BP1      | 0.26748289  | 9.954321  | 3.2812840  | 1.611731e-03 | 1.054393e-02 |
| ## CREB1        | 0.43473845  | 7.030858  | 3.2812263  | 1.612017e-03 | 1.054393e-02 |
| ## LOC105371312 | 0.30051035  | 5.382588  | 3.2811951  | 1.612171e-03 | 1.054393e-02 |
| ## TBK1         | 0.28112556  | 8.718819  | 3.2809142  | 1.613562e-03 | 1.054971e-02 |
| ## MAN2A1       | -0.36674600 | 8.467814  | -3.2807810 | 1.614222e-03 | 1.055071e-02 |
| ## WRAP53       | 0.21066687  | 6.687691  | 3.2798429  | 1.618875e-03 | 1.057780e-02 |
| ## PIERCE1      | 0.29256954  | 5.746340  | 3.2795706  | 1.620228e-03 | 1.058332e-02 |
| ## PANK2        | 0.30612385  | 8.368956  | 3.2793557  | 1.621297e-03 | 1.058698e-02 |
| ## NTPCR        | 0.30284516  | 8.093997  | 3.2791596  | 1.622273e-03 | 1.059003e-02 |
| ## PLAUR        | 0.56814855  | 8.713154  | 3.2788762  | 1.623684e-03 | 1.059296e-02 |
| ## PTPMT1       | 0.30102827  | 6.795737  | 3.2788652  | 1.623739e-03 | 1.059296e-02 |
| ## KLHDC7B-DT   | 0.36679191  | 4.738556  | 3.2785612  | 1.625254e-03 | 1.059780e-02 |
| ## ZNF121       | 0.33566172  | 8.774651  | 3.2785123  | 1.625498e-03 | 1.059780e-02 |
| ## PPFIA1       | 0.32214603  | 6.724975  | 3.2784034  | 1.626040e-03 | 1.059802e-02 |
| ## SLC39A10     | 0.53896494  | 7.558930  | 3.2782100  | 1.627006e-03 | 1.060099e-02 |
| ## ERBIN        | -0.29124039 | 9.437266  | -3.2771501 | 1.632303e-03 | 1.063218e-02 |
| ## PLAT         | -0.53530538 | 8.721179  | -3.2733190 | 1.651589e-03 | 1.075443e-02 |
| ## TUBG2        | -0.27172184 | 5.065242  | -3.2731371 | 1.652509e-03 | 1.075707e-02 |
| ## RAVR1        | 0.30324375  | 6.605051  | 3.2725868  | 1.655298e-03 | 1.077119e-02 |
| ## CHD7         | 0.48834036  | 7.662884  | 3.2724038  | 1.656227e-03 | 1.077119e-02 |
| ## RBM24        | -0.49860911 | 4.084815  | -3.2724032 | 1.656230e-03 | 1.077119e-02 |
| ## PSMA2        | 0.26197358  | 7.721744  | 3.2717555  | 1.659520e-03 | 1.078921e-02 |
| ## GPR34        | -0.75807807 | 7.502961  | -3.2709517 | 1.663612e-03 | 1.081244e-02 |
| ## TLK2         | 0.26843413  | 7.095487  | 3.2706494  | 1.665153e-03 | 1.081908e-02 |
| ## RPS4X        | -0.13887430 | 13.391230 | -3.2700418 | 1.668255e-03 | 1.083585e-02 |
| ## EMC3-AS1     | 0.29421077  | 5.707379  | 3.2692916  | 1.672092e-03 | 1.085739e-02 |
| ## SH3PXD2A     | 0.19658154  | 3.807554  | 3.2689788  | 1.673695e-03 | 1.086441e-02 |
| ## PMEPA1       | 0.60687302  | 6.318447  | 3.2687784  | 1.674722e-03 | 1.086769e-02 |
| ## GNPDA1       | 0.30719982  | 8.202951  | 3.2680751  | 1.678333e-03 | 1.088773e-02 |
| ## PLXNB1       | 0.15863107  | 5.089035  | 3.2677632  | 1.679936e-03 | 1.089474e-02 |
| ## ASH1L-AS1    | 0.49100886  | 6.414879  | 3.2670741  | 1.683484e-03 | 1.091434e-02 |
| ## ADPRS        | 0.21464469  | 8.183946  | 3.2666468  | 1.685688e-03 | 1.092523e-02 |
| ## RGL1         | -0.51016759 | 7.895291  | -3.2662927 | 1.687516e-03 | 1.093158e-02 |
| ## TRAF2        | 0.26305898  | 5.985364  | 3.2662535  | 1.687718e-03 | 1.093158e-02 |
| ## RHBDD1       | 0.19795083  | 6.755214  | 3.2657551  | 1.690294e-03 | 1.094473e-02 |
| ## HTR1E        | -0.17881452 | 3.968464  | -3.2656577 | 1.690799e-03 | 1.094473e-02 |
| ## SMIM6        | -0.70090619 | 6.785439  | -3.2654294 | 1.691980e-03 | 1.094897e-02 |
| ## PDCD2L       | 0.36553292  | 7.392125  | 3.2646557  | 1.695990e-03 | 1.097151e-02 |
| ## WIPF3        | -0.80323908 | 6.171242  | -3.2640699 | 1.699033e-03 | 1.098647e-02 |
| ## SNRPD2       | 0.24062310  | 11.531832 | 3.2639867  | 1.699466e-03 | 1.098647e-02 |
| ## ANPEP        | -1.57478533 | 8.362087  | -3.2639060 | 1.699885e-03 | 1.098647e-02 |
| ## ATP2A1-AS1   | 0.21501831  | 4.546747  | 3.2631278  | 1.703937e-03 | 1.100924e-02 |
| ## ZKSCAN7      | -0.36818856 | 4.873859  | -3.2629354 | 1.704940e-03 | 1.101230e-02 |
| ## ZDHHC9       | 0.38474980  | 7.940439  | 3.2622964  | 1.708275e-03 | 1.103043e-02 |
| ## VILL         | -0.77227472 | 7.817956  | -3.2620905 | 1.709352e-03 | 1.103075e-02 |
| ## HDHD2        | -0.34916652 | 8.719039  | -3.2620841 | 1.709385e-03 | 1.103075e-02 |
| ## TIA1         | 0.15876072  | 3.378127  | 3.2611910  | 1.714060e-03 | 1.105582e-02 |
| ## NR2C2AP      | 0.27159943  | 6.866660  | 3.2611392  | 1.714332e-03 | 1.105582e-02 |
| ## IGFBP7       | -0.50184249 | 11.718174 | -3.2606928 | 1.716673e-03 | 1.106749e-02 |

|                |             |           |            |              |              |
|----------------|-------------|-----------|------------|--------------|--------------|
| ## IL21R       | 0.23630273  | 4.134172  | 3.2593769  | 1.723594e-03 | 1.110867e-02 |
| ## KCNK2       | -0.24261337 | 3.998598  | -3.2588051 | 1.726608e-03 | 1.112466e-02 |
| ## REEP4       | 0.33096420  | 6.718030  | 3.2586770  | 1.727285e-03 | 1.112557e-02 |
| ## CERS2       | 0.31256490  | 9.990153  | 3.2579671  | 1.731036e-03 | 1.114629e-02 |
| ## NFE2        | 0.21133735  | 3.967462  | 3.2575810  | 1.733080e-03 | 1.115600e-02 |
| ## LINC00466   | -0.11391417 | 3.736877  | -3.2567665 | 1.737399e-03 | 1.118034e-02 |
| ## SPHK1       | 0.53392082  | 6.496177  | 3.2563399  | 1.739665e-03 | 1.119147e-02 |
| ## NPEPPSP1    | 0.34282551  | 7.963861  | 3.2560559  | 1.741175e-03 | 1.119772e-02 |
| ## ATMIN       | 0.20978264  | 7.730699  | 3.2557026  | 1.743055e-03 | 1.120635e-02 |
| ## CIT         | 0.42870988  | 7.201569  | 3.2548581  | 1.747557e-03 | 1.123183e-02 |
| ## TENT4A      | 0.27707457  | 8.801630  | 3.2547009  | 1.748396e-03 | 1.123375e-02 |
| ## JUP         | 0.61578868  | 9.343793  | 3.2545115  | 1.749408e-03 | 1.123679e-02 |
| ## RDM1        | 0.32152793  | 4.968516  | 3.2542373  | 1.750873e-03 | 1.124273e-02 |
| ## MED1        | 0.39965413  | 6.096988  | 3.2539926  | 1.752182e-03 | 1.124767e-02 |
| ## PIGT        | -0.18876949 | 7.902128  | -3.2528749 | 1.758172e-03 | 1.127959e-02 |
| ## MAGEA12     | 1.53004403  | 4.568107  | 3.2528626  | 1.758238e-03 | 1.127959e-02 |
| ## SPATA32     | -0.15788229 | 6.894013  | -3.2526749 | 1.759246e-03 | 1.128258e-02 |
| ## VWA5A       | -0.48864024 | 8.036934  | -3.2512435 | 1.766950e-03 | 1.132616e-02 |
| ## FBX03       | -0.34279731 | 7.628929  | -3.2512102 | 1.767129e-03 | 1.132616e-02 |
| ## ZNF415      | -0.45756326 | 4.406732  | -3.2507168 | 1.769793e-03 | 1.133974e-02 |
| ## NCK1        | 0.37089172  | 7.582811  | 3.2504094  | 1.771454e-03 | 1.134689e-02 |
| ## CRISPLD1    | -1.09823864 | 6.269869  | -3.2502247 | 1.772452e-03 | 1.134980e-02 |
| ## CST3        | -0.36829379 | 11.090188 | -3.2491989 | 1.778009e-03 | 1.138188e-02 |
| ## KRT15       | 0.58736426  | 4.726070  | 3.2490368  | 1.778888e-03 | 1.138401e-02 |
| ## DR1         | -0.32780478 | 6.525463  | -3.2488874 | 1.779700e-03 | 1.138481e-02 |
| ## KIRREL3-AS2 | -0.10384523 | 3.459223  | -3.2488124 | 1.780107e-03 | 1.138481e-02 |
| ## NOX1        | 1.02383353  | 3.907398  | 3.2484880  | 1.781870e-03 | 1.139259e-02 |
| ## CARS1       | 0.22870262  | 7.408971  | 3.2478989  | 1.785074e-03 | 1.140957e-02 |
| ## EMC6        | 0.23606261  | 8.602436  | 3.2463149  | 1.793719e-03 | 1.145300e-02 |
| ## DCAF15      | 0.28795480  | 5.721489  | 3.2462769  | 1.793927e-03 | 1.145300e-02 |
| ## CCDC82      | 0.12254769  | 3.457041  | 3.2462383  | 1.794138e-03 | 1.145300e-02 |
| ## ILRUN       | 0.33264992  | 5.342486  | 3.2461861  | 1.794423e-03 | 1.145300e-02 |
| ## ZNF880      | -0.59934946 | 5.095773  | -3.2461505 | 1.794618e-03 | 1.145300e-02 |
| ## HMOX1       | 0.53586789  | 7.791433  | 3.2458728  | 1.796139e-03 | 1.145919e-02 |
| ## FAM83H      | 0.60356204  | 8.705602  | 3.2456740  | 1.797228e-03 | 1.146263e-02 |
| ## ABCB8       | 0.21288106  | 5.602899  | 3.2453251  | 1.799141e-03 | 1.147131e-02 |
| ## KLHDC4      | 0.13958888  | 3.869635  | 3.2449730  | 1.801073e-03 | 1.148012e-02 |
| ## CCNDBP1     | -0.32289930 | 9.119484  | -3.2446951 | 1.802600e-03 | 1.148633e-02 |
| ## C3orf18     | -0.25462562 | 6.128033  | -3.2444121 | 1.804155e-03 | 1.149273e-02 |
| ## BOLA2       | 0.21119021  | 4.040418  | 3.2441280  | 1.805718e-03 | 1.149917e-02 |
| ## SCNN1B      | -0.56945306 | 4.881643  | -3.2410258 | 1.822869e-03 | 1.160484e-02 |
| ## PRKAB1      | -0.31186944 | 7.646761  | -3.2398796 | 1.829245e-03 | 1.164187e-02 |
| ## NUP133      | 0.24716858  | 8.246801  | 3.2392567  | 1.832718e-03 | 1.166041e-02 |
| ## SNX27       | 0.35761386  | 7.471289  | 3.2389923  | 1.834194e-03 | 1.166624e-02 |
| ## PTCH1       | -0.44446213 | 4.379131  | -3.2384148 | 1.837423e-03 | 1.168320e-02 |
| ## TTI1        | 0.36781089  | 7.193660  | 3.2382622  | 1.838276e-03 | 1.168506e-02 |
| ## LHX3        | -0.25431695 | 4.385397  | -3.2377966 | 1.840884e-03 | 1.169807e-02 |
| ## BAALC       | -0.15142239 | 3.796584  | -3.2370575 | 1.845031e-03 | 1.172084e-02 |
| ## POP1        | 0.34412839  | 5.231779  | 3.2365341  | 1.847973e-03 | 1.173595e-02 |
| ## TRIP10      | 0.31449661  | 7.385131  | 3.2363645  | 1.848927e-03 | 1.173843e-02 |
| ## XAF1        | 0.64536698  | 7.807007  | 3.2359736  | 1.851129e-03 | 1.174883e-02 |
| ## UNC5B-AS1   | -0.22934442 | 4.676223  | -3.2346804 | 1.858427e-03 | 1.179156e-02 |
| ## SNHG4       | 0.32930194  | 4.042912  | 3.2337022  | 1.863967e-03 | 1.182310e-02 |
| ## CEACAM1     | 0.80218007  | 6.932645  | 3.2335225  | 1.864986e-03 | 1.182597e-02 |

|              |             |          |            |              |              |
|--------------|-------------|----------|------------|--------------|--------------|
| ## WDR89     | 0.21671015  | 3.769040 | 3.2325567  | 1.870473e-03 | 1.185715e-02 |
| ## ASPHD1    | 0.58119383  | 7.520376 | 3.2320193  | 1.873533e-03 | 1.187293e-02 |
| ## KITLG     | 0.39333180  | 4.119156 | 3.2312071  | 1.878166e-03 | 1.189867e-02 |
| ## DNAJA3    | 0.26534759  | 9.102108 | 3.2305769  | 1.881768e-03 | 1.191786e-02 |
| ## AP1G1     | 0.33081108  | 7.251402 | 3.2302952  | 1.883380e-03 | 1.192445e-02 |
| ## ZNF439    | -0.32497479 | 4.567641 | -3.2298698 | 1.885818e-03 | 1.193625e-02 |
| ## UROD      | -0.23075816 | 9.065496 | -3.2294079 | 1.888467e-03 | 1.194939e-02 |
| ## RPS6KB1   | 0.33317711  | 7.359620 | 3.2289688  | 1.890990e-03 | 1.196172e-02 |
| ## SCUBE2    | -0.74853843 | 5.968027 | -3.2287937 | 1.891996e-03 | 1.196445e-02 |
| ## LIMCH1    | -0.42049961 | 5.629461 | -3.2273816 | 1.900133e-03 | 1.201226e-02 |
| ## GADD45A   | -0.34681205 | 9.156157 | -3.2271100 | 1.901702e-03 | 1.201853e-02 |
| ## SCML2     | 0.23294759  | 7.705448 | 3.2267504  | 1.903781e-03 | 1.202801e-02 |
| ## LSM6      | 0.26910955  | 8.157537 | 3.2261894  | 1.907028e-03 | 1.204341e-02 |
| ## TMEM64    | -0.44466235 | 6.082567 | -3.2261297 | 1.907374e-03 | 1.204341e-02 |
| ## LOC286437 | -0.36251242 | 6.047239 | -3.2258902 | 1.908762e-03 | 1.204515e-02 |
| ## EIF1AX    | 0.43225477  | 8.283709 | 3.2258825  | 1.908807e-03 | 1.204515e-02 |
| ## H1-4      | 0.26642889  | 4.322609 | 3.2254856  | 1.911110e-03 | 1.205603e-02 |
| ## TAF13     | 0.16242444  | 3.310768 | 3.2251428  | 1.913101e-03 | 1.206493e-02 |
| ## PMS1      | 0.13232334  | 3.710895 | 3.2245439  | 1.916584e-03 | 1.208324e-02 |
| ## SAP18     | -0.46609742 | 7.626147 | -3.2243321 | 1.917817e-03 | 1.208736e-02 |
| ## MIGA1     | -0.30227464 | 6.712094 | -3.2237024 | 1.921488e-03 | 1.210683e-02 |
| ## METAP1    | 0.31559113  | 8.520778 | 3.2234434  | 1.922999e-03 | 1.211269e-02 |
| ## SMC6      | 0.24768898  | 8.156510 | 3.2230806  | 1.925119e-03 | 1.212237e-02 |
| ## IL20RB    | 0.55231455  | 4.062738 | 3.2216218  | 1.933663e-03 | 1.217249e-02 |
| ## GAS2L3    | 0.59091089  | 6.546007 | 3.2209023  | 1.937890e-03 | 1.219541e-02 |
| ## HELB      | 0.41594347  | 4.332575 | 3.2207565  | 1.938748e-03 | 1.219713e-02 |
| ## RAD9B     | 0.09916827  | 3.506679 | 3.2198980  | 1.943805e-03 | 1.222525e-02 |
| ## UBE4B     | 0.40599421  | 6.899229 | 3.2194485  | 1.946458e-03 | 1.223824e-02 |
| ## FOSL1     | 0.78014096  | 6.069479 | 3.2191412  | 1.948274e-03 | 1.224596e-02 |
| ## NRIP2     | -0.20975134 | 5.137651 | -3.2181851 | 1.953933e-03 | 1.227782e-02 |
| ## TNFRSF25  | 0.37965259  | 5.876348 | 3.2180589  | 1.954681e-03 | 1.227882e-02 |
| ## DDIT4L    | -0.20654375 | 4.363550 | -3.2174856 | 1.958082e-03 | 1.229543e-02 |
| ## TAF4A     | -0.60111868 | 4.944133 | -3.2174141 | 1.958507e-03 | 1.229543e-02 |
| ## RBM19     | 0.31426814  | 5.673123 | 3.2172924  | 1.959230e-03 | 1.229627e-02 |
| ## SATB2     | 0.81182975  | 5.720402 | 3.2160251  | 1.966774e-03 | 1.233861e-02 |
| ## SFRP2     | -1.24814384 | 8.481404 | -3.2159601 | 1.967162e-03 | 1.233861e-02 |
| ## SMIM10L2A | -0.12349067 | 3.573080 | -3.2157666 | 1.968316e-03 | 1.234213e-02 |
| ## NARS2     | 0.27455808  | 8.250986 | 3.2155089  | 1.969855e-03 | 1.234275e-02 |
| ## CADM3-AS1 | -0.17037965 | 4.292875 | -3.2154602 | 1.970146e-03 | 1.234275e-02 |
| ## FSD1L     | 0.24790460  | 3.586760 | 3.2154523  | 1.970193e-03 | 1.234275e-02 |
| ## RBM15B    | 0.17200229  | 7.503027 | 3.2150783  | 1.972428e-03 | 1.235072e-02 |
| ## UBE2Z     | 0.21778130  | 9.391286 | 3.2150409  | 1.972652e-03 | 1.235072e-02 |
| ## FAM174B   | -0.49845441 | 6.661945 | -3.2142801 | 1.977206e-03 | 1.237552e-02 |
| ## EXD3      | -0.20375166 | 4.116918 | -3.2137080 | 1.980638e-03 | 1.239327e-02 |
| ## RPRM      | -0.49432327 | 4.780894 | -3.2132580 | 1.983341e-03 | 1.240645e-02 |
| ## KLHL9     | -0.31021055 | 7.057428 | -3.2130527 | 1.984575e-03 | 1.240808e-02 |
| ## B3GAT1    | -0.29104662 | 5.586779 | -3.2130166 | 1.984792e-03 | 1.240808e-02 |
| ## HAPLN3    | 0.34970274  | 6.847636 | 3.2125081  | 1.987853e-03 | 1.242348e-02 |
| ## C1GALT1   | 0.48648001  | 7.941869 | 3.2123412  | 1.988859e-03 | 1.242604e-02 |
| ## RTL5      | -0.33109597 | 5.449705 | -3.2121484 | 1.990020e-03 | 1.242957e-02 |
| ## SULT1B1   | -0.71356900 | 6.332631 | -3.2110001 | 1.996955e-03 | 1.246914e-02 |
| ## SYTL2     | -0.58781518 | 6.148889 | -3.2103873 | 2.000665e-03 | 1.248857e-02 |
| ## ZNF696    | 0.23791452  | 5.284534 | 3.2101569  | 2.002062e-03 | 1.249354e-02 |
| ## FAM8A1    | -0.30232858 | 8.999899 | -3.2098642 | 2.003838e-03 | 1.249764e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## USP21        | 0.24643159  | 7.244070  | 3.2098507  | 2.003920e-03 | 1.249764e-02 |
| ## HCFC1        | 0.19096265  | 5.626746  | 3.2094105  | 2.006593e-03 | 1.251057e-02 |
| ## GOLGA8A      | 0.42447067  | 5.825195  | 3.2093094  | 2.007207e-03 | 1.251065e-02 |
| ## MAP3K13      | 0.36725405  | 4.492374  | 3.2091102  | 2.008419e-03 | 1.251445e-02 |
| ## TBC1D22B     | 0.15863763  | 3.907287  | 3.2079806  | 2.015300e-03 | 1.255357e-02 |
| ## NPEPPS       | 0.32373975  | 8.570402  | 3.2073867  | 2.018926e-03 | 1.257240e-02 |
| ## TNFAIP1      | 0.29429631  | 8.216986  | 3.2071586  | 2.020320e-03 | 1.257732e-02 |
| ## CNOT7        | 0.40897046  | 4.953169  | 3.2067303  | 2.022941e-03 | 1.258988e-02 |
| ## FLRT1        | -0.18276352 | 4.562707  | -3.2066087 | 2.023686e-03 | 1.259075e-02 |
| ## TOX          | -0.72650857 | 6.752285  | -3.2063919 | 2.025014e-03 | 1.259244e-02 |
| ## SCP2         | -0.31130874 | 10.358560 | -3.2063303 | 2.025392e-03 | 1.259244e-02 |
| ## LOC101928002 | -0.09842779 | 3.394093  | -3.2062684 | 2.025771e-03 | 1.259244e-02 |
| ## ENTR1        | 0.32885502  | 7.304548  | 3.2059780  | 2.027552e-03 | 1.259922e-02 |
| ## ZNF117       | 0.64707795  | 4.008852  | 3.2058931  | 2.028073e-03 | 1.259922e-02 |
| ## CYP39A1      | -0.35213625 | 5.585574  | -3.2037742 | 2.041117e-03 | 1.267648e-02 |
| ## BTN3A1       | 0.33222017  | 6.598993  | 3.2027388  | 2.047520e-03 | 1.271244e-02 |
| ## SSH1         | 0.14081390  | 4.333337  | 3.2026406  | 2.048128e-03 | 1.271244e-02 |
| ## AMIGO1       | -0.32607381 | 5.501946  | -3.2024237 | 2.049472e-03 | 1.271699e-02 |
| ## GNB1L        | 0.21299374  | 6.553865  | 3.2021937  | 2.050898e-03 | 1.272204e-02 |
| ## CWF19L1      | 0.26034070  | 6.992162  | 3.2012129  | 2.056990e-03 | 1.275603e-02 |
| ## ZCCHC7       | 0.32731006  | 4.608797  | 3.2007501  | 2.059869e-03 | 1.277009e-02 |
| ## BEND4        | -0.17201325 | 3.544104  | -3.2004983 | 2.061438e-03 | 1.277601e-02 |
| ## KANK2        | -0.17904773 | 4.292951  | -3.2002026 | 2.063282e-03 | 1.278351e-02 |
| ## FAF2         | 0.32131919  | 7.007258  | 3.2001073  | 2.063876e-03 | 1.278351e-02 |
| ## DPY19L1P1    | 0.16396420  | 4.509135  | 3.1990602  | 2.070419e-03 | 1.282022e-02 |
| ## DUT          | 0.37532445  | 6.560583  | 3.1988023  | 2.072033e-03 | 1.282640e-02 |
| ## PTPDC1       | -0.23380342 | 6.576433  | -3.1981522 | 2.076108e-03 | 1.284781e-02 |
| ## ZG16         | -0.87364538 | 5.123880  | -3.1979472 | 2.077394e-03 | 1.285195e-02 |
| ## RLIM         | 0.32838315  | 5.442642  | 3.1975825  | 2.079685e-03 | 1.286230e-02 |
| ## SCN3A        | -0.65048150 | 4.182581  | -3.1970395 | 2.083100e-03 | 1.287959e-02 |
| ## NFIC         | -0.24207192 | 5.996945  | -3.1947233 | 2.097724e-03 | 1.296617e-02 |
| ## CSKMT        | 0.17917379  | 5.347455  | 3.1940625  | 2.101914e-03 | 1.298821e-02 |
| ## GOSR2        | 0.30762037  | 6.589690  | 3.1896334  | 2.130201e-03 | 1.315566e-02 |
| ## ARMC8        | 0.30220649  | 4.474521  | 3.1896215  | 2.130278e-03 | 1.315566e-02 |
| ## FBXL13       | -0.56171858 | 4.212184  | -3.1892432 | 2.132710e-03 | 1.316678e-02 |
| ## SRPRA        | 0.52576974  | 6.746135  | 3.1885702  | 2.137044e-03 | 1.318963e-02 |
| ## AKR7A3       | -0.72766041 | 8.758651  | -3.1877221 | 2.142517e-03 | 1.321949e-02 |
| ## H2BC8        | 0.81499812  | 5.812569  | 3.1875990  | 2.143313e-03 | 1.322048e-02 |
| ## DEXI         | -0.26909026 | 7.048710  | -3.1872659 | 2.145467e-03 | 1.322985e-02 |
| ## RFX6         | -0.83711612 | 4.458531  | -3.1870419 | 2.146916e-03 | 1.323487e-02 |
| ## FAM135A      | 0.10290934  | 3.186177  | 3.1867714  | 2.148668e-03 | 1.324175e-02 |
| ## SETDB1       | 0.25831791  | 7.306849  | 3.1863994  | 2.151079e-03 | 1.325268e-02 |
| ## OTC          | -0.80377218 | 4.687005  | -3.1861108 | 2.152952e-03 | 1.326030e-02 |
| ## LINC02606    | -0.18244896 | 4.069974  | -3.1852305 | 2.158673e-03 | 1.329160e-02 |
| ## COASY        | 0.26196854  | 8.399931  | 3.1830399  | 2.172971e-03 | 1.337428e-02 |
| ## SAFB         | 0.28785582  | 6.334825  | 3.1829767  | 2.173385e-03 | 1.337428e-02 |
| ## MACROH2A1    | -0.10300679 | 3.775881  | -3.1803562 | 2.190609e-03 | 1.347629e-02 |
| ## COQ2         | 0.35848990  | 7.003555  | 3.1794745  | 2.196433e-03 | 1.350813e-02 |
| ## CCDC3        | -0.43746554 | 7.942589  | -3.1785663 | 2.202447e-03 | 1.354112e-02 |
| ## LRRC10B      | -0.31933927 | 5.292557  | -3.1777766 | 2.207689e-03 | 1.356934e-02 |
| ## CFL1         | 0.39898279  | 11.298438 | 3.1766384  | 2.215264e-03 | 1.361188e-02 |
| ## HEATR6       | -0.27959954 | 5.497912  | -3.1763907 | 2.216917e-03 | 1.361802e-02 |
| ## DYRK1A       | -0.22774876 | 9.601808  | -3.1761564 | 2.218480e-03 | 1.362182e-02 |
| ## CPS1         | -1.60045150 | 7.532736  | -3.1760516 | 2.219179e-03 | 1.362182e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## IRF3         | 0.29476617  | 8.613505  | 3.1760039  | 2.219498e-03 | 1.362182e-02 |
| ## ZNF154       | 0.13134575  | 4.228891  | 3.1758692  | 2.220398e-03 | 1.362332e-02 |
| ## SCUBE1       | -0.30261753 | 5.582459  | -3.1757646 | 2.221097e-03 | 1.362360e-02 |
| ## SPTLC2       | 0.28241765  | 7.687685  | 3.1754189  | 2.223408e-03 | 1.363376e-02 |
| ## NMRK1        | 0.15893475  | 3.647929  | 3.1752939  | 2.224245e-03 | 1.363487e-02 |
| ## TCAIM        | 0.52959735  | 5.605191  | 3.1743124  | 2.230822e-03 | 1.367117e-02 |
| ## NRBF2        | 0.35077966  | 7.172988  | 3.1740016  | 2.232909e-03 | 1.367993e-02 |
| ## ACYP1        | 0.41263657  | 7.274123  | 3.1737875  | 2.234347e-03 | 1.368136e-02 |
| ## ZXDA         | -0.33873795 | 5.254230  | -3.1737713 | 2.234455e-03 | 1.368136e-02 |
| ## ZNF300       | -0.36514908 | 5.608394  | -3.1730413 | 2.239367e-03 | 1.370740e-02 |
| ## ZNF692       | 0.22506926  | 7.340429  | 3.1728207  | 2.240853e-03 | 1.371246e-02 |
| ## ANKRD6       | -0.58392081 | 5.578500  | -3.1712967 | 2.251144e-03 | 1.377140e-02 |
| ## LINC01505    | -0.12925963 | 3.872950  | -3.1708738 | 2.254008e-03 | 1.378486e-02 |
| ## CCR10        | -0.42159801 | 4.817240  | -3.1692918 | 2.264751e-03 | 1.384650e-02 |
| ## C12orf4      | 0.35752183  | 6.650363  | 3.1680435  | 2.273261e-03 | 1.389073e-02 |
| ## OBSL1        | -0.71591850 | 6.449226  | -3.1680349 | 2.273320e-03 | 1.389073e-02 |
| ## OAZ2         | 0.27233385  | 7.770652  | 3.1679067  | 2.274196e-03 | 1.389201e-02 |
| ## GRWD1        | 0.18743737  | 6.705519  | 3.1670672  | 2.279938e-03 | 1.392300e-02 |
| ## FAM111B      | 0.25497136  | 4.279888  | 3.1669608  | 2.280668e-03 | 1.392306e-02 |
| ## CASKIN2      | -0.25249140 | 6.486474  | -3.1668705 | 2.281286e-03 | 1.392306e-02 |
| ## RARS2        | 0.25597330  | 4.810614  | 3.1663372  | 2.284943e-03 | 1.394130e-02 |
| ## ANKRD36      | 0.17210231  | 3.539169  | 3.1655354  | 2.290452e-03 | 1.397082e-02 |
| ## CNTNAP3P2    | -0.12158152 | 3.737766  | -3.1653135 | 2.291978e-03 | 1.397604e-02 |
| ## GPR88        | -0.10084008 | 3.288691  | -3.1650712 | 2.293646e-03 | 1.397898e-02 |
| ## DCHS1        | -0.27957221 | 5.491250  | -3.1650483 | 2.293804e-03 | 1.397898e-02 |
| ## TNFRSF9      | 0.45853680  | 5.109886  | 3.1648544  | 2.295140e-03 | 1.398303e-02 |
| ## LY86         | -0.50369435 | 7.673489  | -3.1642153 | 2.299548e-03 | 1.400579e-02 |
| ## RASSF3       | -0.37100302 | 9.594743  | -3.1637504 | 2.302760e-03 | 1.402125e-02 |
| ## SPINT1       | 0.52130002  | 8.889531  | 3.1629907  | 2.308017e-03 | 1.404915e-02 |
| ## HNRNPL       | 0.52029278  | 7.596820  | 3.1620819  | 2.314321e-03 | 1.408341e-02 |
| ## LSM3         | 0.14963281  | 9.928137  | 3.1618921  | 2.315639e-03 | 1.408731e-02 |
| ## PDLIM7       | -0.57961648 | 5.822489  | -3.1615306 | 2.318153e-03 | 1.409597e-02 |
| ## G6PD         | 0.55070633  | 6.957451  | 3.1614786  | 2.318514e-03 | 1.409597e-02 |
| ## LONP1        | 0.30623557  | 8.196033  | 3.1613954  | 2.319093e-03 | 1.409597e-02 |
| ## SRD5A1       | 0.49548304  | 7.351290  | 3.1607577  | 2.323534e-03 | 1.411541e-02 |
| ## ZEB1         | -0.70699262 | 5.572169  | -3.1607415 | 2.323647e-03 | 1.411541e-02 |
| ## EPHX2        | -0.62317408 | 6.800525  | -3.1604990 | 2.325339e-03 | 1.412157e-02 |
| ## VSIR         | -0.24161180 | 5.522916  | -3.1602716 | 2.326925e-03 | 1.412708e-02 |
| ## LOC102724434 | -0.14354998 | 4.806435  | -3.1594998 | 2.332319e-03 | 1.415570e-02 |
| ## ZNF35        | 0.20037235  | 5.975222  | 3.1584921  | 2.339378e-03 | 1.419441e-02 |
| ## GRHL3        | 0.32408069  | 3.968133  | 3.1582882  | 2.340809e-03 | 1.419895e-02 |
| ## TFCP2L1      | -0.56315979 | 5.630971  | -3.1580792 | 2.342276e-03 | 1.420372e-02 |
| ## NDRG1        | -0.43660188 | 10.580309 | -3.1574835 | 2.346464e-03 | 1.422497e-02 |
| ## ZNF793       | -0.21254557 | 5.206747  | -3.1569465 | 2.350245e-03 | 1.424374e-02 |
| ## PML          | 0.37769713  | 6.400553  | 3.1563906  | 2.354165e-03 | 1.426335e-02 |
| ## SPR          | 0.30536357  | 8.256385  | 3.1559583  | 2.357217e-03 | 1.427610e-02 |
| ## CARNS1       | -0.42524350 | 4.879615  | -3.1558984 | 2.357641e-03 | 1.427610e-02 |
| ## CLIC5        | 0.99112787  | 5.648333  | 3.1551679  | 2.362807e-03 | 1.430323e-02 |
| ## SARS2        | 0.28197636  | 5.920203  | 3.1547630  | 2.365676e-03 | 1.431643e-02 |
| ## UQCC1        | 0.26979468  | 8.157553  | 3.1542488  | 2.369324e-03 | 1.433087e-02 |
| ## GNAQ         | -0.31793317 | 9.876690  | -3.1542327 | 2.369439e-03 | 1.433087e-02 |
| ## TGFBR1       | 0.33274642  | 4.340762  | 3.1539777  | 2.371250e-03 | 1.433510e-02 |
| ## SLC03A1      | 0.21350522  | 6.130809  | 3.1539405  | 2.371514e-03 | 1.433510e-02 |
| ## ELMOD3       | -0.16194670 | 6.525135  | -3.1537398 | 2.372941e-03 | 1.433956e-02 |



|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## F11        | -0.08275210 | 3.332125  | -3.1536179 | 2.373807e-03 | 1.434063e-02 |
| ## TMTc3      | 0.19666828  | 4.272123  | 3.1532046  | 2.376748e-03 | 1.435423e-02 |
| ## LTN1       | -0.27174630 | 8.675075  | -3.1530430 | 2.377899e-03 | 1.435702e-02 |
| ## MAVS       | 0.40510571  | 7.412313  | 3.1526960  | 2.380372e-03 | 1.436779e-02 |
| ## GAST       | -1.17802596 | 6.069551  | -3.1523344 | 2.382952e-03 | 1.437919e-02 |
| ## PAXX       | 0.20708809  | 6.975144  | 3.1512939  | 2.390390e-03 | 1.441808e-02 |
| ## NEIL3      | 0.30640171  | 4.399224  | 3.1511911  | 2.391125e-03 | 1.441808e-02 |
| ## AZGP1P1    | -0.13576360 | 4.009621  | -3.1511425 | 2.391473e-03 | 1.441808e-02 |
| ## HUWE1      | -0.06321742 | 13.747640 | -3.1509337 | 2.392969e-03 | 1.442285e-02 |
| ## VSTM2A-OT1 | -0.11559454 | 3.377748  | -3.1508387 | 2.393650e-03 | 1.442285e-02 |
| ## CBX4       | 0.43974186  | 5.348135  | 3.1503852  | 2.396902e-03 | 1.443827e-02 |
| ## PTGS1      | -0.39316189 | 6.249089  | -3.1502114 | 2.398150e-03 | 1.444161e-02 |
| ## BUD31      | 0.26769578  | 9.282229  | 3.1498643  | 2.400643e-03 | 1.445244e-02 |
| ## CCKBR      | -1.03586098 | 5.693361  | -3.1488403 | 2.408013e-03 | 1.449262e-02 |
| ## SLC8A3     | -0.15081008 | 4.004475  | -3.1478578 | 2.415105e-03 | 1.453110e-02 |
| ## VCL        | -0.43813640 | 4.129445  | -3.1473264 | 2.418948e-03 | 1.455002e-02 |
| ## SLC33A1    | 0.38448649  | 7.125445  | 3.1464580  | 2.425242e-03 | 1.458366e-02 |
| ## LINC03027  | -0.24522471 | 5.183955  | -3.1463079 | 2.426331e-03 | 1.458431e-02 |
| ## COX7C      | -0.22206909 | 12.209715 | -3.1461832 | 2.427236e-03 | 1.458431e-02 |
| ## DUSP22     | -0.29576936 | 8.767175  | -3.1460423 | 2.428260e-03 | 1.458431e-02 |
| ## ABCG1      | -0.53032782 | 7.076399  | -3.1459953 | 2.428601e-03 | 1.458431e-02 |
| ## NIPBL      | 0.35438260  | 7.307589  | 3.1459609  | 2.428851e-03 | 1.458431e-02 |
| ## PRNP       | -0.48658103 | 9.769566  | -3.1456163 | 2.431356e-03 | 1.459514e-02 |
| ## YOD1       | 0.37027603  | 4.449087  | 3.1451474  | 2.434768e-03 | 1.461093e-02 |
| ## ZMYM1      | 0.30358376  | 5.849396  | 3.1449634  | 2.436108e-03 | 1.461093e-02 |
| ## PARP3      | 0.31841707  | 6.339106  | 3.1449429  | 2.436258e-03 | 1.461093e-02 |
| ## FAT3       | -0.20421823 | 3.610063  | -3.1448697 | 2.436791e-03 | 1.461093e-02 |
| ## LRCH1      | 0.26560010  | 4.403365  | 3.1444279  | 2.440014e-03 | 1.462604e-02 |
| ## KYNU       | 0.51275119  | 7.024761  | 3.1442138  | 2.441576e-03 | 1.463119e-02 |
| ## SEPTIN8    | -0.24549808 | 8.768038  | -3.1436573 | 2.445642e-03 | 1.465134e-02 |
| ## SMIM19     | -0.39485316 | 9.305103  | -3.1434135 | 2.447426e-03 | 1.465781e-02 |
| ## FRG1JP     | -0.34902547 | 3.959363  | -3.1425887 | 2.453469e-03 | 1.468978e-02 |
| ## SMIM24     | -1.13200009 | 8.826229  | -3.1421530 | 2.456667e-03 | 1.470469e-02 |
| ## RTL6       | -0.23397644 | 8.264487  | -3.1411987 | 2.463684e-03 | 1.473794e-02 |
| ## THBS3      | -0.37974339 | 7.313625  | -3.1411715 | 2.463885e-03 | 1.473794e-02 |
| ## LEFTY2     | -0.33725205 | 4.371968  | -3.1411090 | 2.464345e-03 | 1.473794e-02 |
| ## RPS24      | 0.44444706  | 8.366133  | 3.1407202  | 2.467210e-03 | 1.474870e-02 |
| ## MTFR1      | 0.44732176  | 7.399796  | 3.1406727  | 2.467560e-03 | 1.474870e-02 |
| ## TXLNB      | -0.15700921 | 3.495995  | -3.1404895 | 2.468912e-03 | 1.475254e-02 |
| ## ZNF280C    | 0.27080838  | 4.234279  | 3.1398752  | 2.473447e-03 | 1.477541e-02 |
| ## PTPRZ1     | -0.92811469 | 5.087483  | -3.1383784 | 2.484533e-03 | 1.483737e-02 |
| ## SPCS3      | 0.47554926  | 6.758493  | 3.1373220  | 2.492385e-03 | 1.487957e-02 |
| ## COL4A4     | -0.57864311 | 4.814691  | -3.1371312 | 2.493805e-03 | 1.487957e-02 |
| ## FILIP1L    | -0.09565408 | 3.520508  | -3.1370730 | 2.494239e-03 | 1.487957e-02 |
| ## POLR1G     | 0.32389492  | 6.833174  | 3.1370437  | 2.494457e-03 | 1.487957e-02 |
| ## HEIH       | -0.24735901 | 8.225982  | -3.1368752 | 2.495713e-03 | 1.488279e-02 |
| ## N4BP1      | 0.31634408  | 6.667809  | 3.1356100  | 2.505158e-03 | 1.493485e-02 |
| ## STC2       | 0.40289590  | 5.309640  | 3.1353073  | 2.507423e-03 | 1.494407e-02 |
| ## LINC01806  | 0.32310000  | 3.863871  | 3.1350229  | 2.509553e-03 | 1.495248e-02 |
| ## SOX11      | 0.43215858  | 3.654338  | 3.1341864  | 2.515827e-03 | 1.498558e-02 |
| ## SNHG3      | 0.31127253  | 4.265276  | 3.1338181  | 2.518594e-03 | 1.499777e-02 |
| ## COX10-DT   | 0.22666169  | 4.926263  | 3.1336581  | 2.519797e-03 | 1.500064e-02 |
| ## EVA1C      | -0.47191199 | 5.963120  | -3.1329045 | 2.525470e-03 | 1.503012e-02 |
| ## PRND       | -0.29602403 | 3.770635  | -3.1326601 | 2.527312e-03 | 1.503588e-02 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## LM04       | -0.41190296 | 6.274932  | -3.1325845 | 2.527882e-03 | 1.503588e-02 |
| ## AIFM2      | 0.42376690  | 7.066244  | 3.1322737  | 2.530227e-03 | 1.504553e-02 |
| ## CIDEB      | -0.52004944 | 6.882206  | -3.1320605 | 2.531837e-03 | 1.505081e-02 |
| ## EVPL       | 0.42501072  | 6.216476  | 3.1318900  | 2.533125e-03 | 1.505417e-02 |
| ## VAMP1      | -0.27162877 | 6.117630  | -3.1291859 | 2.553637e-03 | 1.517174e-02 |
| ## LUM        | -0.45500836 | 11.781677 | -3.1289850 | 2.555168e-03 | 1.517650e-02 |
| ## DENR       | 0.25261821  | 9.485627  | 3.1288153  | 2.556461e-03 | 1.517651e-02 |
| ## DEDD2      | 0.28316411  | 7.847379  | 3.1287934  | 2.556627e-03 | 1.517651e-02 |
| ## MAPK8      | 0.23147080  | 5.415229  | 3.1283547  | 2.559974e-03 | 1.519205e-02 |
| ## TMEM230    | 0.37741360  | 9.270584  | 3.1281357  | 2.561645e-03 | 1.519764e-02 |
| ## ACTL6B     | -0.14108005 | 3.969706  | -3.1280086 | 2.562617e-03 | 1.519907e-02 |
| ## ABHD17B    | 0.37321848  | 5.865402  | 3.1276729  | 2.565182e-03 | 1.520995e-02 |
| ## FKBP1A     | 0.26175070  | 10.300517 | 3.1273111  | 2.567950e-03 | 1.522203e-02 |
| ## MET        | 0.65672179  | 9.305745  | 3.1269294  | 2.570873e-03 | 1.523502e-02 |
| ## GALNT6     | -0.89367443 | 8.358685  | -3.1262923 | 2.575759e-03 | 1.525963e-02 |
| ## ESRP1      | 0.61214051  | 8.835064  | 3.1257489  | 2.579933e-03 | 1.528001e-02 |
| ## PHAX       | -0.18237206 | 6.758554  | -3.1251175 | 2.584791e-03 | 1.530443e-02 |
| ## SLAIN1     | -0.60050816 | 4.697603  | -3.1247769 | 2.587415e-03 | 1.531562e-02 |
| ## ZNF542P    | -0.31134993 | 4.277026  | -3.1245339 | 2.589289e-03 | 1.532156e-02 |
| ## SH3BP5-AS1 | -0.27124110 | 6.022676  | -3.1244558 | 2.589892e-03 | 1.532156e-02 |
| ## NIPSNAP1   | 0.40715666  | 7.111223  | 3.1240657  | 2.592903e-03 | 1.533502e-02 |
| ## C2         | 0.28260902  | 4.015153  | 3.1220183  | 2.608761e-03 | 1.542443e-02 |
| ## NUDT11     | -0.40408656 | 4.884004  | -3.1207814 | 2.618385e-03 | 1.547694e-02 |
| ## GNL3L      | 0.45977129  | 6.822243  | 3.1205272  | 2.620367e-03 | 1.548426e-02 |
| ## USP1       | 0.43408905  | 8.393780  | 3.1203548  | 2.621713e-03 | 1.548781e-02 |
| ## NICN1      | -0.26731686 | 6.529077  | -3.1199179 | 2.625124e-03 | 1.549989e-02 |
| ## RPS6KA3    | 0.40021022  | 7.862961  | 3.1198584  | 2.625589e-03 | 1.549989e-02 |
| ## DRD5       | -0.42863861 | 4.536009  | -3.1198072 | 2.625989e-03 | 1.549989e-02 |
| ## ZNF442     | -0.10546737 | 3.776134  | -3.1196457 | 2.627252e-03 | 1.550115e-02 |
| ## FBX025     | -0.28901725 | 8.091064  | -3.1195892 | 2.627693e-03 | 1.550115e-02 |
| ## FBXW4      | -0.23813369 | 7.798610  | -3.1181944 | 2.638622e-03 | 1.556122e-02 |
| ## ZFP90      | -0.31043752 | 7.136083  | -3.1180864 | 2.639470e-03 | 1.556181e-02 |
| ## ZNF267     | 0.38647802  | 7.278786  | 3.1178480  | 2.641343e-03 | 1.556551e-02 |
| ## ASB9       | 0.33595955  | 4.510804  | 3.1178162  | 2.641593e-03 | 1.556551e-02 |
| ## SUGT1      | 0.26546075  | 9.772469  | 3.1168724  | 2.649019e-03 | 1.560486e-02 |
| ## ZNF658     | -0.33832378 | 4.411706  | -3.1165258 | 2.651752e-03 | 1.561059e-02 |
| ## ZNF283     | 0.15297799  | 3.920459  | 3.1164813  | 2.652103e-03 | 1.561059e-02 |
| ## WRAP73     | 0.28469211  | 6.963590  | 3.1164639  | 2.652240e-03 | 1.561059e-02 |
| ## KLHL42     | -0.52897425 | 8.230090  | -3.1159922 | 2.655964e-03 | 1.562808e-02 |
| ## NNAT       | -0.18858614 | 5.620371  | -3.1157153 | 2.658152e-03 | 1.563654e-02 |
| ## MAP2K6     | 0.54606478  | 7.039785  | 3.1155109  | 2.659768e-03 | 1.564163e-02 |
| ## INO80B     | 0.18159813  | 6.472419  | 3.1149266  | 2.664393e-03 | 1.566440e-02 |
| ## CNOT3      | 0.30795628  | 6.042900  | 3.1143041  | 2.669328e-03 | 1.568899e-02 |
| ## EDAR       | 0.46305352  | 6.321501  | 3.1140312  | 2.671495e-03 | 1.569729e-02 |
| ## GRINA      | 0.35292608  | 6.911060  | 3.1134688  | 2.675965e-03 | 1.571913e-02 |
| ## PTH1R      | -0.17391192 | 4.980857  | -3.1133299 | 2.677070e-03 | 1.572118e-02 |
| ## MRM1       | 0.15220394  | 5.776203  | 3.1129112  | 2.680404e-03 | 1.573632e-02 |
| ## LYPD3      | 0.59475422  | 6.074357  | 3.1123087  | 2.685208e-03 | 1.576008e-02 |
| ## TTC28-AS1  | -0.22125133 | 5.026722  | -3.1113330 | 2.693004e-03 | 1.580139e-02 |
| ## NGLY1      | 0.32107798  | 5.619400  | 3.1109557  | 2.696025e-03 | 1.581465e-02 |
| ## DPEP2      | -0.41641956 | 5.596666  | -3.1106758 | 2.698268e-03 | 1.582335e-02 |
| ## CEP135     | 0.31858511  | 6.376120  | 3.1099671  | 2.703954e-03 | 1.585224e-02 |
| ## ACP1       | 0.17074266  | 3.806648  | 3.1096101  | 2.706823e-03 | 1.586090e-02 |
| ## DYNLT1     | 0.21152179  | 11.175416 | 3.1095936  | 2.706955e-03 | 1.586090e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## PPP1CA       | 0.26242992  | 9.851793  | 3.1092604  | 2.709636e-03 | 1.587214e-02 |
| ## MAPK13       | 0.58370883  | 8.529472  | 3.1090763  | 2.711118e-03 | 1.587636e-02 |
| ## NRBP2        | -0.32493976 | 7.365657  | -3.1084402 | 2.716244e-03 | 1.590190e-02 |
| ## VAT1         | -0.30671032 | 8.769043  | -3.1072486 | 2.725871e-03 | 1.595378e-02 |
| ## CALU         | 0.36154160  | 9.112750  | 3.1070226  | 2.727701e-03 | 1.595858e-02 |
| ## VAMP4        | 0.36597427  | 6.204454  | 3.1069580  | 2.728224e-03 | 1.595858e-02 |
| ## TLR7         | -0.54396844 | 5.071069  | -3.1067263 | 2.730101e-03 | 1.596496e-02 |
| ## MATR3        | 0.40643293  | 7.404339  | 3.1066341  | 2.730849e-03 | 1.596496e-02 |
| ## CDS2         | 0.37298312  | 7.201125  | 3.1064025  | 2.732726e-03 | 1.597145e-02 |
| ## DHFR         | 0.36602124  | 6.269896  | 3.1062737  | 2.733772e-03 | 1.597308e-02 |
| ## LINC01088    | -0.22080073 | 3.560904  | -3.1057318 | 2.738172e-03 | 1.599430e-02 |
| ## S100A9       | 0.95640253  | 8.364841  | 3.1047670  | 2.746023e-03 | 1.603567e-02 |
| ## DHX37        | 0.25217885  | 5.830194  | 3.1045975  | 2.747405e-03 | 1.603924e-02 |
| ## AUTS2        | -0.64766742 | 8.321736  | -3.1039884 | 2.752375e-03 | 1.606375e-02 |
| ## SYAP1        | 0.29171576  | 9.190796  | 3.1034710  | 2.756603e-03 | 1.608330e-02 |
| ## NRDC         | 0.16534018  | 8.855863  | 3.1033895  | 2.757269e-03 | 1.608330e-02 |
| ## VBP1         | 0.22759175  | 9.708905  | 3.1028007  | 2.762089e-03 | 1.610690e-02 |
| ## CENPJ        | 0.23366640  | 5.177257  | 3.1023187  | 2.766041e-03 | 1.612543e-02 |
| ## CCDC6        | 0.42226493  | 7.250694  | 3.1021251  | 2.767630e-03 | 1.613018e-02 |
| ## SRM          | 0.32477362  | 8.150374  | 3.1019837  | 2.768790e-03 | 1.613242e-02 |
| ## LOC100996583 | -0.40584410 | 4.612966  | -3.1017371 | 2.770816e-03 | 1.613971e-02 |
| ## SCARB1       | 0.38968237  | 7.537375  | 3.1015150  | 2.772642e-03 | 1.614583e-02 |
| ## RTN1         | -0.64061515 | 5.429580  | -3.1013614 | 2.773905e-03 | 1.614867e-02 |
| ## L2HGDH       | 0.15762203  | 5.195425  | 3.1009749  | 2.777085e-03 | 1.615835e-02 |
| ## GET3         | 0.30597331  | 7.899800  | 3.1009707  | 2.777120e-03 | 1.615835e-02 |
| ## NSD3         | -0.24338054 | 4.770316  | -3.1008577 | 2.778050e-03 | 1.615925e-02 |
| ## TAF4B        | 0.18122272  | 4.361954  | 3.1006378  | 2.779863e-03 | 1.616221e-02 |
| ## ZNF562       | 0.24915501  | 7.879605  | 3.1006075  | 2.780112e-03 | 1.616221e-02 |
| ## NDUFA4L2     | 0.32828578  | 6.553473  | 3.1003229  | 2.782459e-03 | 1.617134e-02 |
| ## AP5M1        | 0.24993964  | 3.970018  | 3.0989214  | 2.794043e-03 | 1.623414e-02 |
| ## TRERF1       | 0.23945506  | 4.940127  | 3.0987996  | 2.795051e-03 | 1.623547e-02 |
| ## NACA4P       | -0.08165543 | 11.568570 | -3.0986737 | 2.796095e-03 | 1.623700e-02 |
| ## GRIA2        | -0.26458775 | 3.755811  | -3.0981210 | 2.800679e-03 | 1.625908e-02 |
| ## CACNA1H      | -0.38127851 | 5.885827  | -3.0977448 | 2.803803e-03 | 1.627268e-02 |
| ## MAOA         | -0.78865989 | 7.501816  | -3.0973540 | 2.807051e-03 | 1.628700e-02 |
| ## ZDHHC15      | -0.14959238 | 3.517537  | -3.0970530 | 2.809555e-03 | 1.629699e-02 |
| ## SMG8         | 0.28544181  | 7.288243  | 3.0969045  | 2.810792e-03 | 1.629962e-02 |
| ## PUF60        | 0.27736532  | 9.280224  | 3.0964339  | 2.814714e-03 | 1.631399e-02 |
| ## RHOA         | 0.32631189  | 10.588970 | 3.0964191  | 2.814837e-03 | 1.631399e-02 |
| ## POMGNT1      | 0.24773212  | 6.993104  | 3.0953903  | 2.823428e-03 | 1.635923e-02 |
| ## RNPS1        | 0.21921028  | 9.778939  | 3.0949864  | 2.826808e-03 | 1.637425e-02 |
| ## DUS4L        | 0.49436519  | 6.557945  | 3.0943887  | 2.831815e-03 | 1.639530e-02 |
| ## CTNNB1       | 0.76907056  | 6.109941  | 3.0943648  | 2.832016e-03 | 1.639530e-02 |
| ## ABHD13       | 0.24615740  | 4.840570  | 3.0939298  | 2.835666e-03 | 1.641187e-02 |
| ## JCHAIN       | -0.90375402 | 12.170655 | -3.0935372 | 2.838964e-03 | 1.642639e-02 |
| ## BLOC1S3      | 0.21989771  | 6.461522  | 3.0933382  | 2.840637e-03 | 1.643151e-02 |
| ## ZNF670       | 0.36913400  | 4.246352  | 3.0928676  | 2.844597e-03 | 1.644985e-02 |
| ## CSMD3        | -0.14213351 | 3.644385  | -3.0925302 | 2.847440e-03 | 1.646171e-02 |
| ## DVL3         | 0.21072656  | 6.170855  | 3.0921833  | 2.850366e-03 | 1.647405e-02 |
| ## LOC105373334 | -0.18362522 | 5.152991  | -3.0917725 | 2.853833e-03 | 1.648952e-02 |
| ## HMGCS1       | 0.69052366  | 6.558912  | 3.0909995  | 2.860369e-03 | 1.652182e-02 |
| ## AGO3         | 0.33105227  | 7.069781  | 3.0909237  | 2.861011e-03 | 1.652182e-02 |
| ## FCGRT        | -0.36933509 | 8.846636  | -3.0905228 | 2.864407e-03 | 1.653463e-02 |
| ## KCNMB2       | -0.17072327 | 4.392461  | -3.0904146 | 2.865324e-03 | 1.653463e-02 |

|             |             |           |            |              |              |
|-------------|-------------|-----------|------------|--------------|--------------|
| ## RIMS3    | -0.48708322 | 4.952898  | -3.0903808 | 2.865611e-03 | 1.653463e-02 |
| ## UBIAD1   | 0.32807942  | 6.260157  | 3.0894651  | 2.873385e-03 | 1.657122e-02 |
| ## YWHAQ    | 0.17967805  | 11.104308 | 3.0894463  | 2.873545e-03 | 1.657122e-02 |
| ## SOBP     | -0.31968217 | 4.761785  | -3.0890405 | 2.876996e-03 | 1.658630e-02 |
| ## EEF2     | -0.17981045 | 12.102567 | -3.0889518 | 2.877752e-03 | 1.658630e-02 |
| ## MYDGF    | 0.29335796  | 9.158721  | 3.0888487  | 2.878629e-03 | 1.658677e-02 |
| ## ARL6IP1  | 0.31462082  | 10.939388 | 3.0885719  | 2.880987e-03 | 1.659576e-02 |
| ## ARHGAP32 | 0.59112970  | 6.275171  | 3.0874095  | 2.890908e-03 | 1.664830e-02 |
| ## DDX11    | 0.50425417  | 7.793286  | 3.0870700  | 2.893812e-03 | 1.666042e-02 |
| ## EGR2     | -0.57641348 | 7.311467  | -3.0869719 | 2.894651e-03 | 1.666065e-02 |
| ## RAD51C   | 0.24938542  | 6.496075  | 3.0866545  | 2.897369e-03 | 1.666912e-02 |
| ## WDR73    | 0.24471574  | 7.770940  | 3.0866131  | 2.897724e-03 | 1.666912e-02 |
| ## PPP2R5D  | 0.27681278  | 7.687708  | 3.0858687  | 2.904108e-03 | 1.670123e-02 |
| ## FMO2     | -0.92452502 | 6.860374  | -3.0856793 | 2.905734e-03 | 1.670597e-02 |
| ## L3MBTL2  | 0.25149596  | 6.444275  | 3.0825688  | 2.932567e-03 | 1.684715e-02 |
| ## HADHB    | -0.21679255 | 10.081278 | -3.0825605 | 2.932639e-03 | 1.684715e-02 |
| ## DRG1     | 0.15917045  | 9.234460  | 3.0825513  | 2.932719e-03 | 1.684715e-02 |
| ## PER2     | -0.50854715 | 8.916787  | -3.0823408 | 2.934543e-03 | 1.685298e-02 |
| ## DYNC1LI2 | -0.29717600 | 9.643906  | -3.0814825 | 2.941992e-03 | 1.688784e-02 |
| ## NCEH1    | 0.66172833  | 7.186629  | 3.0814546  | 2.942235e-03 | 1.688784e-02 |
| ## GALNT7   | -0.52746816 | 10.139022 | -3.0812482 | 2.944029e-03 | 1.689348e-02 |
| ## TPRKB    | 0.23289615  | 8.685381  | 3.0798092  | 2.956565e-03 | 1.696075e-02 |
| ## PSMD7    | 0.19688378  | 9.135393  | 3.0793072  | 2.960951e-03 | 1.698008e-02 |
| ## FMO4     | -0.34490740 | 6.177982  | -3.0792368 | 2.961566e-03 | 1.698008e-02 |
| ## PCDH19   | -0.39445112 | 4.493892  | -3.0787717 | 2.965635e-03 | 1.699873e-02 |
| ## MTRES1   | -0.27062207 | 7.082566  | -3.0785227 | 2.967816e-03 | 1.700655e-02 |
| ## BASP1    | -0.43569940 | 9.013369  | -3.0778763 | 2.973484e-03 | 1.703434e-02 |
| ## SCN8A    | 0.10376274  | 3.946225  | 3.0776350  | 2.975602e-03 | 1.704179e-02 |
| ## CD276    | 0.20085931  | 4.860063  | 3.0774074  | 2.977602e-03 | 1.704671e-02 |
| ## MROCK1   | -0.25610871 | 4.275925  | -3.0773507 | 2.978100e-03 | 1.704671e-02 |
| ## SLC25A27 | -0.32931267 | 4.625748  | -3.0761444 | 2.988719e-03 | 1.709907e-02 |
| ## GAPT     | -0.38106651 | 3.986833  | -3.0761252 | 2.988889e-03 | 1.709907e-02 |
| ## GTF2IRD1 | 0.34101682  | 7.998369  | 3.0755180  | 2.994248e-03 | 1.712175e-02 |
| ## EIF2S3   | 0.75171185  | 8.025189  | 3.0754160  | 2.995149e-03 | 1.712175e-02 |
| ## RASL11B  | -0.23160194 | 6.153353  | -3.0753966 | 2.995320e-03 | 1.712175e-02 |
| ## KIAA2013 | -0.19411505 | 6.568530  | -3.0744675 | 3.003540e-03 | 1.716403e-02 |
| ## H4C3     | 0.34408182  | 8.448923  | 3.0738293  | 3.009199e-03 | 1.719165e-02 |
| ## LAMP1    | 0.46470182  | 8.530957  | 3.0736734  | 3.010583e-03 | 1.719484e-02 |
| ## NOP16    | 0.36193642  | 6.829767  | 3.0723695  | 3.022179e-03 | 1.725634e-02 |
| ## SURF2    | 0.25188588  | 5.956828  | 3.0721589  | 3.024056e-03 | 1.726232e-02 |
| ## KKR4     | -0.08408563 | 3.359855  | -3.0715892 | 3.029139e-03 | 1.728660e-02 |
| ## CDK19    | 0.13451607  | 4.479577  | 3.0711265  | 3.033273e-03 | 1.730545e-02 |
| ## JDP2     | -0.30305939 | 6.641909  | -3.0706914 | 3.037166e-03 | 1.732291e-02 |
| ## HTATIP2  | 0.38528558  | 8.564571  | 3.0705088  | 3.038800e-03 | 1.732532e-02 |
| ## TMEM204  | -0.47905331 | 7.307239  | -3.0704582 | 3.039253e-03 | 1.732532e-02 |
| ## SNAPC1   | 0.34782187  | 6.633701  | 3.0702308  | 3.041291e-03 | 1.732949e-02 |
| ## HLA-A    | 0.21280159  | 13.049222 | 3.0701909  | 3.041649e-03 | 1.732949e-02 |
| ## EBP      | 0.38829835  | 8.547796  | 3.0700784  | 3.042658e-03 | 1.733050e-02 |
| ## OVOL1    | 0.22570679  | 4.638419  | 3.0698061  | 3.045099e-03 | 1.733966e-02 |
| ## ATP1B2   | -0.15839997 | 4.693617  | -3.0693802 | 3.048924e-03 | 1.735669e-02 |
| ## EVC      | -0.15897148 | 5.887642  | -3.0691428 | 3.051057e-03 | 1.736409e-02 |
| ## LYZL4    | -0.16081061 | 5.404048  | -3.0690156 | 3.052200e-03 | 1.736585e-02 |
| ## ADIPOQ   | -0.99428985 | 4.357801  | -3.0688641 | 3.053563e-03 | 1.736886e-02 |
| ## RFESD    | -0.11242259 | 3.701546  | -3.0676660 | 3.064359e-03 | 1.742493e-02 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## SZT2      | 0.10737880  | 3.984251  | 3.0675846  | 3.065093e-03 | 1.742493e-02 |
| ## GTF2F2    | 0.27499248  | 6.436684  | 3.0673100  | 3.067574e-03 | 1.743427e-02 |
| ## MANF      | 0.27499070  | 9.423174  | 3.0665896  | 3.074089e-03 | 1.746653e-02 |
| ## PFN1      | 0.21675330  | 11.446062 | 3.0660255  | 3.079199e-03 | 1.748967e-02 |
| ## NUFIP1    | 0.28291611  | 5.714045  | 3.0659456  | 3.079923e-03 | 1.748967e-02 |
| ## RNF26     | 0.22361808  | 6.221278  | 3.0658620  | 3.080682e-03 | 1.748967e-02 |
| ## HGH1      | 0.26825341  | 7.107402  | 3.0651351  | 3.087281e-03 | 1.752236e-02 |
| ## ADGRA3    | 0.13060025  | 3.440383  | 3.0643882  | 3.094077e-03 | 1.755615e-02 |
| ## IGBP1     | -0.23284347 | 9.323201  | -3.0631075 | 3.105760e-03 | 1.761764e-02 |
| ## TMEM209   | 0.18012110  | 4.662895  | 3.0623128  | 3.113032e-03 | 1.765408e-02 |
| ## NADK      | 0.32260683  | 6.640432  | 3.0614724  | 3.120738e-03 | 1.769296e-02 |
| ## PRRT2     | -0.41410330 | 5.240285  | -3.0602652 | 3.131838e-03 | 1.774931e-02 |
| ## MIR3945HG | 0.22425874  | 3.854596  | 3.0602062  | 3.132382e-03 | 1.774931e-02 |
| ## IGDCC4    | -0.63457105 | 5.796672  | -3.0599238 | 3.134985e-03 | 1.775923e-02 |
| ## FAM168A   | -0.26873255 | 7.585596  | -3.0590041 | 3.143474e-03 | 1.780248e-02 |
| ## RMDN3     | 0.22316041  | 8.013989  | 3.0588544  | 3.144858e-03 | 1.780547e-02 |
| ## PVT1      | 0.48208422  | 7.639853  | 3.0584567  | 3.148537e-03 | 1.782146e-02 |
| ## CCL11     | -0.84071332 | 8.749341  | -3.0580839 | 3.151990e-03 | 1.783615e-02 |
| ## NPTXR     | -0.32576341 | 4.561039  | -3.0577773 | 3.154832e-03 | 1.784738e-02 |
| ## RBM7      | 0.26882944  | 8.817124  | 3.0575612  | 3.156837e-03 | 1.785388e-02 |
| ## LINC00671 | -0.18112315 | 4.501027  | -3.0567419 | 3.164447e-03 | 1.789206e-02 |
| ## DENND4A   | 0.20721972  | 7.478731  | 3.0551821  | 3.178985e-03 | 1.796938e-02 |
| ## PSMD4     | 0.21427108  | 9.935764  | 3.0541181  | 3.188937e-03 | 1.802074e-02 |
| ## SOCS1     | 0.27938752  | 4.929838  | 3.0536353  | 3.193462e-03 | 1.804142e-02 |
| ## RANBP1    | 0.14670689  | 5.069133  | 3.0535052  | 3.194682e-03 | 1.804341e-02 |
| ## AP1AR     | 0.44840142  | 6.638316  | 3.0532272  | 3.197292e-03 | 1.805325e-02 |
| ## CLPP      | 0.20842104  | 8.234918  | 3.0530836  | 3.198641e-03 | 1.805598e-02 |
| ## ZNF763    | -0.14898411 | 3.451802  | -3.0517718 | 3.210985e-03 | 1.812074e-02 |
| ## MINDY1    | -0.30657876 | 7.185550  | -3.0510510 | 3.217786e-03 | 1.815421e-02 |
| ## NAA40     | 0.25493921  | 6.588226  | 3.0505879  | 3.222164e-03 | 1.817398e-02 |
| ## LINC03007 | -0.37882643 | 4.724954  | -3.0497356 | 3.230234e-03 | 1.821457e-02 |
| ## SPIB      | -0.42799360 | 5.138397  | -3.0494273 | 3.233157e-03 | 1.822612e-02 |
| ## RNF6      | 0.39398887  | 9.617431  | 3.0489938  | 3.237273e-03 | 1.824438e-02 |
| ## C2orf68   | -0.28372439 | 6.773510  | -3.0486695 | 3.240355e-03 | 1.825324e-02 |
| ## ERMP1     | 0.38554191  | 7.837546  | 3.0485835  | 3.241173e-03 | 1.825324e-02 |
| ## TBPL1     | 0.22697427  | 8.062953  | 3.0485517  | 3.241475e-03 | 1.825324e-02 |
| ## MDH1B     | -0.15487510 | 3.658842  | -3.0481870 | 3.244945e-03 | 1.826784e-02 |
| ## CLEC4F    | -0.15154353 | 4.799455  | -3.0479677 | 3.247033e-03 | 1.827465e-02 |
| ## PIWIL1    | 0.35184189  | 4.110554  | 3.0476227  | 3.250322e-03 | 1.828822e-02 |
| ## PSMA3-AS1 | -0.31258775 | 7.941396  | -3.0474950 | 3.251539e-03 | 1.829013e-02 |
| ## GALK1     | 0.21060918  | 4.891069  | 3.0467464  | 3.258687e-03 | 1.832538e-02 |
| ## HTRA3     | -0.42108489 | 6.937030  | -3.0451246 | 3.274221e-03 | 1.840777e-02 |
| ## EPHB4     | 0.29245113  | 7.854986  | 3.0447328  | 3.277984e-03 | 1.842395e-02 |
| ## FGF2      | -0.27589459 | 5.347929  | -3.0442357 | 3.282765e-03 | 1.844251e-02 |
| ## OGDH      | 0.19918535  | 5.778664  | 3.0442053  | 3.283057e-03 | 1.844251e-02 |
| ## ZNF675    | 0.17292453  | 3.471819  | 3.0440546  | 3.284508e-03 | 1.844470e-02 |
| ## RBM26     | 0.09218341  | 3.499755  | 3.0439807  | 3.285219e-03 | 1.844470e-02 |
| ## SORT1     | 0.37127090  | 4.202475  | 3.0429792  | 3.294877e-03 | 1.849394e-02 |
| ## TRIM8     | -0.28711830 | 8.850884  | -3.0408439 | 3.315556e-03 | 1.860499e-02 |
| ## CTSE      | -1.41514809 | 11.168061 | -3.0407231 | 3.316729e-03 | 1.860657e-02 |
| ## PTK7      | 0.14704232  | 3.529320  | 3.0401747  | 3.322062e-03 | 1.863146e-02 |
| ## HS3ST1    | 0.29638381  | 5.166939  | 3.0396945  | 3.326737e-03 | 1.865266e-02 |
| ## TSC22D2   | -0.35728288 | 8.850282  | -3.0394484 | 3.329135e-03 | 1.866108e-02 |
| ## CDX2      | 0.50542464  | 5.964589  | 3.0388814  | 3.334667e-03 | 1.868706e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## HLA-F        | 0.38059024  | 11.038842 | 3.0381462  | 3.341853e-03 | 1.872229e-02 |
| ## GATC         | 0.44526380  | 6.194378  | 3.0375349  | 3.347840e-03 | 1.875079e-02 |
| ## KIAA1549     | 0.36849004  | 4.746076  | 3.0372652  | 3.350484e-03 | 1.876055e-02 |
| ## MAMDC2-AS1   | -0.08390627 | 3.206094  | -3.0368354 | 3.354702e-03 | 1.877911e-02 |
| ## MTERF3       | 0.28486267  | 7.934144  | 3.0365753  | 3.357257e-03 | 1.878132e-02 |
| ## DHRS2        | 0.80370054  | 5.755490  | 3.0365328  | 3.357674e-03 | 1.878132e-02 |
| ## ACOT9        | 0.33677086  | 8.491495  | 3.0365198  | 3.357802e-03 | 1.878132e-02 |
| ## LOC105369228 | -0.50727019 | 6.754573  | -3.0362372 | 3.360580e-03 | 1.878781e-02 |
| ## RHBDF1       | 0.27882663  | 7.562279  | 3.0362183  | 3.360766e-03 | 1.878781e-02 |
| ## PEX10        | 0.23805533  | 5.091591  | 3.0357312  | 3.365560e-03 | 1.880956e-02 |
| ## RHEB         | 0.31926816  | 8.911568  | 3.0355542  | 3.367304e-03 | 1.881426e-02 |
| ## TRIM29       | 1.03741102  | 7.435676  | 3.0353734  | 3.369086e-03 | 1.881917e-02 |
| ## LMO1         | -0.18276465 | 4.692199  | -3.0342997 | 3.379686e-03 | 1.887331e-02 |
| ## INCENP       | 0.21637724  | 5.041843  | 3.0341563  | 3.381105e-03 | 1.887617e-02 |
| ## STX4         | 0.25073740  | 8.327731  | 3.0339206  | 3.383436e-03 | 1.888413e-02 |
| ## GUCA1A       | 0.13266478  | 3.511849  | 3.0332833  | 3.389750e-03 | 1.891429e-02 |
| ## PDGFB        | 0.22841504  | 5.508839  | 3.0330386  | 3.392177e-03 | 1.892277e-02 |
| ## SLC18A2      | -0.35453516 | 4.603311  | -3.0323057 | 3.399455e-03 | 1.895737e-02 |
| ## H2BC4        | 0.59763807  | 4.203158  | 3.0322307  | 3.400201e-03 | 1.895737e-02 |
| ## SAP130       | 0.15947791  | 7.348196  | 3.0320202  | 3.402294e-03 | 1.896335e-02 |
| ## SLC35F1      | -0.18787511 | 5.162524  | -3.0319398 | 3.403094e-03 | 1.896335e-02 |
| ## NLK          | 0.32403484  | 6.185135  | 3.0316271  | 3.406207e-03 | 1.897562e-02 |
| ## TLN2         | -0.38190463 | 5.810527  | -3.0299461 | 3.422987e-03 | 1.906243e-02 |
| ## CR2          | -0.86452726 | 5.309892  | -3.0298826 | 3.423622e-03 | 1.906243e-02 |
| ## MDM2         | 0.14517086  | 4.060038  | 3.0282533  | 3.439962e-03 | 1.914829e-02 |
| ## NIPA1        | 0.27112001  | 4.317287  | 3.0277689  | 3.444833e-03 | 1.917029e-02 |
| ## DHX15        | 0.17479349  | 10.939211 | 3.0272507  | 3.450052e-03 | 1.919420e-02 |
| ## DCK          | 0.31403139  | 8.033163  | 3.0265900  | 3.456718e-03 | 1.922615e-02 |
| ## PLPPR4       | -0.76381804 | 5.138443  | -3.0262490 | 3.460162e-03 | 1.924016e-02 |
| ## TMEM191A     | 0.31306851  | 5.562413  | 3.0257050  | 3.465664e-03 | 1.926561e-02 |
| ## THOC2        | 0.37845699  | 7.405120  | 3.0254263  | 3.468486e-03 | 1.927615e-02 |
| ## LRRC32       | -0.46609921 | 7.657867  | -3.0246140 | 3.476722e-03 | 1.931677e-02 |
| ## CLUH         | 0.24083342  | 8.281782  | 3.0243554  | 3.479347e-03 | 1.932620e-02 |
| ## FAM111A-DT   | 0.30868877  | 6.899066  | 3.0241020  | 3.481923e-03 | 1.933535e-02 |
| ## NBN          | 0.47750005  | 8.022582  | 3.0239136  | 3.483838e-03 | 1.934083e-02 |
| ## EEIG1        | -0.33073996 | 8.781283  | -3.0234971 | 3.488076e-03 | 1.935920e-02 |
| ## LNPEP        | 0.24630389  | 4.189426  | 3.0231604  | 3.491506e-03 | 1.937307e-02 |
| ## VPS50        | 0.13065033  | 3.444377  | 3.0228961  | 3.494200e-03 | 1.938285e-02 |
| ## RASAL1       | -0.45056603 | 6.589383  | -3.0226378 | 3.496835e-03 | 1.939230e-02 |
| ## LSM5         | 0.32595309  | 5.349480  | 3.0219633  | 3.503726e-03 | 1.942534e-02 |
| ## MCEMP1       | 0.41945832  | 5.461794  | 3.0218304  | 3.505085e-03 | 1.942770e-02 |
| ## LINC02256    | -0.17563638 | 5.372741  | -3.0216617 | 3.506810e-03 | 1.943210e-02 |
| ## SMARCA1      | 0.16991681  | 6.983512  | 3.0195618  | 3.528359e-03 | 1.954482e-02 |
| ## RADIL        | -0.21042780 | 5.506181  | -3.0194965 | 3.529031e-03 | 1.954482e-02 |
| ## TGFA         | 0.24605642  | 4.833326  | 3.0187761  | 3.536453e-03 | 1.958072e-02 |
| ## RASIP1       | -0.38922824 | 6.246749  | -3.0186638 | 3.537611e-03 | 1.958192e-02 |
| ## C2orf76      | -0.34617884 | 5.767199  | -3.0185127 | 3.539170e-03 | 1.958535e-02 |
| ## STK33        | -0.29561044 | 5.053823  | -3.0183009 | 3.541357e-03 | 1.959224e-02 |
| ## CEP57        | 0.42701816  | 6.955210  | 3.0179289  | 3.545200e-03 | 1.960830e-02 |
| ## EIF4EBP1     | 0.43978696  | 8.121063  | 3.0171823  | 3.552925e-03 | 1.964581e-02 |
| ## COX10        | 0.14555943  | 3.885130  | 3.0168480  | 3.556389e-03 | 1.965974e-02 |
| ## HORMAD1      | 0.79929878  | 3.891983  | 3.0157929  | 3.567343e-03 | 1.971506e-02 |
| ## ZNF544       | 0.39313532  | 7.456842  | 3.0155939  | 3.569411e-03 | 1.972126e-02 |
| ## UBR3         | -0.21644101 | 8.757679  | -3.0148069 | 3.577607e-03 | 1.976130e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## RNPEP        | 0.33954534  | 9.242859  | 3.0144515  | 3.581313e-03 | 1.977652e-02 |
| ## LOC101928728 | -0.12318721 | 4.062879  | -3.0141403 | 3.584562e-03 | 1.978922e-02 |
| ## CIDEA        | -0.53433673 | 6.704544  | -3.0136961 | 3.589204e-03 | 1.980959e-02 |
| ## CDK9         | 0.38808631  | 6.850713  | 3.0134409  | 3.591873e-03 | 1.981907e-02 |
| ## RIPK2        | 0.33524415  | 5.421994  | 3.0132493  | 3.593878e-03 | 1.982488e-02 |
| ## NUMBL        | -0.16720222 | 5.874003  | -3.0131257 | 3.595173e-03 | 1.982677e-02 |
| ## LCN10        | -0.20970722 | 5.422021  | -3.0130196 | 3.596283e-03 | 1.982764e-02 |
| ## WAC-AS1      | 0.23521533  | 7.546492  | 3.0110391  | 3.617085e-03 | 1.993705e-02 |
| ## TMEM216      | 0.21036359  | 7.468615  | 3.0101716  | 3.626231e-03 | 1.998217e-02 |
| ## PDAP1        | 0.32687744  | 8.604901  | 3.0094958  | 3.633370e-03 | 2.001622e-02 |
| ## NRXN2        | -0.35168220 | 4.690168  | -3.0082982 | 3.646056e-03 | 2.008079e-02 |
| ## SEPTIN2      | 0.43749383  | 8.463467  | 3.0072012  | 3.657712e-03 | 2.013966e-02 |
| ## SLC4A1AP     | 0.19511459  | 7.679090  | 3.0070420  | 3.659406e-03 | 2.014366e-02 |
| ## HAND2        | -0.21762016 | 4.769998  | -3.0068521 | 3.661429e-03 | 2.014947e-02 |
| ## ZC3H12B      | -0.31475628 | 4.263298  | -3.0066737 | 3.663329e-03 | 2.015460e-02 |
| ## ZFAS1        | 0.31540041  | 10.696059 | 3.0064759  | 3.665437e-03 | 2.016087e-02 |
| ## C12orf56     | 0.39319177  | 3.799260  | 3.0060922  | 3.669530e-03 | 2.017805e-02 |
| ## HMG1         | 0.20424320  | 11.108816 | 3.0059146  | 3.671426e-03 | 2.018315e-02 |
| ## TICAM1       | 0.27894820  | 6.514309  | 3.0054976  | 3.675882e-03 | 2.020231e-02 |
| ## CNKSR1       | 0.32121196  | 6.614851  | 3.0050171  | 3.681021e-03 | 2.022044e-02 |
| ## GABRA1       | -0.12432084 | 3.936014  | -3.0050076 | 3.681123e-03 | 2.022044e-02 |
| ## FLJ20021     | -0.17520443 | 6.830467  | -3.0041597 | 3.690209e-03 | 2.026501e-02 |
| ## WASHC1       | 0.21487524  | 5.199865  | 3.0039858  | 3.692076e-03 | 2.026769e-02 |
| ## JAKMIP2      | -0.29305057 | 4.392587  | -3.0039329 | 3.692643e-03 | 2.026769e-02 |
| ## UBE4A        | -0.18758214 | 9.732979  | -3.0028698 | 3.704072e-03 | 2.032506e-02 |
| ## XPO7         | 0.41233878  | 6.811201  | 3.0027772  | 3.705070e-03 | 2.032518e-02 |
| ## MRPS36       | -0.22359221 | 8.843716  | -3.0009610 | 3.724676e-03 | 2.042735e-02 |
| ## CD22         | -0.27940896 | 5.494316  | -2.9997130 | 3.738204e-03 | 2.049614e-02 |
| ## LINC00937    | -0.42561392 | 6.280295  | -2.9993997 | 3.741607e-03 | 2.050940e-02 |
| ## AK2          | 0.31332405  | 6.870862  | 2.9989780  | 3.746193e-03 | 2.052914e-02 |
| ## LINC02981    | -0.10348131 | 3.585418  | -2.9987240 | 3.748957e-03 | 2.053888e-02 |
| ## CPED1        | -0.48753836 | 6.108441  | -2.9985514 | 3.750836e-03 | 2.054377e-02 |
| ## AASDHPPT     | 0.25081177  | 8.707651  | 2.9979810  | 3.757054e-03 | 2.057241e-02 |
| ## MOCS2        | -0.35799472 | 7.651511  | -2.9973268 | 3.764197e-03 | 2.060112e-02 |
| ## POLR3F       | 0.22007592  | 5.970412  | 2.9973197  | 3.764275e-03 | 2.060112e-02 |
| ## RNF149       | 0.30404105  | 9.805810  | 2.9957003  | 3.782010e-03 | 2.069274e-02 |
| ## NOL8         | 0.26033309  | 8.133631  | 2.9955548  | 3.783608e-03 | 2.069605e-02 |
| ## ERBB2        | 0.62067217  | 4.287239  | 2.9954604  | 3.784645e-03 | 2.069628e-02 |
| ## KBTBD11      | -0.57795875 | 6.173063  | -2.9953080 | 3.786319e-03 | 2.070000e-02 |
| ## IDNK         | -0.31182212 | 6.646373  | -2.9948228 | 3.791653e-03 | 2.071863e-02 |
| ## NPLOC4       | 0.20692999  | 8.360683  | 2.9947764  | 3.792165e-03 | 2.071863e-02 |
| ## CHAD         | -0.18218775 | 4.471257  | -2.9947041 | 3.792960e-03 | 2.071863e-02 |
| ## DENND2A      | -0.37218708 | 5.535660  | -2.9946363 | 3.793706e-03 | 2.071863e-02 |
| ## CLEC14A      | -0.24951153 | 7.057908  | -2.9945396 | 3.794771e-03 | 2.071901e-02 |
| ## DSTN         | -0.31247330 | 11.539367 | -2.9944193 | 3.796096e-03 | 2.072081e-02 |
| ## ZNF559       | -0.51940618 | 6.845432  | -2.9938669 | 3.802185e-03 | 2.074861e-02 |
| ## TNFAIP8      | -0.38179885 | 8.348713  | -2.9935411 | 3.805780e-03 | 2.076279e-02 |
| ## TGM2         | 0.66601981  | 8.125604  | 2.9933126  | 3.808303e-03 | 2.077111e-02 |
| ## TCAM1P       | 0.44145189  | 3.857187  | 2.9929650  | 3.812145e-03 | 2.078662e-02 |
| ## CBLIF        | -2.27553790 | 8.676176  | -2.9925581 | 3.816646e-03 | 2.080572e-02 |
| ## CEP131       | 0.29109356  | 5.784333  | 2.9923653  | 3.818782e-03 | 2.081191e-02 |
| ## PNPO         | 0.27932638  | 7.531248  | 2.9919027  | 3.823908e-03 | 2.083439e-02 |
| ## DAZL         | -0.14481618 | 3.350902  | -2.9917438 | 3.825671e-03 | 2.083855e-02 |
| ## LOC100507403 | -0.12477618 | 4.464043  | -2.9915346 | 3.827991e-03 | 2.084574e-02 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## DTYMK     | 0.28016399  | 5.277281  | 2.9907972  | 3.836185e-03 | 2.088124e-02 |
| ## C2orf15   | 0.10305964  | 3.750144  | 2.9907674  | 3.836516e-03 | 2.088124e-02 |
| ## ARL3      | -0.23860991 | 8.026289  | -2.9899934 | 3.845134e-03 | 2.092267e-02 |
| ## RIOK3     | 0.47533269  | 7.906385  | 2.9896801  | 3.848628e-03 | 2.093404e-02 |
| ## ARHGAP5   | 0.49418239  | 5.500129  | 2.9896259  | 3.849233e-03 | 2.093404e-02 |
| ## SAMD12    | 0.20533041  | 3.575646  | 2.9889397  | 3.856896e-03 | 2.097024e-02 |
| ## TMEM38B   | 0.48238044  | 5.768291  | 2.9878740  | 3.868825e-03 | 2.102960e-02 |
| ## TNFSF9    | 0.32093037  | 4.718382  | 2.9875715  | 3.872217e-03 | 2.104255e-02 |
| ## KRT18     | 0.64772413  | 11.910408 | 2.9874669  | 3.873391e-03 | 2.104344e-02 |
| ## UQCR11    | -0.24677096 | 10.602962 | -2.9869773 | 3.878889e-03 | 2.106781e-02 |
| ## LINC00920 | 0.32649876  | 4.018338  | 2.9862784  | 3.886750e-03 | 2.110500e-02 |
| ## HAPSTR1   | 0.41057590  | 7.050340  | 2.9843889  | 3.908076e-03 | 2.121365e-02 |
| ## GUCA1C    | -0.14318000 | 3.619579  | -2.9843253 | 3.908795e-03 | 2.121365e-02 |
| ## POLR1B    | 0.19443550  | 5.545089  | 2.9830695  | 3.923032e-03 | 2.128536e-02 |
| ## STK38     | 0.30020672  | 7.739868  | 2.9827222  | 3.926978e-03 | 2.130122e-02 |
| ## PREPL     | -0.27587125 | 8.580679  | -2.9820439 | 3.934694e-03 | 2.133752e-02 |
| ## CUL4B     | 0.33774898  | 7.526143  | 2.9816826  | 3.938811e-03 | 2.135184e-02 |
| ## F12       | 0.59844432  | 6.763822  | 2.9816322  | 3.939385e-03 | 2.135184e-02 |
| ## WDR90     | 0.35107443  | 7.209921  | 2.9815165  | 3.940704e-03 | 2.135343e-02 |
| ## VTI1B     | -0.21161503 | 9.403435  | -2.9812165 | 3.944126e-03 | 2.136641e-02 |
| ## LRRC41    | 0.27461735  | 6.749459  | 2.9810054  | 3.946536e-03 | 2.137391e-02 |
| ## TMED5     | -0.08318701 | 3.297122  | -2.9801394 | 3.956436e-03 | 2.142195e-02 |
| ## TECPR1    | -0.34189382 | 7.883911  | -2.9795345 | 3.963365e-03 | 2.145389e-02 |
| ## SSR3      | 0.42220472  | 6.820073  | 2.9792662  | 3.966441e-03 | 2.146496e-02 |
| ## RAB12     | 0.46623350  | 4.799858  | 2.9784293  | 3.976053e-03 | 2.151139e-02 |
| ## TMSB4X    | -0.14735932 | 13.324095 | -2.9781667 | 3.979074e-03 | 2.152214e-02 |
| ## ERI1      | 0.39803041  | 7.090145  | 2.9777335  | 3.984060e-03 | 2.154212e-02 |
| ## MPZL1     | 0.27383136  | 8.823693  | 2.9776661  | 3.984837e-03 | 2.154212e-02 |
| ## SPRYD7    | 0.20044961  | 3.893760  | 2.9768153  | 3.994651e-03 | 2.158957e-02 |
| ## TSG101    | 0.19499505  | 9.422568  | 2.9764017  | 3.999430e-03 | 2.160979e-02 |
| ## IL2RA     | 0.33495247  | 5.090669  | 2.9761641  | 4.002177e-03 | 2.161089e-02 |
| ## CLEC5A    | 0.49533500  | 4.454381  | 2.9761302  | 4.002569e-03 | 2.161089e-02 |
| ## SETD3     | -0.21502216 | 8.875176  | -2.9760342 | 4.003680e-03 | 2.161089e-02 |
| ## NIT1      | 0.23202329  | 8.320502  | 2.9759406  | 4.004764e-03 | 2.161089e-02 |
| ## ADAT2     | 0.37109678  | 6.011451  | 2.9759354  | 4.004823e-03 | 2.161089e-02 |
| ## PARD6B    | 0.21141554  | 3.818704  | 2.9751841  | 4.013528e-03 | 2.165226e-02 |
| ## SOX12     | 0.27883500  | 4.788652  | 2.9749796  | 4.015901e-03 | 2.165945e-02 |
| ## GCG       | -0.86948880 | 4.105447  | -2.9746365 | 4.019885e-03 | 2.167532e-02 |
| ## MRPL52    | 0.26163034  | 4.908090  | 2.9735683  | 4.032310e-03 | 2.173669e-02 |
| ## LPIN1     | 0.31491893  | 4.546561  | 2.9733033  | 4.035398e-03 | 2.174770e-02 |
| ## TARBP1    | 0.28905146  | 8.813366  | 2.9731375  | 4.037330e-03 | 2.175249e-02 |
| ## TPM3P4    | 0.14863178  | 3.695702  | 2.9730233  | 4.038662e-03 | 2.175404e-02 |
| ## MYO15A    | -0.13067306 | 4.306842  | -2.9725397 | 4.044308e-03 | 2.177712e-02 |
| ## DNMT3B    | 0.45987174  | 6.061460  | 2.9724771  | 4.045039e-03 | 2.177712e-02 |
| ## KLRD1     | 0.57226779  | 5.050077  | 2.9722651  | 4.047516e-03 | 2.178482e-02 |
| ## KRT20     | -1.69541249 | 8.294776  | -2.9721526 | 4.048832e-03 | 2.178627e-02 |
| ## ELANE     | -0.13456682 | 4.208385  | -2.9717384 | 4.053677e-03 | 2.180531e-02 |
| ## CDC27     | 0.46775388  | 6.532301  | 2.9716712  | 4.054465e-03 | 2.180531e-02 |
| ## ORMDL2    | 0.30997204  | 9.123320  | 2.9712716  | 4.059146e-03 | 2.181968e-02 |
| ## BTNL8     | -0.78708471 | 6.620048  | -2.9712643 | 4.059231e-03 | 2.181968e-02 |
| ## CXCL6     | 1.05040893  | 5.182712  | 2.9701855  | 4.071893e-03 | 2.188209e-02 |
| ## CASC23    | -0.16699821 | 4.904008  | -2.9696307 | 4.078420e-03 | 2.190864e-02 |
| ## WNT2      | 0.54701712  | 6.138386  | 2.9695867  | 4.078937e-03 | 2.190864e-02 |
| ## SNAP25    | -0.64760059 | 3.937618  | -2.9687812 | 4.088431e-03 | 2.195397e-02 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## MAPK9        | 0.22068269  | 8.085705  | 2.9682649  | 4.094527e-03 | 2.198103e-02 |
| ## KIFC2        | 0.46325423  | 6.452563  | 2.9679545  | 4.098196e-03 | 2.199506e-02 |
| ## ACACB        | -0.24818275 | 7.267889  | -2.9677898 | 4.100144e-03 | 2.199984e-02 |
| ## THSD7A       | -0.35071116 | 4.439270  | -2.9674177 | 4.104548e-03 | 2.201780e-02 |
| ## LOC101927330 | 0.24231552  | 4.952382  | 2.9671171  | 4.108109e-03 | 2.203123e-02 |
| ## ZNF777       | 0.30012796  | 6.411385  | 2.9666761  | 4.113339e-03 | 2.205360e-02 |
| ## PGRMC1       | 0.33213007  | 9.641703  | 2.9664695  | 4.115790e-03 | 2.206106e-02 |
| ## TSPYL5       | -0.82238390 | 6.866432  | -2.9662438 | 4.118471e-03 | 2.206975e-02 |
| ## DSG3         | 0.81276842  | 5.022595  | 2.9661215  | 4.119924e-03 | 2.207185e-02 |
| ## ZNF557       | 0.26648553  | 4.759134  | 2.9658201  | 4.123508e-03 | 2.208537e-02 |
| ## VPS13C       | -0.23351447 | 9.460046  | -2.9655436 | 4.126797e-03 | 2.209731e-02 |
| ## FAM66C       | -0.09920142 | 3.350722  | -2.9648544 | 4.135006e-03 | 2.213557e-02 |
| ## BMPR2        | 0.31224641  | 6.209068  | 2.9640608  | 4.144478e-03 | 2.218058e-02 |
| ## FTSJ3        | 0.22717227  | 7.962999  | 2.9632596  | 4.154062e-03 | 2.222606e-02 |
| ## R3HDM4       | 0.31191849  | 7.907523  | 2.9631719  | 4.155113e-03 | 2.222606e-02 |
| ## RITA1        | 0.21312780  | 7.362346  | 2.9629154  | 4.158185e-03 | 2.223314e-02 |
| ## PDE4A        | -0.39126026 | 6.204991  | -2.9628833 | 4.158570e-03 | 2.223314e-02 |
| ## USF1         | 0.36472578  | 5.106243  | 2.9626977  | 4.160796e-03 | 2.223932e-02 |
| ## RNF40        | 0.18446695  | 7.441955  | 2.9621689  | 4.167141e-03 | 2.226753e-02 |
| ## THAP8        | -0.19093084 | 5.845932  | -2.9616580 | 4.173282e-03 | 2.229462e-02 |
| ## MEIS3P1      | -0.50480521 | 7.152537  | -2.9615681 | 4.174362e-03 | 2.229467e-02 |
| ## SLX4IP       | 0.29780663  | 7.047764  | 2.9609092  | 4.182295e-03 | 2.233131e-02 |
| ## NIBAN2       | 0.34932861  | 8.625193  | 2.9604710  | 4.187578e-03 | 2.235379e-02 |
| ## KRT222       | -0.09403355 | 3.252115  | -2.9601820 | 4.191065e-03 | 2.236667e-02 |
| ## MECR         | 0.20309942  | 6.561999  | 2.9595644  | 4.198528e-03 | 2.240075e-02 |
| ## CANT1        | 0.50770944  | 6.418648  | 2.9594180  | 4.200299e-03 | 2.240446e-02 |
| ## TMEM41B      | 0.23406014  | 9.082800  | 2.9592750  | 4.202029e-03 | 2.240559e-02 |
| ## NAPA         | 0.27124904  | 8.566588  | 2.9592186  | 4.202713e-03 | 2.240559e-02 |
| ## ARHGDIG      | -0.21120325 | 4.841180  | -2.9591338 | 4.203739e-03 | 2.240559e-02 |
| ## PHYHIP       | -0.20066916 | 4.938028  | -2.9590399 | 4.204875e-03 | 2.240592e-02 |
| ## ATP2C1       | 0.33747392  | 6.926049  | 2.9586435  | 4.209678e-03 | 2.242577e-02 |
| ## INTS6        | 0.11343238  | 3.757505  | 2.9583134  | 4.213681e-03 | 2.244136e-02 |
| ## RAB3C        | -0.50614076 | 4.308996  | -2.9572383 | 4.226745e-03 | 2.249838e-02 |
| ## SEC62        | -0.36504924 | 5.378185  | -2.9572068 | 4.227128e-03 | 2.249838e-02 |
| ## HCP5         | 0.59512119  | 7.207931  | 2.9571657  | 4.227629e-03 | 2.249838e-02 |
| ## NCR1         | 0.10739678  | 3.713081  | 2.9565715  | 4.234867e-03 | 2.253102e-02 |
| ## OMA1         | -0.28837959 | 7.557058  | -2.9564846 | 4.235926e-03 | 2.253102e-02 |
| ## ACTR6        | 0.29752598  | 7.665686  | 2.9561855  | 4.239574e-03 | 2.254466e-02 |
| ## TAFA4        | -0.38411053 | 3.493795  | -2.9552313 | 4.251232e-03 | 2.260088e-02 |
| ## AS3MT        | -0.34711781 | 4.609642  | -2.9549938 | 4.254138e-03 | 2.261056e-02 |
| ## PRDX3        | 0.21321459  | 10.469981 | 2.9534268  | 4.273361e-03 | 2.270693e-02 |
| ## INO80        | 0.18790874  | 6.798758  | 2.9531872  | 4.276306e-03 | 2.271679e-02 |
| ## MEAK7        | 0.33235415  | 6.087344  | 2.9526703  | 4.282669e-03 | 2.274478e-02 |
| ## PSTPIP2      | 0.49828367  | 5.902120  | 2.9520754  | 4.290003e-03 | 2.277792e-02 |
| ## GMEB2        | 0.20502179  | 7.102686  | 2.9519598  | 4.291429e-03 | 2.277844e-02 |
| ## SLC29A2      | 0.17878666  | 5.310059  | 2.9518902  | 4.292288e-03 | 2.277844e-02 |
| ## HSPB11       | 0.31422949  | 7.445158  | 2.9516733  | 4.294966e-03 | 2.278684e-02 |
| ## IFT27        | -0.26487922 | 6.734598  | -2.9503082 | 4.311856e-03 | 2.286725e-02 |
| ## PR01804      | -0.09337574 | 3.336912  | -2.9502710 | 4.312317e-03 | 2.286725e-02 |
| ## EQTN         | 0.07034873  | 3.185545  | 2.9501129  | 4.314277e-03 | 2.286897e-02 |
| ## LINC01106    | 0.34207678  | 5.420301  | 2.9500676  | 4.314839e-03 | 2.286897e-02 |
| ## ZNF546       | -0.08747261 | 3.166059  | -2.9498196 | 4.317916e-03 | 2.286968e-02 |
| ## ADGRB3       | -0.41998001 | 3.656743  | -2.9497728 | 4.318497e-03 | 2.286968e-02 |
| ## CHGB         | -0.98099821 | 5.059337  | -2.9497664 | 4.318575e-03 | 2.286968e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## MARVELD3     | 0.33221172  | 6.130443  | 2.9497029  | 4.319364e-03 | 2.286968e-02 |
| ## LINC02076    | 0.41096438  | 4.269830  | 2.9491721  | 4.325959e-03 | 2.289590e-02 |
| ## DYNLT2B      | 0.44553180  | 6.367999  | 2.9490962  | 4.326903e-03 | 2.289590e-02 |
| ## COIL         | 0.34801617  | 6.476206  | 2.9490389  | 4.327616e-03 | 2.289590e-02 |
| ## TM9SF3       | -0.35321272 | 10.304203 | -2.9480431 | 4.340017e-03 | 2.295568e-02 |
| ## LOC105376387 | 0.11116509  | 3.357178  | 2.9479088  | 4.341691e-03 | 2.295693e-02 |
| ## LRRC4C       | -0.32886465 | 4.361092  | -2.9478473 | 4.342458e-03 | 2.295693e-02 |
| ## UMAP1        | -0.37462828 | 6.400383  | -2.9476573 | 4.344830e-03 | 2.296364e-02 |
| ## PLEKHA4      | -0.32388248 | 6.456584  | -2.9469518 | 4.353644e-03 | 2.300438e-02 |
| ## COA7         | 0.31711632  | 6.803239  | 2.9465451  | 4.358734e-03 | 2.302544e-02 |
| ## CYP3A4       | -0.21429229 | 6.460995  | -2.9461242 | 4.364005e-03 | 2.304744e-02 |
| ## C2CD3        | -0.09265992 | 3.429243  | -2.9456584 | 4.369848e-03 | 2.307085e-02 |
| ## SCMH1        | -0.31593883 | 7.386773  | -2.9455941 | 4.370655e-03 | 2.307085e-02 |
| ## H3C7         | 0.13465177  | 3.636392  | 2.9454837  | 4.372040e-03 | 2.307232e-02 |
| ## ANXA2        | 0.16782967  | 3.644150  | 2.9453412  | 4.373830e-03 | 2.307591e-02 |
| ## NDUFA5       | -0.26915911 | 9.752941  | -2.9451222 | 4.376581e-03 | 2.308458e-02 |
| ## UBL7-DT      | 0.24870461  | 5.035085  | 2.9449186  | 4.379141e-03 | 2.309224e-02 |
| ## AP3S1        | -0.23358630 | 10.424701 | -2.9441984 | 4.388205e-03 | 2.313246e-02 |
| ## SRFBP1       | 0.29410939  | 6.089733  | 2.9441360  | 4.388991e-03 | 2.313246e-02 |
| ## MRPL55       | 0.19123703  | 7.394331  | 2.9436056  | 4.395679e-03 | 2.316185e-02 |
| ## RGS22        | -0.17607210 | 4.125034  | -2.9432791 | 4.399801e-03 | 2.317770e-02 |
| ## PRMT1        | 0.18688724  | 4.665178  | 2.9428662  | 4.405018e-03 | 2.319932e-02 |
| ## IFI35        | 0.39079798  | 8.174732  | 2.9423995  | 4.410922e-03 | 2.322453e-02 |
| ## GPR39        | 0.32136493  | 4.303238  | 2.9419949  | 4.416047e-03 | 2.324564e-02 |
| ## ZYG11B       | -0.26111900 | 8.154129  | -2.9403653 | 4.436742e-03 | 2.334868e-02 |
| ## PACRG        | -0.19164877 | 3.723995  | -2.9396761 | 4.445521e-03 | 2.338897e-02 |
| ## HOXA2        | -0.37652156 | 4.540087  | -2.9393349 | 4.449874e-03 | 2.340595e-02 |
| ## CENPF        | 0.18592708  | 3.735316  | 2.9383515  | 4.462440e-03 | 2.346613e-02 |
| ## FBXL17       | -0.28861114 | 6.836193  | -2.9382022 | 4.464350e-03 | 2.347024e-02 |
| ## RNF41        | 0.26804228  | 6.104933  | 2.9380861  | 4.465836e-03 | 2.347213e-02 |
| ## REX04        | 0.20258878  | 6.626652  | 2.9377302  | 4.470395e-03 | 2.349016e-02 |
| ## SOX21-AS1    | -0.24706429 | 3.780658  | -2.9375855 | 4.472251e-03 | 2.349398e-02 |
| ## LOC100507560 | -0.22304928 | 4.860687  | -2.9374622 | 4.473832e-03 | 2.349636e-02 |
| ## SDCCAG8      | 0.18458274  | 4.454512  | 2.9371603  | 4.477705e-03 | 2.351077e-02 |
| ## CHKB-DT      | 0.15598065  | 5.301838  | 2.9370586  | 4.479011e-03 | 2.351170e-02 |
| ## FNDC9        | -0.12601443 | 3.516201  | -2.9364596 | 4.486708e-03 | 2.354617e-02 |
| ## LYRM4        | 0.26331651  | 7.980909  | 2.9361843  | 4.490250e-03 | 2.355882e-02 |
| ## AMPH         | -0.42859969 | 4.840171  | -2.9358872 | 4.494074e-03 | 2.357295e-02 |
| ## LGR5         | 0.65392345  | 4.940799  | 2.9353399  | 4.501129e-03 | 2.360400e-02 |
| ## FAM120B      | -0.23231985 | 6.937922  | -2.9349594 | 4.506038e-03 | 2.362380e-02 |
| ## ILDR1        | 0.16629464  | 4.615982  | 2.9347796  | 4.508361e-03 | 2.363003e-02 |
| ## CORO6        | -0.20818713 | 4.595366  | -2.9339113 | 4.519589e-03 | 2.368292e-02 |
| ## TERF2        | 0.07514290  | 3.288176  | 2.9338039  | 4.520980e-03 | 2.368425e-02 |
| ## DBNDD1       | 0.26078058  | 5.408098  | 2.9336800  | 4.522584e-03 | 2.368669e-02 |
| ## PPME1        | 0.18507102  | 7.941714  | 2.9335766  | 4.523924e-03 | 2.368775e-02 |
| ## NLGN4X       | -0.14439098 | 4.204398  | -2.9334105 | 4.526076e-03 | 2.369307e-02 |
| ## CCDC8        | -0.28583801 | 6.597701  | -2.9328804 | 4.532954e-03 | 2.372310e-02 |
| ## LGI1         | -0.33841743 | 3.612668  | -2.9327768 | 4.534299e-03 | 2.372418e-02 |
| ## PDZD4        | -0.18538995 | 5.291832  | -2.9320069 | 4.544307e-03 | 2.377057e-02 |
| ## FAM83A       | 0.47180712  | 4.260486  | 2.9315131  | 4.550736e-03 | 2.379823e-02 |
| ## KLKB1        | -0.20283363 | 5.544130  | -2.9312578 | 4.554064e-03 | 2.380965e-02 |
| ## UQCRB        | -0.18201444 | 11.542744 | -2.9310104 | 4.557291e-03 | 2.382054e-02 |
| ## TM9SF1       | 0.29907060  | 7.471382  | 2.9303438  | 4.565996e-03 | 2.386005e-02 |
| ## POLR3C       | 0.28995628  | 7.127196  | 2.9299717  | 4.570861e-03 | 2.387948e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## PRKXP1       | 0.13817943  | 4.296147  | 2.9297219  | 4.574130e-03 | 2.388785e-02 |
| ## ABCF3        | 0.20589016  | 7.192342  | 2.9296740  | 4.574757e-03 | 2.388785e-02 |
| ## TEFM         | 0.26588052  | 7.591850  | 2.9288403  | 4.585686e-03 | 2.393300e-02 |
| ## NOPCHAP1     | 0.24051798  | 7.607463  | 2.9288390  | 4.585702e-03 | 2.393300e-02 |
| ## ADAT1        | 0.27299439  | 5.942159  | 2.9278549  | 4.598633e-03 | 2.399447e-02 |
| ## KHDRBS3      | -0.59639475 | 6.979620  | -2.9276428 | 4.601424e-03 | 2.400302e-02 |
| ## OTUD4        | 0.19717320  | 5.625564  | 2.9271713  | 4.607634e-03 | 2.402939e-02 |
| ## PSMD8        | 0.23714877  | 10.001367 | 2.9267362  | 4.613372e-03 | 2.405329e-02 |
| ## SCFD2        | -0.22269394 | 7.881789  | -2.9265188 | 4.616241e-03 | 2.405633e-02 |
| ## DDX23        | 0.22519507  | 7.702908  | 2.9265170  | 4.616265e-03 | 2.405633e-02 |
| ## ADAMTS3      | -0.41980020 | 4.045291  | -2.9259083 | 4.624307e-03 | 2.408726e-02 |
| ## TXNDC12      | 0.21772590  | 9.215571  | 2.9258928  | 4.624513e-03 | 2.408726e-02 |
| ## SMKR1        | 0.28882471  | 4.105892  | 2.9256404  | 4.627852e-03 | 2.409862e-02 |
| ## SOX17        | -0.24005555 | 4.705341  | -2.9252685 | 4.632776e-03 | 2.411823e-02 |
| ## IFI30        | 0.43674075  | 11.121717 | 2.9249859  | 4.636521e-03 | 2.413169e-02 |
| ## PRDX1        | 0.24731896  | 11.849888 | 2.9247842  | 4.639195e-03 | 2.413958e-02 |
| ## PAGR1        | 0.20566840  | 7.724368  | 2.9246229  | 4.641335e-03 | 2.414468e-02 |
| ## CDHR2        | -0.58343498 | 7.197689  | -2.9241671 | 4.647387e-03 | 2.417013e-02 |
| ## PHRF1        | 0.19289444  | 7.223803  | 2.9236975  | 4.653629e-03 | 2.419655e-02 |
| ## NAV2         | -0.19165842 | 3.894576  | -2.9234127 | 4.657419e-03 | 2.421021e-02 |
| ## LINC01424    | 0.09612888  | 3.500807  | 2.9225259  | 4.669238e-03 | 2.426559e-02 |
| ## CTAGE9       | 0.36782482  | 7.243373  | 2.9222181  | 4.673345e-03 | 2.428087e-02 |
| ## TIMP4        | -0.37894804 | 5.289404  | -2.9217749 | 4.679268e-03 | 2.430558e-02 |
| ## RPL26L1      | 0.20855541  | 9.354605  | 2.9214323  | 4.683851e-03 | 2.432332e-02 |
| ## MSMB         | -2.04657705 | 7.317424  | -2.9207233 | 4.693347e-03 | 2.436656e-02 |
| ## FAM3B        | -1.33852901 | 8.654078  | -2.9202071 | 4.700271e-03 | 2.439140e-02 |
| ## SIN3A        | 0.31004492  | 6.891635  | 2.9201920  | 4.700475e-03 | 2.439140e-02 |
| ## TRIO         | 0.37245213  | 6.837387  | 2.9192335  | 4.713359e-03 | 2.445216e-02 |
| ## EBF4         | -0.24219491 | 5.469536  | -2.9189804 | 4.716766e-03 | 2.446375e-02 |
| ## TME267       | 0.47517396  | 6.756208  | 2.9188280  | 4.718819e-03 | 2.446695e-02 |
| ## STX17        | 0.26685927  | 6.053899  | 2.9187601  | 4.719734e-03 | 2.446695e-02 |
| ## ABHD14B      | -0.32334194 | 8.037662  | -2.9183937 | 4.724675e-03 | 2.448554e-02 |
| ## LOC101928230 | -0.18158736 | 5.201536  | -2.9183198 | 4.725671e-03 | 2.448554e-02 |
| ## SPRR1B       | 1.04955126  | 4.261222  | 2.9176169  | 4.735163e-03 | 2.452681e-02 |
| ## FRK          | 0.39378905  | 4.583439  | 2.9175345  | 4.736277e-03 | 2.452681e-02 |
| ## FXR1         | 0.38013529  | 8.252046  | 2.9174685  | 4.737170e-03 | 2.452681e-02 |
| ## STX11        | 0.28356819  | 4.573778  | 2.9173435  | 4.738860e-03 | 2.452946e-02 |
| ## NOC4L        | 0.26819199  | 6.846736  | 2.9170646  | 4.742634e-03 | 2.454290e-02 |
| ## ATAD3B       | 0.17407687  | 7.961244  | 2.9165994  | 4.748936e-03 | 2.456940e-02 |
| ## METTL5       | 0.18113557  | 4.117907  | 2.9164593  | 4.750835e-03 | 2.457312e-02 |
| ## SLC2A1       | 0.23092736  | 3.805301  | 2.9154043  | 4.765159e-03 | 2.463908e-02 |
| ## FRA10AC1     | -0.28911002 | 8.292679  | -2.9153459 | 4.765953e-03 | 2.463908e-02 |
| ## GIT1         | 0.15686390  | 7.070884  | 2.9150136  | 4.770473e-03 | 2.465633e-02 |
| ## PODXL        | 0.38390241  | 8.356396  | 2.9148363  | 4.772888e-03 | 2.466268e-02 |
| ## LYL1         | -0.23687822 | 6.802252  | -2.9147174 | 4.774506e-03 | 2.466492e-02 |
| ## SCRIB        | 0.30026625  | 8.027145  | 2.9144058  | 4.778752e-03 | 2.468074e-02 |
| ## NEIL1        | -0.30100419 | 6.005897  | -2.9129009 | 4.799308e-03 | 2.478076e-02 |
| ## RNF212B      | -0.15312946 | 4.005010  | -2.9126975 | 4.802092e-03 | 2.478633e-02 |
| ## DIRAS3       | -0.52255749 | 4.842718  | -2.9126482 | 4.802768e-03 | 2.478633e-02 |
| ## TNFRSF10D    | 0.27610543  | 4.208377  | 2.9123923  | 4.806273e-03 | 2.479827e-02 |
| ## STX3         | 0.37295138  | 8.702372  | 2.9118871  | 4.813201e-03 | 2.482346e-02 |
| ## LOC105379524 | 0.32177201  | 4.947547  | 2.9118625  | 4.813538e-03 | 2.482346e-02 |
| ## SMARCE1      | -0.21810356 | 9.500086  | -2.9113051 | 4.821194e-03 | 2.485288e-02 |
| ## LAPTM4B      | 0.66232264  | 8.724653  | 2.9112142  | 4.822444e-03 | 2.485288e-02 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## CSF1R     | -0.36208804 | 8.198136  | -2.9111865 | 4.822824e-03 | 2.485288e-02 |
| ## PRDM10    | 0.14240305  | 4.931388  | 2.9098865  | 4.840728e-03 | 2.493897e-02 |
| ## HPSE      | 0.60612257  | 6.124397  | 2.9097835  | 4.842149e-03 | 2.494012e-02 |
| ## DIPK2A    | -0.25069964 | 8.618650  | -2.9094604 | 4.846609e-03 | 2.495692e-02 |
| ## FBX032    | -0.79119721 | 7.798141  | -2.9091950 | 4.850276e-03 | 2.496963e-02 |
| ## DPM1      | 0.25470197  | 10.285276 | 2.9089696  | 4.853391e-03 | 2.497949e-02 |
| ## PNMA8B    | -0.12154052 | 4.957588  | -2.9081062 | 4.865344e-03 | 2.503482e-02 |
| ## GIMAP8    | -0.57977191 | 6.213955  | -2.9074999 | 4.873755e-03 | 2.507191e-02 |
| ## GALNT17   | -0.30209817 | 5.593068  | -2.9069175 | 4.881846e-03 | 2.510732e-02 |
| ## PCID2     | 0.25623665  | 8.346191  | 2.9062989  | 4.890454e-03 | 2.514539e-02 |
| ## STRBP     | 0.33574549  | 7.505433  | 2.9060040  | 4.894561e-03 | 2.516029e-02 |
| ## FBXL3     | -0.21272013 | 9.868328  | -2.9056424 | 4.899604e-03 | 2.518000e-02 |
| ## PDGFC     | -0.52177856 | 8.772897  | -2.9052326 | 4.905324e-03 | 2.520317e-02 |
| ## LPGAT1    | 0.52978650  | 6.666155  | 2.9051126  | 4.907000e-03 | 2.520556e-02 |
| ## DUSP26    | -0.23229226 | 5.408901  | -2.9043602 | 4.917521e-03 | 2.525338e-02 |
| ## DRAP1     | 0.25910043  | 7.830178  | 2.9042649  | 4.918855e-03 | 2.525400e-02 |
| ## TMC04     | 0.21349979  | 5.246713  | 2.9035797  | 4.928457e-03 | 2.529707e-02 |
| ## DPP4      | 0.81926307  | 6.946427  | 2.9033163  | 4.932153e-03 | 2.530688e-02 |
| ## KCTD5     | 0.35396534  | 7.640644  | 2.9032145  | 4.933581e-03 | 2.530688e-02 |
| ## DCTD      | 0.35954851  | 7.545117  | 2.9031837  | 4.934015e-03 | 2.530688e-02 |
| ## IKBKB     | -0.30824292 | 8.505962  | -2.9027642 | 4.939908e-03 | 2.533087e-02 |
| ## EIF2AK3   | -0.37708466 | 8.937667  | -2.9024989 | 4.943638e-03 | 2.534375e-02 |
| ## ACOT7     | 0.48600996  | 8.399156  | 2.9021506  | 4.948540e-03 | 2.536264e-02 |
| ## MTG1      | 0.26150975  | 7.432176  | 2.9018110  | 4.953323e-03 | 2.537303e-02 |
| ## RAB5A     | 0.50003540  | 7.500451  | 2.9017971  | 4.953518e-03 | 2.537303e-02 |
| ## MDFIC     | -0.23528241 | 3.931578  | -2.9017472 | 4.954222e-03 | 2.537303e-02 |
| ## DPP9      | 0.19516880  | 6.700182  | 2.9015482  | 4.957027e-03 | 2.538115e-02 |
| ## LINC02615 | -0.31966653 | 4.761255  | -2.9013508 | 4.959812e-03 | 2.538916e-02 |
| ## TOP1      | 0.54181849  | 7.869104  | 2.9008954  | 4.966241e-03 | 2.541583e-02 |
| ## PGBD4     | -0.12489210 | 4.413404  | -2.9003787 | 4.973544e-03 | 2.544695e-02 |
| ## ZDHHC3    | 0.28136900  | 6.419146  | 2.9002020  | 4.976044e-03 | 2.545349e-02 |
| ## GLIS1     | -0.20055879 | 4.710922  | -2.8999581 | 4.979496e-03 | 2.546489e-02 |
| ## IL17RD    | -0.70496383 | 5.670450  | -2.8997714 | 4.982140e-03 | 2.547215e-02 |
| ## QSOX2     | 0.24336245  | 7.217862  | 2.8996806  | 4.983426e-03 | 2.547248e-02 |
| ## SLC27A6   | -0.13760620 | 3.668266  | -2.8991712 | 4.990651e-03 | 2.550314e-02 |
| ## MRPS34    | 0.24455027  | 8.081556  | 2.8986586  | 4.997929e-03 | 2.553407e-02 |
| ## VSIG1     | -1.14599734 | 6.443127  | -2.8983664 | 5.002081e-03 | 2.554902e-02 |
| ## ARPC1B    | 0.29928736  | 10.386890 | 2.8977819  | 5.010400e-03 | 2.558523e-02 |
| ## NIPA2     | 0.20005305  | 9.639957  | 2.8975653  | 5.013485e-03 | 2.559471e-02 |
| ## SOD2      | 0.55642219  | 7.920978  | 2.8974643  | 5.014925e-03 | 2.559579e-02 |
| ## CEBPD     | -0.31849775 | 10.448136 | -2.8970179 | 5.021292e-03 | 2.562200e-02 |
| ## CXCL14    | -1.17267386 | 9.079224  | -2.8966774 | 5.026153e-03 | 2.564052e-02 |
| ## HNRNPDL   | 0.27810821  | 8.965298  | 2.8956102  | 5.041416e-03 | 2.571209e-02 |
| ## GNA13     | 0.51685448  | 4.798769  | 2.8952827  | 5.046109e-03 | 2.572972e-02 |
| ## RPS6KA4   | 0.13019943  | 7.591167  | 2.8951142  | 5.048525e-03 | 2.573573e-02 |
| ## TOR1B     | 0.27728395  | 8.061500  | 2.8949964  | 5.050215e-03 | 2.573805e-02 |
| ## MRAP2     | -0.73553922 | 6.331549  | -2.8948501 | 5.052314e-03 | 2.574245e-02 |
| ## NALT1     | -0.13844142 | 4.820480  | -2.8946051 | 5.055830e-03 | 2.575406e-02 |
| ## RSRC2     | 0.20559577  | 7.937961  | 2.8939315  | 5.065512e-03 | 2.579707e-02 |
| ## RCS1      | -0.53679822 | 6.950717  | -2.8923762 | 5.087932e-03 | 2.590492e-02 |
| ## UNC45B    | -0.16583200 | 3.674330  | -2.8919185 | 5.094548e-03 | 2.593226e-02 |
| ## GPR19     | 0.19039536  | 4.198537  | 2.8914224  | 5.101727e-03 | 2.596245e-02 |
| ## NAA16     | 0.35621319  | 5.038588  | 2.8911734  | 5.105334e-03 | 2.597446e-02 |
| ## PDK1      | 0.39201840  | 6.103644  | 2.8901582  | 5.120064e-03 | 2.604304e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## FAM20C       | -0.42755967 | 7.743446  | -2.8899266 | 5.123430e-03 | 2.605380e-02 |
| ## PARG         | 0.18358496  | 7.389125  | 2.8896614  | 5.127286e-03 | 2.606704e-02 |
| ## IQSEC1       | -0.29823501 | 7.081413  | -2.8893666 | 5.131577e-03 | 2.608249e-02 |
| ## RPS3A        | -0.11871478 | 13.556557 | -2.8888682 | 5.138839e-03 | 2.611303e-02 |
| ## WASF2        | -0.29980219 | 8.546410  | -2.8873166 | 5.161503e-03 | 2.622180e-02 |
| ## ARL4C        | 0.65437803  | 7.386398  | 2.8870999  | 5.164676e-03 | 2.623152e-02 |
| ## LYRM2        | 0.36100215  | 7.014268  | 2.8869618  | 5.166699e-03 | 2.623539e-02 |
| ## OSER1-DT     | -0.26713570 | 4.529130  | -2.8867553 | 5.169725e-03 | 2.624436e-02 |
| ## IK           | -0.19251207 | 9.207698  | -2.8861762 | 5.178221e-03 | 2.627139e-02 |
| ## SNX9         | -0.26538044 | 8.699387  | -2.8861695 | 5.178319e-03 | 2.627139e-02 |
| ## GJB5         | 0.38347876  | 4.731208  | 2.8861344  | 5.178835e-03 | 2.627139e-02 |
| ## ZNF132       | -0.15656982 | 3.772541  | -2.8860277 | 5.180402e-03 | 2.627294e-02 |
| ## MOXD1        | -0.63625322 | 6.948763  | -2.8856557 | 5.185868e-03 | 2.629426e-02 |
| ## TOLLIP       | 0.28060971  | 6.379423  | 2.8855223  | 5.187829e-03 | 2.629780e-02 |
| ## SF3B1        | 0.46179876  | 8.935275  | 2.8854286  | 5.189208e-03 | 2.629838e-02 |
| ## SV2B         | -0.27324439 | 4.986031  | -2.8845815 | 5.201681e-03 | 2.635519e-02 |
| ## LYPD1        | 0.28301046  | 4.378206  | 2.8827711  | 5.228435e-03 | 2.647821e-02 |
| ## ADAMTS8      | -0.15557320 | 4.241133  | -2.8827663 | 5.228506e-03 | 2.647821e-02 |
| ## KDM7A-DT     | -0.31319783 | 5.754394  | -2.8821917 | 5.237023e-03 | 2.651490e-02 |
| ## PECAM1       | -0.42356678 | 6.589220  | -2.8815464 | 5.246605e-03 | 2.655695e-02 |
| ## NR6A1        | 0.16322481  | 4.764538  | 2.8813052  | 5.250191e-03 | 2.656864e-02 |
| ## TRIM31       | 0.90907521  | 6.696667  | 2.8807141  | 5.258986e-03 | 2.660669e-02 |
| ## LINC01119    | -0.10586142 | 4.367353  | -2.8799492 | 5.270389e-03 | 2.665790e-02 |
| ## NAA10        | 0.26770500  | 7.513366  | 2.8797519  | 5.273334e-03 | 2.666632e-02 |
| ## GPI          | 0.32961385  | 10.313425 | 2.8795318  | 5.276621e-03 | 2.667646e-02 |
| ## CIAO2B       | 0.22190033  | 9.585269  | 2.8788711  | 5.286499e-03 | 2.671677e-02 |
| ## NEURL1B      | -0.53997593 | 8.134226  | -2.8788269 | 5.287160e-03 | 2.671677e-02 |
| ## CA9          | -1.01203322 | 7.702261  | -2.8786377 | 5.289992e-03 | 2.672460e-02 |
| ## UBE2J2       | 0.18999992  | 6.356489  | 2.8785073  | 5.291945e-03 | 2.672798e-02 |
| ## ZFPL1        | 0.18692518  | 7.280330  | 2.8783189  | 5.294768e-03 | 2.673400e-02 |
| ## TRIM50       | -0.71830588 | 5.077986  | -2.8782564 | 5.295705e-03 | 2.673400e-02 |
| ## RWDD4        | -0.24071263 | 7.773565  | -2.8777263 | 5.303655e-03 | 2.676765e-02 |
| ## ZHX1-C8orf76 | 0.26293083  | 5.008903  | 2.8764969  | 5.322137e-03 | 2.685442e-02 |
| ## SLC12A9      | 0.18062873  | 7.145157  | 2.8762733  | 5.325505e-03 | 2.686002e-02 |
| ## PALS2        | 0.23553731  | 3.529779  | 2.8762519  | 5.325827e-03 | 2.686002e-02 |
| ## APBB3        | -0.23268263 | 6.544894  | -2.8750297 | 5.344271e-03 | 2.694036e-02 |
| ## TMEM208      | 0.22481373  | 8.498228  | 2.8750249  | 5.344345e-03 | 2.694036e-02 |
| ## LOC101927468 | -0.12726142 | 3.631885  | -2.8747954 | 5.347814e-03 | 2.695133e-02 |
| ## ABHD12       | 0.22020269  | 7.996798  | 2.8743104  | 5.355154e-03 | 2.698179e-02 |
| ## ZNF521       | -0.50390162 | 5.229547  | -2.8742216 | 5.356498e-03 | 2.698203e-02 |
| ## ZNF511       | 0.30465178  | 7.953458  | 2.8739200  | 5.361068e-03 | 2.699852e-02 |
| ## ZNF326       | 0.27506498  | 7.758981  | 2.8729248  | 5.376174e-03 | 2.706805e-02 |
| ## GPR183       | -0.51482004 | 7.921355  | -2.8725973 | 5.381154e-03 | 2.708657e-02 |
| ## HSPA12A      | -0.50219340 | 5.322109  | -2.8724875 | 5.382825e-03 | 2.708843e-02 |
| ## SCD5         | -0.38956047 | 6.952456  | -2.8724001 | 5.384154e-03 | 2.708858e-02 |
| ## ZNF710       | 0.14853620  | 6.749838  | 2.8721528  | 5.387920e-03 | 2.710098e-02 |
| ## FYC01        | -0.16100673 | 6.411589  | -2.8720532 | 5.389435e-03 | 2.710205e-02 |
| ## LINC02595    | 0.16686945  | 3.822988  | 2.8714286  | 5.398958e-03 | 2.714339e-02 |
| ## ERG28        | 0.27596942  | 7.862781  | 2.8711171  | 5.403712e-03 | 2.716070e-02 |
| ## AASS         | -0.20164726 | 4.665521  | -2.8710321 | 5.405011e-03 | 2.716070e-02 |
| ## CPSF4        | 0.19933031  | 8.107666  | 2.8706317  | 5.411129e-03 | 2.718489e-02 |
| ## PENK         | -0.91512369 | 5.174021  | -2.8700924 | 5.419381e-03 | 2.721978e-02 |
| ## APOBEC2      | -0.47070506 | 5.662990  | -2.8675692 | 5.458140e-03 | 2.740453e-02 |
| ## USP6NL       | 0.32739867  | 6.298049  | 2.8673940  | 5.460841e-03 | 2.740453e-02 |

|                   |             |           |            |              |              |
|-------------------|-------------|-----------|------------|--------------|--------------|
| ## RHNO1          | 0.34387315  | 5.764784  | 2.8673887  | 5.460923e-03 | 2.740453e-02 |
| ## ARHGAP1        | -0.16071108 | 10.439896 | -2.8673559 | 5.461429e-03 | 2.740453e-02 |
| ## POU5F1P3       | 0.23839037  | 5.152764  | 2.8664834  | 5.474897e-03 | 2.746549e-02 |
| ## KCNJ2          | 0.79484734  | 6.512013  | 2.8663489  | 5.476977e-03 | 2.746931e-02 |
| ## MIR181A2HG     | 0.30767164  | 5.158834  | 2.8659029  | 5.483876e-03 | 2.749729e-02 |
| ## COL7A1         | 0.51805700  | 7.465195  | 2.8653948  | 5.491747e-03 | 2.753012e-02 |
| ## DERL2          | 0.24800601  | 8.893899  | 2.8650708  | 5.496770e-03 | 2.754693e-02 |
| ## ST6GALNAC1     | -0.97830157 | 8.773017  | -2.8650080 | 5.497745e-03 | 2.754693e-02 |
| ## TEAD1          | 0.25418755  | 3.689613  | 2.8644874  | 5.505828e-03 | 2.758079e-02 |
| ## GOLGB1         | -0.22430024 | 7.807714  | -2.8631977 | 5.525897e-03 | 2.767467e-02 |
| ## LARGE2         | 0.30632454  | 6.573975  | 2.8623824  | 5.538619e-03 | 2.773171e-02 |
| ## RTKL1-TNFRSF6B | 0.31701192  | 5.976115  | 2.8622650  | 5.540454e-03 | 2.773424e-02 |
| ## ACKR4          | -0.76363933 | 5.456538  | -2.8604004 | 5.569660e-03 | 2.787373e-02 |
| ## SLC27A2        | 0.71149556  | 6.273301  | 2.8589756  | 5.592074e-03 | 2.797918e-02 |
| ## CAV1           | -0.54194535 | 8.378653  | -2.8587854 | 5.595072e-03 | 2.798746e-02 |
| ## PHKB           | -0.25300581 | 8.101742  | -2.8578015 | 5.610606e-03 | 2.805504e-02 |
| ## CIAO2A         | 0.24308395  | 10.001462 | 2.8577590  | 5.611277e-03 | 2.805504e-02 |
| ## NPDC1          | -0.41761821 | 8.293588  | -2.8575616 | 5.614399e-03 | 2.806391e-02 |
| ## FASTKD3        | 0.29942129  | 7.685468  | 2.8559200  | 5.640422e-03 | 2.818444e-02 |
| ## CCL18          | 0.90634188  | 7.690703  | 2.8558698  | 5.641219e-03 | 2.818444e-02 |
| ## RIOX1          | 0.23651578  | 7.394509  | 2.8557783  | 5.642672e-03 | 2.818494e-02 |
| ## SLC5A9         | -0.11656427 | 4.392090  | -2.8554224 | 5.648332e-03 | 2.820644e-02 |
| ## KDM1B          | 0.24654917  | 3.565249  | 2.8552331  | 5.651342e-03 | 2.821471e-02 |
| ## TSPEAR         | -0.08608896 | 4.154420  | -2.8549813 | 5.655351e-03 | 2.822533e-02 |
| ## CHRNA5         | 0.32626800  | 4.202928  | 2.8549293  | 5.656180e-03 | 2.822533e-02 |
| ## HYMAI          | -0.52446509 | 5.823320  | -2.8543515 | 5.665388e-03 | 2.826450e-02 |
| ## IL15RA         | 0.34690431  | 7.446760  | 2.8531366  | 5.684797e-03 | 2.835454e-02 |
| ## DNMBP          | 0.20449381  | 3.608545  | 2.8529515  | 5.687759e-03 | 2.836252e-02 |
| ## IRF6           | 0.63591916  | 6.870844  | 2.8526726  | 5.692226e-03 | 2.837800e-02 |
| ## SLC2A3         | 0.47010432  | 7.467123  | 2.8524226  | 5.696232e-03 | 2.839118e-02 |
| ## WNT11          | 0.29806148  | 5.116384  | 2.8521329  | 5.700878e-03 | 2.840753e-02 |
| ## SPRY1          | -0.37148454 | 8.277399  | -2.8519740 | 5.703427e-03 | 2.841344e-02 |
| ## MIIP           | 0.15831287  | 6.948403  | 2.8515437  | 5.710338e-03 | 2.844106e-02 |
| ## SLX9           | 0.17017190  | 4.661331  | 2.8513464  | 5.713507e-03 | 2.845004e-02 |
| ## GNB2           | 0.21140533  | 8.998144  | 2.8512132  | 5.715649e-03 | 2.845359e-02 |
| ## CHADL          | -0.14831054 | 4.617745  | -2.8511322 | 5.716952e-03 | 2.845359e-02 |
| ## NUP160         | 0.31597482  | 7.194245  | 2.8507890  | 5.722475e-03 | 2.847091e-02 |
| ## BCLAF1         | 0.37629381  | 7.546173  | 2.8507459  | 5.723168e-03 | 2.847091e-02 |
| ## ELOVL6         | -0.67301079 | 7.633784  | -2.8503808 | 5.729049e-03 | 2.849337e-02 |
| ## GRK2           | 0.36438444  | 6.547043  | 2.8500835  | 5.733842e-03 | 2.850397e-02 |
| ## ERCC6L2-AS1    | -0.12550406 | 4.266824  | -2.8500787 | 5.733920e-03 | 2.850397e-02 |
| ## SPINT2         | 0.51166646  | 10.281718 | 2.8499140  | 5.736577e-03 | 2.850630e-02 |
| ## SNX22          | -0.14638134 | 4.206741  | -2.8498594 | 5.737458e-03 | 2.850630e-02 |
| ## EIF2AK4        | 0.26036831  | 7.165292  | 2.8497951  | 5.738494e-03 | 2.850630e-02 |
| ## ASB1           | -0.21573494 | 6.891614  | -2.8494352 | 5.744307e-03 | 2.852837e-02 |
| ## ZNF273         | 0.24587359  | 4.504174  | 2.8476372  | 5.773421e-03 | 2.866612e-02 |
| ## MYH14          | 0.22639427  | 5.513771  | 2.8475224  | 5.775284e-03 | 2.866854e-02 |
| ## CD33           | -0.24771237 | 5.463478  | -2.8466752 | 5.789053e-03 | 2.873004e-02 |
| ## GNL2           | 0.18866684  | 8.148833  | 2.8459489  | 5.800881e-03 | 2.878188e-02 |
| ## MCEE           | -0.27287282 | 7.242991  | -2.8456808 | 5.805254e-03 | 2.879672e-02 |
| ## DNAAF9         | -0.37356761 | 6.950579  | -2.8451954 | 5.813176e-03 | 2.882915e-02 |
| ## TREX1          | 0.25377276  | 7.367393  | 2.8448010  | 5.819623e-03 | 2.884925e-02 |
| ## PRR19          | 0.23348169  | 4.521897  | 2.8447778  | 5.820001e-03 | 2.884925e-02 |
| ## GREM1          | -0.93988126 | 10.221689 | -2.8441825 | 5.829743e-03 | 2.889066e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## MSRB1        | 0.28584015  | 8.514247  | 2.8439230  | 5.833993e-03 | 2.890485e-02 |
| ## ZNHIT2       | 0.22688865  | 6.052352  | 2.8433128  | 5.844002e-03 | 2.894755e-02 |
| ## SIK2         | -0.17086418 | 5.454376  | -2.8427636 | 5.853022e-03 | 2.898533e-02 |
| ## FAM124B      | -0.18106263 | 4.129318  | -2.8423073 | 5.860525e-03 | 2.901559e-02 |
| ## PLIN1        | -0.53282039 | 5.112846  | -2.8420954 | 5.864014e-03 | 2.902596e-02 |
| ## TRAPPC1      | 0.22771255  | 8.462129  | 2.8398036  | 5.901858e-03 | 2.920634e-02 |
| ## HOXA13       | 0.80931778  | 4.975741  | 2.8396789  | 5.903925e-03 | 2.920963e-02 |
| ## AARS1        | 0.19081436  | 8.932197  | 2.8381651  | 5.929054e-03 | 2.932545e-02 |
| ## SLK          | -0.31367136 | 8.363743  | -2.8380785 | 5.930494e-03 | 2.932545e-02 |
| ## PYROXD2      | -0.25284795 | 6.083007  | -2.8380144 | 5.931560e-03 | 2.932545e-02 |
| ## STAMBPL1     | 0.49693937  | 6.117390  | 2.8372752  | 5.943872e-03 | 2.937935e-02 |
| ## AKAP7        | -0.58533004 | 6.631175  | -2.8370043 | 5.948390e-03 | 2.939438e-02 |
| ## LTF          | -1.49573688 | 8.791669  | -2.8368895 | 5.950306e-03 | 2.939438e-02 |
| ## LANCL1       | 0.38523050  | 5.792873  | 2.8368000  | 5.951799e-03 | 2.939438e-02 |
| ## LRRC45       | 0.22191376  | 5.352766  | 2.8367172  | 5.953180e-03 | 2.939438e-02 |
| ## CTNS         | 0.20325368  | 6.640235  | 2.8366698  | 5.953972e-03 | 2.939438e-02 |
| ## PTPRJ        | 0.16374772  | 3.656050  | 2.8358880  | 5.967039e-03 | 2.945191e-02 |
| ## CCPG1        | -0.24213580 | 5.967866  | -2.8355274 | 5.973075e-03 | 2.947472e-02 |
| ## CD63         | -0.16928702 | 12.435266 | -2.8350533 | 5.981020e-03 | 2.950693e-02 |
| ## PFKP         | 0.49695320  | 9.216740  | 2.8347251  | 5.986525e-03 | 2.952710e-02 |
| ## SPSB2        | 0.37426685  | 5.798727  | 2.8344678  | 5.990844e-03 | 2.954140e-02 |
| ## SDHC         | 0.20744630  | 9.547529  | 2.8341962  | 5.995405e-03 | 2.955002e-02 |
| ## RALB         | 0.21471215  | 9.165900  | 2.8341948  | 5.995430e-03 | 2.955002e-02 |
| ## SLC01B3      | 0.87588489  | 4.460218  | 2.8336950  | 6.003833e-03 | 2.958443e-02 |
| ## LINC00997    | 0.14249742  | 4.810403  | 2.8331026  | 6.013809e-03 | 2.962658e-02 |
| ## SERPINB5     | 0.40997520  | 3.906383  | 2.8325326  | 6.023421e-03 | 2.966692e-02 |
| ## LCLAT1       | 0.28474077  | 8.735114  | 2.8312163  | 6.045672e-03 | 2.976947e-02 |
| ## TREH         | -0.23654454 | 4.310352  | -2.8307575 | 6.053447e-03 | 2.980070e-02 |
| ## SUSD4        | -0.31054007 | 5.929137  | -2.8304259 | 6.059070e-03 | 2.982134e-02 |
| ## FRMD4B       | -0.46235149 | 7.396063  | -2.8302596 | 6.061894e-03 | 2.982818e-02 |
| ## EEF1D        | -0.23793975 | 11.387944 | -2.8299797 | 6.066645e-03 | 2.984451e-02 |
| ## CHODL        | -0.31684947 | 4.237440  | -2.8296658 | 6.071981e-03 | 2.986371e-02 |
| ## PRPF39       | 0.36200243  | 7.274677  | 2.8290041  | 6.083239e-03 | 2.991201e-02 |
| ## SPRYD4       | 0.26229107  | 6.266048  | 2.8286941  | 6.088521e-03 | 2.993000e-02 |
| ## LOC105371046 | -0.16207970 | 4.376074  | -2.8286208 | 6.089771e-03 | 2.993000e-02 |
| ## COPB1        | 0.16466550  | 11.140193 | 2.8280899  | 6.098827e-03 | 2.996743e-02 |
| ## UBC          | 0.13953782  | 12.853590 | 2.8279665  | 6.100934e-03 | 2.997071e-02 |
| ## GRID1        | -0.17335073 | 4.661310  | -2.8269161 | 6.118895e-03 | 3.005186e-02 |
| ## LOC105375785 | 0.16830816  | 4.687912  | 2.8264215  | 6.127369e-03 | 3.008638e-02 |
| ## RC3H2        | 0.22149532  | 5.873875  | 2.8261667  | 6.131739e-03 | 3.010074e-02 |
| ## ZRSR2        | -0.24560472 | 7.198433  | -2.8260345 | 6.134007e-03 | 3.010477e-02 |
| ## B4GAT1       | -0.35198640 | 7.978970  | -2.8256102 | 6.141293e-03 | 3.013343e-02 |
| ## RAC3         | 0.29832932  | 4.721277  | 2.8253390  | 6.145953e-03 | 3.014919e-02 |
| ## JAG1         | 0.12597712  | 4.291003  | 2.8248211  | 6.154862e-03 | 3.018579e-02 |
| ## HBEGF        | -0.49962820 | 8.083986  | -2.8240305 | 6.168485e-03 | 3.024548e-02 |
| ## RPL13A       | -0.20190545 | 12.024413 | -2.8238294 | 6.171956e-03 | 3.025537e-02 |
| ## WDR77        | 0.26017774  | 7.705469  | 2.8235994  | 6.175926e-03 | 3.026771e-02 |
| ## DESI2        | 0.11033436  | 5.403498  | 2.8230140  | 6.186044e-03 | 3.031016e-02 |
| ## RRP7A        | 0.30803549  | 6.781404  | 2.8227586  | 6.190463e-03 | 3.031491e-02 |
| ## ATP13A1      | 0.24072954  | 8.158811  | 2.8226729  | 6.191945e-03 | 3.031491e-02 |
| ## ARHGEF39     | 0.34232292  | 4.448581  | 2.8226278  | 6.192726e-03 | 3.031491e-02 |
| ## FDXR         | 0.40152726  | 5.805870  | 2.8226214  | 6.192836e-03 | 3.031491e-02 |
| ## MAS1         | -0.10860519 | 4.022844  | -2.8224067 | 6.196555e-03 | 3.032598e-02 |
| ## GPALPP1      | 0.23543580  | 5.307926  | 2.8210062  | 6.220858e-03 | 3.043777e-02 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## KLK10      | 1.38064256  | 6.723183  | 2.8204760  | 6.230081e-03 | 3.047574e-02 |
| ## E2F8       | 0.70760353  | 6.642667  | 2.8200474  | 6.237547e-03 | 3.050509e-02 |
| ## DHRSX      | 0.28084339  | 7.701000  | 2.8199185  | 6.239793e-03 | 3.050891e-02 |
| ## B3GNT5     | 0.48966157  | 5.761284  | 2.8192986  | 6.250607e-03 | 3.055461e-02 |
| ## PEBP4      | -0.26300058 | 4.099304  | -2.8182803 | 6.268411e-03 | 3.063445e-02 |
| ## CC2D1B     | 0.26620474  | 6.337591  | 2.8180390  | 6.272637e-03 | 3.064791e-02 |
| ## DHFR2      | -0.28884107 | 5.011311  | -2.8176991 | 6.278594e-03 | 3.066867e-02 |
| ## RRP1B      | 0.17091240  | 5.303786  | 2.8176285  | 6.279831e-03 | 3.066867e-02 |
| ## LEMD1      | 0.54934405  | 4.434674  | 2.8172361  | 6.286716e-03 | 3.067603e-02 |
| ## TMTC4      | 0.40667801  | 5.091406  | 2.8172192  | 6.287012e-03 | 3.067603e-02 |
| ## CCDC18-AS1 | -0.37967899 | 8.797377  | -2.8171823 | 6.287662e-03 | 3.067603e-02 |
| ## RPS8       | -0.13660492 | 12.258319 | -2.8170976 | 6.289149e-03 | 3.067603e-02 |
| ## PDSS1      | 0.55559211  | 6.685909  | 2.8170851  | 6.289368e-03 | 3.067603e-02 |
| ## FBX038     | 0.25234710  | 5.143078  | 2.8170390  | 6.290178e-03 | 3.067603e-02 |
| ## SPAAR      | -0.13190662 | 5.653119  | -2.8168911 | 6.292775e-03 | 3.068151e-02 |
| ## JAML       | -0.35523024 | 7.297335  | -2.8161760 | 6.305350e-03 | 3.073379e-02 |
| ## MTX3       | -0.39828435 | 7.007867  | -2.8161136 | 6.306448e-03 | 3.073379e-02 |
| ## RBIS       | 0.34604541  | 6.267675  | 2.8158156  | 6.311697e-03 | 3.075217e-02 |
| ## UPF1       | 0.26517273  | 6.549614  | 2.8153074  | 6.320656e-03 | 3.078862e-02 |
| ## TMEM161A   | 0.18967757  | 7.493378  | 2.8150889  | 6.324511e-03 | 3.079653e-02 |
| ## ARSD       | 0.26375471  | 5.086997  | 2.8150477  | 6.325238e-03 | 3.079653e-02 |
| ## H3C10      | 0.58648209  | 4.493993  | 2.8148377  | 6.328947e-03 | 3.080738e-02 |
| ## GRAMD2A    | 0.32978466  | 5.165444  | 2.8146852  | 6.331641e-03 | 3.081329e-02 |
| ## RYR2       | -0.17723830 | 4.414849  | -2.8142125 | 6.339998e-03 | 3.084676e-02 |
| ## CADM3      | -0.18674508 | 5.464482  | -2.8130966 | 6.359765e-03 | 3.093065e-02 |
| ## SPOUT1     | 0.27252473  | 5.897586  | 2.8130271  | 6.360999e-03 | 3.093065e-02 |
| ## ARHGEF28   | -0.29665078 | 6.804526  | -2.8129878 | 6.361696e-03 | 3.093065e-02 |
| ## SLC34A3    | -0.15154913 | 7.205761  | -2.8120105 | 6.379061e-03 | 3.100783e-02 |
| ## SET        | 0.30618919  | 10.776392 | 2.8114265  | 6.389459e-03 | 3.105113e-02 |
| ## SCAMP1-AS1 | -0.27719246 | 6.520149  | -2.8105425 | 6.405227e-03 | 3.112050e-02 |
| ## SIL1       | -0.21022400 | 7.724212  | -2.8104083 | 6.407623e-03 | 3.112487e-02 |
| ## RPN1       | 0.23569999  | 9.936007  | 2.8100204  | 6.414556e-03 | 3.115129e-02 |
| ## STK17B     | 0.42383694  | 6.466283  | 2.8098455  | 6.417684e-03 | 3.115839e-02 |
| ## FOXD2-AS1  | 0.15388098  | 3.615424  | 2.8097713  | 6.419012e-03 | 3.115839e-02 |
| ## PACS2      | -0.16233041 | 8.536123  | -2.8096109 | 6.421882e-03 | 3.116506e-02 |
| ## TIPRL      | 0.35559724  | 6.883955  | 2.8094283  | 6.425151e-03 | 3.117366e-02 |
| ## FGD6       | 0.34169879  | 4.230522  | 2.8092410  | 6.428507e-03 | 3.118268e-02 |
| ## FH         | 0.47779038  | 6.071164  | 2.8082553  | 6.446191e-03 | 3.126117e-02 |
| ## COSMOC     | 0.23918075  | 4.079313  | 2.8080591  | 6.449715e-03 | 3.127098e-02 |
| ## RPL5       | -0.17673519 | 11.918565 | -2.8078774 | 6.452981e-03 | 3.127672e-02 |
| ## ZNF585A    | -0.13903798 | 4.030212  | -2.8078110 | 6.454175e-03 | 3.127672e-02 |
| ## DUSP10     | 0.46255047  | 6.228551  | 2.8077426  | 6.455404e-03 | 3.127672e-02 |
| ## TAGLN3     | -0.14776433 | 5.503172  | -2.8075567 | 6.458750e-03 | 3.128565e-02 |
| ## ARHGAP27   | 0.25246169  | 3.782105  | 2.8071912  | 6.465330e-03 | 3.131024e-02 |
| ## ESD        | -0.26432267 | 10.356829 | -2.8071012 | 6.466950e-03 | 3.131080e-02 |
| ## LSM7       | 0.24610619  | 9.927361  | 2.8057818  | 6.490761e-03 | 3.141636e-02 |
| ## LINC01963  | -0.22351060 | 5.433264  | -2.8057260 | 6.491770e-03 | 3.141636e-02 |
| ## IFITM2     | 0.33821254  | 11.099156 | 2.8051176  | 6.502777e-03 | 3.145844e-02 |
| ## ITGB1BP2   | -0.35791223 | 4.957325  | -2.8050784 | 6.503486e-03 | 3.145844e-02 |
| ## TPMT       | 0.27590543  | 6.604993  | 2.8039055  | 6.524758e-03 | 3.155401e-02 |
| ## NTHL1      | 0.24317666  | 6.835496  | 2.8034640  | 6.532783e-03 | 3.158548e-02 |
| ## UTP11      | 0.20636878  | 8.342131  | 2.8033369  | 6.535094e-03 | 3.158932e-02 |
| ## TMEM69     | 0.28145826  | 8.034147  | 2.8029301  | 6.542497e-03 | 3.161776e-02 |
| ## PRXL2C     | 0.28522534  | 7.209484  | 2.8026913  | 6.546847e-03 | 3.162345e-02 |



|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## CAPS       | -0.39095021 | 6.684597  | -2.8026832 | 6.546994e-03 | 3.162345e-02 |
| ## MFSD12     | 0.34611691  | 6.377119  | 2.8025933  | 6.548633e-03 | 3.162345e-02 |
| ## PLSCR1     | 0.33568059  | 9.145560  | 2.8025321  | 6.549748e-03 | 3.162345e-02 |
| ## CCAR1      | 0.23080729  | 9.240045  | 2.8014536  | 6.569433e-03 | 3.171115e-02 |
| ## FOXD1      | 0.82846683  | 5.326510  | 2.8008343  | 6.580761e-03 | 3.175846e-02 |
| ## SLC25A32   | 0.31929468  | 8.321112  | 2.8007306  | 6.582660e-03 | 3.176027e-02 |
| ## METTL16    | 0.19375219  | 4.441644  | 2.8000064  | 6.595933e-03 | 3.181693e-02 |
| ## SLC26A9    | -0.89500152 | 6.448287  | -2.7997121 | 6.601335e-03 | 3.183562e-02 |
| ## COX11      | -0.22878128 | 6.908519  | -2.7995045 | 6.605146e-03 | 3.184662e-02 |
| ## LERFS      | -0.16744606 | 5.003602  | -2.7987579 | 6.618874e-03 | 3.190542e-02 |
| ## ALG13      | -0.35091320 | 7.719729  | -2.7985364 | 6.622952e-03 | 3.191769e-02 |
| ## TUBA1C     | 0.19367390  | 12.511468 | 2.7983961  | 6.625536e-03 | 3.192070e-02 |
| ## ARM CX5    | -0.19305804 | 5.028210  | -2.7983361 | 6.626641e-03 | 3.192070e-02 |
| ## STRN4      | 0.29031338  | 6.434243  | 2.7978481  | 6.635637e-03 | 3.195664e-02 |
| ## DET1       | -0.30365125 | 6.545210  | -2.7976203 | 6.639841e-03 | 3.196949e-02 |
| ## PTPN3      | 0.45054664  | 7.671298  | 2.7972980  | 6.645792e-03 | 3.199075e-02 |
| ## FAM163A    | -0.16346775 | 3.801405  | -2.7964206 | 6.662017e-03 | 3.206144e-02 |
| ## IGSF8      | 0.24846667  | 6.044191  | 2.7962646  | 6.664907e-03 | 3.206794e-02 |
| ## WNT10A     | 0.30814954  | 5.258389  | 2.7953894  | 6.681134e-03 | 3.213151e-02 |
| ## C1GALT1C1  | 0.23785693  | 8.928780  | 2.7953855  | 6.681207e-03 | 3.213151e-02 |
| ## LINC00595  | -0.12008451 | 4.488260  | -2.7952021 | 6.684612e-03 | 3.213592e-02 |
| ## LINC00886  | -0.22871623 | 5.312334  | -2.7951699 | 6.685209e-03 | 3.213592e-02 |
| ## AOPEP      | 0.10775532  | 3.354142  | 2.7947905  | 6.692261e-03 | 3.215758e-02 |
| ## SLC17A5    | 0.34854292  | 7.385633  | 2.7947612  | 6.692804e-03 | 3.215758e-02 |
| ## INSIG1     | 0.47264467  | 6.220859  | 2.7946541  | 6.694797e-03 | 3.215973e-02 |
| ## C16orf54   | -0.68142484 | 5.559070  | -2.7945510 | 6.696715e-03 | 3.216153e-02 |
| ## MIDEAS-AS1 | -0.15508131 | 4.178345  | -2.7943936 | 6.699642e-03 | 3.216817e-02 |
| ## MRPL16     | 0.22396638  | 8.854842  | 2.7936336  | 6.713800e-03 | 3.222872e-02 |
| ## YWHAB      | 0.31564802  | 9.837897  | 2.7933578  | 6.718945e-03 | 3.224598e-02 |
| ## PPP1R1C    | -0.11862088 | 3.742494  | -2.7928470 | 6.728482e-03 | 3.228431e-02 |
| ## CHUK       | 0.24558487  | 7.489184  | 2.7926965  | 6.731294e-03 | 3.229036e-02 |
| ## ZBED10P    | 0.32092879  | 6.161656  | 2.7924570  | 6.735773e-03 | 3.229367e-02 |
| ## PALS1      | 0.32734948  | 6.057002  | 2.7924187  | 6.736488e-03 | 3.229367e-02 |
| ## ZNF385D    | -0.17676770 | 5.160464  | -2.7924108 | 6.736637e-03 | 3.229367e-02 |
| ## ADARB1     | -0.55661281 | 6.482241  | -2.7913747 | 6.756042e-03 | 3.237573e-02 |
| ## HEATR3     | 0.29217463  | 4.346410  | 2.7913308  | 6.756864e-03 | 3.237573e-02 |
| ## ETNPPL     | -0.89036340 | 4.332187  | -2.7901125 | 6.779750e-03 | 3.247792e-02 |
| ## DGKH       | 0.27977376  | 4.067683  | 2.7899660  | 6.782508e-03 | 3.248366e-02 |
| ## FGL2       | -0.62519563 | 8.119540  | -2.7887617 | 6.805208e-03 | 3.258488e-02 |
| ## TRMT112    | 0.18568556  | 10.679230 | 2.7872492  | 6.833818e-03 | 3.271435e-02 |
| ## PLPBP      | -0.26609621 | 9.174131  | -2.7870076 | 6.838397e-03 | 3.272875e-02 |
| ## RHEBL1     | 0.25879665  | 5.761172  | 2.7865608  | 6.846875e-03 | 3.276179e-02 |
| ## APEX1      | 0.20473587  | 10.561881 | 2.7864467  | 6.849042e-03 | 3.276463e-02 |
| ## ZNF468     | 0.39867607  | 7.789288  | 2.7862546  | 6.852692e-03 | 3.277456e-02 |
| ## SLC38A6    | 0.39577172  | 6.657786  | 2.7855234  | 6.866596e-03 | 3.283352e-02 |
| ## LINC00700  | -0.09811279 | 3.447674  | -2.7847339 | 6.881640e-03 | 3.289791e-02 |
| ## OR7E37P    | 0.30189920  | 7.472830  | 2.7844340  | 6.887362e-03 | 3.291770e-02 |
| ## SMAD9      | -0.15175214 | 4.312990  | -2.7842512 | 6.890853e-03 | 3.292683e-02 |
| ## SGCD       | -0.17012947 | 5.130310  | -2.7840970 | 6.893798e-03 | 3.293334e-02 |
| ## CRLF1      | -0.33758468 | 5.948006  | -2.7836014 | 6.903271e-03 | 3.297011e-02 |
| ## LIMS1      | 0.20487682  | 5.097768  | 2.7835288  | 6.904661e-03 | 3.297011e-02 |
| ## RAPGEF6    | 0.25649074  | 4.192761  | 2.7828919  | 6.916855e-03 | 3.302077e-02 |
| ## YIPF6      | 0.29613489  | 6.369768  | 2.7826920  | 6.920688e-03 | 3.303149e-02 |
| ## DOCK4      | 0.19722779  | 3.433955  | 2.7825776  | 6.922882e-03 | 3.303439e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ARL4D        | -0.25845670 | 5.663113  | -2.7819134 | 6.935629e-03 | 3.308764e-02 |
| ## CHMP4B       | 0.45116551  | 8.494121  | 2.7810648  | 6.951950e-03 | 3.315790e-02 |
| ## TPRG1        | 0.50816006  | 4.238358  | 2.7807383  | 6.958238e-03 | 3.318030e-02 |
| ## NDUFS1       | 0.27140334  | 8.884318  | 2.7805679  | 6.961521e-03 | 3.318835e-02 |
| ## SPATA6       | -0.31534739 | 4.597044  | -2.7804667 | 6.963472e-03 | 3.319005e-02 |
| ## GSE1         | -0.29856797 | 7.819927  | -2.7802657 | 6.967349e-03 | 3.320093e-02 |
| ## EGFEM1P      | -0.20206888 | 3.510731  | -2.7799457 | 6.973525e-03 | 3.322276e-02 |
| ## MAGEA4       | 0.83716432  | 3.708024  | 2.7796976  | 6.978317e-03 | 3.323799e-02 |
| ## ZNF813       | 0.50445052  | 4.966174  | 2.7794664  | 6.982785e-03 | 3.324428e-02 |
| ## NETO2        | 0.66930000  | 5.894445  | 2.7794443  | 6.983212e-03 | 3.324428e-02 |
| ## KISS1R       | 0.27130904  | 4.243724  | 2.7793814  | 6.984428e-03 | 3.324428e-02 |
| ## NKAP         | 0.26375911  | 6.514818  | 2.7785966  | 6.999618e-03 | 3.330897e-02 |
| ## MPHOSPH10    | 0.18570701  | 8.123302  | 2.7779465  | 7.012222e-03 | 3.336082e-02 |
| ## SYNJ2        | 0.16306905  | 4.433300  | 2.7778694  | 7.013719e-03 | 3.336082e-02 |
| ## IFFO1        | -0.31134075 | 7.202779  | -2.7775375 | 7.020163e-03 | 3.337308e-02 |
| ## CCS          | -0.16011290 | 7.256177  | -2.7775217 | 7.020469e-03 | 3.337308e-02 |
| ## PTP4A1       | 0.49478722  | 8.707572  | 2.7774890  | 7.021105e-03 | 3.337308e-02 |
| ## PVR          | 0.21999048  | 6.723889  | 2.7767768  | 7.034954e-03 | 3.342704e-02 |
| ## MMP7         | 1.10719097  | 8.274218  | 2.7767402  | 7.035666e-03 | 3.342704e-02 |
| ## LAMC1        | 0.28918462  | 8.600280  | 2.7765386  | 7.039592e-03 | 3.343806e-02 |
| ## C7orf25      | 0.22312493  | 6.345004  | 2.7762303  | 7.045598e-03 | 3.345896e-02 |
| ## RIGI         | 0.48909528  | 6.513215  | 2.7759332  | 7.051391e-03 | 3.347883e-02 |
| ## GABARAPL2    | -0.19051432 | 10.410377 | -2.7757937 | 7.054112e-03 | 3.348412e-02 |
| ## MAP6D1       | 0.17197741  | 5.315832  | 2.7753286  | 7.063192e-03 | 3.351958e-02 |
| ## NSD1         | 0.17535985  | 6.585086  | 2.7751826  | 7.066044e-03 | 3.352547e-02 |
| ## MTMR12       | 0.27898669  | 5.937834  | 2.7748104  | 7.073322e-03 | 3.355236e-02 |
| ## CSPG4        | -0.32368547 | 5.124614  | -2.7747168 | 7.075154e-03 | 3.355340e-02 |
| ## HTR4         | -0.11071238 | 3.568805  | -2.7736771 | 7.095521e-03 | 3.364233e-02 |
| ## EMSY         | 0.17906792  | 3.810294  | 2.7730624  | 7.107590e-03 | 3.368687e-02 |
| ## UGP2         | -0.18812280 | 10.192993 | -2.7730339 | 7.108150e-03 | 3.368687e-02 |
| ## MPZL2        | 0.40384161  | 4.986534  | 2.7726352  | 7.115987e-03 | 3.371634e-02 |
| ## KLHL41       | -0.21617384 | 3.476132  | -2.7718542 | 7.131364e-03 | 3.378151e-02 |
| ## PRKACA       | -0.23287511 | 6.891165  | -2.7712355 | 7.143566e-03 | 3.383161e-02 |
| ## CHD2         | 0.34999926  | 6.001046  | 2.7707021  | 7.154101e-03 | 3.387381e-02 |
| ## CBL          | 0.23089748  | 4.227431  | 2.7705540  | 7.157030e-03 | 3.387997e-02 |
| ## ALAD         | -0.27287014 | 8.062159  | -2.7701851 | 7.164327e-03 | 3.390681e-02 |
| ## PNCK         | -0.19861895 | 5.679916  | -2.7700258 | 7.167479e-03 | 3.391402e-02 |
| ## LINC01018    | -0.10116187 | 3.755246  | -2.7686707 | 7.194356e-03 | 3.403345e-02 |
| ## PSMD5        | 0.27684805  | 8.277106  | 2.7681908  | 7.203894e-03 | 3.406695e-02 |
| ## EXTL2        | -0.29893749 | 6.998578  | -2.7681500 | 7.204708e-03 | 3.406695e-02 |
| ## CPB1         | -0.89368525 | 4.443726  | -2.7678198 | 7.211279e-03 | 3.409028e-02 |
| ## LOC105372640 | -0.13417735 | 3.891200  | -2.7673448 | 7.220742e-03 | 3.412726e-02 |
| ## SHISA5       | 0.19714446  | 9.395666  | 2.7658702  | 7.250190e-03 | 3.425867e-02 |
| ## EIF3I        | 0.18778013  | 9.869674  | 2.7652569  | 7.262471e-03 | 3.430892e-02 |
| ## INSC         | -0.32426901 | 4.427993  | -2.7650489 | 7.266640e-03 | 3.432082e-02 |
| ## GABARAP      | -0.14558678 | 11.287072 | -2.7646215 | 7.275215e-03 | 3.435353e-02 |
| ## CCDC43       | 0.31436496  | 7.032202  | 2.7632752  | 7.302282e-03 | 3.447353e-02 |
| ## CTSD         | 0.32211464  | 9.103534  | 2.7629062  | 7.309717e-03 | 3.450081e-02 |
| ## LANCL3       | -0.10048234 | 3.277725  | -2.7627049 | 7.313777e-03 | 3.450652e-02 |
| ## KCNH2        | -0.40129023 | 5.493240  | -2.7626819 | 7.314241e-03 | 3.450652e-02 |
| ## RPL22L1      | 0.48295727  | 9.547413  | 2.7624803  | 7.318307e-03 | 3.451788e-02 |
| ## LOC101928881 | -0.30076306 | 5.820954  | -2.7617116 | 7.333837e-03 | 3.458329e-02 |
| ## MMP13        | 0.43077695  | 4.001865  | 2.7612910  | 7.342344e-03 | 3.461557e-02 |
| ## INTS2        | 0.26838875  | 6.653389  | 2.7611227  | 7.345752e-03 | 3.462380e-02 |

|                |             |           |            |              |              |
|----------------|-------------|-----------|------------|--------------|--------------|
| ## RPUSD2      | 0.20357474  | 5.739671  | 2.7609422  | 7.349408e-03 | 3.463319e-02 |
| ## SAMD4A      | -0.56661007 | 8.593096  | -2.7606392 | 7.355549e-03 | 3.465429e-02 |
| ## BMP3        | -0.12576513 | 4.267140  | -2.7594501 | 7.379693e-03 | 3.476017e-02 |
| ## GCH1        | 0.47346513  | 8.802481  | 2.7586981  | 7.395000e-03 | 3.482440e-02 |
| ## C11orf16    | -0.17472708 | 6.513428  | -2.7582142 | 7.404865e-03 | 3.486297e-02 |
| ## TCEANC      | -0.17821524 | 4.336032  | -2.7580404 | 7.408411e-03 | 3.487178e-02 |
| ## ZNF630      | -0.28044705 | 5.515029  | -2.7571687 | 7.426220e-03 | 3.494771e-02 |
| ## MOB3C       | -0.25024834 | 6.917269  | -2.7566580 | 7.436672e-03 | 3.498899e-02 |
| ## TAF6        | 0.18996164  | 8.033700  | 2.7564686  | 7.440552e-03 | 3.499933e-02 |
| ## RFX5        | 0.30559507  | 8.649561  | 2.7560468  | 7.449200e-03 | 3.503210e-02 |
| ## VGLL2       | -0.13792160 | 4.319341  | -2.7557972 | 7.454320e-03 | 3.504252e-02 |
| ## GRN         | 0.31094757  | 10.090042 | 2.7557748  | 7.454781e-03 | 3.504252e-02 |
| ## FBXW11      | -0.18966424 | 8.502037  | -2.7555627 | 7.459134e-03 | 3.505507e-02 |
| ## TCF3        | 0.18005294  | 4.241292  | 2.7541643  | 7.487903e-03 | 3.518233e-02 |
| ## CCDC186     | 0.46355071  | 5.076976  | 2.7539172  | 7.492998e-03 | 3.519295e-02 |
| ## PSME1       | 0.24989991  | 10.789221 | 2.7538907  | 7.493543e-03 | 3.519295e-02 |
| ## RAB25       | 0.55822946  | 9.709121  | 2.7537592  | 7.496256e-03 | 3.519775e-02 |
| ## NOXRED1     | -0.09058877 | 3.967964  | -2.7535605 | 7.500357e-03 | 3.520342e-02 |
| ## GABPB2      | -0.35017873 | 7.082518  | -2.7535368 | 7.500845e-03 | 3.520342e-02 |
| ## AGPAT2      | 0.29778204  | 7.023185  | 2.7534408  | 7.502826e-03 | 3.520479e-02 |
| ## APOM        | -0.20547062 | 5.393035  | -2.7531371 | 7.509100e-03 | 3.520835e-02 |
| ## PCSK1       | -0.76305807 | 4.152054  | -2.7530926 | 7.510019e-03 | 3.520835e-02 |
| ## RAB40AL     | 0.16200420  | 4.338373  | 2.7530793  | 7.510295e-03 | 3.520835e-02 |
| ## SEMA3E      | -0.37809390 | 4.174607  | -2.7530517 | 7.510863e-03 | 3.520835e-02 |
| ## FRMD3       | -0.40335896 | 6.557220  | -2.7529949 | 7.512038e-03 | 3.520835e-02 |
| ## BIRC2       | 0.19452255  | 9.894118  | 2.7527030  | 7.518073e-03 | 3.522870e-02 |
| ## PLPP2       | 0.57897159  | 7.644601  | 2.7525006  | 7.522262e-03 | 3.523720e-02 |
| ## CYMP-AS1    | -0.14515729 | 4.790166  | -2.7524069 | 7.524201e-03 | 3.523720e-02 |
| ## TAF1D       | 0.38747531  | 8.066262  | 2.7523701  | 7.524963e-03 | 3.523720e-02 |
| ## UBE2I       | 0.23089503  | 4.723151  | 2.7522615  | 7.527212e-03 | 3.523981e-02 |
| ## ANKRD52     | -0.44614978 | 4.840446  | -2.7520550 | 7.531488e-03 | 3.524531e-02 |
| ## FTSJ1       | 0.25830536  | 8.394310  | 2.7520413  | 7.531772e-03 | 3.524531e-02 |
| ## FKBP6       | 0.13197612  | 4.966056  | 2.7519124  | 7.534443e-03 | 3.524989e-02 |
| ## NEMF        | 0.27429128  | 6.905134  | 2.7515948  | 7.541028e-03 | 3.527041e-02 |
| ## OTUD6B      | 0.33301116  | 6.617216  | 2.7514683  | 7.543652e-03 | 3.527041e-02 |
| ## UTP14A      | 0.15125091  | 3.723998  | 2.7514559  | 7.543910e-03 | 3.527041e-02 |
| ## CLDN3       | 1.26124768  | 6.976341  | 2.7510853  | 7.551603e-03 | 3.529844e-02 |
| ## TMEM38A     | -0.39838341 | 5.888296  | -2.7507781 | 7.557986e-03 | 3.532035e-02 |
| ## LDAF1       | 0.36223606  | 6.330998  | 2.7493924  | 7.586838e-03 | 3.544723e-02 |
| ## RPL13       | 0.15847969  | 3.927525  | 2.7486528  | 7.602279e-03 | 3.551141e-02 |
| ## C2orf69     | 0.26060739  | 7.386713  | 2.7481511  | 7.612769e-03 | 3.555243e-02 |
| ## EXOSC8      | 0.28702657  | 8.335552  | 2.7479645  | 7.616675e-03 | 3.556270e-02 |
| ## WDR35       | -0.36547754 | 6.536145  | -2.7472355 | 7.631949e-03 | 3.561900e-02 |
| ## CD99P1      | 0.21499894  | 5.924062  | 2.7472257  | 7.632155e-03 | 3.561900e-02 |
| ## EIF2B5      | 0.14408898  | 4.265601  | 2.7467628  | 7.641868e-03 | 3.565634e-02 |
| ## HPGD        | -1.23403983 | 8.171016  | -2.7464605 | 7.648218e-03 | 3.567798e-02 |
| ## FAM76A      | 0.13467339  | 4.450358  | 2.7458195  | 7.661697e-03 | 3.573285e-02 |
| ## GLRX3       | 0.11710485  | 4.986548  | 2.7456689  | 7.664868e-03 | 3.573964e-02 |
| ## RRBP1       | 0.28745256  | 7.440967  | 2.7453618  | 7.671335e-03 | 3.576178e-02 |
| ## TSPOAP1-AS1 | -0.22118893 | 4.192441  | -2.7442704 | 7.694362e-03 | 3.586110e-02 |
| ## ATP8B2      | -0.17875757 | 6.325022  | -2.7436881 | 7.706674e-03 | 3.591044e-02 |
| ## RGS11       | -0.09765128 | 3.737200  | -2.7430822 | 7.719504e-03 | 3.596218e-02 |
| ## TBC1D30     | 0.46490699  | 5.176077  | 2.7428161  | 7.725145e-03 | 3.598041e-02 |
| ## SOWAHA      | -0.68313250 | 5.857711  | -2.7422999 | 7.736100e-03 | 3.602326e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ZNF683       | 0.20696405  | 6.108756  | 2.7422196  | 7.737805e-03 | 3.602326e-02 |
| ## TPST1        | -0.36302123 | 6.778171  | -2.7420864 | 7.740634e-03 | 3.602838e-02 |
| ## APP          | -0.25135936 | 9.937739  | -2.7417682 | 7.747397e-03 | 3.605180e-02 |
| ## SLTM         | -0.20004963 | 9.072309  | -2.7413973 | 7.755286e-03 | 3.608044e-02 |
| ## PUM1         | 0.15765604  | 9.499930  | 2.7412978  | 7.757404e-03 | 3.608224e-02 |
| ## CRB3         | 0.20413722  | 7.443028  | 2.7408676  | 7.766566e-03 | 3.611679e-02 |
| ## VPS39        | -0.16814298 | 7.582559  | -2.7396628 | 7.792278e-03 | 3.622586e-02 |
| ## CCDC183      | 0.28736554  | 4.251295  | 2.7396057  | 7.793499e-03 | 3.622586e-02 |
| ## RASL11A      | 0.16892643  | 4.463473  | 2.7372725  | 7.843523e-03 | 3.644973e-02 |
| ## DUSP2        | 0.32975429  | 6.563123  | 2.7370847  | 7.847563e-03 | 3.644973e-02 |
| ## FSTL1        | -0.45257173 | 10.552505 | -2.7370749 | 7.847773e-03 | 3.644973e-02 |
| ## RNF31        | 0.23798307  | 5.938627  | 2.7370335  | 7.848664e-03 | 3.644973e-02 |
| ## RNF8         | 0.21603079  | 7.233520  | 2.7368909  | 7.851732e-03 | 3.645585e-02 |
| ## DLEU1        | 0.29234827  | 6.976935  | 2.7366715  | 7.856456e-03 | 3.646965e-02 |
| ## LBR          | 0.26202460  | 9.833207  | 2.7365162  | 7.859802e-03 | 3.647705e-02 |
| ## EXOSC6       | 0.28878217  | 5.252677  | 2.7363956  | 7.862399e-03 | 3.648097e-02 |
| ## LINS1        | 0.34645772  | 6.381556  | 2.7358769  | 7.873585e-03 | 3.652473e-02 |
| ## CYP27A1      | -0.36261470 | 7.347189  | -2.7356674 | 7.878107e-03 | 3.653757e-02 |
| ## ITGB5        | -0.40041632 | 6.094435  | -2.7350355 | 7.891760e-03 | 3.658785e-02 |
| ## FGF14        | -0.33929878 | 3.931240  | -2.7350031 | 7.892461e-03 | 3.658785e-02 |
| ## CEP72-DT     | 0.07292392  | 3.188074  | 2.7348916  | 7.894873e-03 | 3.659088e-02 |
| ## CD82         | 0.19829436  | 8.328946  | 2.7347613  | 7.897692e-03 | 3.659580e-02 |
| ## AKTIP        | -0.23292769 | 7.796947  | -2.7341121 | 7.911752e-03 | 3.665280e-02 |
| ## SH3RF3       | -0.38699743 | 6.432270  | -2.7337549 | 7.919496e-03 | 3.668051e-02 |
| ## SMPD3        | -0.42748444 | 6.576669  | -2.7333405 | 7.928490e-03 | 3.671400e-02 |
| ## RSP02        | -0.36943277 | 3.773169  | -2.7329547 | 7.936871e-03 | 3.673667e-02 |
| ## PPP2R2A      | 0.25093007  | 9.126165  | 2.7329528  | 7.936913e-03 | 3.673667e-02 |
| ## GRHL2        | 0.40858785  | 7.470468  | 2.7327672  | 7.940950e-03 | 3.674719e-02 |
| ## FCMR         | -0.50570871 | 6.848237  | -2.7321846 | 7.953628e-03 | 3.679768e-02 |
| ## SERINC3      | 0.34791580  | 9.564291  | 2.7317781  | 7.962485e-03 | 3.683047e-02 |
| ## TTC17        | 0.31380783  | 8.024839  | 2.7315496  | 7.967468e-03 | 3.684534e-02 |
| ## IRGM         | -0.09669906 | 3.246894  | -2.7310416 | 7.978556e-03 | 3.688842e-02 |
| ## FLOT1        | 0.27564009  | 6.394741  | 2.7303130  | 7.994484e-03 | 3.694784e-02 |
| ## Clorf226     | 0.36883656  | 5.753657  | 2.7302914  | 7.994957e-03 | 3.694784e-02 |
| ## CD180        | -0.26379547 | 5.673836  | -2.7299404 | 8.002642e-03 | 3.697515e-02 |
| ## EEF2KMT      | 0.18610219  | 6.030583  | 2.7294808  | 8.012712e-03 | 3.701347e-02 |
| ## LOC100652768 | -0.17079521 | 6.172323  | -2.7291720 | 8.019487e-03 | 3.703655e-02 |
| ## PTPRT        | -0.19627095 | 4.403464  | -2.7289527 | 8.024301e-03 | 3.705056e-02 |
| ## CFAP20       | 0.17145962  | 8.964331  | 2.7272129  | 8.062582e-03 | 3.721907e-02 |
| ## FHL5         | -0.27231626 | 4.377825  | -2.7264731 | 8.078910e-03 | 3.727868e-02 |
| ## LINC00957    | -0.13151951 | 4.341776  | -2.7264656 | 8.079077e-03 | 3.727868e-02 |
| ## PLPP4        | 0.49167740  | 4.468995  | 2.7260230  | 8.088860e-03 | 3.731555e-02 |
| ## NTRK2        | -0.15292888 | 4.571825  | -2.7258009 | 8.093773e-03 | 3.732995e-02 |
| ## ZC3H4        | 0.19603391  | 9.059424  | 2.7251129  | 8.109011e-03 | 3.739195e-02 |
| ## GDI2         | 0.38431439  | 10.124795 | 2.7250245  | 8.110972e-03 | 3.739271e-02 |
| ## ZC3H3        | 0.20903450  | 6.544453  | 2.7248177  | 8.115558e-03 | 3.740557e-02 |
| ## RIC3         | -0.17412013 | 4.219582  | -2.7245396 | 8.121728e-03 | 3.742486e-02 |
| ## ACTN3        | -0.13144412 | 4.536945  | -2.7244672 | 8.123337e-03 | 3.742486e-02 |
| ## SNTA1        | -0.20697176 | 6.697749  | -2.7243613 | 8.125689e-03 | 3.742741e-02 |
| ## TRMT2B       | 0.15201304  | 4.768177  | 2.7241774  | 8.129774e-03 | 3.743795e-02 |
| ## HK3          | 0.36119549  | 5.917387  | 2.7233738  | 8.147647e-03 | 3.750512e-02 |
| ## TGS1         | 0.24665897  | 6.337860  | 2.7233596  | 8.147963e-03 | 3.750512e-02 |
| ## NRIP3        | 0.40293411  | 5.161100  | 2.7231606  | 8.152395e-03 | 3.751723e-02 |
| ## LOC101927499 | -0.10249490 | 3.833129  | -2.7227916 | 8.160618e-03 | 3.754678e-02 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## PLCXD1     | -0.42943431 | 7.846026  | -2.7226506 | 8.163764e-03 | 3.755295e-02 |
| ## CKM        | -0.44440072 | 4.517401  | -2.7222513 | 8.172674e-03 | 3.758258e-02 |
| ## DEFB114    | 0.05761868  | 3.096651  | 2.7221772  | 8.174328e-03 | 3.758258e-02 |
| ## CRTC2      | 0.21105699  | 6.492089  | 2.7221194  | 8.175619e-03 | 3.758258e-02 |
| ## SNRNP40    | 0.29683081  | 7.253239  | 2.7218082  | 8.182572e-03 | 3.758983e-02 |
| ## CHRM5      | -0.15521325 | 3.860067  | -2.7217605 | 8.183638e-03 | 3.758983e-02 |
| ## HSPB3      | -0.22548536 | 4.378148  | -2.7217171 | 8.184608e-03 | 3.758983e-02 |
| ## BLTP2      | 0.40043357  | 6.569684  | 2.7216969  | 8.185059e-03 | 3.758983e-02 |
| ## MSC-AS1    | -0.34608871 | 4.796412  | -2.7216450 | 8.186221e-03 | 3.758983e-02 |
| ## LCN8       | -0.11652589 | 3.788393  | -2.7213483 | 8.192857e-03 | 3.761200e-02 |
| ## DUS1L      | 0.20041588  | 8.822963  | 2.7212088  | 8.195980e-03 | 3.761805e-02 |
| ## POU2F1     | 0.24480434  | 6.446937  | 2.7209913  | 8.200848e-03 | 3.763210e-02 |
| ## FOXL2      | 0.11772037  | 3.537698  | 2.7205274  | 8.211245e-03 | 3.767151e-02 |
| ## SLC6A1     | 0.14454499  | 3.757091  | 2.7200137  | 8.222771e-03 | 3.771607e-02 |
| ## ELAC1      | -0.17499409 | 4.198869  | -2.7193117 | 8.238545e-03 | 3.778011e-02 |
| ## LONRF1     | -0.23479791 | 5.197589  | -2.7181890 | 8.263831e-03 | 3.788772e-02 |
| ## SSBP1      | 0.31030112  | 5.808265  | 2.7175797  | 8.277585e-03 | 3.793792e-02 |
| ## GP5        | -0.10258542 | 3.785478  | -2.7175173 | 8.278993e-03 | 3.793792e-02 |
| ## ANAPC13    | -0.22261440 | 10.168743 | -2.7174619 | 8.280246e-03 | 3.793792e-02 |
| ## GLB1       | 0.22450771  | 8.820149  | 2.7170538  | 8.289472e-03 | 3.796868e-02 |
| ## DDX20      | 0.20706188  | 7.645195  | 2.7169192  | 8.292517e-03 | 3.796868e-02 |
| ## LINC01799  | -0.08817103 | 3.376767  | -2.7168943 | 8.293079e-03 | 3.796868e-02 |
| ## ZCCHC12    | -0.10657101 | 3.763336  | -2.7168425 | 8.294253e-03 | 3.796868e-02 |
| ## DYRK4      | -0.31187146 | 7.152859  | -2.7163501 | 8.305401e-03 | 3.801136e-02 |
| ## KLRG1      | -0.32165972 | 5.598457  | -2.7151754 | 8.332057e-03 | 3.812462e-02 |
| ## GGA2       | 0.20695393  | 6.596041  | 2.7150982  | 8.333811e-03 | 3.812462e-02 |
| ## MAB21L2    | -0.30551389 | 3.874377  | -2.7148649 | 8.339115e-03 | 3.814051e-02 |
| ## MKS1       | 0.14105399  | 5.867157  | 2.7145380  | 8.346552e-03 | 3.816614e-02 |
| ## TIMM10     | 0.30637524  | 9.122937  | 2.7142680  | 8.352699e-03 | 3.818586e-02 |
| ## SMIM5      | -0.38688951 | 6.815455  | -2.7141827 | 8.354643e-03 | 3.818636e-02 |
| ## FGFR1      | 0.26657314  | 6.357185  | 2.7141018  | 8.356487e-03 | 3.818641e-02 |
| ## C3orf70    | -0.32379931 | 4.634631  | -2.7135665 | 8.368691e-03 | 3.823379e-02 |
| ## VSIG10     | 0.33215857  | 5.120990  | 2.7130230  | 8.381099e-03 | 3.828208e-02 |
| ## GPR176     | 0.15527587  | 4.301013  | 2.7120667  | 8.402974e-03 | 3.837358e-02 |
| ## DHRS13     | 0.30850427  | 6.988844  | 2.7117373  | 8.410520e-03 | 3.839962e-02 |
| ## FRS2       | 0.30973168  | 4.912860  | 2.7115704  | 8.414347e-03 | 3.840867e-02 |
| ## TSHZ2      | -0.26274344 | 6.160228  | -2.7113154 | 8.420196e-03 | 3.841942e-02 |
| ## MECP2      | -0.36074596 | 6.243382  | -2.7113068 | 8.420392e-03 | 3.841942e-02 |
| ## STXBP5     | 0.30634758  | 4.694914  | 2.7106732  | 8.434942e-03 | 3.847738e-02 |
| ## TMEM158    | 0.57216628  | 6.963841  | 2.7104960  | 8.439015e-03 | 3.848753e-02 |
| ## ENTPD1-AS1 | -0.09503909 | 3.618689  | -2.7101275 | 8.447491e-03 | 3.851775e-02 |
| ## TPRG1L     | -0.25481820 | 8.711589  | -2.7100044 | 8.450324e-03 | 3.852223e-02 |
| ## FAM234A    | -0.32975198 | 7.467653  | -2.7096884 | 8.457601e-03 | 3.854696e-02 |
| ## CDC34      | 0.28608106  | 7.987001  | 2.7088059  | 8.477954e-03 | 3.863127e-02 |
| ## AFTPH-DT   | -0.20121656 | 4.337995  | -2.7082873 | 8.489933e-03 | 3.867739e-02 |
| ## ABCB10     | 0.33776961  | 6.930547  | 2.7081225  | 8.493743e-03 | 3.868629e-02 |
| ## NAALADL2   | -0.09825174 | 3.380348  | -2.7078822 | 8.499304e-03 | 3.870315e-02 |
| ## CSDC2      | -0.16222821 | 5.203824  | -2.7077117 | 8.503249e-03 | 3.870498e-02 |
| ## LINC01118  | -0.12689245 | 4.050296  | -2.7077042 | 8.503423e-03 | 3.870498e-02 |
| ## GNB3       | -0.13113847 | 6.122799  | -2.7072533 | 8.513866e-03 | 3.874405e-02 |
| ## PLA2G5     | -0.18672713 | 5.265076  | -2.7065910 | 8.529231e-03 | 3.879846e-02 |
| ## PPAN       | 0.17247880  | 7.509080  | 2.7065098  | 8.531115e-03 | 3.879846e-02 |
| ## TDRP       | -0.30495103 | 4.635095  | -2.7064010 | 8.533642e-03 | 3.879846e-02 |
| ## SMARCC1    | 0.35769152  | 6.821125  | 2.7062891  | 8.536240e-03 | 3.879846e-02 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## SHFL         | 0.22859572  | 6.054165 | 2.7062889  | 8.536246e-03 | 3.879846e-02 |
| ## ZNF600       | 0.43116691  | 7.739596 | 2.7062563  | 8.537004e-03 | 3.879846e-02 |
| ## AKAP10       | 0.27980744  | 5.151612 | 2.7058466  | 8.546526e-03 | 3.883327e-02 |
| ## BMP5         | -0.21981433 | 3.632945 | -2.7039978 | 8.589626e-03 | 3.902059e-02 |
| ## LOC644656    | 0.27886106  | 5.547573 | 2.7036832  | 8.596980e-03 | 3.904548e-02 |
| ## MPEG1        | -0.51618520 | 8.340449 | -2.7034394 | 8.602681e-03 | 3.906285e-02 |
| ## GJB3         | 0.48495215  | 7.243131 | 2.7032426  | 8.607288e-03 | 3.907006e-02 |
| ## CXCL12       | -0.48380721 | 7.743337 | -2.7032112 | 8.608022e-03 | 3.907006e-02 |
| ## CAPN3        | -0.34719491 | 5.961689 | -2.7027332 | 8.619218e-03 | 3.911235e-02 |
| ## PCNX1        | 0.22351826  | 5.982364 | 2.7025181  | 8.624263e-03 | 3.912672e-02 |
| ## DNAAF2       | 0.28969918  | 7.144662 | 2.7020947  | 8.634196e-03 | 3.916325e-02 |
| ## ZNF41        | 0.19638069  | 4.260242 | 2.7019741  | 8.637027e-03 | 3.916756e-02 |
| ## FLNB         | 0.40138221  | 8.298804 | 2.7016117  | 8.645541e-03 | 3.919764e-02 |
| ## NACC2        | -0.47637038 | 7.634392 | -2.7011116 | 8.657304e-03 | 3.924243e-02 |
| ## RXRG         | -0.15166570 | 4.004165 | -2.7007147 | 8.666648e-03 | 3.927623e-02 |
| ## C5orf46      | 0.50771718  | 4.973256 | 2.6984431  | 8.720309e-03 | 3.951082e-02 |
| ## AGPAT1       | -0.21044722 | 7.782233 | -2.6974630 | 8.743555e-03 | 3.960752e-02 |
| ## MEGF9        | -0.35028024 | 7.132922 | -2.6969444 | 8.755879e-03 | 3.964734e-02 |
| ## LOC105371472 | -0.13064121 | 3.853349 | -2.6969329 | 8.756152e-03 | 3.964734e-02 |
| ## ABCG2        | -0.84345426 | 5.622606 | -2.6964578 | 8.767455e-03 | 3.968989e-02 |
| ## SLC05A1      | -0.11408026 | 3.676139 | -2.6950287 | 8.801538e-03 | 3.983552e-02 |
| ## LOC101927690 | -0.07168955 | 3.486959 | -2.6946633 | 8.810271e-03 | 3.986638e-02 |
| ## ZNF395       | -0.30208731 | 8.168626 | -2.6943418 | 8.817962e-03 | 3.989251e-02 |
| ## ASH1L        | 0.19810155  | 4.614670 | 2.6937652  | 8.831771e-03 | 3.994506e-02 |
| ## PPM1F-AS1    | -0.20271562 | 4.575300 | -2.6936112 | 8.835463e-03 | 3.994506e-02 |
| ## PRINS        | -0.13715720 | 6.136542 | -2.6934695 | 8.838860e-03 | 3.994506e-02 |
| ## KLF3-AS1     | -0.15715602 | 3.991155 | -2.6934053 | 8.840399e-03 | 3.994506e-02 |
| ## TNRC6B       | -0.30742887 | 8.246114 | -2.6933269 | 8.842280e-03 | 3.994506e-02 |
| ## SLC35B2      | 0.35354376  | 7.988961 | 2.6932361  | 8.844458e-03 | 3.994506e-02 |
| ## GPAT3        | -0.63059466 | 7.048636 | -2.6932255 | 8.844714e-03 | 3.994506e-02 |
| ## IFIT2        | 0.56386772  | 5.891521 | 2.6932168  | 8.844922e-03 | 3.994506e-02 |
| ## ATOSA        | -0.30336416 | 8.495480 | -2.6929355 | 8.851674e-03 | 3.996106e-02 |
| ## RNF7         | 0.19223342  | 8.378445 | 2.6929093  | 8.852304e-03 | 3.996106e-02 |
| ## MNAT1        | 0.29143770  | 6.477947 | 2.6912890  | 8.891297e-03 | 4.012838e-02 |
| ## CYP3A5       | -0.93080378 | 8.784637 | -2.6908797 | 8.901170e-03 | 4.015991e-02 |
| ## TOR3A        | 0.24156171  | 7.410303 | 2.6908396  | 8.902138e-03 | 4.015991e-02 |
| ## TRIM52-AS1   | -0.15568442 | 4.242149 | -2.6905326 | 8.909551e-03 | 4.018464e-02 |
| ## STAG1        | 0.26762722  | 7.332201 | 2.6902649  | 8.916021e-03 | 4.020511e-02 |
| ## MUC2         | -1.08319753 | 6.989834 | -2.6897323 | 8.928905e-03 | 4.025449e-02 |
| ## ERVV-1       | -0.08914362 | 3.607629 | -2.6893702 | 8.937675e-03 | 4.027598e-02 |
| ## UBXN8        | -0.34364574 | 7.260289 | -2.6893580 | 8.937969e-03 | 4.027598e-02 |
| ## CERK         | -0.28833401 | 7.647792 | -2.6892149 | 8.941436e-03 | 4.027598e-02 |
| ## PRELID3B     | 0.40431727  | 8.197374 | 2.6891684  | 8.942564e-03 | 4.027598e-02 |
| ## NAA50        | 0.18529099  | 9.835787 | 2.6891363  | 8.943341e-03 | 4.027598e-02 |
| ## DNAJC21      | -0.29433893 | 4.892730 | -2.6886253 | 8.955736e-03 | 4.032308e-02 |
| ## VARS1        | 0.22502282  | 6.284391 | 2.6885393  | 8.957825e-03 | 4.032377e-02 |
| ## LENG9        | -0.15405093 | 4.776421 | -2.6884127 | 8.960900e-03 | 4.032889e-02 |
| ## PMS2P2       | 0.26161717  | 5.276930 | 2.6880051  | 8.970803e-03 | 4.036474e-02 |
| ## MARF1        | 0.17558492  | 3.781047 | 2.6871592  | 8.991387e-03 | 4.044192e-02 |
| ## LINC01426    | -0.09413922 | 3.397863 | -2.6870699 | 8.993562e-03 | 4.044192e-02 |
| ## NDUFS4       | -0.13414453 | 3.988418 | -2.6870609 | 8.993782e-03 | 4.044192e-02 |
| ## MARCKS       | 0.49588156  | 7.170859 | 2.6867851  | 9.000504e-03 | 4.046341e-02 |
| ## ERVFRD-1     | -0.12007918 | 3.930143 | -2.6862002 | 9.014776e-03 | 4.051882e-02 |
| ## PSMC6        | 0.20284609  | 9.674740 | 2.6860811  | 9.017686e-03 | 4.052315e-02 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## GSDMC     | 0.15501362  | 4.741974  | 2.6856745  | 9.027622e-03 | 4.055905e-02 |
| ## TAF10     | 0.21283100  | 9.681107  | 2.6847073  | 9.051297e-03 | 4.065665e-02 |
| ## NKRF      | 0.18994547  | 6.953290  | 2.6844325  | 9.058034e-03 | 4.067813e-02 |
| ## PIGM      | 0.28548458  | 7.517854  | 2.6833434  | 9.084780e-03 | 4.078945e-02 |
| ## ASPSCR1   | 0.27907871  | 6.396332  | 2.6830074  | 9.093047e-03 | 4.081776e-02 |
| ## MRPL51    | 0.18415135  | 10.168473 | 2.6826805  | 9.101094e-03 | 4.084508e-02 |
| ## CXCR5     | -0.20728907 | 4.551736  | -2.6822204 | 9.112434e-03 | 4.088716e-02 |
| ## LYPLA2    | 0.18071103  | 8.560479  | 2.6819015  | 9.120303e-03 | 4.091076e-02 |
| ## SUMO3     | 0.23650445  | 8.138541  | 2.6818479  | 9.121623e-03 | 4.091076e-02 |
| ## PRF1      | 0.39237377  | 6.177187  | 2.6816007  | 9.127727e-03 | 4.092932e-02 |
| ## SF3B5     | 0.18423386  | 9.898048  | 2.6812727  | 9.135831e-03 | 4.095685e-02 |
| ## ANKS6     | 0.20948802  | 4.224405  | 2.6808468  | 9.146365e-03 | 4.099524e-02 |
| ## KLRB1     | -0.61180606 | 7.364141  | -2.6795990 | 9.177285e-03 | 4.112498e-02 |
| ## SPTSSA    | 0.34740998  | 8.597021  | 2.6791891  | 9.187465e-03 | 4.116174e-02 |
| ## CABLES2   | 0.35121905  | 6.909357  | 2.6789495  | 9.193418e-03 | 4.117955e-02 |
| ## CNOT11    | 0.23817257  | 8.762866  | 2.6780182  | 9.216596e-03 | 4.127449e-02 |
| ## ESF1      | 0.40336448  | 7.812924  | 2.6774153  | 9.231630e-03 | 4.133293e-02 |
| ## BANK1     | -0.50062321 | 6.227612  | -2.6771469 | 9.238328e-03 | 4.135403e-02 |
| ## VSNL1     | 0.74841553  | 6.712562  | 2.6757183  | 9.274064e-03 | 4.150171e-02 |
| ## ISOC2     | 0.25641700  | 7.462600  | 2.6756687  | 9.275305e-03 | 4.150171e-02 |
| ## PEX13     | 0.30324059  | 4.368415  | 2.6746328  | 9.301299e-03 | 4.160908e-02 |
| ## ITGBL1    | -0.29767199 | 3.689669  | -2.6740887 | 9.314979e-03 | 4.165937e-02 |
| ## ANKRD7    | -0.09034471 | 3.379403  | -2.6740266 | 9.316542e-03 | 4.165937e-02 |
| ## FPR2      | 0.37887056  | 4.851568  | 2.6738278  | 9.321546e-03 | 4.167279e-02 |
| ## PGBD3     | 0.23734218  | 4.808598  | 2.6735759  | 9.327889e-03 | 4.168363e-02 |
| ## TOX-DT    | -0.33454491 | 4.578063  | -2.6735725 | 9.327973e-03 | 4.168363e-02 |
| ## MYO1B     | 0.47224749  | 7.874472  | 2.6733805  | 9.332812e-03 | 4.169630e-02 |
| ## MAGI2     | -0.13096771 | 3.925315  | -2.6723516 | 9.358775e-03 | 4.180333e-02 |
| ## SBSPON    | -0.16682655 | 3.502879  | -2.6718902 | 9.370440e-03 | 4.184646e-02 |
| ## MDM4      | 0.29254864  | 4.294845  | 2.6714627  | 9.381258e-03 | 4.188579e-02 |
| ## ERI3      | 0.24003889  | 6.883002  | 2.6713738  | 9.383509e-03 | 4.188686e-02 |
| ## MRPS18A   | 0.29516828  | 7.855284  | 2.6682761  | 9.462264e-03 | 4.222936e-02 |
| ## PRXL2B    | 0.35483289  | 8.458769  | 2.6674156  | 9.484248e-03 | 4.231359e-02 |
| ## H2AC15    | 0.07969742  | 3.991982  | 2.6673783  | 9.485203e-03 | 4.231359e-02 |
| ## DNAJB11   | 0.26960295  | 9.738355  | 2.6667508  | 9.501265e-03 | 4.237617e-02 |
| ## RPS14     | -0.10204804 | 13.347547 | -2.6663076 | 9.512625e-03 | 4.241775e-02 |
| ## TMEM259   | 0.38579681  | 5.931991  | 2.6661538  | 9.516568e-03 | 4.242625e-02 |
| ## PXDC1     | -0.32719110 | 8.140332  | -2.6656388 | 9.529788e-03 | 4.247609e-02 |
| ## GEMIN2    | 0.29919619  | 4.805875  | 2.6655245  | 9.532724e-03 | 4.248009e-02 |
| ## LCN12     | 0.11565351  | 3.810466  | 2.6648159  | 9.550947e-03 | 4.254436e-02 |
| ## SLC6A14   | 1.21505938  | 7.003600  | 2.6648048  | 9.551233e-03 | 4.254436e-02 |
| ## GPBP1     | -0.15854192 | 9.654704  | -2.6646339 | 9.555632e-03 | 4.255485e-02 |
| ## LUZP1     | 0.10848400  | 3.574698  | 2.6645118  | 9.558776e-03 | 4.255975e-02 |
| ## GBAP1     | 0.28952280  | 8.115005  | 2.6633737  | 9.588134e-03 | 4.268134e-02 |
| ## TMEM70    | -0.17795953 | 5.520338  | -2.6625822 | 9.608598e-03 | 4.276329e-02 |
| ## PPP4R1L   | 0.08304858  | 3.708086  | 2.6621972  | 9.618565e-03 | 4.279851e-02 |
| ## TMX4      | -0.31172139 | 8.097812  | -2.6621161 | 9.620665e-03 | 4.279870e-02 |
| ## HSD17B7   | 0.22820960  | 8.391440  | 2.6603134  | 9.667477e-03 | 4.299776e-02 |
| ## FGF13-AS1 | -0.11487558 | 3.931215  | -2.6601297 | 9.672257e-03 | 4.300905e-02 |
| ## TJAP1     | 0.26243952  | 5.901445  | 2.6600147  | 9.675254e-03 | 4.300905e-02 |
| ## MTF1      | 0.17245151  | 7.016103  | 2.6599780  | 9.676209e-03 | 4.300905e-02 |
| ## CDC42     | 0.53176423  | 9.403632  | 2.6597553  | 9.682010e-03 | 4.302565e-02 |
| ## PROM2     | -0.86182172 | 7.805682  | -2.6595783 | 9.686623e-03 | 4.302944e-02 |
| ## CBLN3     | -0.17331602 | 4.983421  | -2.6595640 | 9.686996e-03 | 4.302944e-02 |

|                    |             |           |            |              |              |
|--------------------|-------------|-----------|------------|--------------|--------------|
| ## CYP3A7-CYP3A51P | -0.32420808 | 6.839430  | -2.6591313 | 9.698285e-03 | 4.307040e-02 |
| ## ZNF14           | -0.27769613 | 6.407892  | -2.6586320 | 9.711323e-03 | 4.311910e-02 |
| ## PLEKHB2         | 0.23616296  | 9.748224  | 2.6577763  | 9.733708e-03 | 4.320928e-02 |
| ## LPAR4           | -0.11086516 | 3.646273  | -2.6574652 | 9.741857e-03 | 4.323120e-02 |
| ## PMCH            | 0.25934159  | 4.278668  | 2.6574293  | 9.742797e-03 | 4.323120e-02 |
| ## ZMYM5           | 0.40419234  | 5.690218  | 2.6565843  | 9.764967e-03 | 4.331992e-02 |
| ## IL12RB2         | 0.20881651  | 3.819928  | 2.6565087  | 9.766953e-03 | 4.331992e-02 |
| ## TRMT1L          | -0.27876775 | 6.714961  | -2.6563938 | 9.769972e-03 | 4.332409e-02 |
| ## RTKN2           | 0.23289723  | 3.529597  | 2.6562269  | 9.774359e-03 | 4.333431e-02 |
| ## CACNB2          | -0.20626561 | 3.965987  | -2.6558723 | 9.783683e-03 | 4.336303e-02 |
| ## TLR4            | 0.38996894  | 5.489735  | 2.6557768  | 9.786196e-03 | 4.336303e-02 |
| ## S100A7          | 1.29909535  | 4.926874  | 2.6557431  | 9.787083e-03 | 4.336303e-02 |
| ## MAPRE2          | -0.25445827 | 8.837513  | -2.6550074 | 9.806461e-03 | 4.343660e-02 |
| ## SDR16C5         | -0.99579959 | 7.551327  | -2.6549543 | 9.807861e-03 | 4.343660e-02 |
| ## FAM174A         | -0.40198740 | 8.190699  | -2.6544219 | 9.821910e-03 | 4.348576e-02 |
| ## DDHD2           | -0.39902927 | 7.876932  | -2.6543754 | 9.823138e-03 | 4.348576e-02 |
| ## WDFY3-AS2       | -0.13174634 | 4.462874  | -2.6541678 | 9.828619e-03 | 4.350078e-02 |
| ## ARHGEF15        | -0.20599831 | 5.147952  | -2.6536182 | 9.843149e-03 | 4.355583e-02 |
| ## LCN2            | 1.09310722  | 10.880177 | 2.6533827  | 9.849381e-03 | 4.356204e-02 |
| ## H1-3            | 0.26852728  | 5.003019  | 2.6533555  | 9.850102e-03 | 4.356204e-02 |
| ## CCR7            | -0.52624788 | 6.053657  | -2.6532920 | 9.851781e-03 | 4.356204e-02 |
| ## RAMAC           | 0.21157049  | 7.783594  | 2.6532490  | 9.852921e-03 | 4.356204e-02 |
| ## BCS1L           | 0.14710697  | 7.689335  | 2.6531619  | 9.855228e-03 | 4.356300e-02 |
| ## CSNK1G2         | 0.15952116  | 8.218346  | 2.6513536  | 9.903224e-03 | 4.376586e-02 |
| ## UBA6            | 0.11040553  | 3.360880  | 2.6511797  | 9.907851e-03 | 4.377702e-02 |
| ## CDH26           | -0.17369770 | 3.814130  | -2.6509610 | 9.913673e-03 | 4.379345e-02 |
| ## IP6K3           | -0.13119069 | 4.001621  | -2.6488916 | 9.968913e-03 | 4.402813e-02 |
| ## CLEC2B          | -0.29533474 | 4.144793  | -2.6483342 | 9.983841e-03 | 4.408471e-02 |
| ## SYT16           | -0.07829267 | 3.269383  | -2.6481955 | 9.987558e-03 | 4.408662e-02 |
| ## TLE2            | -0.42461527 | 6.057590  | -2.6481601 | 9.988507e-03 | 4.408662e-02 |
| ## RBM43           | -0.35004469 | 4.956939  | -2.6475402 | 1.000514e-02 | 4.415067e-02 |
| ## PDZD2           | -0.69958700 | 6.181590  | -2.6474227 | 1.000830e-02 | 4.415524e-02 |
| ## CCDC15          | 0.18877969  | 4.849202  | 2.6468692  | 1.002317e-02 | 4.421151e-02 |
| ## CDK17           | 0.25160999  | 4.869060  | 2.6465363  | 1.003213e-02 | 4.424110e-02 |
| ## CRIP3           | -0.17788295 | 5.009735  | -2.6464619 | 1.003413e-02 | 4.424110e-02 |
| ## FCN2            | -0.12740668 | 3.813980  | -2.6461291 | 1.004309e-02 | 4.427124e-02 |
| ## RBPMS           | -0.31195753 | 4.331864  | -2.6458186 | 1.005146e-02 | 4.429875e-02 |
| ## MRPL54          | -0.18967588 | 8.574481  | -2.6456752 | 1.005533e-02 | 4.430642e-02 |
| ## MAP1LC3B        | 0.25030663  | 8.754784  | 2.6454412  | 1.006164e-02 | 4.431056e-02 |
| ## GINS4           | 0.14448834  | 4.028855  | 2.6454243  | 1.006210e-02 | 4.431056e-02 |
| ## HCN3            | 0.17202920  | 5.990843  | 2.6454038  | 1.006265e-02 | 4.431056e-02 |
| ## ZSCAN16         | 0.25556654  | 5.857935  | 2.6451147  | 1.007046e-02 | 4.433556e-02 |
| ## RWDD2B          | -0.26436404 | 7.294640  | -2.6448451 | 1.007774e-02 | 4.435825e-02 |
| ## AAR2            | 0.17300545  | 7.708756  | 2.6440692  | 1.009873e-02 | 4.444124e-02 |
| ## RHOF            | 0.21850657  | 5.207554  | 2.6435599  | 1.011253e-02 | 4.448566e-02 |
| ## FAM166C         | -0.15539670 | 5.049659  | -2.6435027 | 1.011408e-02 | 4.448566e-02 |
| ## CCDC136         | -0.31507290 | 4.766691  | -2.6434603 | 1.011523e-02 | 4.448566e-02 |
| ## PPP3R1          | 0.20526496  | 5.831663  | 2.6431582  | 1.012343e-02 | 4.450642e-02 |
| ## SIRPA           | 0.26039779  | 4.825150  | 2.6431287  | 1.012423e-02 | 4.450642e-02 |
| ## LTBP3           | -0.42333811 | 8.219164  | -2.6429264 | 1.012972e-02 | 4.452117e-02 |
| ## PRADC1          | -0.23530743 | 6.946329  | -2.6427431 | 1.013470e-02 | 4.453364e-02 |
| ## EMSLR           | 0.16490377  | 3.534281  | 2.6425417  | 1.014017e-02 | 4.454829e-02 |
| ## SVOP            | -0.14077329 | 4.461094  | -2.6423126 | 1.014640e-02 | 4.456626e-02 |
| ## ELFN2           | 0.24875918  | 3.710495  | 2.6422257  | 1.014876e-02 | 4.456723e-02 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## AIM2         | 0.80559625  | 6.257565  | 2.6421171  | 1.015172e-02 | 4.457082e-02 |
| ## PLEK2        | 0.53458957  | 8.623969  | 2.6419020  | 1.015757e-02 | 4.458712e-02 |
| ## TSPAN12      | -0.59270662 | 7.325090  | -2.6413598 | 1.017234e-02 | 4.464254e-02 |
| ## PSD          | -0.22546574 | 5.014623  | -2.6409865 | 1.018252e-02 | 4.467680e-02 |
| ## LOC112268068 | -0.08243087 | 3.788500  | -2.6409162 | 1.018444e-02 | 4.467680e-02 |
| ## GPLD1        | -0.08692889 | 3.727131  | -2.6405074 | 1.019560e-02 | 4.470826e-02 |
| ## GLRX2        | 0.26081957  | 7.895726  | 2.6404963  | 1.019590e-02 | 4.470826e-02 |
| ## UBA7         | -0.29211001 | 7.814831  | -2.6403180 | 1.020077e-02 | 4.472020e-02 |
| ## TERF2IP      | -0.20948686 | 8.728382  | -2.6393070 | 1.022844e-02 | 4.483203e-02 |
| ## ZXDB         | 0.10885995  | 3.749482  | 2.6392196  | 1.023083e-02 | 4.483309e-02 |
| ## MPV17L       | -0.36940225 | 4.318175  | -2.6391382 | 1.023306e-02 | 4.483342e-02 |
| ## DDX54        | 0.22088883  | 6.541656  | 2.6389612  | 1.023791e-02 | 4.484524e-02 |
| ## ABCC9        | -0.25119043 | 4.060452  | -2.6380057 | 1.026414e-02 | 4.495067e-02 |
| ## YPEL3-DT     | -0.19507514 | 4.906493  | -2.6373444 | 1.028233e-02 | 4.502086e-02 |
| ## VGLL3        | -0.44489680 | 4.347153  | -2.6371141 | 1.028867e-02 | 4.503916e-02 |
| ## ZNF417       | 0.06980316  | 3.238269  | 2.6366182  | 1.030234e-02 | 4.508950e-02 |
| ## GOSR1        | 0.23187601  | 3.537389  | 2.6359785  | 1.031999e-02 | 4.514619e-02 |
| ## RUSC1-AS1    | 0.28238292  | 4.774236  | 2.6359269  | 1.032141e-02 | 4.514619e-02 |
| ## PYM1         | 0.20332218  | 7.260855  | 2.6359132  | 1.032179e-02 | 4.514619e-02 |
| ## ANXA6        | -0.36907590 | 9.250644  | -2.6357376 | 1.032664e-02 | 4.515792e-02 |
| ## SIRT4        | -0.14240918 | 3.809314  | -2.6356202 | 1.032989e-02 | 4.516263e-02 |
| ## POU5F1P4     | 0.25267400  | 5.803131  | 2.6354236  | 1.033532e-02 | 4.517690e-02 |
| ## ADAM29       | -0.10618753 | 3.509335  | -2.6352232 | 1.034087e-02 | 4.519165e-02 |
| ## KIR2DL4      | 0.19160826  | 4.730158  | 2.6332053  | 1.039684e-02 | 4.542531e-02 |
| ## ATG12        | 0.26813605  | 7.132023  | 2.6331384  | 1.039870e-02 | 4.542531e-02 |
| ## TXNDC15      | -0.30880187 | 9.248284  | -2.6328029 | 1.040803e-02 | 4.545655e-02 |
| ## ANGPTL2      | -0.47180079 | 8.308244  | -2.6325033 | 1.041637e-02 | 4.548344e-02 |
| ## TUBA3D       | 0.16194064  | 7.009594  | 2.6323273  | 1.042127e-02 | 4.549531e-02 |
| ## TP53TG1      | -0.40273499 | 6.232769  | -2.6321015 | 1.042757e-02 | 4.551324e-02 |
| ## LINC00115    | 0.32429234  | 4.834438  | 2.6319663  | 1.043134e-02 | 4.552016e-02 |
| ## REXO5        | 0.29261528  | 5.747923  | 2.6317574  | 1.043717e-02 | 4.552985e-02 |
| ## SLC45A1      | -0.14160620 | 4.469388  | -2.6317299 | 1.043793e-02 | 4.552985e-02 |
| ## HERC2P8      | 0.09070669  | 3.932409  | 2.6314120  | 1.044681e-02 | 4.555901e-02 |
| ## PRDX6-AS1    | -0.16867575 | 4.623631  | -2.6308061 | 1.046374e-02 | 4.562330e-02 |
| ## YES1         | 0.28107788  | 8.240403  | 2.6306672  | 1.046762e-02 | 4.563069e-02 |
| ## HCFC1R1      | -0.20504243 | 7.512429  | -2.6303152 | 1.047748e-02 | 4.566408e-02 |
| ## MRPS28       | 0.27732173  | 8.628404  | 2.6302009  | 1.048068e-02 | 4.566847e-02 |
| ## RPL7         | -0.10261293 | 13.546497 | -2.6298927 | 1.048931e-02 | 4.569653e-02 |
| ## EIF4E2       | 0.20756384  | 8.261795  | 2.6294169  | 1.050266e-02 | 4.574510e-02 |
| ## BLMH         | 0.31444300  | 7.261807  | 2.6285959  | 1.052572e-02 | 4.583595e-02 |
| ## SSTR5-AS1    | -0.31096514 | 4.418346  | -2.6283915 | 1.053146e-02 | 4.585140e-02 |
| ## IL10RA       | -0.41180744 | 8.297865  | -2.6273745 | 1.056011e-02 | 4.596651e-02 |
| ## PHC1         | -0.33496577 | 6.856247  | -2.6255715 | 1.061107e-02 | 4.617234e-02 |
| ## UNC119       | 0.16060460  | 7.030407  | 2.6255445  | 1.061183e-02 | 4.617234e-02 |
| ## TSEN15       | 0.22135803  | 8.289314  | 2.6249811  | 1.062780e-02 | 4.623217e-02 |
| ## DAPK1        | -0.41797423 | 8.940137  | -2.6247960 | 1.063305e-02 | 4.624535e-02 |
| ## OR2S2        | -0.12688248 | 4.140548  | -2.6244235 | 1.064363e-02 | 4.628167e-02 |
| ## CASP5        | 0.37844030  | 4.476467  | 2.6236493  | 1.066564e-02 | 4.636770e-02 |
| ## SFTA2        | 0.82917975  | 5.536959  | 2.6227002  | 1.069268e-02 | 4.647555e-02 |
| ## MIR4435-2HG  | 0.06183115  | 3.081222  | 2.6225665  | 1.069649e-02 | 4.648242e-02 |
| ## SPATS2L      | -0.42026425 | 4.930669  | -2.6222502 | 1.070552e-02 | 4.651196e-02 |
| ## C8orf33      | 0.32959542  | 7.755118  | 2.6220423  | 1.071146e-02 | 4.652805e-02 |
| ## CHKB         | -0.20450507 | 8.434446  | -2.6214556 | 1.072823e-02 | 4.658879e-02 |
| ## LOC105376236 | -0.13891780 | 3.924949  | -2.6213967 | 1.072992e-02 | 4.658879e-02 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## ST3GAL2    | 0.16883752  | 4.773498  | 2.6212085  | 1.073530e-02 | 4.660245e-02 |
| ## SMG6       | -0.21254589 | 6.144610  | -2.6208305 | 1.074613e-02 | 4.663972e-02 |
| ## CUBN       | -0.08309050 | 4.148814  | -2.6206124 | 1.075238e-02 | 4.664793e-02 |
| ## DDX24      | -0.19312107 | 9.089681  | -2.6206081 | 1.075250e-02 | 4.664793e-02 |
| ## SMC5       | 0.38967639  | 6.761180  | 2.6200901  | 1.076736e-02 | 4.670267e-02 |
| ## DIRAS1     | -0.14603592 | 5.160643  | -2.6198473 | 1.077433e-02 | 4.672318e-02 |
| ## JPT1       | 0.39896095  | 9.808457  | 2.6197617  | 1.077679e-02 | 4.672411e-02 |
| ## TPP1       | 0.27764211  | 8.877151  | 2.6193797  | 1.078777e-02 | 4.676197e-02 |
| ## MYL12A     | 0.41924321  | 6.091712  | 2.6187217  | 1.080670e-02 | 4.683430e-02 |
| ## PRDM16-DT  | -0.24077734 | 5.592977  | -2.6183284 | 1.081804e-02 | 4.687365e-02 |
| ## PHLDA1     | 0.64502742  | 8.346094  | 2.6182219  | 1.082110e-02 | 4.687719e-02 |
| ## H1-2       | 0.68042257  | 8.018344  | 2.6180759  | 1.082531e-02 | 4.688568e-02 |
| ## PEAR1      | -0.37875570 | 6.368348  | -2.6178931 | 1.083059e-02 | 4.689877e-02 |
| ## COPE       | 0.24133199  | 9.107091  | 2.6174917  | 1.084218e-02 | 4.693920e-02 |
| ## TBC1D10B   | 0.21096094  | 7.222022  | 2.6173007  | 1.084769e-02 | 4.695331e-02 |
| ## ILK        | -0.26382680 | 9.338477  | -2.6169461 | 1.085795e-02 | 4.698793e-02 |
| ## ARHGEF10L  | 0.28471152  | 5.149049  | 2.6165865  | 1.086835e-02 | 4.701989e-02 |
| ## SARNP      | 0.23926874  | 8.620176  | 2.6165348  | 1.086985e-02 | 4.701989e-02 |
| ## LRRC57     | 0.26641766  | 6.684332  | 2.6163201  | 1.087607e-02 | 4.703624e-02 |
| ## SV2A       | -0.33348472 | 5.938593  | -2.6162483 | 1.087815e-02 | 4.703624e-02 |
| ## ATP11B     | 0.24667682  | 6.554930  | 2.6156659  | 1.089503e-02 | 4.709947e-02 |
| ## RNF165     | -0.09412167 | 3.371646  | -2.6153098 | 1.090537e-02 | 4.713437e-02 |
| ## RPL11      | -0.10713962 | 12.643081 | -2.6149682 | 1.091529e-02 | 4.716746e-02 |
| ## FBL        | 0.26026204  | 10.073616 | 2.6147248  | 1.092236e-02 | 4.718824e-02 |
| ## PSMC1      | 0.14152553  | 10.170146 | 2.6144408  | 1.093063e-02 | 4.721413e-02 |
| ## MTIF2      | 0.20100733  | 8.678476  | 2.6139884  | 1.094380e-02 | 4.726122e-02 |
| ## CASC2      | 0.08961813  | 3.769350  | 2.6137371  | 1.095112e-02 | 4.728304e-02 |
| ## SMG1       | 0.53800946  | 4.977188  | 2.6133217  | 1.096323e-02 | 4.732554e-02 |
| ## CT66       | -0.07903472 | 3.543583  | -2.6129889 | 1.097295e-02 | 4.735765e-02 |
| ## ZNF518B    | -0.43798776 | 6.426822  | -2.6121432 | 1.099767e-02 | 4.745450e-02 |
| ## CTRC       | -0.29873707 | 4.802848  | -2.6119897 | 1.100216e-02 | 4.746404e-02 |
| ## SFXN3      | 0.32256650  | 4.763011  | 2.6117649  | 1.100874e-02 | 4.747614e-02 |
| ## DIO2       | -0.71352251 | 6.646830  | -2.6117382 | 1.100952e-02 | 4.747614e-02 |
| ## EFCAB13-DT | -0.07292165 | 3.304942  | -2.6115507 | 1.101501e-02 | 4.748999e-02 |
| ## RIPK1      | 0.20792309  | 7.154038  | 2.6109711  | 1.103201e-02 | 4.754497e-02 |
| ## MRGPRF-AS1 | -0.15200302 | 5.502083  | -2.6109601 | 1.103233e-02 | 4.754497e-02 |
| ## HRAS       | 0.28444799  | 7.113182  | 2.6104107  | 1.104846e-02 | 4.760464e-02 |
| ## FCGR2B     | -0.64728233 | 6.310374  | -2.6092169 | 1.108359e-02 | 4.774612e-02 |
| ## EBAG9      | -0.23206413 | 9.739581  | -2.6084671 | 1.110571e-02 | 4.783149e-02 |
| ## TRPC50S    | 0.07051221  | 3.308684  | 2.6082483  | 1.111217e-02 | 4.784942e-02 |
| ## MAGEA10    | 0.43775394  | 4.399527  | 2.6072016  | 1.114312e-02 | 4.797278e-02 |
| ## CD34       | -0.48127632 | 6.980576  | -2.6067591 | 1.115623e-02 | 4.801369e-02 |
| ## EIF4G3     | 0.16395392  | 3.698292  | 2.6067253  | 1.115723e-02 | 4.801369e-02 |
| ## SNAP47     | 0.15649362  | 7.698174  | 2.6044415  | 1.122512e-02 | 4.829586e-02 |
| ## BLCAP      | 0.08476429  | 3.663601  | 2.6041912  | 1.123259e-02 | 4.831799e-02 |
| ## GJB4       | -0.15568514 | 4.661446  | -2.6037172 | 1.124673e-02 | 4.836885e-02 |
| ## NUP62CL    | 0.54799455  | 4.576454  | 2.6034327  | 1.125523e-02 | 4.839539e-02 |
| ## SH3GL2     | -0.39500947 | 3.557712  | -2.6032247 | 1.126145e-02 | 4.840363e-02 |
| ## GPD2       | -0.28969802 | 5.944963  | -2.6031883 | 1.126254e-02 | 4.840363e-02 |
| ## LIPF       | -1.74347921 | 11.261916 | -2.6030934 | 1.126537e-02 | 4.840363e-02 |
| ## PEDS1      | 0.22311875  | 8.356841  | 2.6030576  | 1.126644e-02 | 4.840363e-02 |
| ## C10orf88   | 0.24034565  | 5.524200  | 2.6028484  | 1.127270e-02 | 4.840736e-02 |
| ## PJVK       | -0.18420836 | 4.487900  | -2.6028356 | 1.127309e-02 | 4.840736e-02 |
| ## LETM1      | 0.16336671  | 5.906386  | 2.6027955  | 1.127429e-02 | 4.840736e-02 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## LINC00672  | -0.39419981 | 4.795110  | -2.6021543 | 1.129349e-02 | 4.847983e-02 |
| ## CRADD-AS1  | -0.12677098 | 3.695861  | -2.6018169 | 1.130360e-02 | 4.851324e-02 |
| ## PPM1H      | 0.09916186  | 3.803723  | 2.6015935  | 1.131031e-02 | 4.853201e-02 |
| ## DVL2       | 0.15540414  | 6.073195  | 2.6013719  | 1.131696e-02 | 4.855056e-02 |
| ## IQCH-AS1   | -0.24206208 | 6.370908  | -2.6010569 | 1.132642e-02 | 4.857489e-02 |
| ## NDUFV1-DT  | 0.10792551  | 5.754967  | 2.6010278  | 1.132730e-02 | 4.857489e-02 |
| ## CMTM8      | 0.37154066  | 7.097176  | 2.6008426  | 1.133287e-02 | 4.858876e-02 |
| ## PTPN1      | 0.24790203  | 7.299701  | 2.6001246  | 1.135447e-02 | 4.867138e-02 |
| ## YIPF2      | 0.17519797  | 5.373873  | 2.5995940  | 1.137046e-02 | 4.872989e-02 |
| ## TMEM147    | 0.19431684  | 9.867945  | 2.5994441  | 1.137499e-02 | 4.873924e-02 |
| ## SLC25A46   | -0.28192088 | 8.689388  | -2.5991340 | 1.138435e-02 | 4.876931e-02 |
| ## CLCN3      | 0.45587524  | 7.174495  | 2.5981470  | 1.141418e-02 | 4.888706e-02 |
| ## MORC4      | 0.42482892  | 7.369648  | 2.5979288  | 1.142079e-02 | 4.890530e-02 |
| ## GMPPA      | 0.18783344  | 7.100657  | 2.5977875  | 1.142507e-02 | 4.891334e-02 |
| ## PHF10      | 0.23376164  | 8.546887  | 2.5977116  | 1.142736e-02 | 4.891334e-02 |
| ## PRR5       | 0.24308422  | 5.740733  | 2.5972193  | 1.144229e-02 | 4.896398e-02 |
| ## BBS10      | -0.34550842 | 5.381466  | -2.5971662 | 1.144390e-02 | 4.896398e-02 |
| ## MACROD1    | 0.16850187  | 4.374028  | 2.5970232  | 1.144824e-02 | 4.897249e-02 |
| ## C4orf48    | 0.38032307  | 7.698377  | 2.5966480  | 1.145963e-02 | 4.901115e-02 |
| ## BMPR1A     | -0.29200624 | 6.957814  | -2.5962298 | 1.147234e-02 | 4.905345e-02 |
| ## BRI3BP     | 0.38405592  | 9.269167  | 2.5961675  | 1.147423e-02 | 4.905345e-02 |
| ## SLC39A7    | 0.34583826  | 7.320015  | 2.5957755  | 1.148615e-02 | 4.909434e-02 |
| ## BLOC1S2    | 0.22990851  | 9.238311  | 2.5953105  | 1.150032e-02 | 4.914479e-02 |
| ## USP5       | 0.18214711  | 6.640016  | 2.5952213  | 1.150303e-02 | 4.914632e-02 |
| ## CEP126     | -0.26306341 | 4.408433  | -2.5951183 | 1.150617e-02 | 4.914965e-02 |
| ## NFKBIA     | 0.25475050  | 10.796302 | 2.5946721  | 1.151978e-02 | 4.919769e-02 |
| ## TIGD5      | 0.20075719  | 7.007044  | 2.5944980  | 1.152510e-02 | 4.921029e-02 |
| ## MB21D2     | -0.30866279 | 7.082801  | -2.5938328 | 1.154542e-02 | 4.928053e-02 |
| ## C2orf49    | 0.31210495  | 6.756489  | 2.5938048  | 1.154628e-02 | 4.928053e-02 |
| ## ST6GALNAC5 | -0.12643010 | 4.765994  | -2.5925370 | 1.158511e-02 | 4.943612e-02 |
| ## FANCL      | 0.28775077  | 8.184318  | 2.5924129  | 1.158891e-02 | 4.944222e-02 |
| ## SSBP3-AS1  | -0.20049821 | 6.347783  | -2.5917261 | 1.161000e-02 | 4.952207e-02 |
| ## ZBTB2      | 0.25856572  | 5.909380  | 2.5915166  | 1.161644e-02 | 4.953631e-02 |
| ## CYP24A1    | 0.16907541  | 3.243567  | 2.5914627  | 1.161810e-02 | 4.953631e-02 |
| ## PEX11A     | -0.34815074 | 6.893733  | -2.5912253 | 1.162540e-02 | 4.955730e-02 |
| ## TMBIM6     | 0.25846812  | 10.857492 | 2.5910784  | 1.162993e-02 | 4.956643e-02 |
| ## OSCP1      | -0.24447764 | 5.478065  | -2.5908142 | 1.163806e-02 | 4.959095e-02 |
| ## LTBP2      | -0.44210395 | 8.167643  | -2.5905090 | 1.164747e-02 | 4.962087e-02 |
| ## SLC2A10    | -0.60135540 | 7.963329  | -2.5903113 | 1.165356e-02 | 4.963668e-02 |
| ## NOCT       | 0.29634582  | 3.798840  | 2.5895924  | 1.167575e-02 | 4.972102e-02 |
| ## LRRC37A2   | -0.28144562 | 6.547194  | -2.5880619 | 1.172311e-02 | 4.991251e-02 |
| ## FTH1       | 0.18178040  | 13.198970 | 2.5877546  | 1.173264e-02 | 4.992961e-02 |
| ## HCFC2      | -0.22048180 | 6.328988  | -2.5877270 | 1.173350e-02 | 4.992961e-02 |
| ## MFSD6      | 0.39157608  | 6.287027  | 2.5877005  | 1.173432e-02 | 4.992961e-02 |
| ## TSC22D1    | -0.29922613 | 11.069278 | -2.5871026 | 1.175289e-02 | 4.999243e-02 |
| ## C6orf58    | -1.69189005 | 6.826348  | -2.5870706 | 1.175389e-02 | 4.999243e-02 |
| ## CSPP1      | 0.22237278  | 4.706090  | 2.5868621  | 1.176037e-02 | 5.000977e-02 |
| ## CSK        | 0.21426494  | 8.346425  | 2.5865455  | 1.177022e-02 | 5.003400e-02 |
| ## RNASE6     | -0.46635763 | 7.797135  | -2.5865245 | 1.177087e-02 | 5.003400e-02 |
| ## CEP83      | 0.33583825  | 6.467974  | 2.5860966  | 1.178419e-02 | 5.008036e-02 |
| ## DXO        | 0.12731478  | 6.146275  | 2.5860197  | 1.178659e-02 | 5.008036e-02 |
| ## KLHL18     | 0.30957115  | 5.695740  | 2.5855879  | 1.180005e-02 | 5.011941e-02 |
| ## BTG3       | 0.34399710  | 7.900265  | 2.5855705  | 1.180059e-02 | 5.011941e-02 |
| ## NONO       | 0.14781485  | 11.584715 | 2.5851202  | 1.181464e-02 | 5.016886e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## RCN1         | 0.34953487  | 9.433509  | 2.5848702  | 1.182245e-02 | 5.019179e-02 |
| ## PPP3CB-AS1   | -0.16915615 | 5.295295  | -2.5838083 | 1.185567e-02 | 5.032255e-02 |
| ## CTLA4        | 0.27131566  | 5.417609  | 2.5834658  | 1.186640e-02 | 5.034910e-02 |
| ## CLEC16A      | 0.18571496  | 6.462911  | 2.5834544  | 1.186676e-02 | 5.034910e-02 |
| ## HBBP1        | -0.10050068 | 3.816444  | -2.5829499 | 1.188258e-02 | 5.039822e-02 |
| ## PCYT2        | 0.29139357  | 7.014994  | 2.5829310  | 1.188318e-02 | 5.039822e-02 |
| ## MYO1H        | -0.08792902 | 3.848244  | -2.5823994 | 1.189987e-02 | 5.043332e-02 |
| ## CFAP52       | 0.09181725  | 3.587102  | 2.5823981  | 1.189992e-02 | 5.043332e-02 |
| ## LRRC31       | -0.79828835 | 5.523789  | -2.5823706 | 1.190078e-02 | 5.043332e-02 |
| ## P2RY4        | -0.14108724 | 4.170764  | -2.5823591 | 1.190114e-02 | 5.043332e-02 |
| ## BAHCC1       | -0.17784637 | 6.019851  | -2.5818911 | 1.191586e-02 | 5.048542e-02 |
| ## LINGO1       | 0.16906366  | 5.551300  | 2.5809649  | 1.194503e-02 | 5.059873e-02 |
| ## VPS13B-DT    | -0.27335729 | 5.884217  | -2.5807243 | 1.195262e-02 | 5.062058e-02 |
| ## PIERCE2      | -0.32796208 | 5.276463  | -2.5806318 | 1.195554e-02 | 5.062265e-02 |
| ## ARL5B        | 0.26973881  | 8.390720  | 2.5802654  | 1.196711e-02 | 5.066134e-02 |
| ## THRAP3       | 0.20618481  | 6.022577  | 2.5797385  | 1.198377e-02 | 5.070993e-02 |
| ## PHKG1        | -0.27226837 | 5.228366  | -2.5797066 | 1.198477e-02 | 5.070993e-02 |
| ## PDILT        | -0.60711025 | 4.543760  | -2.5796712 | 1.198589e-02 | 5.070993e-02 |
| ## TME98        | -0.46845249 | 9.068681  | -2.5786896 | 1.201698e-02 | 5.083004e-02 |
| ## CDKN2B       | 0.18263574  | 4.697043  | 2.5786016  | 1.201977e-02 | 5.083004e-02 |
| ## COPA         | 0.17000852  | 3.852258  | 2.5785438  | 1.202161e-02 | 5.083004e-02 |
| ## APH1B        | 0.21041753  | 6.372276  | 2.5780946  | 1.203586e-02 | 5.087998e-02 |
| ## ELOVL1       | 0.24817879  | 8.364260  | 2.5774519  | 1.205629e-02 | 5.094557e-02 |
| ## SH3GLB2      | 0.33448028  | 6.514881  | 2.5774185  | 1.205735e-02 | 5.094557e-02 |
| ## CHST15       | -0.39507260 | 8.351090  | -2.5773755 | 1.205872e-02 | 5.094557e-02 |
| ## TCF4         | -0.36456153 | 8.582668  | -2.5772564 | 1.206250e-02 | 5.095123e-02 |
| ## SELENOW      | -0.25666956 | 11.112078 | -2.5770852 | 1.206795e-02 | 5.096391e-02 |
| ## NUCB1        | 0.26500002  | 7.581005  | 2.5764978  | 1.208666e-02 | 5.103257e-02 |
| ## OAT          | -0.33754142 | 11.189890 | -2.5760131 | 1.210212e-02 | 5.108749e-02 |
| ## ZDHC16       | 0.20668443  | 8.116901  | 2.5758457  | 1.210746e-02 | 5.109968e-02 |
| ## LNX1         | -0.58281215 | 7.210686  | -2.5755490 | 1.211694e-02 | 5.112930e-02 |
| ## NCAM2        | -0.14220777 | 3.700733  | -2.5753191 | 1.212429e-02 | 5.114995e-02 |
| ## CASD1        | -0.38081620 | 6.711937  | -2.5744069 | 1.215347e-02 | 5.126270e-02 |
| ## THAP9-AS1    | 0.32312027  | 8.173306  | 2.5741123  | 1.216291e-02 | 5.129213e-02 |
| ## PTPN13       | -0.42231404 | 4.737907  | -2.5737977 | 1.217300e-02 | 5.132429e-02 |
| ## H1-5         | 0.10003749  | 3.704823  | 2.5734980  | 1.218262e-02 | 5.134560e-02 |
| ## INTU         | -0.44584489 | 4.956465  | -2.5733457 | 1.218751e-02 | 5.134560e-02 |
| ## TGOLN2       | 0.30053655  | 5.979070  | 2.5733052  | 1.218881e-02 | 5.134560e-02 |
| ## IL17B        | -0.22012779 | 5.128558  | -2.5733002 | 1.218897e-02 | 5.134560e-02 |
| ## ACACA        | 0.26756106  | 7.967663  | 2.5732561  | 1.219039e-02 | 5.134560e-02 |
| ## DNAH3        | 0.16887786  | 4.483587  | 2.5725540  | 1.221296e-02 | 5.143027e-02 |
| ## PNISR        | -0.23073348 | 8.832183  | -2.5719869 | 1.223122e-02 | 5.149674e-02 |
| ## STAB2        | -0.21493615 | 4.192271  | -2.5718365 | 1.223607e-02 | 5.150674e-02 |
| ## COL12A1      | 0.55836976  | 10.392436 | 2.5716181  | 1.224311e-02 | 5.152582e-02 |
| ## IPMK         | 0.17901274  | 5.820858  | 2.5715425  | 1.224555e-02 | 5.152582e-02 |
| ## SLC25A21-AS1 | -0.10249946 | 3.623020  | -2.5710253 | 1.226224e-02 | 5.158562e-02 |
| ## SLC15A4      | 0.23811888  | 7.831646  | 2.5706539  | 1.227424e-02 | 5.162567e-02 |
| ## MYO6         | 0.36178870  | 8.376549  | 2.5704919  | 1.227947e-02 | 5.163727e-02 |
| ## ZNF34        | -0.18953675 | 5.269972  | -2.5704104 | 1.228211e-02 | 5.163793e-02 |
| ## MYADM        | -0.36707855 | 7.408323  | -2.5701538 | 1.229041e-02 | 5.166240e-02 |
| ## ZNF274       | -0.33457592 | 7.842822  | -2.5695283 | 1.231067e-02 | 5.173710e-02 |
| ## FLT3         | -0.15108877 | 4.784448  | -2.5685670 | 1.234186e-02 | 5.185772e-02 |
| ## PAQR6        | 0.23542678  | 6.044142  | 2.5683600  | 1.234858e-02 | 5.187550e-02 |
| ## PCBP3        | -0.20142412 | 5.337118  | -2.5682155 | 1.235328e-02 | 5.187952e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## DNAH8        | -0.15306458 | 4.014546  | -2.5681386 | 1.235578e-02 | 5.187952e-02 |
| ## AGXT2        | -0.12509431 | 3.852529  | -2.5680982 | 1.235709e-02 | 5.187952e-02 |
| ## BTD          | -0.26336949 | 6.424532  | -2.5680240 | 1.235950e-02 | 5.187952e-02 |
| ## EIF4E        | 0.30145622  | 8.806582  | 2.5677410  | 1.236871e-02 | 5.190771e-02 |
| ## ZNF653       | 0.16768113  | 4.402451  | 2.5676428  | 1.237191e-02 | 5.191067e-02 |
| ## RH0J         | -0.36685349 | 5.348866  | -2.5674620 | 1.237780e-02 | 5.192491e-02 |
| ## MROH7        | -0.20846159 | 4.871405  | -2.5670481 | 1.239128e-02 | 5.197102e-02 |
| ## TMEM242      | -0.20222291 | 5.576358  | -2.5653920 | 1.244538e-02 | 5.218739e-02 |
| ## CDKN2D       | 0.15399863  | 5.541873  | 2.5652031  | 1.245156e-02 | 5.220281e-02 |
| ## CD44         | 0.38543342  | 8.079828  | 2.5646376  | 1.247009e-02 | 5.226997e-02 |
| ## PHF24        | -0.12894363 | 5.281577  | -2.5642727 | 1.248206e-02 | 5.230961e-02 |
| ## WEE1         | 0.29803627  | 9.406231  | 2.5632377  | 1.251607e-02 | 5.244157e-02 |
| ## PRPF3        | 0.21393572  | 7.630637  | 2.5628669  | 1.252827e-02 | 5.248214e-02 |
| ## SZRD1        | 0.24388942  | 7.119794  | 2.5621036  | 1.255343e-02 | 5.257695e-02 |
| ## NKX3-2       | -0.51666582 | 5.153645  | -2.5613335 | 1.257885e-02 | 5.267284e-02 |
| ## IRAK1        | 0.29099040  | 6.076639  | 2.5608537  | 1.259472e-02 | 5.272722e-02 |
| ## PTMA         | 0.23464500  | 11.822747 | 2.5607404  | 1.259847e-02 | 5.272722e-02 |
| ## XPNPEP2      | -0.45987411 | 4.852199  | -2.5607111 | 1.259943e-02 | 5.272722e-02 |
| ## HTRA4        | 0.34175990  | 4.766113  | 2.5605933  | 1.260334e-02 | 5.273295e-02 |
| ## KIF27        | 0.07762705  | 3.528480  | 2.5601790  | 1.261706e-02 | 5.277975e-02 |
| ## ZBTB7A       | 0.14280427  | 4.760668  | 2.5599889  | 1.262336e-02 | 5.279550e-02 |
| ## ELP5         | 0.40031450  | 6.573470  | 2.5598128  | 1.262920e-02 | 5.280932e-02 |
| ## NOTCH2       | -0.27122599 | 9.596631  | -2.5594174 | 1.264232e-02 | 5.285357e-02 |
| ## LOC105369889 | -0.12243641 | 3.811044  | -2.5573951 | 1.270961e-02 | 5.312424e-02 |
| ## ACBD3        | 0.50515876  | 7.537172  | 2.5571406  | 1.271810e-02 | 5.314907e-02 |
| ## CYP20A1      | 0.19893724  | 6.618929  | 2.5569988  | 1.272284e-02 | 5.315818e-02 |
| ## GFPT1        | 0.40952968  | 8.787988  | 2.5560993  | 1.275290e-02 | 5.327311e-02 |
| ## OXSM         | 0.22342219  | 7.244462  | 2.5558235  | 1.276213e-02 | 5.330098e-02 |
| ## UVSSA        | 0.13266306  | 4.360921  | 2.5557274  | 1.276535e-02 | 5.330373e-02 |
| ## CACHD1       | -0.49338136 | 6.737519  | -2.5545954 | 1.280331e-02 | 5.345152e-02 |
| ## MIER3        | 0.21847288  | 3.982048  | 2.5543515  | 1.281150e-02 | 5.347499e-02 |
| ## ATP6V1C2     | 0.43234743  | 3.855133  | 2.5539774  | 1.282408e-02 | 5.351677e-02 |
| ## STOM         | -0.29531455 | 9.724186  | -2.5537308 | 1.283237e-02 | 5.354064e-02 |
| ## CMTM4        | 0.20251722  | 5.040415  | 2.5535518  | 1.283840e-02 | 5.355063e-02 |
| ## IFT52        | 0.21786235  | 7.798462  | 2.5535069  | 1.283991e-02 | 5.355063e-02 |
| ## EPB41L4A-DT  | -0.14609034 | 3.975520  | -2.5531923 | 1.285051e-02 | 5.358410e-02 |
| ## GABBR1       | -0.36220765 | 6.640444  | -2.5528597 | 1.286172e-02 | 5.361868e-02 |
| ## ZNF765       | 0.20697477  | 7.336849  | 2.5527934  | 1.286395e-02 | 5.361868e-02 |
| ## SILC1        | -0.16065371 | 3.864485  | -2.5526809 | 1.286775e-02 | 5.362377e-02 |
| ## NME4         | -0.34985845 | 8.080250  | -2.5522391 | 1.288266e-02 | 5.367515e-02 |
| ## NPTN         | -0.15662539 | 11.394804 | -2.5518792 | 1.289481e-02 | 5.371507e-02 |
| ## LOX          | 0.54030265  | 5.535610  | 2.5517371  | 1.289962e-02 | 5.372432e-02 |
| ## DPCD         | 0.27175007  | 6.937124  | 2.5515453  | 1.290610e-02 | 5.373632e-02 |
| ## MBD5         | 0.24272082  | 5.915661  | 2.5514544  | 1.290918e-02 | 5.373632e-02 |
| ## WDR7         | -0.27917267 | 7.037557  | -2.5514231 | 1.291024e-02 | 5.373632e-02 |
| ## LUZP4        | -0.12824796 | 4.398490  | -2.5503964 | 1.294501e-02 | 5.387030e-02 |
| ## EML5         | -0.10165589 | 3.513804  | -2.5499446 | 1.296035e-02 | 5.392080e-02 |
| ## LPCAT1       | 0.31797185  | 8.425716  | 2.5498862  | 1.296233e-02 | 5.392080e-02 |
| ## MTA2         | 0.33952242  | 4.707624  | 2.5496954  | 1.296881e-02 | 5.393468e-02 |
| ## NBL1         | -0.34884350 | 9.041271  | -2.5496355 | 1.297085e-02 | 5.393468e-02 |
| ## SNORA72      | 0.28961161  | 4.694909  | 2.5494498  | 1.297716e-02 | 5.395015e-02 |
| ## H2AC25       | 0.41149154  | 7.325137  | 2.5491926  | 1.298590e-02 | 5.397572e-02 |
| ## TAF7         | -0.26746621 | 9.453711  | -2.5490929 | 1.298929e-02 | 5.397904e-02 |
| ## FUT2         | 0.36300427  | 6.828330  | 2.5481510  | 1.302137e-02 | 5.410156e-02 |

|                |             |           |            |              |              |
|----------------|-------------|-----------|------------|--------------|--------------|
| ## DCAF13      | 0.10694631  | 3.362233  | 2.5478871  | 1.303037e-02 | 5.410709e-02 |
| ## DCLRE1C     | 0.19248404  | 6.859314  | 2.5478864  | 1.303039e-02 | 5.410709e-02 |
| ## LINC02777   | -0.15052483 | 4.711069  | -2.5478834 | 1.303050e-02 | 5.410709e-02 |
| ## CDH13       | 0.25489893  | 4.508328  | 2.5472862  | 1.305088e-02 | 5.418094e-02 |
| ## ST8SIA6-AS1 | 0.55606097  | 4.236019  | 2.5471105  | 1.305689e-02 | 5.419507e-02 |
| ## PEX2        | 0.15789509  | 3.794432  | 2.5469607  | 1.306201e-02 | 5.419633e-02 |
| ## DPYSL2      | -0.36817987 | 10.355232 | -2.5469181 | 1.306347e-02 | 5.419633e-02 |
| ## BBOF1       | -0.30908304 | 5.940719  | -2.5468733 | 1.306500e-02 | 5.419633e-02 |
| ## CHDH        | 0.16023446  | 3.466729  | 2.5465790  | 1.307507e-02 | 5.422728e-02 |
| ## TSPAN4      | -0.26321257 | 7.984544  | -2.5464627 | 1.307905e-02 | 5.423299e-02 |
| ## DLX6-AS1    | 0.13060890  | 3.780530  | 2.5462905  | 1.308495e-02 | 5.424665e-02 |
| ## WDR47       | -0.23153407 | 7.538388  | -2.5458380 | 1.310045e-02 | 5.429525e-02 |
| ## ATP8A2      | -0.27727331 | 4.259113  | -2.5457961 | 1.310188e-02 | 5.429525e-02 |
| ## MRPS22      | 0.17830772  | 8.671123  | 2.5455968  | 1.310872e-02 | 5.431277e-02 |
| ## CDC42SE1    | 0.19774600  | 8.752673  | 2.5455170  | 1.311146e-02 | 5.431330e-02 |
| ## LDLR        | 0.42040549  | 6.971638  | 2.5454238  | 1.311465e-02 | 5.431574e-02 |
| ## C19orf84    | -0.13479844 | 5.715914  | -2.5453476 | 1.311727e-02 | 5.431577e-02 |
| ## SHROOM4     | -0.11419882 | 4.142430  | -2.5452585 | 1.312033e-02 | 5.431764e-02 |
| ## CCDC60      | -0.16979711 | 6.244290  | -2.5450929 | 1.312602e-02 | 5.433038e-02 |
| ## PGC         | -1.69505577 | 10.930783 | -2.5449082 | 1.313236e-02 | 5.434584e-02 |
| ## FAM27E3     | 0.28994261  | 6.176282  | 2.5442109  | 1.315634e-02 | 5.443425e-02 |
| ## RNASEH2C    | -0.22198180 | 8.063445  | -2.5441157 | 1.315961e-02 | 5.443675e-02 |
| ## PIGL        | -0.24656843 | 5.171545  | -2.5440414 | 1.316217e-02 | 5.443675e-02 |
| ## TPM4        | -0.13002989 | 5.581158  | -2.5439423 | 1.316558e-02 | 5.444006e-02 |
| ## APLN        | 0.23309454  | 6.104972  | 2.5437425  | 1.317247e-02 | 5.445770e-02 |
| ## SDHAF2      | 0.19234670  | 7.521735  | 2.5434442  | 1.318274e-02 | 5.448937e-02 |
| ## EIF2AK1     | 0.26689288  | 6.412511  | 2.5431187  | 1.319397e-02 | 5.452496e-02 |
| ## DGUOK       | 0.25127609  | 6.721037  | 2.5426000  | 1.321188e-02 | 5.458814e-02 |
| ## HOGA1       | 0.09224943  | 3.893626  | 2.5421345  | 1.322797e-02 | 5.464377e-02 |
| ## RPH3AL      | -0.33458696 | 6.287368  | -2.5419554 | 1.323417e-02 | 5.465853e-02 |
| ## VIL1        | 0.38571783  | 5.893887  | 2.5415744  | 1.324735e-02 | 5.470214e-02 |
| ## PYGO2       | 0.16706914  | 6.937410  | 2.5412326  | 1.325919e-02 | 5.474017e-02 |
| ## KPNA1       | 0.21757256  | 7.914500  | 2.5406654  | 1.327886e-02 | 5.481052e-02 |
| ## KHDC4       | 0.29145028  | 9.586544  | 2.5393345  | 1.332513e-02 | 5.499057e-02 |
| ## HYCC1       | 0.22904253  | 6.187828  | 2.5390589  | 1.333472e-02 | 5.501928e-02 |
| ## PDK4        | -0.36580140 | 4.178812  | -2.5388066 | 1.334351e-02 | 5.504463e-02 |
| ## ZFP28-DT    | -0.11852568 | 3.976021  | -2.5384044 | 1.335754e-02 | 5.509159e-02 |
| ## RPGRIP1L    | 0.16019305  | 3.876782  | 2.5379629  | 1.337295e-02 | 5.514423e-02 |
| ## KLHDC8B     | -0.31178913 | 7.233094  | -2.5372352 | 1.339839e-02 | 5.523818e-02 |
| ## GOS2        | 0.57867557  | 7.736077  | 2.5370959  | 1.340326e-02 | 5.523844e-02 |
| ## HIF3A       | -0.29916712 | 3.640033  | -2.5370818 | 1.340376e-02 | 5.523844e-02 |
| ## LINC02535   | 0.46294176  | 4.104739  | 2.5368125  | 1.341319e-02 | 5.526636e-02 |
| ## RRAS        | -0.30520717 | 8.359376  | -2.5367213 | 1.341638e-02 | 5.526859e-02 |
| ## HCCS        | 0.27808919  | 7.437138  | 2.5363732  | 1.342858e-02 | 5.530790e-02 |
| ## YTHDC1      | -0.14595135 | 9.842614  | -2.5362578 | 1.343262e-02 | 5.531273e-02 |
| ## CCL4        | 0.60550330  | 8.196682  | 2.5361882  | 1.343506e-02 | 5.531273e-02 |
| ## ACP2        | 0.19940009  | 8.087964  | 2.5355291  | 1.345820e-02 | 5.539701e-02 |
| ## PCDHB18P    | -0.10198830 | 3.720418  | -2.5350930 | 1.347352e-02 | 5.544914e-02 |
| ## POLRMT      | 0.25230639  | 7.025206  | 2.5348384  | 1.348248e-02 | 5.547504e-02 |
| ## MYD88       | 0.22926566  | 9.580853  | 2.5346779  | 1.348813e-02 | 5.548730e-02 |
| ## BLNK        | -0.49209025 | 8.782913  | -2.5338619 | 1.351688e-02 | 5.559459e-02 |
| ## MS4A1       | -0.84100476 | 5.921452  | -2.5334777 | 1.353043e-02 | 5.563935e-02 |
| ## MEST        | 0.61218926  | 8.972289  | 2.5329102  | 1.355047e-02 | 5.571078e-02 |
| ## TDH-AS1     | -0.24370011 | 5.486347  | -2.5318273 | 1.358880e-02 | 5.585731e-02 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## SERPINB9  | 0.16601898  | 4.484033  | 2.5314487  | 1.360222e-02 | 5.590145e-02 |
| ## TPSG1     | -0.14600481 | 6.262241  | -2.5302938 | 1.364324e-02 | 5.605894e-02 |
| ## H3C2      | 0.24312774  | 4.074905  | 2.5299589  | 1.365515e-02 | 5.609682e-02 |
| ## TRHDE-AS1 | -0.12697757 | 3.824952  | -2.5298306 | 1.365971e-02 | 5.610235e-02 |
| ## APBB1     | -0.19145301 | 5.515374  | -2.5297698 | 1.366188e-02 | 5.610235e-02 |
| ## MFSD8     | -0.27175238 | 7.084427  | -2.5294950 | 1.367167e-02 | 5.611206e-02 |
| ## ZNF835    | -0.16958438 | 4.025948  | -2.5294887 | 1.367189e-02 | 5.611206e-02 |
| ## MYH10     | -0.55330706 | 8.712069  | -2.5294764 | 1.367233e-02 | 5.611206e-02 |
| ## SOCS5     | -0.29967971 | 7.851696  | -2.5287617 | 1.369782e-02 | 5.620558e-02 |
| ## QTRT2     | 0.10496959  | 3.417063  | 2.5281522  | 1.371959e-02 | 5.628382e-02 |
| ## AGAP2-AS1 | 0.37669759  | 5.968779  | 2.5279169  | 1.372800e-02 | 5.629969e-02 |
| ## KREMEN2   | 0.13381063  | 5.695104  | 2.5278336  | 1.373098e-02 | 5.629969e-02 |
| ## PRAME     | 0.41217261  | 4.610290  | 2.5278149  | 1.373165e-02 | 5.629969e-02 |
| ## OXLD1     | 0.16365067  | 6.953960  | 2.5276675  | 1.373692e-02 | 5.629969e-02 |
| ## OVAAL     | -0.09875017 | 4.401376  | -2.5276349 | 1.373809e-02 | 5.629969e-02 |
| ## HSDL2     | -0.14963296 | 4.698031  | -2.5274871 | 1.374338e-02 | 5.629969e-02 |
| ## MAPK3     | -0.19756598 | 8.798074  | -2.5274765 | 1.374376e-02 | 5.629969e-02 |
| ## LYN       | 0.41922292  | 8.473443  | 2.5274394  | 1.374508e-02 | 5.629969e-02 |
| ## RBMX2     | 0.18559776  | 6.292910  | 2.5270710  | 1.375828e-02 | 5.634266e-02 |
| ## KIFC3     | 0.18013034  | 5.830667  | 2.5263448  | 1.378432e-02 | 5.643820e-02 |
| ## TERB1     | -0.12209333 | 3.860450  | -2.5255999 | 1.381108e-02 | 5.653444e-02 |
| ## ASAP1     | 0.34767003  | 6.825207  | 2.5255395  | 1.381326e-02 | 5.653444e-02 |
| ## UBE2D3    | -0.16462201 | 9.840348  | -2.5250534 | 1.383074e-02 | 5.659264e-02 |
| ## GPC2      | 0.11775098  | 4.726201  | 2.5249933  | 1.383291e-02 | 5.659264e-02 |
| ## ID2-AS1   | -0.12196760 | 4.200281  | -2.5247500 | 1.384167e-02 | 5.661400e-02 |
| ## GAL3ST3   | -0.09294354 | 5.069642  | -2.5246819 | 1.384413e-02 | 5.661400e-02 |
| ## ERICH4    | -0.53448934 | 4.404777  | -2.5246219 | 1.384629e-02 | 5.661400e-02 |
| ## CYBB      | 0.52321746  | 6.650794  | 2.5242455  | 1.385986e-02 | 5.665838e-02 |
| ## INTS15    | 0.18330003  | 7.479295  | 2.5238317  | 1.387479e-02 | 5.670828e-02 |
| ## VPS54     | 0.19879478  | 7.892745  | 2.5237395  | 1.387812e-02 | 5.671077e-02 |
| ## ABL2      | 0.25580625  | 4.454184  | 2.5236144  | 1.388264e-02 | 5.671809e-02 |
| ## PDE6B     | -0.10788005 | 4.314935  | -2.5233774 | 1.389120e-02 | 5.674195e-02 |
| ## ENPP7     | -0.27149586 | 5.558560  | -2.5231589 | 1.389911e-02 | 5.675664e-02 |
| ## ABR       | 0.09251805  | 3.596404  | 2.5230762  | 1.390210e-02 | 5.675664e-02 |
| ## BAG6      | 0.21324288  | 9.027570  | 2.5230518  | 1.390298e-02 | 5.675664e-02 |
| ## IFT57     | 0.29874598  | 8.643339  | 2.5225729  | 1.392031e-02 | 5.681626e-02 |
| ## METTL25B  | 0.22900001  | 6.737529  | 2.5223981  | 1.392664e-02 | 5.683097e-02 |
| ## ISLR      | -0.66765261 | 7.135014  | -2.5218266 | 1.394736e-02 | 5.689460e-02 |
| ## PLEKHA8   | 0.15222838  | 3.702647  | 2.5218172  | 1.394770e-02 | 5.689460e-02 |
| ## DRAM2     | -0.26220993 | 7.297100  | -2.5214062 | 1.396262e-02 | 5.694429e-02 |
| ## TRIM68    | -0.30727041 | 7.098347  | -2.5213261 | 1.396553e-02 | 5.694501e-02 |
| ## MMP19     | -0.13494969 | 6.355162  | -2.5210239 | 1.397651e-02 | 5.697862e-02 |
| ## FCRL4     | -0.11055861 | 3.901660  | -2.5205725 | 1.399292e-02 | 5.703437e-02 |
| ## NRG4      | -0.14145734 | 3.645323  | -2.5200015 | 1.401371e-02 | 5.710793e-02 |
| ## NBPF1     | -0.19473692 | 10.446778 | -2.5198116 | 1.402063e-02 | 5.712495e-02 |
| ## C5orf64   | -0.10811830 | 3.695024  | -2.5195397 | 1.403054e-02 | 5.715416e-02 |
| ## KCTD12    | -0.49278124 | 9.938071  | -2.5191927 | 1.404320e-02 | 5.719454e-02 |
| ## RRAS2     | 0.47775328  | 5.915616  | 2.5190858  | 1.404711e-02 | 5.719926e-02 |
| ## ALDH18A1  | 0.25121438  | 9.056165  | 2.5189219  | 1.405309e-02 | 5.721243e-02 |
| ## PUM2      | 0.16442477  | 9.201143  | 2.5181435  | 1.408155e-02 | 5.731161e-02 |
| ## SFSWAP    | 0.28657952  | 6.547750  | 2.5181050  | 1.408296e-02 | 5.731161e-02 |
| ## MED10     | 0.20390116  | 7.695646  | 2.5173949  | 1.410897e-02 | 5.740623e-02 |
| ## SLC5A3    | 0.17854757  | 4.036047  | 2.5168028  | 1.413068e-02 | 5.748337e-02 |
| ## NCBP2     | 0.23562120  | 8.252932  | 2.5164644  | 1.414311e-02 | 5.750508e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## RPP25L       | 0.17122808  | 8.192221  | 2.5164598  | 1.414328e-02 | 5.750508e-02 |
| ## MAP3K3       | -0.15339424 | 5.878988  | -2.5164119 | 1.414504e-02 | 5.750508e-02 |
| ## BPTF         | 0.23493909  | 8.712995  | 2.5163567  | 1.414707e-02 | 5.750508e-02 |
| ## MT1G         | -0.60463173 | 10.400231 | -2.5150169 | 1.419637e-02 | 5.769424e-02 |
| ## SRP14        | -0.10169866 | 11.769044 | -2.5148488 | 1.420257e-02 | 5.770816e-02 |
| ## CHD6         | 0.12651801  | 4.010722  | 2.5145192  | 1.421473e-02 | 5.774630e-02 |
| ## ZNF592       | 0.19059030  | 5.949196  | 2.5140665  | 1.423145e-02 | 5.780293e-02 |
| ## RAB18        | -0.18467459 | 9.375353  | -2.5134677 | 1.425358e-02 | 5.788155e-02 |
| ## RNASEH1-DT   | 0.26702041  | 4.847772  | 2.5127970  | 1.427841e-02 | 5.796606e-02 |
| ## ISL2         | -0.28968941 | 4.814643  | -2.5127552 | 1.427996e-02 | 5.796606e-02 |
| ## HMCN2        | 0.09020750  | 4.025772  | 2.5121801  | 1.430128e-02 | 5.804130e-02 |
| ## FAM83E       | -0.32589160 | 6.338519  | -2.5120843 | 1.430484e-02 | 5.804443e-02 |
| ## LITAFD       | -0.38696395 | 5.040577  | -2.5118235 | 1.431452e-02 | 5.807239e-02 |
| ## NKX2-2       | -0.56415699 | 4.031463  | -2.5117082 | 1.431880e-02 | 5.807845e-02 |
| ## MIR30DHG     | 0.17387094  | 6.067528  | 2.5111228  | 1.434057e-02 | 5.815539e-02 |
| ## C3orf56      | -0.14265142 | 3.505753  | -2.5110144 | 1.434460e-02 | 5.816041e-02 |
| ## MMP25-AS1    | 0.10618658  | 4.158035  | 2.5108671  | 1.435008e-02 | 5.817131e-02 |
| ## CCN2         | -0.40603060 | 10.665079 | -2.5107053 | 1.435610e-02 | 5.818440e-02 |
| ## LRRN2        | -0.13237326 | 4.483768  | -2.5106289 | 1.435895e-02 | 5.818459e-02 |
| ## NXF3         | 0.54595380  | 4.774277  | 2.5105540  | 1.436174e-02 | 5.818459e-02 |
| ## ADAMTSL3     | -0.15134999 | 5.142556  | -2.5100388 | 1.438094e-02 | 5.825104e-02 |
| ## PIK3R4       | 0.15026712  | 7.840908  | 2.5095278  | 1.440001e-02 | 5.831694e-02 |
| ## SYNJ1        | 0.20314579  | 3.921965  | 2.5092915  | 1.440883e-02 | 5.834133e-02 |
| ## HNRNPAB      | 0.20512223  | 11.131875 | 2.5089388  | 1.442201e-02 | 5.838334e-02 |
| ## CRYL1        | -0.47814858 | 8.026568  | -2.5087652 | 1.442850e-02 | 5.839827e-02 |
| ## BST2         | 0.48802857  | 8.982742  | 2.5084610  | 1.443989e-02 | 5.843299e-02 |
| ## E2F4         | 0.14962420  | 6.519472  | 2.5076677  | 1.446960e-02 | 5.853380e-02 |
| ## FAN1         | -0.19465206 | 6.362372  | -2.5076459 | 1.447042e-02 | 5.853380e-02 |
| ## RASGRF2      | 0.13694913  | 5.353638  | 2.5073666  | 1.448090e-02 | 5.856343e-02 |
| ## AFMID        | 0.15318500  | 4.851968  | 2.5072542  | 1.448512e-02 | 5.856343e-02 |
| ## SLC26A4-AS1  | -0.08383948 | 3.383423  | -2.5072258 | 1.448618e-02 | 5.856343e-02 |
| ## SNHG12       | 0.25994634  | 8.880418  | 2.5066655  | 1.450723e-02 | 5.863714e-02 |
| ## QSOX1        | -0.36487328 | 8.501940  | -2.5062436 | 1.452309e-02 | 5.868986e-02 |
| ## TBC1D22A-AS1 | -0.08291852 | 3.895369  | -2.5050603 | 1.456767e-02 | 5.885017e-02 |
| ## LIPG         | 0.72692299  | 6.716009  | 2.5050102  | 1.456956e-02 | 5.885017e-02 |
| ## ID3          | -0.33251809 | 8.862806  | -2.5049658 | 1.457124e-02 | 5.885017e-02 |
| ## CC2D2B       | -0.23476636 | 5.469555  | -2.5042947 | 1.459659e-02 | 5.894111e-02 |
| ## WWP2         | 0.26849061  | 4.483681  | 2.5039023  | 1.461142e-02 | 5.898958e-02 |
| ## MDC1         | 0.20891738  | 6.119413  | 2.5030391  | 1.464411e-02 | 5.910947e-02 |
| ## FAM171A1     | -0.51443304 | 7.987034  | -2.5029682 | 1.464680e-02 | 5.910947e-02 |
| ## TRIM36       | -0.10990348 | 4.502927  | -2.5026543 | 1.465870e-02 | 5.914605e-02 |
| ## P3H3         | -0.23861011 | 6.079299  | -2.5023046 | 1.467197e-02 | 5.918273e-02 |
| ## BDKRB1       | -0.26329168 | 5.754726  | -2.5022651 | 1.467347e-02 | 5.918273e-02 |
| ## ZFP3         | -0.37668468 | 5.763794  | -2.5020743 | 1.468072e-02 | 5.920048e-02 |
| ## TMEM178B     | -0.30025206 | 4.212026  | -2.5018014 | 1.469109e-02 | 5.923084e-02 |
| ## MED17        | 0.27349966  | 8.237587  | 2.5016532  | 1.469673e-02 | 5.924209e-02 |
| ## BRD2         | 0.24182159  | 8.889704  | 2.5010483  | 1.471975e-02 | 5.932340e-02 |
| ## SLC51A       | -0.50914255 | 3.957947  | -2.5009143 | 1.472485e-02 | 5.933248e-02 |
| ## PRELID3A     | 0.15745417  | 4.778842  | 2.5005668  | 1.473809e-02 | 5.936823e-02 |
| ## BCO2         | -0.15852235 | 4.343050  | -2.5005318 | 1.473942e-02 | 5.936823e-02 |
| ## MCMBP        | 0.23702802  | 6.310552  | 2.5002360  | 1.475071e-02 | 5.940219e-02 |
| ## IRF1         | 0.40456012  | 8.371832  | 2.5000042  | 1.475956e-02 | 5.942633e-02 |
| ## LMBR1        | 0.24434980  | 6.481917  | 2.4994449  | 1.478092e-02 | 5.950084e-02 |
| ## SLC2A4RG     | 0.30711759  | 5.595931  | 2.4992486  | 1.478843e-02 | 5.951955e-02 |



|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## RUFY1     | -0.15700107 | 8.198465  | -2.4991387 | 1.479263e-02 | 5.952496e-02 |
| ## LLGL2     | 0.31917496  | 7.364660  | 2.4984483  | 1.481906e-02 | 5.961979e-02 |
| ## PDE9A     | -0.48361755 | 6.052614  | -2.4980218 | 1.483541e-02 | 5.966889e-02 |
| ## TFAP2C    | 0.60252153  | 5.430561  | 2.4979804  | 1.483699e-02 | 5.966889e-02 |
| ## EMC9      | 0.22781003  | 7.129672  | 2.4978832  | 1.484072e-02 | 5.967236e-02 |
| ## NKIRAS1   | -0.28190717 | 5.752802  | -2.4968097 | 1.488196e-02 | 5.982661e-02 |
| ## THTPA     | -0.22311051 | 7.308298  | -2.4962786 | 1.490239e-02 | 5.989721e-02 |
| ## SETD1A    | 0.15086649  | 6.186661  | 2.4961830  | 1.490608e-02 | 5.990045e-02 |
| ## CWC25     | 0.15714093  | 6.619454  | 2.4957640  | 1.492222e-02 | 5.992357e-02 |
| ## VPS33A    | 0.12923733  | 5.608904  | 2.4957514  | 1.492271e-02 | 5.992357e-02 |
| ## SS18L1    | 0.23903653  | 7.886619  | 2.4957354  | 1.492333e-02 | 5.992357e-02 |
| ## STK4      | 0.15105317  | 4.249860  | 2.4957350  | 1.492334e-02 | 5.992357e-02 |
| ## CIB4      | -0.11736361 | 3.715199  | -2.4956007 | 1.492852e-02 | 5.993281e-02 |
| ## UROC1     | 0.07806777  | 3.916044  | 2.4954053  | 1.493606e-02 | 5.995151e-02 |
| ## HSD11B1L  | -0.14001406 | 5.494463  | -2.4948256 | 1.495844e-02 | 6.002979e-02 |
| ## MRPL32    | 0.15392430  | 9.671919  | 2.4939142  | 1.499369e-02 | 6.015966e-02 |
| ## UGT8      | 0.69114354  | 6.737873  | 2.4936877  | 1.500246e-02 | 6.018024e-02 |
| ## IST1      | -0.12452761 | 4.809869  | -2.4936325 | 1.500460e-02 | 6.018024e-02 |
| ## OARD1     | 0.29874027  | 8.300789  | 2.4930952  | 1.502543e-02 | 6.023886e-02 |
| ## SERAC1    | 0.11870318  | 3.336928  | 2.4930363  | 1.502771e-02 | 6.023886e-02 |
| ## RGS5      | -0.61803687 | 9.568000  | -2.4930317 | 1.502789e-02 | 6.023886e-02 |
| ## PPP4R3A   | 0.30273212  | 7.790946  | 2.4922251  | 1.505922e-02 | 6.035279e-02 |
| ## MKNK1     | -0.16868034 | 5.633925  | -2.4920428 | 1.506630e-02 | 6.036764e-02 |
| ## SUMF2     | 0.31586915  | 8.464697  | 2.4919807  | 1.506872e-02 | 6.036764e-02 |
| ## SCG2      | -0.63402311 | 5.125679  | -2.4916715 | 1.508075e-02 | 6.040423e-02 |
| ## CASP10    | 0.32581115  | 6.586545  | 2.4913117  | 1.509476e-02 | 6.044872e-02 |
| ## EPDR1     | -0.68069845 | 7.108816  | -2.4912205 | 1.509831e-02 | 6.045131e-02 |
| ## GPD5      | 0.26115233  | 6.883083  | 2.4908152  | 1.511411e-02 | 6.050294e-02 |
| ## TRAF3IP1  | 0.10576226  | 4.878698  | 2.4903236  | 1.513330e-02 | 6.056809e-02 |
| ## CLDN18    | -1.01076566 | 11.157946 | -2.4901426 | 1.514036e-02 | 6.058472e-02 |
| ## PIK3IP1   | 0.14778837  | 4.383458  | 2.4898377  | 1.515228e-02 | 6.061389e-02 |
| ## HYAL6P    | -0.06508690 | 3.315853  | -2.4898071 | 1.515347e-02 | 6.061389e-02 |
| ## SHB       | 0.34378819  | 7.379104  | 2.4896016  | 1.516151e-02 | 6.063438e-02 |
| ## MRFAP1    | -0.13754224 | 11.658386 | -2.4894300 | 1.516822e-02 | 6.064957e-02 |
| ## GGA1      | 0.31050122  | 5.523708  | 2.4885026  | 1.520454e-02 | 6.078315e-02 |
| ## SS18L2    | 0.18282014  | 8.509841  | 2.4872444  | 1.525395e-02 | 6.095967e-02 |
| ## HAGHL     | 0.14285102  | 6.669697  | 2.4871131  | 1.525911e-02 | 6.095967e-02 |
| ## PRDM1     | 0.33610370  | 6.291029  | 2.4870594  | 1.526122e-02 | 6.095967e-02 |
| ## NPIPA1    | -0.19356155 | 10.260427 | -2.4870201 | 1.526277e-02 | 6.095967e-02 |
| ## CD300LG   | -0.10947433 | 3.606802  | -2.4870056 | 1.526334e-02 | 6.095967e-02 |
| ## CDYL      | 0.21032993  | 8.054491  | 2.4868540  | 1.526931e-02 | 6.097181e-02 |
| ## MAP2K3    | 0.20239070  | 7.821275  | 2.4867724  | 1.527252e-02 | 6.097295e-02 |
| ## TTC39B    | -0.30981201 | 5.458077  | -2.4865119 | 1.528277e-02 | 6.100220e-02 |
| ## APLP1     | -0.32733719 | 5.952156  | -2.4855590 | 1.532035e-02 | 6.114047e-02 |
| ## STAMBP    | 0.19109962  | 7.817234  | 2.4851772  | 1.533543e-02 | 6.118892e-02 |
| ## ICAM5     | 0.12947996  | 4.556153  | 2.4849372  | 1.534492e-02 | 6.121504e-02 |
| ## PIP4K2B   | -0.14218800 | 5.485688  | -2.4844746 | 1.536321e-02 | 6.127629e-02 |
| ## RND3      | 0.31663362  | 9.178688  | 2.4837897  | 1.539034e-02 | 6.137274e-02 |
| ## MBD1      | 0.20838164  | 5.168072  | 2.4830498  | 1.541969e-02 | 6.147802e-02 |
| ## PLEKHA1   | 0.29139810  | 7.641558  | 2.4822652  | 1.545088e-02 | 6.159055e-02 |
| ## TAPT1-AS1 | -0.31450149 | 5.566772  | -2.4816397 | 1.547577e-02 | 6.167799e-02 |
| ## MIS18BP1  | 0.39419514  | 5.147799  | 2.4811681  | 1.549457e-02 | 6.174109e-02 |
| ## TMED10    | 0.22132470  | 10.581571 | 2.4801829  | 1.553391e-02 | 6.188599e-02 |
| ## NEFM      | -0.11535172 | 3.718225  | -2.4798411 | 1.554757e-02 | 6.192859e-02 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## TATDN3     | -0.22783948 | 6.616222  | -2.4785317 | 1.560003e-02 | 6.212566e-02 |
| ## HSPA8      | 0.15080228  | 12.105992 | 2.4782378  | 1.561183e-02 | 6.215611e-02 |
| ## CCKAR      | -0.46696862 | 5.191642  | -2.4781925 | 1.561365e-02 | 6.215611e-02 |
| ## PIP4K2A    | 0.14082694  | 4.910192  | 2.4773298  | 1.564832e-02 | 6.226665e-02 |
| ## CCDC65     | -0.08307508 | 3.373212  | -2.4772815 | 1.565027e-02 | 6.226665e-02 |
| ## C14orf178  | -0.13917867 | 5.429713  | -2.4772786 | 1.565039e-02 | 6.226665e-02 |
| ## EFNA1      | 0.55297745  | 8.641559  | 2.4770514  | 1.565953e-02 | 6.229113e-02 |
| ## CDH12      | 0.26465791  | 3.576969  | 2.4769422  | 1.566393e-02 | 6.229672e-02 |
| ## DAGLA      | 0.14035261  | 5.339287  | 2.4766443  | 1.567593e-02 | 6.233254e-02 |
| ## ZNF184     | 0.26640049  | 6.653459  | 2.4760745  | 1.569891e-02 | 6.241200e-02 |
| ## ZNF311     | -0.09392620 | 3.345698  | -2.4754874 | 1.572261e-02 | 6.249430e-02 |
| ## NAV3       | -0.46970278 | 4.487141  | -2.4751316 | 1.573700e-02 | 6.252247e-02 |
| ## DBI        | 0.17768637  | 11.194704 | 2.4751072  | 1.573798e-02 | 6.252247e-02 |
| ## ST3GAL5    | -0.32319977 | 6.644733  | -2.4750893 | 1.573871e-02 | 6.252247e-02 |
| ## SYTL1      | -0.54894336 | 7.626946  | -2.4749916 | 1.574266e-02 | 6.252626e-02 |
| ## THAP2      | -0.20813872 | 3.625572  | -2.4744496 | 1.576460e-02 | 6.260144e-02 |
| ## RPS27A     | -0.10169836 | 12.775468 | -2.4742199 | 1.577391e-02 | 6.262025e-02 |
| ## TBCK       | -0.22555289 | 8.153327  | -2.4741843 | 1.577535e-02 | 6.262025e-02 |
| ## H2BC5      | 0.56889786  | 8.770140  | 2.4739778  | 1.578372e-02 | 6.263770e-02 |
| ## IMMP2L     | 0.17533722  | 3.959133  | 2.4739275  | 1.578576e-02 | 6.263770e-02 |
| ## ZNF611     | 0.06781184  | 3.578142  | 2.4731733  | 1.581637e-02 | 6.274721e-02 |
| ## DSCAML1    | -0.09263460 | 3.569748  | -2.4728004 | 1.583153e-02 | 6.279537e-02 |
| ## LEO1       | 0.22202453  | 7.154592  | 2.4726079  | 1.583935e-02 | 6.281445e-02 |
| ## MCF2L      | -0.06936664 | 3.527386  | -2.4724673 | 1.584507e-02 | 6.282518e-02 |
| ## SH3GL1     | 0.16774909  | 7.551946  | 2.4720643  | 1.586148e-02 | 6.287359e-02 |
| ## JUN        | -0.27301676 | 10.054795 | -2.4720190 | 1.586332e-02 | 6.287359e-02 |
| ## ACVRL1     | -0.20687268 | 5.408936  | -2.4719146 | 1.586758e-02 | 6.287848e-02 |
| ## SOCS7      | 0.11334682  | 4.661066  | 2.4703128  | 1.593296e-02 | 6.312291e-02 |
| ## EYA2       | -0.63135546 | 5.698577  | -2.4702550 | 1.593532e-02 | 6.312291e-02 |
| ## MON1B      | 0.17819161  | 6.896052  | 2.4696297  | 1.596091e-02 | 6.321226e-02 |
| ## RPL10L     | -0.14604430 | 4.710633  | -2.4691594 | 1.598018e-02 | 6.327655e-02 |
| ## TUSC2      | 0.20881380  | 7.730458  | 2.4689958  | 1.598689e-02 | 6.329107e-02 |
| ## RGS3       | 0.22430311  | 7.720401  | 2.4686557  | 1.600085e-02 | 6.333429e-02 |
| ## CLCA1      | -1.38605444 | 5.948002  | -2.4680308 | 1.602652e-02 | 6.342383e-02 |
| ## NABP2      | 0.29724981  | 6.411264  | 2.4678669  | 1.603326e-02 | 6.343846e-02 |
| ## SEPTIN7-DT | 0.19382358  | 4.496434  | 2.4674514  | 1.605035e-02 | 6.349286e-02 |
| ## MIF4GD     | 0.18796434  | 7.897378  | 2.4673845  | 1.605311e-02 | 6.349286e-02 |
| ## C1orf53    | 0.17184169  | 4.557883  | 2.4663719  | 1.609484e-02 | 6.364585e-02 |
| ## RGP1       | 0.18881464  | 7.139033  | 2.4652668  | 1.614051e-02 | 6.381429e-02 |
| ## NAB1       | 0.37990049  | 5.143059  | 2.4650134  | 1.615099e-02 | 6.384363e-02 |
| ## CLIP2      | 0.30761335  | 7.289146  | 2.4646473  | 1.616615e-02 | 6.389142e-02 |
| ## XK         | -0.72985845 | 7.274267  | -2.4644962 | 1.617241e-02 | 6.390404e-02 |
| ## KANSL2     | 0.17426541  | 7.663351  | 2.4641200  | 1.618801e-02 | 6.395355e-02 |
| ## ATG9A      | 0.20164412  | 7.585107  | 2.4636987  | 1.620550e-02 | 6.401048e-02 |
| ## MGAM       | -0.65883808 | 4.721548  | -2.4634815 | 1.621451e-02 | 6.403396e-02 |
| ## CEP70      | 0.09585141  | 4.458359  | 2.4632080  | 1.622588e-02 | 6.406669e-02 |
| ## FOXC1      | 0.51191764  | 4.827213  | 2.4630382  | 1.623294e-02 | 6.408240e-02 |
| ## ATP4B      | -0.20057508 | 4.687647  | -2.4629101 | 1.623827e-02 | 6.409129e-02 |
| ## PXMP2      | -0.39686976 | 7.776138  | -2.4627522 | 1.624483e-02 | 6.410506e-02 |
| ## ACBD4      | -0.14781575 | 6.856230  | -2.4618769 | 1.628129e-02 | 6.422627e-02 |
| ## GPR20      | -0.51692741 | 5.543922  | -2.4618667 | 1.628172e-02 | 6.422627e-02 |
| ## LINC00899  | -0.16143242 | 4.901001  | -2.4612297 | 1.630830e-02 | 6.431894e-02 |
| ## ZMYM4      | 0.20435154  | 7.924952  | 2.4611281  | 1.631254e-02 | 6.432349e-02 |
| ## KIAA0232   | -0.20010764 | 8.717793  | -2.4609672 | 1.631926e-02 | 6.433781e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CHP1         | 0.45808465  | 6.320567  | 2.4603733  | 1.634409e-02 | 6.442351e-02 |
| ## SH3PXD2A-AS1 | 0.38129950  | 4.496943  | 2.4596436  | 1.637465e-02 | 6.453173e-02 |
| ## GREB1L       | -0.15057780 | 4.525194  | -2.4593932 | 1.638515e-02 | 6.456088e-02 |
| ## PSMG4        | 0.25543539  | 8.516535  | 2.4586973  | 1.641435e-02 | 6.466372e-02 |
| ## CLK1         | -0.23138232 | 9.121869  | -2.4584046 | 1.642665e-02 | 6.469992e-02 |
| ## C8orf48      | -0.11903800 | 3.606685  | -2.4577540 | 1.645401e-02 | 6.479545e-02 |
| ## ESAM-AS1     | -0.17027718 | 3.886455  | -2.4574087 | 1.646855e-02 | 6.483284e-02 |
| ## THUMPD2      | 0.22615757  | 6.739742  | 2.4573807  | 1.646973e-02 | 6.483284e-02 |
| ## TRIM66       | 0.22863372  | 6.574059  | 2.4571027  | 1.648145e-02 | 6.486668e-02 |
| ## PRKAG2-AS1   | -0.26334783 | 4.919806  | -2.4569579 | 1.648755e-02 | 6.487844e-02 |
| ## RARRES1      | 0.83842780  | 7.029195  | 2.4563241  | 1.651429e-02 | 6.496643e-02 |
| ## FAM53C       | -0.17473116 | 7.567985  | -2.4562802 | 1.651615e-02 | 6.496643e-02 |
| ## TRIM32       | 0.25739788  | 7.038708  | 2.4558666  | 1.653363e-02 | 6.502290e-02 |
| ## POU2AF1      | -0.80795193 | 8.681142  | -2.4557198 | 1.653983e-02 | 6.503502e-02 |
| ## LZIC         | 0.18663140  | 6.678508  | 2.4554075  | 1.655304e-02 | 6.507469e-02 |
| ## ACSM1        | -0.15949512 | 4.212204  | -2.4551483 | 1.656401e-02 | 6.509839e-02 |
| ## SLC35E3      | 0.25791378  | 7.405679  | 2.4551173  | 1.656533e-02 | 6.509839e-02 |
| ## LINC03026    | -0.26751309 | 5.278871  | -2.4549176 | 1.657379e-02 | 6.511935e-02 |
| ## H2AC8        | 0.46247543  | 4.708546  | 2.4544352  | 1.659424e-02 | 6.518739e-02 |
| ## SPX          | -0.14053409 | 5.186881  | -2.4542828 | 1.660070e-02 | 6.518919e-02 |
| ## IL18R1       | -0.38293066 | 5.807379  | -2.4542768 | 1.660095e-02 | 6.518919e-02 |
| ## LOC283387    | -0.13170294 | 4.243196  | -2.4537415 | 1.662368e-02 | 6.526525e-02 |
| ## MARCKSL1     | 0.39041331  | 10.621292 | 2.4536729  | 1.662659e-02 | 6.526525e-02 |
| ## CNN2         | 0.23984307  | 7.920423  | 2.4531473  | 1.664894e-02 | 6.533552e-02 |
| ## ZBTB18       | 0.19366788  | 4.098368  | 2.4531043  | 1.665077e-02 | 6.533552e-02 |
| ## CCDC138      | 0.10651118  | 4.157022  | 2.4524598  | 1.667821e-02 | 6.543086e-02 |
| ## PHETA2       | -0.21105823 | 7.216866  | -2.4523629 | 1.668233e-02 | 6.543472e-02 |
| ## CHD4         | 0.26018088  | 6.657112  | 2.4521106  | 1.669309e-02 | 6.545276e-02 |
| ## ZBTB39       | 0.22637831  | 5.188552  | 2.4521076  | 1.669322e-02 | 6.545276e-02 |
| ## SEPSECS-AS1  | -0.11912766 | 4.115103  | -2.4519693 | 1.669912e-02 | 6.546356e-02 |
| ## CDK2AP2      | 0.26482366  | 7.852032  | 2.4516526  | 1.671263e-02 | 6.550420e-02 |
| ## TMEM221      | -0.14452625 | 4.583199  | -2.4510242 | 1.673947e-02 | 6.559705e-02 |
| ## OSGEPL1      | 0.18553846  | 6.909055  | 2.4501642  | 1.677627e-02 | 6.572888e-02 |
| ## SPEF2        | 0.26309738  | 5.185318  | 2.4500140  | 1.678270e-02 | 6.573904e-02 |
| ## GMPR         | -0.38244492 | 5.580964  | -2.4499563 | 1.678518e-02 | 6.573904e-02 |
| ## B3GNT2       | 0.38231854  | 7.466479  | 2.4497826  | 1.679262e-02 | 6.575583e-02 |
| ## STK31        | 0.71877787  | 5.174207  | 2.4495936  | 1.680072e-02 | 6.576974e-02 |
| ## DKK3         | -0.37947058 | 7.563160  | -2.4495224 | 1.680378e-02 | 6.576974e-02 |
| ## FANCF        | 0.23406853  | 7.522853  | 2.4494538  | 1.680672e-02 | 6.576974e-02 |
| ## CXCL17       | -1.22837935 | 8.864484  | -2.4494052 | 1.680880e-02 | 6.576974e-02 |
| ## GNG13        | -0.10421909 | 3.668331  | -2.4491672 | 1.681902e-02 | 6.579735e-02 |
| ## KLC1         | 0.32795762  | 6.152840  | 2.4488898  | 1.683093e-02 | 6.583156e-02 |
| ## RBBP5        | 0.28461127  | 6.218396  | 2.4486322  | 1.684200e-02 | 6.586249e-02 |
| ## HDLBP        | -0.18639588 | 9.284886  | -2.4483121 | 1.685576e-02 | 6.590394e-02 |
| ## FGD1         | -0.17642612 | 5.025528  | -2.4480611 | 1.686656e-02 | 6.593379e-02 |
| ## ADRB3        | -0.11599196 | 4.912874  | -2.4479779 | 1.687014e-02 | 6.593540e-02 |
| ## SMG7         | 0.20678931  | 5.348920  | 2.4478689  | 1.687483e-02 | 6.594136e-02 |
| ## SLC38A7      | 0.25161358  | 5.362191  | 2.4477479  | 1.688004e-02 | 6.594934e-02 |
| ## TWF2         | 0.14859483  | 7.472931  | 2.4468684  | 1.691796e-02 | 6.607293e-02 |
| ## SRP54        | 0.19093312  | 8.930499  | 2.4468670  | 1.691802e-02 | 6.607293e-02 |
| ## ZRANB1       | -0.23613198 | 6.277366  | -2.4467069 | 1.692493e-02 | 6.608752e-02 |
| ## ADGRB3-DT    | -0.33326490 | 3.804738  | -2.4464056 | 1.693794e-02 | 6.612593e-02 |
| ## PM20D2       | 0.44093099  | 7.718299  | 2.4460195  | 1.695463e-02 | 6.617221e-02 |
| ## FRYL         | 0.30114648  | 6.445376  | 2.4459842  | 1.695615e-02 | 6.617221e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CCL7         | 0.26585694  | 3.950792  | 2.4453929  | 1.698174e-02 | 6.625631e-02 |
| ## SLC12A6      | 0.20588870  | 4.901796  | 2.4453392  | 1.698407e-02 | 6.625631e-02 |
| ## LAMB3        | 0.53696624  | 8.929267  | 2.4448796  | 1.700398e-02 | 6.632156e-02 |
| ## PRRT3-AS1    | 0.33503708  | 5.276456  | 2.4439553  | 1.704409e-02 | 6.646557e-02 |
| ## APEH         | 0.21224780  | 7.870816  | 2.4437715  | 1.705208e-02 | 6.648426e-02 |
| ## DNAJA2       | 0.23946732  | 8.534354  | 2.4436259  | 1.705841e-02 | 6.649649e-02 |
| ## STX19        | -0.33646471 | 4.737653  | -2.4433503 | 1.707039e-02 | 6.653074e-02 |
| ## KLHL15       | -0.28953428 | 6.655506  | -2.4426987 | 1.709876e-02 | 6.662884e-02 |
| ## GPIHBP1      | -0.14293483 | 5.443474  | -2.4425875 | 1.710360e-02 | 6.663526e-02 |
| ## CCDC59       | 0.22563732  | 8.131779  | 2.4425021  | 1.710733e-02 | 6.663729e-02 |
| ## PRRG2        | 0.17093193  | 5.640406  | 2.4420534  | 1.712689e-02 | 6.670103e-02 |
| ## EPIST        | -0.20260319 | 4.045611  | -2.4418460 | 1.713594e-02 | 6.672380e-02 |
| ## LY6G5C       | 0.14806737  | 4.675439  | 2.4391994  | 1.725182e-02 | 6.716245e-02 |
| ## KCNC2        | 0.10804696  | 5.350919  | 2.4385035  | 1.728241e-02 | 6.726894e-02 |
| ## KMO          | 0.45095405  | 5.161943  | 2.4380566  | 1.730207e-02 | 6.733291e-02 |
| ## RARRES2      | -0.39345224 | 9.188763  | -2.4378851 | 1.730962e-02 | 6.734971e-02 |
| ## ASB8         | -0.18400336 | 5.854657  | -2.4369519 | 1.735078e-02 | 6.748653e-02 |
| ## SH2D6        | -0.15213133 | 5.782606  | -2.4369407 | 1.735127e-02 | 6.748653e-02 |
| ## GLI2         | -0.25493415 | 5.033860  | -2.4359209 | 1.739634e-02 | 6.764918e-02 |
| ## NAPB         | 0.31022259  | 4.390878  | 2.4353273  | 1.742262e-02 | 6.773874e-02 |
| ## IFT172       | -0.26897272 | 7.699761  | -2.4348004 | 1.744598e-02 | 6.781690e-02 |
| ## MLN          | -0.31256888 | 4.902546  | -2.4346405 | 1.745307e-02 | 6.783181e-02 |
| ## TMEM45B      | 0.59484227  | 9.438261  | 2.4344948  | 1.745954e-02 | 6.784427e-02 |
| ## ZNF767P      | -0.21960137 | 6.249821  | -2.4341430 | 1.747516e-02 | 6.789232e-02 |
| ## SRRM1        | 0.21116827  | 7.913256  | 2.4336962  | 1.749502e-02 | 6.794690e-02 |
| ## EIF5A        | 0.42123769  | 8.430929  | 2.4336047  | 1.749909e-02 | 6.794690e-02 |
| ## EML3         | 0.16601127  | 7.112669  | 2.4335943  | 1.749955e-02 | 6.794690e-02 |
| ## KDM3A        | 0.24530850  | 8.664480  | 2.4335333  | 1.750227e-02 | 6.794690e-02 |
| ## LPL          | -0.69924746 | 6.223292  | -2.4330106 | 1.752553e-02 | 6.802092e-02 |
| ## PRPSAP1      | 0.21242577  | 5.917082  | 2.4329583  | 1.752787e-02 | 6.802092e-02 |
| ## NRG1         | -0.25442155 | 5.027598  | -2.4322512 | 1.755939e-02 | 6.813055e-02 |
| ## TMEM74B      | 0.47275853  | 6.132506  | 2.4318380  | 1.757783e-02 | 6.818941e-02 |
| ## MZT2A        | 0.22009575  | 9.121984  | 2.4313687  | 1.759880e-02 | 6.825804e-02 |
| ## LOC100505874 | -0.50463137 | 4.904711  | -2.4306861 | 1.762934e-02 | 6.836376e-02 |
| ## EPHYC        | 0.43599749  | 3.416549  | 2.4305771  | 1.763422e-02 | 6.836672e-02 |
| ## LBX2-AS1     | 0.24972176  | 6.176519  | 2.4304574  | 1.763958e-02 | 6.836672e-02 |
| ## FLJ42627     | -0.17388735 | 6.960863  | -2.4304491 | 1.763995e-02 | 6.836672e-02 |
| ## RNF24        | 0.26268235  | 5.124896  | 2.4300918  | 1.765597e-02 | 6.840739e-02 |
| ## DEFA6        | -0.94836971 | 5.561052  | -2.4300665 | 1.765711e-02 | 6.840739e-02 |
| ## NLRC5        | 0.42797128  | 8.016468  | 2.4299407  | 1.766274e-02 | 6.840739e-02 |
| ## PRTFDC1      | -0.46105070 | 7.599503  | -2.4298580 | 1.766645e-02 | 6.840739e-02 |
| ## HLA-C        | 0.16102837  | 12.843509 | 2.4298487  | 1.766687e-02 | 6.840739e-02 |
| ## BSPRY        | 0.36979070  | 6.658104  | 2.4297316  | 1.767213e-02 | 6.841502e-02 |
| ## MSX1         | 0.29986172  | 5.032308  | 2.4295504  | 1.768026e-02 | 6.843377e-02 |
| ## LINC02577    | 0.47807573  | 4.242275  | 2.4292522  | 1.769365e-02 | 6.847288e-02 |
| ## SCYL3        | 0.26018144  | 7.014617  | 2.4287753  | 1.771508e-02 | 6.854309e-02 |
| ## DSTYK        | 0.09600855  | 3.877252  | 2.4284557  | 1.772947e-02 | 6.858599e-02 |
| ## KCNC1        | -0.19543909 | 4.013961  | -2.4282346 | 1.773942e-02 | 6.861174e-02 |
| ## PAN2         | -0.26462906 | 7.284896  | -2.4277651 | 1.776056e-02 | 6.867694e-02 |
| ## CALD1        | -0.49966489 | 8.219541  | -2.4277140 | 1.776287e-02 | 6.867694e-02 |
| ## S100A10      | 0.40186420  | 12.488942 | 2.4273649  | 1.777862e-02 | 6.872506e-02 |
| ## H4C13        | 0.12911089  | 4.357319  | 2.4272342  | 1.778451e-02 | 6.873508e-02 |
| ## USP30-AS1    | 0.24662634  | 4.987438  | 2.4270612  | 1.779232e-02 | 6.874207e-02 |
| ## RIPOR1       | -0.21016098 | 7.043440  | -2.4270439 | 1.779310e-02 | 6.874207e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## SLC66A1      | 0.22700410  | 5.758081  | 2.4269748  | 1.779622e-02 | 6.874207e-02 |
| ## GALNT12      | -0.58417385 | 8.845726  | -2.4264828 | 1.781845e-02 | 6.881517e-02 |
| ## NTN5         | -0.12898525 | 5.414743  | -2.4260357 | 1.783867e-02 | 6.888048e-02 |
| ## CPS1-IT1     | -0.12270273 | 4.449256  | -2.4254230 | 1.786642e-02 | 6.897484e-02 |
| ## PAIP2        | 0.09583195  | 4.205572  | 2.4252751  | 1.787312e-02 | 6.898793e-02 |
| ## CA14         | -0.21646255 | 5.642972  | -2.4251936 | 1.787681e-02 | 6.898939e-02 |
| ## CCDC47       | -0.20825442 | 9.084883  | -2.4237202 | 1.794373e-02 | 6.923479e-02 |
| ## KRT16        | 0.49082990  | 4.756256  | 2.4236195  | 1.794831e-02 | 6.923965e-02 |
| ## C19orf44     | -0.15504556 | 4.660617  | -2.4228380 | 1.798390e-02 | 6.936409e-02 |
| ## LOC105376166 | -0.11786369 | 4.736035  | -2.4224954 | 1.799952e-02 | 6.940153e-02 |
| ## C2CD4C       | -0.16259746 | 5.942943  | -2.4224789 | 1.800027e-02 | 6.940153e-02 |
| ## SNCA         | -0.30751280 | 5.424254  | -2.4221517 | 1.801520e-02 | 6.943996e-02 |
| ## UBE2E2       | -0.38627010 | 7.620771  | -2.4221144 | 1.801691e-02 | 6.943996e-02 |
| ## NTN4         | -0.54484804 | 7.495722  | -2.4216809 | 1.803671e-02 | 6.950340e-02 |
| ## USH2A        | -0.09048644 | 3.322775  | -2.4215576 | 1.804234e-02 | 6.951226e-02 |
| ## FCHO1        | 0.21768827  | 5.942300  | 2.4200720  | 1.811037e-02 | 6.976144e-02 |
| ## POLH         | 0.10917194  | 3.933116  | 2.4199668  | 1.811520e-02 | 6.976712e-02 |
| ## TTF2         | 0.07538012  | 3.278326  | 2.4196751  | 1.812858e-02 | 6.980577e-02 |
| ## POP4         | 0.37476384  | 9.551296  | 2.4192689  | 1.814724e-02 | 6.986469e-02 |
| ## DYNLRB1      | 0.08440876  | 3.598149  | 2.4190892  | 1.815550e-02 | 6.986686e-02 |
| ## ATP6V0B      | 0.20799062  | 9.890366  | 2.4190570  | 1.815698e-02 | 6.986686e-02 |
| ## PPIF         | 0.28527973  | 9.253897  | 2.4190377  | 1.815787e-02 | 6.986686e-02 |
| ## MROH6        | 0.24068512  | 7.493101  | 2.4184889  | 1.818311e-02 | 6.995107e-02 |
| ## PPP1R3E      | -0.20263414 | 6.149035  | -2.4180502 | 1.820332e-02 | 7.001587e-02 |
| ## SNAPC4       | 0.21053065  | 5.809444  | 2.4174181  | 1.823246e-02 | 7.011502e-02 |
| ## LAP3         | 0.36096102  | 10.059883 | 2.4171617  | 1.824430e-02 | 7.014758e-02 |
| ## LINC00869    | 0.11970154  | 4.356938  | 2.4170281  | 1.825047e-02 | 7.015836e-02 |
| ## LAMTOR5-AS1  | 0.11747648  | 3.942681  | 2.4167571  | 1.826299e-02 | 7.019353e-02 |
| ## ATRIP        | 0.15087995  | 5.141745  | 2.4166549  | 1.826772e-02 | 7.019873e-02 |
| ## PELI2        | -0.48299693 | 7.329405  | -2.4164373 | 1.827777e-02 | 7.022442e-02 |
| ## HOXC11       | 0.26079765  | 5.510721  | 2.4163236  | 1.828303e-02 | 7.023167e-02 |
| ## RPL23        | -0.12074998 | 12.532734 | -2.4159009 | 1.830260e-02 | 7.029386e-02 |
| ## UBXN4        | 0.17151335  | 9.257393  | 2.4153161  | 1.832969e-02 | 7.037710e-02 |
| ## EXOSC9       | 0.17175843  | 7.387361  | 2.4152872  | 1.833103e-02 | 7.037710e-02 |
| ## NDUFAB1      | 0.16448624  | 11.337365 | 2.4150031  | 1.834421e-02 | 7.041471e-02 |
| ## ATG10        | -0.23390283 | 4.989130  | -2.4148261 | 1.835242e-02 | 7.043325e-02 |
| ## PYCR2        | 0.16376050  | 7.071771  | 2.4144899  | 1.836803e-02 | 7.047003e-02 |
| ## CENPBD2P     | 0.16426039  | 5.925442  | 2.4144740  | 1.836877e-02 | 7.047003e-02 |
| ## NLRP11       | 0.14486616  | 3.766978  | 2.4141268  | 1.838491e-02 | 7.051893e-02 |
| ## SCP2D1-AS1   | -0.08797454 | 4.161850  | -2.4139818 | 1.839165e-02 | 7.053181e-02 |
| ## EXO5         | 0.10890476  | 3.650005  | 2.4131569  | 1.843004e-02 | 7.066070e-02 |
| ## PARP12       | 0.36143347  | 8.834886  | 2.4131140  | 1.843205e-02 | 7.066070e-02 |
| ## SCAND1       | 0.21152987  | 8.852370  | 2.4129192  | 1.844112e-02 | 7.068249e-02 |
| ## CDC42SE2     | 0.48673319  | 6.596908  | 2.4127613  | 1.844849e-02 | 7.069770e-02 |
| ## GUSBP2       | 0.10628289  | 3.698320  | 2.4126016  | 1.845593e-02 | 7.071322e-02 |
| ## KATNBL1      | 0.12218827  | 4.313918  | 2.4125107  | 1.846018e-02 | 7.071646e-02 |
| ## SERPINE2     | -0.65008405 | 8.861379  | -2.4119496 | 1.848637e-02 | 7.080378e-02 |
| ## FGF10-AS1    | -0.08067598 | 3.729181  | -2.4118642 | 1.849036e-02 | 7.080389e-02 |
| ## WT1          | 0.44126770  | 4.053614  | 2.4118035  | 1.849320e-02 | 7.080389e-02 |
| ## VWF          | -0.37534749 | 8.959166  | -2.4116651 | 1.849967e-02 | 7.081563e-02 |
| ## TMEFF2       | -0.29496436 | 4.069902  | -2.4115390 | 1.850556e-02 | 7.082518e-02 |
| ## KRT6A        | 0.82016012  | 4.050975  | 2.4107953  | 1.854037e-02 | 7.094536e-02 |
| ## ZFYVE1       | -0.19834398 | 7.851038  | -2.4103920 | 1.855927e-02 | 7.100462e-02 |
| ## FGFR1        | -0.18882684 | 4.292554  | -2.4103158 | 1.856284e-02 | 7.100525e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LOC101927166 | -0.18930694 | 8.477509  | -2.4101556 | 1.857035e-02 | 7.102094e-02 |
| ## RAB26        | -0.41724653 | 5.790435  | -2.4099907 | 1.857809e-02 | 7.103748e-02 |
| ## LINC00307    | -0.06508748 | 3.320146  | -2.4098440 | 1.858497e-02 | 7.104119e-02 |
| ## RALBP1       | 0.27318708  | 7.916570  | 2.4098247  | 1.858588e-02 | 7.104119e-02 |
| ## LINC02350    | -0.08893520 | 3.652791  | -2.4096341 | 1.859483e-02 | 7.104390e-02 |
| ## ZNF512       | -0.22167242 | 7.267582  | -2.4096148 | 1.859574e-02 | 7.104390e-02 |
| ## DYNC2I1      | 0.13607759  | 4.267906  | 2.4095916  | 1.859683e-02 | 7.104390e-02 |
| ## ST6GALNAC3   | -0.31244311 | 4.487740  | -2.4091353 | 1.861827e-02 | 7.111277e-02 |
| ## ZMYND12      | -0.22548935 | 4.348199  | -2.4088507 | 1.863165e-02 | 7.115085e-02 |
| ## PDCD6        | 0.24581787  | 9.701127  | 2.4085173  | 1.864735e-02 | 7.119067e-02 |
| ## RINT1        | 0.20283992  | 6.868932  | 2.4084839  | 1.864892e-02 | 7.119067e-02 |
| ## NPTX1        | -0.14824878 | 5.855676  | -2.4077132 | 1.868524e-02 | 7.131624e-02 |
| ## LYRM7        | -0.30480621 | 7.484599  | -2.4067459 | 1.873091e-02 | 7.147747e-02 |
| ## RAB11FIP2    | -0.28162735 | 7.902329  | -2.4065781 | 1.873885e-02 | 7.149464e-02 |
| ## EGLN3        | -0.42942839 | 6.323662  | -2.4062523 | 1.875426e-02 | 7.154033e-02 |
| ## LOC100288656 | -0.11708994 | 3.808327  | -2.4059642 | 1.876790e-02 | 7.157925e-02 |
| ## GALR2        | -0.12010630 | 3.810074  | -2.4052120 | 1.880355e-02 | 7.170207e-02 |
| ## ZC3H13       | -0.11491330 | 4.301654  | -2.4050465 | 1.881140e-02 | 7.171889e-02 |
| ## GTF2IP20     | 0.16832151  | 6.280925  | 2.4047350  | 1.882618e-02 | 7.176211e-02 |
| ## HIC2         | 0.25425980  | 5.729735  | 2.4045230  | 1.883625e-02 | 7.178737e-02 |
| ## LINC01657    | -0.06706002 | 3.569751  | -2.4039691 | 1.886258e-02 | 7.187455e-02 |
| ## ZDHHC17      | -0.27747625 | 8.246568  | -2.4029775 | 1.890980e-02 | 7.204130e-02 |
| ## GTF3C3       | 0.21619086  | 4.526576  | 2.4027282  | 1.892169e-02 | 7.207340e-02 |
| ## KERA         | -0.12997685 | 3.372159  | -2.4022192 | 1.894599e-02 | 7.215274e-02 |
| ## SLC29A4      | -0.09731378 | 5.303917  | -2.4020789 | 1.895269e-02 | 7.215885e-02 |
| ## GBP4         | 0.55721381  | 6.893711  | 2.4020405  | 1.895452e-02 | 7.215885e-02 |
| ## CDK15        | -0.16343343 | 4.049548  | -2.4018606 | 1.896312e-02 | 7.217003e-02 |
| ## GRPEL2       | 0.22549508  | 7.215447  | 2.4018340  | 1.896439e-02 | 7.217003e-02 |
| ## PTMAP11      | 0.08619157  | 3.442477  | 2.4017006  | 1.897077e-02 | 7.218112e-02 |
| ## ALKBH4       | 0.12698555  | 5.853880  | 2.4015226  | 1.897927e-02 | 7.220030e-02 |
| ## NTAN1        | -0.24086660 | 7.673151  | -2.4013046 | 1.898971e-02 | 7.222679e-02 |
| ## OPN3         | 0.35564641  | 7.749298  | 2.4002961  | 1.903802e-02 | 7.239733e-02 |
| ## TBRG1        | 0.27197508  | 6.703387  | 2.3998295  | 1.906041e-02 | 7.246924e-02 |
| ## RP9P         | 0.07596435  | 3.462178  | 2.3997189  | 1.906572e-02 | 7.247619e-02 |
| ## RMDN2        | -0.10428350 | 4.132137  | -2.3996382 | 1.906960e-02 | 7.247770e-02 |
| ## USP15        | -0.24447691 | 7.128131  | -2.3994580 | 1.907825e-02 | 7.249737e-02 |
| ## ADD3         | -0.27024785 | 10.894112 | -2.3992633 | 1.908761e-02 | 7.251970e-02 |
| ## STAG2        | 0.20660961  | 8.748085  | 2.3988535  | 1.910732e-02 | 7.258133e-02 |
| ## ATXN2L       | 0.18374872  | 6.025269  | 2.3984243  | 1.912799e-02 | 7.264657e-02 |
| ## POR          | 0.33780191  | 7.914277  | 2.3979550  | 1.915060e-02 | 7.270564e-02 |
| ## HHIPL2       | -0.10912641 | 4.432854  | -2.3978938 | 1.915355e-02 | 7.270564e-02 |
| ## LOC105375172 | 0.50405403  | 4.279603  | 2.3978843  | 1.915401e-02 | 7.270564e-02 |
| ## SPDYE2       | 0.22549842  | 6.910905  | 2.3972482  | 1.918471e-02 | 7.280888e-02 |
| ## AGO1         | 0.23490924  | 6.066165  | 2.3969374  | 1.919972e-02 | 7.284368e-02 |
| ## ADAMTS9      | 0.19969395  | 4.700440  | 2.3969135  | 1.920087e-02 | 7.284368e-02 |
| ## LOC105378577 | -0.06809939 | 3.496790  | -2.3965008 | 1.922083e-02 | 7.290611e-02 |
| ## ABCD3        | 0.46434950  | 6.283082  | 2.3960056  | 1.924480e-02 | 7.298373e-02 |
| ## IFIT3        | 0.50460073  | 7.877005  | 2.3949864  | 1.929421e-02 | 7.315780e-02 |
| ## SLC35G1      | -0.18563721 | 5.218105  | -2.3946820 | 1.930899e-02 | 7.320051e-02 |
| ## PCNP         | 0.27023787  | 9.406575  | 2.3941578  | 1.933447e-02 | 7.327588e-02 |
| ## SMPD1        | -0.23049070 | 6.492994  | -2.3941281 | 1.933591e-02 | 7.327588e-02 |
| ## MPL          | -0.12422379 | 3.676886  | -2.3940120 | 1.934155e-02 | 7.328394e-02 |
| ## PSPC1        | 0.36269288  | 7.237910  | 2.3937001  | 1.935673e-02 | 7.332811e-02 |
| ## COX4I1       | -0.15216128 | 11.353857 | -2.3934059 | 1.937106e-02 | 7.336903e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## SATB1        | -0.33649418 | 8.551929  | -2.3931520 | 1.938343e-02 | 7.340253e-02 |
| ## TCEAL9       | -0.36635763 | 10.172262 | -2.3924600 | 1.941718e-02 | 7.351699e-02 |
| ## ENDOG        | 0.26602478  | 6.997054  | 2.3919770  | 1.944077e-02 | 7.359292e-02 |
| ## LINC02269    | -0.19243529 | 3.694013  | -2.3917206 | 1.945331e-02 | 7.362698e-02 |
| ## SRP68        | 0.13983916  | 9.330421  | 2.3911685  | 1.948032e-02 | 7.371581e-02 |
| ## CBX1         | 0.25717667  | 8.927519  | 2.3910873  | 1.948429e-02 | 7.371746e-02 |
| ## ZNF329       | -0.33345152 | 5.657115  | -2.3908556 | 1.949564e-02 | 7.374700e-02 |
| ## FDXACB1      | 0.14829499  | 4.710653  | 2.3905696  | 1.950966e-02 | 7.378662e-02 |
| ## DDX49        | 0.20925795  | 6.226440  | 2.3891710  | 1.957832e-02 | 7.403287e-02 |
| ## CARD6        | -0.42354398 | 7.492975  | -2.3889833 | 1.958755e-02 | 7.405433e-02 |
| ## TMEM9        | 0.28878446  | 7.928333  | 2.3883479  | 1.961884e-02 | 7.415914e-02 |
| ## LINC00868    | -0.16884142 | 5.669605  | -2.3881094 | 1.963059e-02 | 7.419009e-02 |
| ## LOC105377924 | -0.83578484 | 4.152802  | -2.3879609 | 1.963791e-02 | 7.420430e-02 |
| ## CNTN6        | -0.05992935 | 3.423247  | -2.3878827 | 1.964177e-02 | 7.420540e-02 |
| ## FAM107B      | -0.46226303 | 9.252202  | -2.3878046 | 1.964562e-02 | 7.420649e-02 |
| ## LRRC28       | 0.18680593  | 4.299059  | 2.3874862  | 1.966133e-02 | 7.425237e-02 |
| ## BST1         | -0.33784383 | 4.927450  | -2.3873153 | 1.966977e-02 | 7.426336e-02 |
| ## LINC01607    | -0.09215251 | 3.800623  | -2.3872128 | 1.967483e-02 | 7.426336e-02 |
| ## UBXN6        | -0.23136310 | 6.908792  | -2.3872106 | 1.967494e-02 | 7.426336e-02 |
| ## CD70         | 0.17637689  | 6.571797  | 2.3866018  | 1.970503e-02 | 7.436346e-02 |
| ## ATG16L1      | 0.33227307  | 5.815410  | 2.3862546  | 1.972221e-02 | 7.441340e-02 |
| ## TBC1D27P     | -0.15416455 | 5.084030  | -2.3861520 | 1.972729e-02 | 7.441340e-02 |
| ## SMIM14       | -0.11248933 | 3.948887  | -2.3861177 | 1.972898e-02 | 7.441340e-02 |
| ## TSHZ1        | -0.44274299 | 7.319135  | -2.3856398 | 1.975266e-02 | 7.448920e-02 |
| ## B3GALT2      | -0.08507778 | 3.388591  | -2.3851826 | 1.977533e-02 | 7.456121e-02 |
| ## TNFAIP2      | 0.20330088  | 5.492190  | 2.3848905  | 1.978983e-02 | 7.460235e-02 |
| ## GAS5         | 0.19690571  | 4.613262  | 2.3843074  | 1.981880e-02 | 7.469236e-02 |
| ## TMEM255A     | -0.44967487 | 4.453681  | -2.3842656 | 1.982088e-02 | 7.469236e-02 |
| ## NECAB1       | 0.05927097  | 3.219594  | 2.3839856  | 1.983481e-02 | 7.472866e-02 |
| ## LINC00900    | -0.12959671 | 3.994241  | -2.3839276 | 1.983769e-02 | 7.472866e-02 |
| ## LOC101593348 | -0.17055354 | 4.423254  | -2.3835118 | 1.985838e-02 | 7.479309e-02 |
| ## TTC1         | -0.28454332 | 8.488260  | -2.3834037 | 1.986377e-02 | 7.479984e-02 |
| ## USP18        | 0.41743977  | 6.447382  | 2.3831892  | 1.987446e-02 | 7.482657e-02 |
| ## FBXL4        | 0.23692647  | 6.050169  | 2.3830085  | 1.988346e-02 | 7.484694e-02 |
| ## NXNL2        | -0.06448906 | 3.274052  | -2.3824506 | 1.991130e-02 | 7.493817e-02 |
| ## ZNF217       | 0.39025642  | 8.673198  | 2.3821169  | 1.992796e-02 | 7.498733e-02 |
| ## TESMIN       | 0.12771343  | 4.164576  | 2.3818700  | 1.994030e-02 | 7.502021e-02 |
| ## SIGLEC15     | -0.32794020 | 6.328871  | -2.3817673 | 1.994543e-02 | 7.502596e-02 |
| ## LINC00597    | -0.28648568 | 5.098401  | -2.3811349 | 1.997708e-02 | 7.510473e-02 |
| ## SLC37A4      | 0.27288237  | 7.253075  | 2.3811336  | 1.997714e-02 | 7.510473e-02 |
| ## AGPAT5       | 0.35788820  | 8.946737  | 2.3811325  | 1.997720e-02 | 7.510473e-02 |
| ## LINC01644    | -0.17131368 | 4.855081  | -2.3808441 | 1.999164e-02 | 7.514546e-02 |
| ## MIR205HG     | 0.08216841  | 3.878192  | 2.3805168  | 2.000805e-02 | 7.519356e-02 |
| ## NPAS4        | -0.08078370 | 3.771930  | -2.3803107 | 2.001838e-02 | 7.521883e-02 |
| ## ZNF561-AS1   | -0.13459090 | 4.950110  | -2.3801345 | 2.002722e-02 | 7.523847e-02 |
| ## MBD2         | 0.18168362  | 9.365512  | 2.3798278  | 2.004261e-02 | 7.528272e-02 |
| ## CAV3         | -0.15641159 | 5.656268  | -2.3795091 | 2.005862e-02 | 7.532927e-02 |
| ## AKT2         | -0.16937962 | 4.875176  | -2.3792055 | 2.007388e-02 | 7.535955e-02 |
| ## BTC          | -0.14094189 | 4.534400  | -2.3792047 | 2.007393e-02 | 7.535955e-02 |
| ## CCDC113      | 0.27448458  | 4.354235  | 2.3786128  | 2.010371e-02 | 7.545600e-02 |
| ## NRG2         | -0.22054568 | 3.981389  | -2.3785501 | 2.010687e-02 | 7.545600e-02 |
| ## LINC00667    | -0.25256390 | 6.305487  | -2.3780693 | 2.013109e-02 | 7.553330e-02 |
| ## VPS41        | 0.14754408  | 3.842822  | 2.3778171  | 2.014380e-02 | 7.556739e-02 |
| ## ZNF551       | 0.34279763  | 5.781483  | 2.3769189  | 2.018915e-02 | 7.572387e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## DROSHA       | 0.23316261  | 8.539298  | 2.3763736  | 2.021673e-02 | 7.581264e-02 |
| ## IER3         | 0.42210252  | 10.829852 | 2.3763070  | 2.022010e-02 | 7.581264e-02 |
| ## ITGB3BP      | 0.23068497  | 8.098352  | 2.3760032  | 2.023549e-02 | 7.585666e-02 |
| ## CYTIP        | -0.47009086 | 7.879255  | -2.3757877 | 2.024640e-02 | 7.588391e-02 |
| ## POLDIP2      | 0.16359385  | 8.273707  | 2.3754303  | 2.026452e-02 | 7.593091e-02 |
| ## MAGEA11      | 0.42429724  | 3.832550  | 2.3753965  | 2.026623e-02 | 7.593091e-02 |
| ## C6orf132     | 0.44318936  | 6.176888  | 2.3748389  | 2.029453e-02 | 7.602324e-02 |
| ## PIFO         | -0.35751471 | 5.503686  | -2.3747466 | 2.029921e-02 | 7.602713e-02 |
| ## MPRIP        | -0.18639126 | 9.381385  | -2.3745029 | 2.031159e-02 | 7.605254e-02 |
| ## ATP6AP1      | 0.19754175  | 9.680892  | 2.3744692  | 2.031330e-02 | 7.605254e-02 |
| ## MCTS1        | -0.08293657 | 3.932872  | -2.3743691 | 2.031839e-02 | 7.605793e-02 |
| ## RASGEF1A     | 0.84878812  | 5.989437  | 2.3741170  | 2.033121e-02 | 7.609223e-02 |
| ## PDZRN3       | -0.09749565 | 4.177783  | -2.3736381 | 2.035558e-02 | 7.616590e-02 |
| ## CLASP2       | 0.18364570  | 5.929677  | 2.3735864  | 2.035821e-02 | 7.616590e-02 |
| ## AXL          | -0.20172838 | 5.651138  | -2.3734390 | 2.036572e-02 | 7.618029e-02 |
| ## PARVA        | -0.20288620 | 4.725439  | -2.3721411 | 2.043192e-02 | 7.641422e-02 |
| ## DRG2         | 0.15498986  | 6.885257  | 2.3720037  | 2.043894e-02 | 7.642345e-02 |
| ## SLC04A1-AS1  | 0.33143020  | 5.913256  | 2.3719491  | 2.044173e-02 | 7.642345e-02 |
| ## CBX8         | 0.11241895  | 4.954074  | 2.3717847  | 2.045013e-02 | 7.644114e-02 |
| ## C10orf95-AS1 | 0.10238122  | 3.470167  | 2.3714998  | 2.046470e-02 | 7.648186e-02 |
| ## MS4A6A       | -0.41432419 | 8.913431  | -2.3712931 | 2.047528e-02 | 7.650766e-02 |
| ## HNRNPA3      | -0.21699357 | 9.893958  | -2.3697941 | 2.055212e-02 | 7.678102e-02 |
| ## SHISA8       | -0.11676985 | 4.195086  | -2.3695434 | 2.056500e-02 | 7.679894e-02 |
| ## PRDX6        | 0.17872520  | 10.617012 | 2.3695182  | 2.056629e-02 | 7.679894e-02 |
| ## SEMA3F       | 0.15492094  | 4.506007  | 2.3694854  | 2.056798e-02 | 7.679894e-02 |
| ## LMTK2        | 0.17129839  | 4.550846  | 2.3693906  | 2.057285e-02 | 7.680336e-02 |
| ## DHX34        | 0.18580973  | 4.386777  | 2.3686764  | 2.060959e-02 | 7.692151e-02 |
| ## ODR4         | 0.24656906  | 8.173409  | 2.3685710  | 2.061502e-02 | 7.692151e-02 |
| ## ANGPTL7      | -0.12360795 | 4.414221  | -2.3685599 | 2.061558e-02 | 7.692151e-02 |
| ## OXNAD1       | 0.20642481  | 7.195148  | 2.3684198  | 2.062280e-02 | 7.692750e-02 |
| ## GC           | -0.77113763 | 4.429926  | -2.3683853 | 2.062458e-02 | 7.692750e-02 |
| ## TMEM11       | 0.16698538  | 7.506852  | 2.3678997  | 2.064961e-02 | 7.700706e-02 |
| ## TMEM186      | 0.22672996  | 6.819456  | 2.3677196  | 2.065890e-02 | 7.702791e-02 |
| ## DACT3-AS1    | -0.10216149 | 4.102840  | -2.3676321 | 2.066341e-02 | 7.703093e-02 |
| ## KCNJ15       | -0.78709652 | 6.033997  | -2.3673926 | 2.067577e-02 | 7.706322e-02 |
| ## ADAM18       | -0.08224207 | 3.383447  | -2.3660639 | 2.074446e-02 | 7.730542e-02 |
| ## B3GALT4      | -0.19153958 | 6.876896  | -2.3658947 | 2.075322e-02 | 7.732424e-02 |
| ## TOX4         | 0.21994181  | 7.362777  | 2.3656137  | 2.076779e-02 | 7.736465e-02 |
| ## IFTAP        | -0.20314351 | 7.150330  | -2.3651316 | 2.079279e-02 | 7.744393e-02 |
| ## CNOT8        | 0.21935897  | 7.696925  | 2.3639975  | 2.085170e-02 | 7.764948e-02 |
| ## DDX6         | 0.65725579  | 6.513821  | 2.3637658  | 2.086376e-02 | 7.768048e-02 |
| ## PRKX         | 0.33054621  | 6.267831  | 2.3635908  | 2.087287e-02 | 7.770051e-02 |
| ## SUSD1        | 0.28274871  | 6.216782  | 2.3633960  | 2.088301e-02 | 7.772438e-02 |
| ## C9orf40      | 0.26496180  | 5.081501  | 2.3633171  | 2.088712e-02 | 7.772578e-02 |
| ## MISP         | 0.41002664  | 9.255501  | 2.3627462  | 2.091688e-02 | 7.782261e-02 |
| ## LAMP2        | 0.20334915  | 8.772279  | 2.3626492  | 2.092194e-02 | 7.782753e-02 |
| ## LOC155060    | -0.17044365 | 6.554432  | -2.3624334 | 2.093320e-02 | 7.785550e-02 |
| ## TRAPPC11     | -0.19820236 | 6.876635  | -2.3615587 | 2.097890e-02 | 7.801155e-02 |
| ## ZNF786       | 0.18657835  | 5.356154  | 2.3611848  | 2.099847e-02 | 7.807036e-02 |
| ## LINC02716    | -0.17082874 | 5.694542  | -2.3611094 | 2.100241e-02 | 7.807108e-02 |
| ## PLXDC2       | -0.46342853 | 6.625470  | -2.3609218 | 2.101224e-02 | 7.808060e-02 |
| ## OCLN         | 0.57608110  | 7.072663  | 2.3608604  | 2.101545e-02 | 7.808060e-02 |
| ## PRIM2        | 0.05422821  | 3.151231  | 2.3608457  | 2.101622e-02 | 7.808060e-02 |
| ## POU2AF3      | -0.57164978 | 6.565152  | -2.3606109 | 2.102852e-02 | 7.811238e-02 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## MIF-AS1      | 0.13293584  | 4.615797  | 2.3597772  | 2.107226e-02 | 7.826087e-02 |
| ## CLEC7A       | 0.34077968  | 5.506049  | 2.3595686  | 2.108321e-02 | 7.828759e-02 |
| ## RPS6KB2      | 0.13870067  | 6.816485  | 2.3593564  | 2.109436e-02 | 7.831503e-02 |
| ## SLC16A4      | -0.36248971 | 5.663730  | -2.3592695 | 2.109893e-02 | 7.831801e-02 |
| ## EPB41L3      | -0.53444771 | 6.378350  | -2.3590326 | 2.111138e-02 | 7.835028e-02 |
| ## TEK3         | -0.14188990 | 3.665498  | -2.3585351 | 2.113756e-02 | 7.843346e-02 |
| ## BICD2        | 0.11434032  | 4.581383  | 2.3582606  | 2.115202e-02 | 7.847313e-02 |
| ## LOC105377134 | -0.13148204 | 3.728631  | -2.3580737 | 2.116187e-02 | 7.848351e-02 |
| ## DEFA4        | -0.10752692 | 4.012703  | -2.3580052 | 2.116548e-02 | 7.848351e-02 |
| ## FAM3D        | -0.68867839 | 8.473858  | -2.3579432 | 2.116874e-02 | 7.848351e-02 |
| ## REV3L        | -0.24404017 | 8.068109  | -2.3579214 | 2.116989e-02 | 7.848351e-02 |
| ## PLPPR2       | -0.16335621 | 6.170168  | -2.3572925 | 2.120307e-02 | 7.859253e-02 |
| ## REG1A        | -1.45693624 | 9.533487  | -2.3572011 | 2.120790e-02 | 7.859643e-02 |
| ## FAM210B      | -0.29529301 | 8.861956  | -2.3570024 | 2.121840e-02 | 7.862133e-02 |
| ## MTSS1        | -0.17367415 | 5.582092  | -2.3566495 | 2.123705e-02 | 7.867644e-02 |
| ## TBC1D12      | 0.14106865  | 3.826753  | 2.3563108  | 2.125496e-02 | 7.871636e-02 |
| ## TAF1         | 0.19967419  | 5.639823  | 2.3563028  | 2.125538e-02 | 7.871636e-02 |
| ## MLPH         | -0.71505861 | 9.974241  | -2.3559296 | 2.127514e-02 | 7.876490e-02 |
| ## LOC105376360 | -0.06166721 | 3.261471  | -2.3559123 | 2.127605e-02 | 7.876490e-02 |
| ## SYPL1        | 0.31085425  | 9.615068  | 2.3557740  | 2.128338e-02 | 7.877801e-02 |
| ## ADAMTS18     | -0.12209282 | 4.200915  | -2.3554740 | 2.129928e-02 | 7.882284e-02 |
| ## ZNF496       | 0.14366674  | 4.598778  | 2.3552817  | 2.130947e-02 | 7.884656e-02 |
| ## POLR1D       | 0.37655052  | 10.112486 | 2.3547244  | 2.133905e-02 | 7.894196e-02 |
| ## RNF220       | 0.16136727  | 8.118380  | 2.3545916  | 2.134610e-02 | 7.895401e-02 |
| ## HTRA1        | -0.42681866 | 9.355243  | -2.3540929 | 2.137260e-02 | 7.903800e-02 |
| ## ZNF610       | -0.15428480 | 3.799337  | -2.3536473 | 2.139630e-02 | 7.911162e-02 |
| ## MYO1E        | 0.26965426  | 6.864991  | 2.3531247  | 2.142413e-02 | 7.920045e-02 |
| ## SLFNL1       | 0.08361650  | 3.575546  | 2.3528858  | 2.143687e-02 | 7.921864e-02 |
| ## NFAT5        | 0.39392566  | 7.511296  | 2.3528310  | 2.143979e-02 | 7.921864e-02 |
| ## TEDC1        | 0.15296518  | 6.196190  | 2.3527751  | 2.144277e-02 | 7.921864e-02 |
| ## CP           | 0.77803317  | 5.315872  | 2.3527470  | 2.144427e-02 | 7.921864e-02 |
| ## FAR5B        | 0.20934947  | 8.981594  | 2.3524139  | 2.146204e-02 | 7.927022e-02 |
| ## ANKRD33B     | -0.13335794 | 5.119196  | -2.3521785 | 2.147460e-02 | 7.930255e-02 |
| ## SDF2L1       | 0.24371649  | 8.386898  | 2.3519222  | 2.148829e-02 | 7.933905e-02 |
| ## SGMS2        | -0.32666339 | 8.448406  | -2.3516072 | 2.150513e-02 | 7.938713e-02 |
| ## ZNF528       | -0.18983472 | 4.900787  | -2.3512152 | 2.152609e-02 | 7.945043e-02 |
| ## BTN3A2       | 0.40516234  | 8.369206  | 2.3511027  | 2.153212e-02 | 7.945859e-02 |
| ## KEAP1        | 0.18159185  | 8.056217  | 2.3509448  | 2.154057e-02 | 7.947569e-02 |
| ## LOXL1        | -0.41434064 | 7.517090  | -2.3507108 | 2.155310e-02 | 7.950783e-02 |
| ## MYOZ2        | -0.13897055 | 3.545973  | -2.3503811 | 2.157077e-02 | 7.955891e-02 |
| ## LOC100129034 | -0.23368260 | 7.783248  | -2.3502711 | 2.157666e-02 | 7.956657e-02 |
| ## KCND3        | -0.10800066 | 4.756481  | -2.3501297 | 2.158425e-02 | 7.957102e-02 |
| ## GOT2         | 0.21921962  | 9.272681  | 2.3501062  | 2.158551e-02 | 7.957102e-02 |
| ## ANXA2P2      | 0.30517313  | 10.323006 | 2.3496238  | 2.161140e-02 | 7.964152e-02 |
| ## PDLIM5       | 0.35403430  | 7.303077  | 2.3496073  | 2.161229e-02 | 7.964152e-02 |
| ## LINC00408    | -0.19396750 | 4.870660  | -2.3492648 | 2.163068e-02 | 7.969521e-02 |
| ## HS3ST3A1     | 0.36776264  | 4.442005  | 2.3488807  | 2.165134e-02 | 7.975720e-02 |
| ## ANKRD53      | -0.12768603 | 3.759404  | -2.3487978 | 2.165579e-02 | 7.975950e-02 |
| ## EPHX1        | -0.39919228 | 8.607627  | -2.3482619 | 2.168464e-02 | 7.984123e-02 |
| ## MAGEB1       | 0.07624201  | 3.422921  | 2.3482431  | 2.168565e-02 | 7.984123e-02 |
| ## TRIM37       | 0.17865541  | 4.354569  | 2.3481710  | 2.168954e-02 | 7.984142e-02 |
| ## PLA2G2F      | -0.12564130 | 4.131313  | -2.3477891 | 2.171012e-02 | 7.990306e-02 |
| ## SYNJ2BP      | -0.25313306 | 7.849399  | -2.3474652 | 2.172759e-02 | 7.995323e-02 |
| ## ZDHHC6       | 0.18426891  | 9.091155  | 2.3472568  | 2.173884e-02 | 7.998049e-02 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## SSR2       | 0.17861018  | 10.604355 | 2.3471202  | 2.174621e-02 | 7.999349e-02 |
| ## ZNF101     | 0.16957713  | 5.451054  | 2.3468045  | 2.176327e-02 | 8.004208e-02 |
| ## PSEN2      | 0.14466091  | 4.320648  | 2.3462115  | 2.179533e-02 | 8.013616e-02 |
| ## CLTC       | 0.11176332  | 11.839118 | 2.3461890  | 2.179654e-02 | 8.013616e-02 |
| ## PKIA       | -0.37800621 | 5.267580  | -2.3454306 | 2.183761e-02 | 8.026313e-02 |
| ## ADAM9      | 0.49768319  | 8.036622  | 2.3454089  | 2.183879e-02 | 8.026313e-02 |
| ## KIF26A     | -0.29343042 | 4.845011  | -2.3452235 | 2.184884e-02 | 8.028320e-02 |
| ## ZFC3H1     | 0.15084982  | 3.574119  | 2.3451660  | 2.185196e-02 | 8.028320e-02 |
| ## PRKACG     | -0.09960878 | 4.581436  | -2.3439582 | 2.191754e-02 | 8.050995e-02 |
| ## FAM43B     | -0.20456108 | 4.711869  | -2.3438149 | 2.192534e-02 | 8.052325e-02 |
| ## JPH1       | 0.22767067  | 3.933540  | 2.3437494  | 2.192890e-02 | 8.052325e-02 |
| ## SPDEF      | -0.23822962 | 7.768024  | -2.3433565 | 2.195028e-02 | 8.058757e-02 |
| ## CNR1       | -0.12379367 | 3.819695  | -2.3431504 | 2.196151e-02 | 8.061457e-02 |
| ## ARHGAP24   | -0.11889157 | 4.479763  | -2.3428887 | 2.197576e-02 | 8.065268e-02 |
| ## ARHGAP31   | -0.23176031 | 5.257537  | -2.3426077 | 2.199109e-02 | 8.068899e-02 |
| ## KCNMB1     | -0.13183349 | 3.884750  | -2.3425411 | 2.199472e-02 | 8.068899e-02 |
| ## PAPOLA     | 0.23739134  | 8.626747  | 2.3424941  | 2.199728e-02 | 8.068899e-02 |
| ## MAP7D3     | -0.13451889 | 4.526144  | -2.3423690 | 2.200411e-02 | 8.069981e-02 |
| ## SFRP4      | -1.06240731 | 8.435660  | -2.3422609 | 2.201000e-02 | 8.070722e-02 |
| ## ASRGL1     | -0.42052900 | 7.671282  | -2.3418784 | 2.203089e-02 | 8.076959e-02 |
| ## THNSL1     | 0.14709871  | 3.803060  | 2.3416681  | 2.204238e-02 | 8.078752e-02 |
| ## ABHD6      | -0.28090969 | 6.777865  | -2.3416468 | 2.204354e-02 | 8.078752e-02 |
| ## POM121L9P  | -0.16966889 | 4.130816  | -2.3412331 | 2.206616e-02 | 8.085620e-02 |
| ## CROCC      | -0.16504154 | 5.689773  | -2.3405637 | 2.210281e-02 | 8.097622e-02 |
| ## RICTOR     | 0.26178636  | 3.623818  | 2.3402993  | 2.211730e-02 | 8.101506e-02 |
| ## KLRF1      | -0.15132988 | 3.962340  | -2.3401575 | 2.212507e-02 | 8.102927e-02 |
| ## TIGD1      | 0.27509224  | 5.887868  | 2.3400014  | 2.213363e-02 | 8.104637e-02 |
| ## IGLL1      | -0.10057912 | 6.097395  | -2.3398508 | 2.214189e-02 | 8.106236e-02 |
| ## TEDC2-AS1  | -0.06147708 | 3.143684  | -2.3397583 | 2.214697e-02 | 8.106670e-02 |
| ## GBE1       | -0.22976791 | 8.295484  | -2.3393828 | 2.216758e-02 | 8.112790e-02 |
| ## TTC4       | 0.13707742  | 6.897870  | 2.3391248  | 2.218176e-02 | 8.116271e-02 |
| ## PARP2      | 0.15821590  | 7.768066  | 2.3390678  | 2.218489e-02 | 8.116271e-02 |
| ## NCBP2AS2   | 0.20794949  | 8.319581  | 2.3388055  | 2.219931e-02 | 8.120121e-02 |
| ## MRPL46     | 0.17029854  | 7.753938  | 2.3384564  | 2.221852e-02 | 8.122298e-02 |
| ## RAB11A     | 0.20218891  | 11.088376 | 2.3383589  | 2.222389e-02 | 8.122298e-02 |
| ## BBS2       | -0.24404009 | 7.162265  | -2.3382835 | 2.222804e-02 | 8.122298e-02 |
| ## KIF1B      | 0.23581862  | 7.516277  | 2.3382324  | 2.223085e-02 | 8.122298e-02 |
| ## DZIP1L     | -0.34251670 | 6.136533  | -2.3382195 | 2.223156e-02 | 8.122298e-02 |
| ## TBC1D9     | -0.40593040 | 8.412444  | -2.3382132 | 2.223191e-02 | 8.122298e-02 |
| ## OPHN1      | -0.32462009 | 10.119006 | -2.3382012 | 2.223257e-02 | 8.122298e-02 |
| ## SRD5A3-AS1 | -0.07687633 | 3.571103  | -2.3377175 | 2.225922e-02 | 8.130586e-02 |
| ## NRN1       | -0.48540707 | 5.611081  | -2.3376242 | 2.226436e-02 | 8.130586e-02 |
| ## TRAV40     | -0.11928049 | 3.678419  | -2.3375770 | 2.226697e-02 | 8.130586e-02 |
| ## ARHGEF17   | -0.22382754 | 7.384551  | -2.3373248 | 2.228087e-02 | 8.133337e-02 |
| ## SNX6       | 0.19602628  | 9.880861  | 2.3372500  | 2.228500e-02 | 8.133337e-02 |
| ## XPNPEP1    | 0.23002857  | 8.428205  | 2.3372197  | 2.228667e-02 | 8.133337e-02 |
| ## SPTBN1     | 0.37325288  | 7.232852  | 2.3371572  | 2.229012e-02 | 8.133337e-02 |
| ## RASSF6     | -0.63472387 | 8.245462  | -2.3363236 | 2.233618e-02 | 8.148713e-02 |
| ## CDC42BPG   | -0.17437585 | 4.602681  | -2.3361286 | 2.234696e-02 | 8.151219e-02 |
| ## COL5A3     | 0.27183988  | 6.152075  | 2.3356595  | 2.237293e-02 | 8.158066e-02 |
| ## IER5L      | 0.35061923  | 6.777397  | 2.3356479  | 2.237357e-02 | 8.158066e-02 |
| ## MANBAL     | 0.18010827  | 8.362772  | 2.3353968  | 2.238748e-02 | 8.161709e-02 |
| ## MMACHC     | 0.19974441  | 5.874830  | 2.3352675  | 2.239464e-02 | 8.162364e-02 |
| ## TNRC6A     | 0.09346522  | 3.818091  | 2.3352229  | 2.239711e-02 | 8.162364e-02 |

|               |             |          |            |              |              |
|---------------|-------------|----------|------------|--------------|--------------|
| ## BFSP2      | -0.11070939 | 4.223643 | -2.3349546 | 2.241199e-02 | 8.166357e-02 |
| ## KLB        | -0.09575828 | 3.388811 | -2.3348520 | 2.241768e-02 | 8.166571e-02 |
| ## CYP2C18    | -0.90360174 | 7.730330 | -2.3347693 | 2.242227e-02 | 8.166571e-02 |
| ## TM4SF18    | 0.29778924  | 5.720385 | 2.3346612  | 2.242827e-02 | 8.166571e-02 |
| ## C19orf54   | 0.24192769  | 7.089274 | 2.3346449  | 2.242917e-02 | 8.166571e-02 |
| ## PRMT2      | -0.24579566 | 7.392135 | -2.3345779 | 2.243289e-02 | 8.166571e-02 |
| ## NELFB      | 0.23550160  | 7.702768 | 2.3345200  | 2.243611e-02 | 8.166571e-02 |
| ## DNAI2      | -0.10682415 | 3.692378 | -2.3337707 | 2.247774e-02 | 8.180294e-02 |
| ## AMHR2      | -0.15670943 | 4.933236 | -2.3330058 | 2.252030e-02 | 8.194353e-02 |
| ## CHIA       | -1.12331995 | 5.782339 | -2.3325814 | 2.254396e-02 | 8.201527e-02 |
| ## MAPT       | -0.21088068 | 5.749358 | -2.3323230 | 2.255837e-02 | 8.205335e-02 |
| ## MTPP       | -0.86287261 | 4.245052 | -2.3319969 | 2.257656e-02 | 8.210520e-02 |
| ## LINC00933  | -0.07229675 | 3.542003 | -2.3312582 | 2.261784e-02 | 8.223016e-02 |
| ## MAGEA1     | 0.59443694  | 4.440837 | 2.3312406  | 2.261882e-02 | 8.223016e-02 |
| ## ENTPD4     | 0.20603199  | 5.686815 | 2.3307605  | 2.264568e-02 | 8.231342e-02 |
| ## NIPSNAP3A  | -0.29451874 | 7.793389 | -2.3306744 | 2.265050e-02 | 8.231659e-02 |
| ## ITGA9-AS1  | -0.12431925 | 3.996334 | -2.3304081 | 2.266541e-02 | 8.235640e-02 |
| ## ANKRD23    | -0.09603144 | 4.539919 | -2.3302547 | 2.267401e-02 | 8.236255e-02 |
| ## UBE2Q2     | -0.29078873 | 8.839470 | -2.3301652 | 2.267903e-02 | 8.236255e-02 |
| ## TBC1D2B    | -0.24944271 | 8.342214 | -2.3301347 | 2.268073e-02 | 8.236255e-02 |
| ## GIMAP6     | -0.44870526 | 7.070087 | -2.3300956 | 2.268292e-02 | 8.236255e-02 |
| ## SP2-AS1    | 0.15902206  | 4.106462 | 2.3299773  | 2.268956e-02 | 8.237227e-02 |
| ## CHRNA1     | 0.17342121  | 4.015309 | 2.3291286  | 2.273719e-02 | 8.251857e-02 |
| ## DCHS2      | -0.32562189 | 5.005584 | -2.3291181 | 2.273778e-02 | 8.251857e-02 |
| ## ZNF32      | -0.27575438 | 7.440736 | -2.3287473 | 2.275862e-02 | 8.257981e-02 |
| ## LY6K       | 0.51101092  | 5.653325 | 2.3284392  | 2.277595e-02 | 8.262829e-02 |
| ## KCNG4      | -0.12878909 | 4.184220 | -2.3278826 | 2.280728e-02 | 8.272754e-02 |
| ## CXADR      | 0.37272077  | 4.301272 | 2.3266425  | 2.287723e-02 | 8.296682e-02 |
| ## TNFRSF21   | 0.42356090  | 7.855916 | 2.3265697  | 2.288134e-02 | 8.296727e-02 |
| ## LHFPL3-AS2 | -0.18190617 | 5.996227 | -2.3264379 | 2.288879e-02 | 8.297982e-02 |
| ## GABRD      | 0.14144132  | 4.899519 | 2.3257019  | 2.293041e-02 | 8.311201e-02 |
| ## MCTP2      | 0.19880237  | 4.092871 | 2.3255689  | 2.293794e-02 | 8.311201e-02 |
| ## DDHD1      | 0.21985864  | 6.422211 | 2.3255589  | 2.293851e-02 | 8.311201e-02 |
| ## SMS        | 0.29318529  | 8.939489 | 2.3255111  | 2.294121e-02 | 8.311201e-02 |
| ## KPNA3      | 0.17688961  | 9.251347 | 2.3253484  | 2.295043e-02 | 8.313093e-02 |
| ## TNFRSF10B  | -0.13419323 | 4.460398 | -2.3251148 | 2.296366e-02 | 8.316440e-02 |
| ## VPS51      | -0.18562930 | 9.100585 | -2.3240452 | 2.302435e-02 | 8.336970e-02 |
| ## FAM174C    | 0.19547361  | 7.255598 | 2.3235813  | 2.305072e-02 | 8.345066e-02 |
| ## ARHGDI A   | 0.30011499  | 5.821029 | 2.3232103  | 2.307182e-02 | 8.351255e-02 |
| ## GPR4       | 0.21151274  | 5.555915 | 2.3229499  | 2.308664e-02 | 8.354539e-02 |
| ## TMEM150C   | -0.48296480 | 6.150685 | -2.3229099 | 2.308892e-02 | 8.354539e-02 |
| ## SRD5A3     | 0.35458571  | 4.142668 | 2.3228373  | 2.309306e-02 | 8.354584e-02 |
| ## ME1        | -0.48962246 | 6.758085 | -2.3227181 | 2.309985e-02 | 8.355214e-02 |
| ## PIP5K1C    | -0.20467605 | 7.546946 | -2.3226659 | 2.310282e-02 | 8.355214e-02 |
| ## ATF2       | 0.09986047  | 3.360771 | 2.3225644  | 2.310861e-02 | 8.355853e-02 |
| ## NKILA      | 0.27273757  | 4.632911 | 2.3219592  | 2.314312e-02 | 8.366880e-02 |
| ## COG2       | 0.15945663  | 8.101525 | 2.3218070  | 2.315181e-02 | 8.368568e-02 |
| ## KLC4       | 0.21425800  | 4.105152 | 2.3215805  | 2.316474e-02 | 8.371790e-02 |
| ## HDAC8      | 0.14206470  | 6.457263 | 2.3209442  | 2.320111e-02 | 8.382456e-02 |
| ## SEC14L5    | -0.20806336 | 4.133546 | -2.3208861 | 2.320443e-02 | 8.382456e-02 |
| ## OR2C3      | -0.05928778 | 3.279139 | -2.3208529 | 2.320633e-02 | 8.382456e-02 |
| ## GORAB      | 0.29097350  | 6.812683 | 2.3206584  | 2.321745e-02 | 8.385019e-02 |
| ## COL4A6     | -0.14352051 | 3.592382 | -2.3199920 | 2.325562e-02 | 8.396363e-02 |
| ## SMUG1      | 0.24095981  | 6.151965 | 2.3199692  | 2.325692e-02 | 8.396363e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CNST         | 0.17262948  | 4.374056  | 2.3196519  | 2.327512e-02 | 8.401475e-02 |
| ## LOC441179    | 0.20433820  | 3.813142  | 2.3193635  | 2.329166e-02 | 8.405990e-02 |
| ## ASCC2        | -0.21910453 | 7.112165  | -2.3191341 | 2.330483e-02 | 8.409284e-02 |
| ## CUL7         | 0.21883000  | 6.666399  | 2.3189360  | 2.331621e-02 | 8.411933e-02 |
| ## PNMA8A       | -0.55535453 | 4.999054  | -2.3186816 | 2.333082e-02 | 8.415747e-02 |
| ## DCST1-AS1    | 0.12798581  | 4.535637  | 2.3184762  | 2.334264e-02 | 8.418549e-02 |
| ## METTL21A     | -0.18649945 | 5.415182  | -2.3180437 | 2.336751e-02 | 8.426063e-02 |
| ## ZNF252P      | 0.25963244  | 3.927397  | 2.3179389  | 2.337355e-02 | 8.426778e-02 |
| ## GULP1        | -0.59866541 | 7.988791  | -2.3176359 | 2.339099e-02 | 8.431609e-02 |
| ## RABAC1       | -0.21933601 | 10.013784 | -2.3174665 | 2.340076e-02 | 8.433670e-02 |
| ## GNA15        | 0.35513280  | 5.704800  | 2.3170547  | 2.342450e-02 | 8.440764e-02 |
| ## FKBPL        | 0.18101172  | 6.067250  | 2.3163628  | 2.346444e-02 | 8.453694e-02 |
| ## ANKEF1       | 0.25445815  | 5.063239  | 2.3156004  | 2.350852e-02 | 8.467240e-02 |
| ## UGT2B15      | -0.88548644 | 6.517111  | -2.3155533 | 2.351124e-02 | 8.467240e-02 |
| ## MRAP         | -0.11458773 | 4.316964  | -2.3154821 | 2.351536e-02 | 8.467240e-02 |
| ## SIPA1L2      | 0.11984899  | 4.803125  | 2.3154313  | 2.351831e-02 | 8.467240e-02 |
| ## HNRNPD       | 0.14496128  | 10.380207 | 2.3150709  | 2.353918e-02 | 8.473289e-02 |
| ## RBM8A        | 0.23166908  | 6.031410  | 2.3148870  | 2.354983e-02 | 8.473609e-02 |
| ## ZC3H12A-DT   | 0.21045564  | 5.250213  | 2.3148674  | 2.355096e-02 | 8.473609e-02 |
| ## FTL          | 0.12380222  | 13.450710 | 2.3148191  | 2.355377e-02 | 8.473609e-02 |
| ## TRAF3IP2-AS1 | 0.05440514  | 3.182110  | 2.3147747  | 2.355634e-02 | 8.473609e-02 |
| ## LINC01089    | -0.12333782 | 6.908980  | -2.3140267 | 2.359973e-02 | 8.487752e-02 |
| ## CNGA3        | -0.10115416 | 3.548175  | -2.3139391 | 2.360482e-02 | 8.488114e-02 |
| ## PDIA2        | -0.64151057 | 6.178379  | -2.3137207 | 2.361751e-02 | 8.491212e-02 |
| ## METTL27      | 0.18765106  | 5.566013  | 2.3134960  | 2.363056e-02 | 8.494438e-02 |
| ## MIB2         | -0.20452291 | 5.482480  | -2.3133649 | 2.363819e-02 | 8.495712e-02 |
| ## PNLIPRP2     | -0.81535405 | 5.243975  | -2.3127999 | 2.367106e-02 | 8.506058e-02 |
| ## SSNA1        | 0.15476233  | 7.331041  | 2.3125848  | 2.368359e-02 | 8.509093e-02 |
| ## HSD17B10     | 0.20223328  | 9.126797  | 2.3124830  | 2.368951e-02 | 8.509754e-02 |
| ## SFR1         | 0.31933575  | 7.436340  | 2.3120601  | 2.371417e-02 | 8.517140e-02 |
| ## CORO1B       | 0.20318597  | 7.019279  | 2.3118757  | 2.372492e-02 | 8.518981e-02 |
| ## L1TD1        | -0.10760681 | 4.502698  | -2.3118319 | 2.372747e-02 | 8.518981e-02 |
| ## INSL3        | -0.10984503 | 4.573421  | -2.3116155 | 2.374010e-02 | 8.521261e-02 |
| ## GORASP2      | 0.13334547  | 9.549108  | 2.3115828  | 2.374201e-02 | 8.521261e-02 |
| ## XRCC1        | 0.16316071  | 7.253913  | 2.3114503  | 2.374975e-02 | 8.522569e-02 |
| ## CUTC         | -0.21629681 | 7.212149  | -2.3110972 | 2.377037e-02 | 8.528501e-02 |
| ## CCDC89       | -0.08843975 | 3.337602  | -2.3109109 | 2.378126e-02 | 8.530939e-02 |
| ## HTATSF1      | 0.25371894  | 6.387205  | 2.3106104  | 2.379883e-02 | 8.535433e-02 |
| ## LIN54        | 0.10559128  | 3.798299  | 2.3105564  | 2.380199e-02 | 8.535433e-02 |
| ## TRPS1        | -0.46479833 | 6.771831  | -2.3102274 | 2.382124e-02 | 8.540868e-02 |
| ## CPNE4        | -0.13396546 | 3.782129  | -2.3100268 | 2.383299e-02 | 8.542461e-02 |
| ## SPINK4       | -1.29120388 | 7.054476  | -2.3099845 | 2.383547e-02 | 8.542461e-02 |
| ## ZBTB6        | 0.18285517  | 3.850614  | 2.3099414  | 2.383800e-02 | 8.542461e-02 |
| ## VTCN1        | 0.45972096  | 4.533580  | 2.3097570  | 2.384880e-02 | 8.544374e-02 |
| ## PTPRD-AS1    | -0.11539155 | 3.357346  | -2.3097102 | 2.385154e-02 | 8.544374e-02 |
| ## PNP          | 0.35523812  | 8.972934  | 2.3095352  | 2.386180e-02 | 8.546579e-02 |
| ## UBXN7        | 0.31914042  | 7.696799  | 2.3092986  | 2.387568e-02 | 8.550079e-02 |
| ## GCLC         | 0.27346947  | 4.442900  | 2.3090794  | 2.388854e-02 | 8.553214e-02 |
| ## TRIT1        | 0.21461001  | 7.382092  | 2.3085099  | 2.392199e-02 | 8.563717e-02 |
| ## ADM          | 0.45441383  | 8.971855  | 2.3078388  | 2.396145e-02 | 8.576370e-02 |
| ## SUMO4        | 0.15286239  | 8.515848  | 2.3068934  | 2.401714e-02 | 8.594826e-02 |
| ## DCAF12L1     | -0.20442180 | 3.730051  | -2.3065182 | 2.403928e-02 | 8.601269e-02 |
| ## LINC00910    | -0.11050072 | 3.797590  | -2.3060002 | 2.406987e-02 | 8.610735e-02 |
| ## LARP1        | 0.16741159  | 7.789973  | 2.3059001  | 2.407578e-02 | 8.611372e-02 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## STYXL1     | 0.26984246  | 8.166776  | 2.3057670  | 2.408365e-02 | 8.611599e-02 |
| ## EIF3M      | 0.14043001  | 10.319661 | 2.3057494  | 2.408469e-02 | 8.611599e-02 |
| ## CPNE2      | 0.28208270  | 7.428538  | 2.3049104  | 2.413434e-02 | 8.627870e-02 |
| ## TOR1A      | 0.07748047  | 4.092088  | 2.3048079  | 2.414041e-02 | 8.628560e-02 |
| ## LSM14B     | 0.21182010  | 4.484158  | 2.3045960  | 2.415296e-02 | 8.631565e-02 |
| ## BANP       | 0.14736639  | 8.142382  | 2.3043173  | 2.416949e-02 | 8.635988e-02 |
| ## HEY2       | -0.19963151 | 5.501398  | -2.3041156 | 2.418145e-02 | 8.638780e-02 |
| ## GCSAML     | -0.09070314 | 3.504769  | -2.3040366 | 2.418614e-02 | 8.638973e-02 |
| ## NOL12      | 0.18560938  | 6.834844  | 2.3038545  | 2.419694e-02 | 8.641351e-02 |
| ## EHMT1      | 0.15301371  | 4.884312  | 2.3035824  | 2.421310e-02 | 8.645638e-02 |
| ## TOM1       | 0.18816117  | 6.516571  | 2.3021119  | 2.430058e-02 | 8.675388e-02 |
| ## SNAP23     | -0.15408737 | 9.741475  | -2.3019194 | 2.431206e-02 | 8.677995e-02 |
| ## HBS1L      | 0.27818123  | 6.258555  | 2.3018198  | 2.431800e-02 | 8.678629e-02 |
| ## DEFA5      | -1.22745817 | 5.602107  | -2.3012332 | 2.435299e-02 | 8.689628e-02 |
| ## EIF1B-AS1  | -0.12192516 | 6.002046  | -2.3011472 | 2.435813e-02 | 8.689973e-02 |
| ## ZNF292     | 0.05752121  | 3.119077  | 2.3008169  | 2.437786e-02 | 8.695520e-02 |
| ## KCTD13     | 0.19544813  | 5.633888  | 2.3006234  | 2.438942e-02 | 8.698157e-02 |
| ## INAFM1     | -0.26734223 | 6.995962  | -2.3004175 | 2.440173e-02 | 8.700881e-02 |
| ## URB1       | -0.11863440 | 4.773356  | -2.3003559 | 2.440542e-02 | 8.700881e-02 |
| ## WDR74      | 0.18243412  | 7.234997  | 2.2993601  | 2.446505e-02 | 8.720647e-02 |
| ## THEM6      | 0.30679964  | 6.588507  | 2.2991372  | 2.447841e-02 | 8.723916e-02 |
| ## MBL2       | -0.05610036 | 3.312017  | -2.2989572 | 2.448921e-02 | 8.725318e-02 |
| ## DNAJC9-AS1 | -0.09535958 | 4.399146  | -2.2989320 | 2.449072e-02 | 8.725318e-02 |
| ## KBTBD7     | -0.37766049 | 6.126963  | -2.2988026 | 2.449849e-02 | 8.726591e-02 |
| ## PCNX2      | 0.17825514  | 4.776119  | 2.2977141  | 2.456389e-02 | 8.748392e-02 |
| ## CCDC9B     | -0.49210015 | 6.367848  | -2.2972941 | 2.458917e-02 | 8.754542e-02 |
| ## TMED6      | -1.00446717 | 5.839424  | -2.2972874 | 2.458957e-02 | 8.754542e-02 |
| ## NOTUM      | 0.25733075  | 6.265751  | 2.2970835  | 2.460185e-02 | 8.757418e-02 |
| ## H1-7       | -0.14357913 | 4.015064  | -2.2966584 | 2.462747e-02 | 8.764039e-02 |
| ## PELI3      | -0.20251481 | 6.484157  | -2.2965375 | 2.463476e-02 | 8.764039e-02 |
| ## LRRRC75A   | 0.40522186  | 5.576458  | 2.2965101  | 2.463641e-02 | 8.764039e-02 |
| ## MYB        | 0.61071922  | 7.335693  | 2.2964957  | 2.463729e-02 | 8.764039e-02 |
| ## TMA16      | 0.21945650  | 4.241441  | 2.2962006  | 2.465509e-02 | 8.768873e-02 |
| ## MBNL2      | 0.11518586  | 4.033327  | 2.2957767  | 2.468069e-02 | 8.776479e-02 |
| ## TMEM167A   | -0.20065443 | 9.477110  | -2.2956069 | 2.469095e-02 | 8.778628e-02 |
| ## DNAJA4     | 0.30571805  | 3.936272  | 2.2952959  | 2.470975e-02 | 8.783812e-02 |
| ## LMO3       | -0.10346804 | 3.632248  | -2.2951058 | 2.472124e-02 | 8.786400e-02 |
| ## VAMP2      | -0.19677163 | 6.600728  | -2.2949678 | 2.472960e-02 | 8.787675e-02 |
| ## GUCY1A2    | 0.09834427  | 4.198842  | 2.2949071  | 2.473327e-02 | 8.787675e-02 |
| ## ERICH6     | -0.09111138 | 3.978556  | -2.2948298 | 2.473795e-02 | 8.787838e-02 |
| ## SESN1      | -0.38706346 | 8.171637  | -2.2943029 | 2.476986e-02 | 8.797673e-02 |
| ## PDE3A      | -0.12316518 | 5.055634  | -2.2941560 | 2.477877e-02 | 8.799335e-02 |
| ## SNX29P2    | -0.09756744 | 3.829521  | -2.2937773 | 2.480174e-02 | 8.805974e-02 |
| ## CEP192     | 0.21210225  | 7.171020  | 2.2937084  | 2.480592e-02 | 8.805974e-02 |
| ## MUC6       | -1.19462397 | 6.327323  | -2.2928576 | 2.485759e-02 | 8.819719e-02 |
| ## EID2B      | -0.20058458 | 4.039830  | -2.2928535 | 2.485784e-02 | 8.819719e-02 |
| ## CYP4F3     | -0.56821710 | 5.138190  | -2.2927636 | 2.486331e-02 | 8.819719e-02 |
| ## GLUD1      | 0.26983289  | 8.076494  | 2.2927004  | 2.486715e-02 | 8.819719e-02 |
| ## ASPRV1     | -0.16830432 | 5.320745  | -2.2926922 | 2.486765e-02 | 8.819719e-02 |
| ## C7orf50    | 0.25544195  | 7.057861  | 2.2926527  | 2.487005e-02 | 8.819719e-02 |
| ## CLUL1      | -0.11802221 | 3.555471  | -2.2925450 | 2.487660e-02 | 8.820542e-02 |
| ## LINC00839  | 0.18641539  | 4.569150  | 2.2922712  | 2.489327e-02 | 8.824947e-02 |
| ## APC        | -0.23751978 | 7.164014  | -2.2917039 | 2.492782e-02 | 8.834711e-02 |
| ## LEAP2      | -0.37725815 | 6.053342  | -2.2916797 | 2.492929e-02 | 8.834711e-02 |

|                |             |           |            |              |              |
|----------------|-------------|-----------|------------|--------------|--------------|
| ## SYTL5       | -0.20311677 | 3.837358  | -2.2915443 | 2.493754e-02 | 8.836131e-02 |
| ## HDX         | -0.08323996 | 3.377160  | -2.2912766 | 2.495387e-02 | 8.840412e-02 |
| ## B3GNT6      | -0.19122872 | 4.887534  | -2.2911149 | 2.496374e-02 | 8.840939e-02 |
| ## TOR1AIP1    | -0.11372348 | 4.060142  | -2.2911131 | 2.496385e-02 | 8.840939e-02 |
| ## ABCB1       | -0.52268963 | 5.532221  | -2.2904327 | 2.500540e-02 | 8.854147e-02 |
| ## PNRC1       | -0.17228474 | 10.285757 | -2.2903510 | 2.501039e-02 | 8.854410e-02 |
| ## DTWD1       | -0.10803374 | 3.718568  | -2.2902124 | 2.501886e-02 | 8.855904e-02 |
| ## TDRD10      | -0.14668582 | 5.197683  | -2.2900906 | 2.502632e-02 | 8.857036e-02 |
| ## CGRRF1      | -0.22781712 | 6.813970  | -2.2899676 | 2.503383e-02 | 8.858191e-02 |
| ## ZNF552      | -0.20645941 | 6.865908  | -2.2897255 | 2.504865e-02 | 8.861927e-02 |
| ## CDKN2AIPNL  | 0.09834814  | 4.104289  | 2.2893870  | 2.506938e-02 | 8.867754e-02 |
| ## PFKFB3      | 0.31739989  | 8.789913  | 2.2890731  | 2.508861e-02 | 8.873051e-02 |
| ## LINC02683   | -0.10915524 | 3.978152  | -2.2887176 | 2.511041e-02 | 8.878996e-02 |
| ## SLAMF8      | 0.37671152  | 6.218229  | 2.2886599  | 2.511395e-02 | 8.878996e-02 |
| ## H2BC12      | 0.52481191  | 10.054661 | 2.2885587  | 2.512016e-02 | 8.879684e-02 |
| ## DEF8        | 0.20891089  | 7.038164  | 2.2883751  | 2.513142e-02 | 8.882159e-02 |
| ## PGAM1       | 0.15925536  | 10.790836 | 2.2881726  | 2.514386e-02 | 8.885045e-02 |
| ## SERP1       | -0.21033298 | 9.976727  | -2.2877856 | 2.516764e-02 | 8.890486e-02 |
| ## H2BC13      | 0.09221368  | 3.752980  | 2.2877830  | 2.516779e-02 | 8.890486e-02 |
| ## ZNF727      | -0.46765436 | 4.001918  | -2.2871117 | 2.520909e-02 | 8.903563e-02 |
| ## ITPRIPL2    | 0.20970092  | 8.480404  | 2.2864756  | 2.524827e-02 | 8.915889e-02 |
| ## SLC16A14    | -0.46740965 | 6.098913  | -2.2861438 | 2.526873e-02 | 8.921600e-02 |
| ## ZNF665      | -0.15458149 | 8.173431  | -2.2858421 | 2.528734e-02 | 8.926660e-02 |
| ## MANEAL      | 0.42733815  | 5.908704  | 2.2855930  | 2.530272e-02 | 8.930575e-02 |
| ## ZNF569      | -0.18048298 | 3.894520  | -2.2853956 | 2.531491e-02 | 8.933363e-02 |
| ## CEP83-DT    | 0.09913501  | 4.548935  | 2.2848878  | 2.534631e-02 | 8.942925e-02 |
| ## LYPD6B      | -0.75423728 | 6.812932  | -2.2848075 | 2.535127e-02 | 8.943162e-02 |
| ## NDUFA1      | -0.17356386 | 11.312390 | -2.2844498 | 2.537341e-02 | 8.949456e-02 |
| ## TMEM238L    | -0.20332440 | 4.714261  | -2.2843592 | 2.537902e-02 | 8.949919e-02 |
| ## ADCYAP1     | -0.12239929 | 3.969809  | -2.2841891 | 2.538956e-02 | 8.952118e-02 |
| ## ELP4        | 0.12783330  | 7.157272  | 2.2840551  | 2.539785e-02 | 8.953527e-02 |
| ## CFAP210     | -0.12581073 | 3.694966  | -2.2839559 | 2.540400e-02 | 8.953851e-02 |
| ## RXFP1       | -0.07493966 | 3.428094  | -2.2839016 | 2.540737e-02 | 8.953851e-02 |
| ## MAML2       | 0.19477503  | 5.010114  | 2.2838075  | 2.541320e-02 | 8.954391e-02 |
| ## STK3        | 0.28184598  | 8.363959  | 2.2831988  | 2.545096e-02 | 8.966178e-02 |
| ## CDKL3       | -0.17296557 | 4.731171  | -2.2830302 | 2.546143e-02 | 8.968348e-02 |
| ## ZNF804A     | -0.20896748 | 3.804331  | -2.2828085 | 2.547520e-02 | 8.971682e-02 |
| ## SERPINB3    | 0.69599692  | 4.349297  | 2.2826595  | 2.548446e-02 | 8.973424e-02 |
| ## PLCD1       | -0.15702062 | 7.379531  | -2.2824139 | 2.549973e-02 | 8.977284e-02 |
| ## SPIRE1      | 0.31787813  | 5.113612  | 2.2819611  | 2.552789e-02 | 8.985680e-02 |
| ## DDAH1       | 0.28918280  | 4.869506  | 2.2817928  | 2.553837e-02 | 8.987803e-02 |
| ## CDC14A      | -0.18402466 | 3.722955  | -2.2816625 | 2.554649e-02 | 8.987803e-02 |
| ## COL18A1-AS1 | -0.07867430 | 3.888787  | -2.2816563 | 2.554687e-02 | 8.987803e-02 |
| ## EXD2        | 0.16131990  | 4.965514  | 2.2804466  | 2.562231e-02 | 9.011458e-02 |
| ## SIDT1       | -0.42447379 | 6.010853  | -2.2804394 | 2.562276e-02 | 9.011458e-02 |
| ## LAIR2       | 0.36018383  | 5.861973  | 2.2803038  | 2.563123e-02 | 9.012914e-02 |
| ## EPCAM       | 0.51236042  | 11.839776 | 2.2798335  | 2.566063e-02 | 9.021727e-02 |
| ## SMC03       | -0.10844426 | 3.580888  | -2.2797444 | 2.566620e-02 | 9.022162e-02 |
| ## PCDHA6      | -0.07205154 | 3.592482  | -2.2795300 | 2.567961e-02 | 9.025352e-02 |
| ## MRPL28      | 0.15774023  | 7.852392  | 2.2789153  | 2.571809e-02 | 9.037353e-02 |
| ## MIR2052HG   | -0.09065107 | 3.939420  | -2.2788141 | 2.572444e-02 | 9.038057e-02 |
| ## ZNF879      | -0.26937182 | 4.612458  | -2.2783396 | 2.575419e-02 | 9.046983e-02 |
| ## ADIPOR1     | 0.19601263  | 8.605273  | 2.2781188  | 2.576804e-02 | 9.050323e-02 |
| ## DLL1        | -0.32586743 | 7.199479  | -2.2769410 | 2.584205e-02 | 9.074785e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## DUXAP8       | 0.34042796  | 6.057746  | 2.2767002  | 2.585720e-02 | 9.078576e-02 |
| ## TUBB2A       | -0.43586900 | 10.169208 | -2.2759624 | 2.590368e-02 | 9.093362e-02 |
| ## TASP1        | 0.27127023  | 7.275436  | 2.2758309  | 2.591198e-02 | 9.094742e-02 |
| ## LOC102724587 | -0.10853476 | 3.745085  | -2.2755343 | 2.593069e-02 | 9.099774e-02 |
| ## RAMP1        | -0.42589157 | 7.206334  | -2.2754636 | 2.593515e-02 | 9.099807e-02 |
| ## APPL1        | -0.22088006 | 7.284571  | -2.2746860 | 2.598427e-02 | 9.115507e-02 |
| ## MYOM2        | -0.16022291 | 5.006291  | -2.2739522 | 2.603070e-02 | 9.128733e-02 |
| ## LOC642361    | -0.21534088 | 7.372453  | -2.2739516 | 2.603074e-02 | 9.128733e-02 |
| ## SEMA4D       | 0.24009606  | 7.263148  | 2.2728560  | 2.610020e-02 | 9.150104e-02 |
| ## C22orf46     | -0.11795440 | 4.579461  | -2.2728517 | 2.610047e-02 | 9.150104e-02 |
| ## KLF4         | -0.51887366 | 7.977267  | -2.2726183 | 2.611529e-02 | 9.153758e-02 |
| ## MT1F         | -0.56758565 | 9.177723  | -2.2710485 | 2.621514e-02 | 9.187213e-02 |
| ## TIMM13       | 0.24019343  | 8.719031  | 2.2707055  | 2.623701e-02 | 9.193327e-02 |
| ## ADAM8        | 0.15953309  | 4.805193  | 2.2703821  | 2.625764e-02 | 9.198188e-02 |
| ## KRBA1        | -0.13952485 | 6.545475  | -2.2703496 | 2.625972e-02 | 9.198188e-02 |
| ## LINC03014    | 0.28068165  | 5.116695  | 2.2697465  | 2.629823e-02 | 9.208693e-02 |
| ## TEX10        | -0.26845844 | 5.143263  | -2.2697414 | 2.629855e-02 | 9.208693e-02 |
| ## LOC105371692 | -0.13377846 | 4.726713  | -2.2694406 | 2.631778e-02 | 9.213877e-02 |
| ## SLC35E2A     | 0.26807166  | 4.494087  | 2.2691096  | 2.633895e-02 | 9.219738e-02 |
| ## GLDC         | 0.30438269  | 4.732735  | 2.2688241  | 2.635722e-02 | 9.224584e-02 |
| ## ST6GALNAC4   | 0.24643455  | 6.600956  | 2.2687200  | 2.636389e-02 | 9.225368e-02 |
| ## AMER2        | -0.13876048 | 4.788048  | -2.2685892 | 2.637227e-02 | 9.226749e-02 |
| ## LOC101927668 | -0.09738369 | 3.582250  | -2.2683023 | 2.639065e-02 | 9.231628e-02 |
| ## PACSIN2      | 0.20693944  | 7.164919  | 2.2681628  | 2.639959e-02 | 9.232846e-02 |
| ## CCRL2        | 0.36270296  | 6.692070  | 2.2681097  | 2.640300e-02 | 9.232846e-02 |
| ## NFATC4       | -0.09685069 | 5.452366  | -2.2673748 | 2.645016e-02 | 9.247786e-02 |
| ## ACCS         | -0.23577429 | 7.088606  | -2.2672035 | 2.646116e-02 | 9.250079e-02 |
| ## ZNF230       | -0.11402263 | 3.776860  | -2.2666217 | 2.649856e-02 | 9.261599e-02 |
| ## LINC02387    | -0.11538982 | 4.239514  | -2.2662997 | 2.651928e-02 | 9.267285e-02 |
| ## ITPKB        | -0.17290998 | 3.958212  | -2.2655044 | 2.657052e-02 | 9.282327e-02 |
| ## P3H4         | 0.44508268  | 6.714450  | 2.2654932  | 2.657124e-02 | 9.282327e-02 |
| ## GSTM2        | -0.34077705 | 7.991210  | -2.2651297 | 2.659469e-02 | 9.288961e-02 |
| ## ZNF469       | 0.16843169  | 6.690090  | 2.2650178  | 2.660191e-02 | 9.289925e-02 |
| ## ZC2HC1C      | 0.16546593  | 4.836255  | 2.2649085  | 2.660897e-02 | 9.290832e-02 |
| ## ANXA9        | 0.38155585  | 5.461164  | 2.2641570  | 2.665753e-02 | 9.304982e-02 |
| ## GRM5         | -0.11182043 | 4.181383  | -2.2641017 | 2.666110e-02 | 9.304982e-02 |
| ## KLC2         | 0.22018188  | 6.509239  | 2.2640739  | 2.666290e-02 | 9.304982e-02 |
| ## DDX3X        | 0.10570074  | 3.809378  | 2.2637669  | 2.668276e-02 | 9.309809e-02 |
| ## ASCC1        | 0.25134684  | 7.592043  | 2.2637219  | 2.668568e-02 | 9.309809e-02 |
| ## JPT2         | 0.21314837  | 6.793248  | 2.2629505  | 2.673565e-02 | 9.325078e-02 |
| ## ANTXR1       | 0.32002300  | 4.670064  | 2.2629081  | 2.673840e-02 | 9.325078e-02 |
| ## LOC101927495 | -0.08099834 | 3.718574  | -2.2626511 | 2.675507e-02 | 9.329329e-02 |
| ## TNFRSF17     | -0.81066430 | 6.638842  | -2.2623746 | 2.677301e-02 | 9.334022e-02 |
| ## IGSF22       | -0.18636587 | 5.882305  | -2.2621191 | 2.678960e-02 | 9.338243e-02 |
| ## BLTP3B       | 0.12301450  | 3.533213  | 2.2620435  | 2.679451e-02 | 9.338391e-02 |
| ## PPM1J        | 0.18437986  | 4.925989  | 2.2617287  | 2.681497e-02 | 9.343956e-02 |
| ## PACRGL       | 0.23809850  | 4.764045  | 2.2614660  | 2.683204e-02 | 9.348344e-02 |
| ## LINC03048    | -0.13063134 | 4.769808  | -2.2613544 | 2.683931e-02 | 9.349310e-02 |
| ## NUDT19       | 0.30379070  | 8.285211  | 2.2611637  | 2.685171e-02 | 9.352067e-02 |
| ## ZNF793-AS1   | -0.11188944 | 3.743687  | -2.2605808 | 2.688968e-02 | 9.362522e-02 |
| ## FAM83G       | 0.15293113  | 6.748009  | 2.2605199  | 2.689364e-02 | 9.362522e-02 |
| ## PPP1R8       | 0.13385373  | 8.770810  | 2.2604957  | 2.689522e-02 | 9.362522e-02 |
| ## HSF4         | -0.12595893 | 6.594799  | -2.2603759 | 2.690303e-02 | 9.363675e-02 |
| ## SERPINB4     | 0.63462420  | 3.675598  | 2.2599556  | 2.693044e-02 | 9.371649e-02 |

|                |             |           |            |              |              |
|----------------|-------------|-----------|------------|--------------|--------------|
| ## TIGD2       | 0.28420352  | 6.298437  | 2.2598262  | 2.693889e-02 | 9.373024e-02 |
| ## C6orf136    | 0.28938520  | 6.766363  | 2.2597563  | 2.694345e-02 | 9.373044e-02 |
| ## PTDSS1      | 0.20154867  | 9.379010  | 2.2592994  | 2.697329e-02 | 9.381859e-02 |
| ## TTC39A      | -0.67261514 | 7.017248  | -2.2588128 | 2.700510e-02 | 9.390465e-02 |
| ## PPID        | 0.23756447  | 8.072198  | 2.2586753  | 2.701410e-02 | 9.390465e-02 |
| ## PIP5KL1     | 0.14505026  | 5.292307  | 2.2586078  | 2.701852e-02 | 9.390465e-02 |
| ## CDH2        | -0.39015059 | 4.813803  | -2.2585948 | 2.701937e-02 | 9.390465e-02 |
| ## EREG        | 0.13379120  | 4.951982  | 2.2585762  | 2.702059e-02 | 9.390465e-02 |
| ## MAP7D1      | -0.23291612 | 8.021551  | -2.2583990 | 2.703218e-02 | 9.392927e-02 |
| ## PDCD4-AS1   | -0.16193558 | 4.591508  | -2.2581087 | 2.705119e-02 | 9.397964e-02 |
| ## FMC1        | -0.24442915 | 7.538195  | -2.2571940 | 2.711117e-02 | 9.417232e-02 |
| ## TRA2A       | 0.20120829  | 8.660661  | 2.2570250  | 2.712227e-02 | 9.419514e-02 |
| ## PYCR3       | 0.21837135  | 5.945078  | 2.2568677  | 2.713259e-02 | 9.419561e-02 |
| ## TRPV2       | 0.28208704  | 6.975747  | 2.2568619  | 2.713298e-02 | 9.419561e-02 |
| ## SPA17       | 0.23998583  | 6.142792  | 2.2568163  | 2.713597e-02 | 9.419561e-02 |
| ## GCNT1       | -0.58528349 | 6.803913  | -2.2564828 | 2.715789e-02 | 9.425597e-02 |
| ## TNNT3       | -0.10510907 | 5.752662  | -2.2563647 | 2.716565e-02 | 9.426722e-02 |
| ## MSANTD2-AS1 | -0.08970433 | 3.931174  | -2.2561987 | 2.717657e-02 | 9.428939e-02 |
| ## PPIP5K2     | -0.26556585 | 8.070432  | -2.2559619 | 2.719215e-02 | 9.432773e-02 |
| ## RNF121      | 0.11462838  | 6.040989  | 2.2551473  | 2.724581e-02 | 9.449811e-02 |
| ## EWSR1       | 0.13324690  | 9.366105  | 2.2543983  | 2.729522e-02 | 9.463039e-02 |
| ## PCAT7       | 0.29160967  | 4.757265  | 2.2543801  | 2.729642e-02 | 9.463039e-02 |
| ## PEA15       | 0.29250198  | 8.364008  | 2.2542996  | 2.730174e-02 | 9.463039e-02 |
| ## SLC9A1      | -0.13617380 | 3.840478  | -2.2542938 | 2.730212e-02 | 9.463039e-02 |
| ## KIF9-AS1    | -0.13572731 | 5.339312  | -2.2541468 | 2.731183e-02 | 9.463542e-02 |
| ## SOCS2       | -0.34335537 | 5.409859  | -2.2541342 | 2.731266e-02 | 9.463542e-02 |
| ## AFM         | 0.07072668  | 3.457356  | 2.2539621  | 2.732404e-02 | 9.465864e-02 |
| ## ZFYVE27     | 0.14780509  | 7.166646  | 2.2538953  | 2.732845e-02 | 9.465864e-02 |
| ## COX14       | -0.18912624 | 8.873980  | -2.2536345 | 2.734570e-02 | 9.470261e-02 |
| ## SMO         | -0.15451747 | 5.833920  | -2.2535139 | 2.735367e-02 | 9.471447e-02 |
| ## NOL10       | 0.08603487  | 3.879956  | 2.2533071  | 2.736735e-02 | 9.474610e-02 |
| ## TMEM219     | -0.15371017 | 9.037422  | -2.2531690 | 2.737650e-02 | 9.476200e-02 |
| ## FNTB        | 0.23550002  | 4.879818  | 2.2528909  | 2.739492e-02 | 9.480930e-02 |
| ## MS4A7       | -0.48981450 | 8.735903  | -2.2528252 | 2.739927e-02 | 9.480930e-02 |
| ## RAB27A      | -0.47762828 | 8.667002  | -2.2519757 | 2.745560e-02 | 9.498844e-02 |
| ## GLB1L2      | 0.36657196  | 7.076302  | 2.2516693  | 2.747594e-02 | 9.504301e-02 |
| ## PRKY        | 0.27773082  | 4.592256  | 2.2509828  | 2.752156e-02 | 9.518503e-02 |
| ## MAN2C1      | -0.20740172 | 7.101147  | -2.2507969 | 2.753394e-02 | 9.520423e-02 |
| ## FOXS1       | -0.20429609 | 5.106484  | -2.2507619 | 2.753626e-02 | 9.520423e-02 |
| ## ZNF302      | -0.30358144 | 7.349008  | -2.2505937 | 2.754746e-02 | 9.522713e-02 |
| ## ATP8B1      | -0.30114341 | 9.362251  | -2.2505134 | 2.755280e-02 | 9.522981e-02 |
| ## PRPS2       | 0.27329205  | 8.385929  | 2.2500830  | 2.758147e-02 | 9.531306e-02 |
| ## TLR2        | 0.38664941  | 7.658247  | 2.2498451  | 2.759733e-02 | 9.535204e-02 |
| ## LINC00930   | -0.16990319 | 5.141611  | -2.2496179 | 2.761248e-02 | 9.538858e-02 |
| ## ITGB1       | 0.27962622  | 10.373549 | 2.2485504  | 2.768377e-02 | 9.561898e-02 |
| ## LEPR        | -0.10250892 | 4.037335  | -2.2480026 | 2.772041e-02 | 9.572966e-02 |
| ## LINC01210   | -0.18080888 | 7.458160  | -2.2471324 | 2.777871e-02 | 9.591509e-02 |
| ## CHST6       | 0.23822534  | 4.374371  | 2.2469232  | 2.779275e-02 | 9.592759e-02 |
| ## DUBR        | -0.18427412 | 4.106630  | -2.2468810 | 2.779558e-02 | 9.592759e-02 |
| ## HECW2       | 0.31264854  | 6.299981  | 2.2468724  | 2.779615e-02 | 9.592759e-02 |
| ## MCC         | -0.17719592 | 5.900355  | -2.2462572 | 2.783746e-02 | 9.605423e-02 |
| ## LMF1        | 0.10052535  | 4.620538  | 2.2459427  | 2.785859e-02 | 9.611122e-02 |
| ## INTS10      | -0.15888503 | 3.985600  | -2.2456528 | 2.787809e-02 | 9.616255e-02 |
| ## MGAM2       | 0.15075150  | 3.818330  | 2.2453560  | 2.789806e-02 | 9.621092e-02 |



|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## SLC25A43  | 0.33618804  | 6.755733  | 2.2453072  | 2.790135e-02 | 9.621092e-02 |
| ## AMZ1      | -0.14728821 | 6.456761  | -2.2440169 | 2.798833e-02 | 9.648497e-02 |
| ## GUSBP4    | -0.18496784 | 4.966737  | -2.2439908 | 2.799009e-02 | 9.648497e-02 |
| ## S100A6    | 0.25843872  | 12.487669 | 2.2432484  | 2.804025e-02 | 9.664187e-02 |
| ## TRBV16    | -0.10508457 | 3.526782  | -2.2431376 | 2.804774e-02 | 9.665169e-02 |
| ## CIDEA     | -0.23682597 | 5.247095  | -2.2423738 | 2.809944e-02 | 9.680831e-02 |
| ## ADGRG1    | 0.22550690  | 6.326625  | 2.2423288  | 2.810249e-02 | 9.680831e-02 |
| ## EIF1B     | -0.15106208 | 10.017057 | -2.2418651 | 2.813391e-02 | 9.689006e-02 |
| ## LINC02241 | -0.09515961 | 3.593013  | -2.2418413 | 2.813553e-02 | 9.689006e-02 |
| ## POM121    | 0.15110662  | 5.632721  | 2.2417194  | 2.814380e-02 | 9.690251e-02 |
| ## HNF1A     | 0.14720596  | 6.016021  | 2.2414946  | 2.815905e-02 | 9.693902e-02 |
| ## HCRTR2    | -0.08908633 | 4.300111  | -2.2412010 | 2.817898e-02 | 9.698996e-02 |
| ## SLC6A3    | 0.12262964  | 5.271986  | 2.2411394  | 2.818317e-02 | 9.698996e-02 |
| ## R3HCC1    | -0.22608723 | 6.893204  | -2.2404257 | 2.823168e-02 | 9.714085e-02 |
| ## CLK2      | 0.17776997  | 8.484266  | 2.2401531  | 2.825022e-02 | 9.718861e-02 |
| ## ESS2      | 0.15176302  | 5.895193  | 2.2393777  | 2.830304e-02 | 9.734207e-02 |
| ## GNPTAB    | -0.21013056 | 8.596633  | -2.2392972 | 2.830853e-02 | 9.734207e-02 |
| ## TP53INP1  | -0.34257869 | 9.462336  | -2.2392767 | 2.830992e-02 | 9.734207e-02 |
| ## WNT9A     | -0.09056919 | 4.064410  | -2.2392239 | 2.831353e-02 | 9.734207e-02 |
| ## HMCES     | 0.18793091  | 6.377839  | 2.2389653  | 2.833117e-02 | 9.736267e-02 |
| ## CD48      | -0.41019650 | 8.366844  | -2.2389074 | 2.833512e-02 | 9.736267e-02 |
| ## PPIL4     | 0.24430724  | 6.709081  | 2.2388667  | 2.833789e-02 | 9.736267e-02 |
| ## BIRC3     | 0.51190908  | 9.046403  | 2.2388619  | 2.833822e-02 | 9.736267e-02 |
| ## ARF4      | 0.22082901  | 10.127296 | 2.2380787  | 2.839172e-02 | 9.752598e-02 |
| ## TRIM23    | -0.23806483 | 5.433687  | -2.2380289 | 2.839512e-02 | 9.752598e-02 |
| ## LMLN      | 0.15728801  | 4.019302  | 2.2375565  | 2.842743e-02 | 9.762085e-02 |
| ## TNFRSF11B | 0.59092046  | 4.343691  | 2.2366887  | 2.848687e-02 | 9.780885e-02 |
| ## GIP       | -0.48416246 | 4.566932  | -2.2365753 | 2.849466e-02 | 9.781944e-02 |
| ## CYTH3     | 0.11111109  | 4.928746  | 2.2364107  | 2.850595e-02 | 9.782905e-02 |
| ## KLRC4     | 0.14016731  | 3.303718  | 2.2363158  | 2.851245e-02 | 9.782905e-02 |
| ## LINC00929 | -0.12198372 | 4.143846  | -2.2362559 | 2.851656e-02 | 9.782905e-02 |
| ## ATP13A5   | -0.09016813 | 4.649003  | -2.2362272 | 2.851853e-02 | 9.782905e-02 |
| ## PRSS21    | 0.82901015  | 5.443637  | 2.2361920  | 2.852095e-02 | 9.782905e-02 |
| ## TTC39C    | 0.22952636  | 5.232359  | 2.2355209  | 2.856704e-02 | 9.797104e-02 |
| ## ISCA1     | 0.21410163  | 7.742521  | 2.2353815  | 2.857663e-02 | 9.798777e-02 |
| ## TBXAS1    | -0.27723146 | 6.463616  | -2.2348604 | 2.861247e-02 | 9.809452e-02 |
| ## DPY19L2P2 | -0.28541546 | 3.639974  | -2.2344892 | 2.863803e-02 | 9.816598e-02 |
| ## UBQLN4    | -0.10712641 | 6.824502  | -2.2336891 | 2.869319e-02 | 9.833888e-02 |
| ## CD79A     | -0.47346564 | 6.922552  | -2.2335523 | 2.870263e-02 | 9.835504e-02 |
| ## KAT7      | 0.20071086  | 7.550634  | 2.2328116  | 2.875379e-02 | 9.851415e-02 |
| ## LOXL1-AS1 | -0.38212446 | 4.936600  | -2.2322813 | 2.879046e-02 | 9.862356e-02 |
| ## LINC00938 | -0.31318551 | 6.651662  | -2.2315361 | 2.884208e-02 | 9.878411e-02 |
| ## CLPS      | -0.40111693 | 5.083035  | -2.2307821 | 2.889438e-02 | 9.893976e-02 |
| ## LYSMD3    | -0.20265431 | 7.792016  | -2.2307440 | 2.889702e-02 | 9.893976e-02 |
| ## POLR2J    | 0.19315452  | 10.022005 | 2.2306506  | 2.890351e-02 | 9.894570e-02 |
| ## TRIB2     | -0.41196073 | 8.788539  | -2.2303090 | 2.892724e-02 | 9.901066e-02 |
| ## PIK3R6    | -0.12348995 | 4.934980  | -2.2297980 | 2.896278e-02 | 9.911599e-02 |
| ## BCAN-AS1  | 0.17090047  | 4.906695  | 2.2292509  | 2.900085e-02 | 9.921697e-02 |
| ## PHC3      | 0.32460543  | 5.059352  | 2.2291568  | 2.900741e-02 | 9.921697e-02 |
| ## SAMD13    | -0.40240056 | 5.502830  | -2.2291395 | 2.900861e-02 | 9.921697e-02 |
| ## NCF2      | 0.51055798  | 6.963707  | 2.2291004  | 2.901134e-02 | 9.921697e-02 |
| ## SLC35B1   | 0.19404922  | 8.687188  | 2.2285695  | 2.904835e-02 | 9.932722e-02 |
| ## PRKD2     | 0.21932752  | 7.359253  | 2.2282874  | 2.906803e-02 | 9.937822e-02 |
| ## RPL39L    | 0.43714694  | 5.950486  | 2.2281526  | 2.907744e-02 | 9.939406e-02 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## C4orf45      | -0.08114355 | 3.663995  | -2.2276778 | 2.911060e-02 | 9.949108e-02 |
| ## LRRTM2       | -0.13469073 | 4.063693  | -2.2271672 | 2.914630e-02 | 9.958309e-02 |
| ## PLEKH01      | -0.37069390 | 7.746736  | -2.2271560 | 2.914709e-02 | 9.958309e-02 |
| ## LINC00612    | -0.07997455 | 3.581547  | -2.2270527 | 2.915431e-02 | 9.959144e-02 |
| ## ANKHD1       | 0.20821873  | 7.052226  | 2.2265432  | 2.918998e-02 | 9.969693e-02 |
| ## PLD1         | 0.21285282  | 3.964463  | 2.2263878  | 2.920086e-02 | 9.971774e-02 |
| ## VSIG10L2     | -0.08541487 | 4.039116  | -2.2262940 | 2.920744e-02 | 9.972386e-02 |
| ## CACNG6       | -0.14519892 | 6.203481  | -2.2258202 | 2.924067e-02 | 9.982092e-02 |
| ## QTRT1        | 0.19660397  | 7.113990  | 2.2255441  | 2.926004e-02 | 9.987069e-02 |
| ## TNFRSF8      | -0.10410260 | 4.658709  | -2.2249583 | 2.930119e-02 | 9.998886e-02 |
| ## NAT8B        | -0.33528734 | 4.285914  | -2.2249145 | 2.930427e-02 | 9.998886e-02 |
| ## MIEN1        | 0.39950418  | 9.319575  | 2.2247421  | 2.931638e-02 | 1.000138e-01 |
| ## COMMD9       | 0.16170759  | 7.686370  | 2.2240934  | 2.936203e-02 | 1.001531e-01 |
| ## PHIP         | 0.22238359  | 8.810503  | 2.2237572  | 2.938570e-02 | 1.002144e-01 |
| ## GIMAP7       | -0.44671474 | 7.103320  | -2.2237017 | 2.938961e-02 | 1.002144e-01 |
| ## CASP8        | -0.09519116 | 4.129564  | -2.2234668 | 2.940618e-02 | 1.002409e-01 |
| ## SBK1         | 0.15553495  | 5.224926  | 2.2234158  | 2.940977e-02 | 1.002409e-01 |
| ## IMP3         | 0.17260350  | 8.462712  | 2.2233780  | 2.941243e-02 | 1.002409e-01 |
| ## PRKG1        | -0.13330147 | 3.583432  | -2.2233185 | 2.941664e-02 | 1.002409e-01 |
| ## SLF1         | 0.08149384  | 3.322332  | 2.2231398  | 2.942923e-02 | 1.002674e-01 |
| ## TPT1P8       | -0.09515632 | 3.720552  | -2.2219004 | 2.951679e-02 | 1.005493e-01 |
| ## LINC02844    | -0.08194067 | 3.723728  | -2.2218190 | 2.952255e-02 | 1.005524e-01 |
| ## PDK2         | -0.17400195 | 6.605446  | -2.2214963 | 2.954539e-02 | 1.006138e-01 |
| ## LHX6         | -0.22968619 | 6.091001  | -2.2209276 | 2.958567e-02 | 1.007185e-01 |
| ## MORF4L1      | -0.13949466 | 11.979138 | -2.2209256 | 2.958582e-02 | 1.007185e-01 |
| ## COLQ         | -0.12348585 | 4.813157  | -2.2207761 | 2.959641e-02 | 1.007381e-01 |
| ## PABPC5       | -0.14993351 | 3.182375  | -2.2202731 | 2.963210e-02 | 1.008431e-01 |
| ## LINC01139    | 0.24143884  | 3.223399  | 2.2196969  | 2.967302e-02 | 1.009548e-01 |
| ## PABIR1       | 0.18803229  | 6.464428  | 2.2196742  | 2.967463e-02 | 1.009548e-01 |
| ## C2CD5        | -0.23474339 | 9.767330  | -2.2194389 | 2.969136e-02 | 1.009883e-01 |
| ## ZNF362       | -0.11275295 | 3.968901  | -2.2193995 | 2.969416e-02 | 1.009883e-01 |
| ## MDFI         | 0.18689279  | 5.400519  | 2.2189463  | 2.972641e-02 | 1.010692e-01 |
| ## L3MBTL3      | -0.26534040 | 6.044334  | -2.2189285 | 2.972767e-02 | 1.010692e-01 |
| ## DOCK11       | -0.35838392 | 7.952477  | -2.2183808 | 2.976668e-02 | 1.011853e-01 |
| ## PINK1        | -0.22250293 | 7.944341  | -2.2182336 | 2.977717e-02 | 1.012045e-01 |
| ## BATF         | 0.23089336  | 7.019410  | 2.2179143  | 2.979994e-02 | 1.012653e-01 |
| ## ADORA3       | -0.35383824 | 5.820377  | -2.2177372 | 2.981258e-02 | 1.012917e-01 |
| ## TBP          | 0.14147164  | 7.371043  | 2.2174274  | 2.983469e-02 | 1.013503e-01 |
| ## DSC1         | -0.09265510 | 3.408158  | -2.2164913 | 2.990160e-02 | 1.015449e-01 |
| ## WFDC21P      | 0.37447068  | 6.351223  | 2.2164896  | 2.990171e-02 | 1.015449e-01 |
| ## RBM20        | -0.12382002 | 3.495366  | -2.2163860 | 2.990913e-02 | 1.015535e-01 |
| ## EEFSEC       | 0.13254533  | 6.670531  | 2.2160846  | 2.993071e-02 | 1.016102e-01 |
| ## C3           | -0.56702451 | 11.043158 | -2.2156886 | 2.995907e-02 | 1.016899e-01 |
| ## INAVA        | 0.44693371  | 9.313972  | 2.2155185  | 2.997127e-02 | 1.017085e-01 |
| ## LRP11        | -0.39982675 | 5.349940  | -2.2154758 | 2.997432e-02 | 1.017085e-01 |
| ## ATP13A3      | 0.23220787  | 8.982972  | 2.2153708  | 2.998186e-02 | 1.017175e-01 |
| ## MNX1         | 0.28626814  | 6.637960  | 2.2152292  | 2.999202e-02 | 1.017354e-01 |
| ## SLITRK2      | -0.10085411 | 4.499031  | -2.2147495 | 3.002644e-02 | 1.018356e-01 |
| ## TMEM132D-AS1 | 0.26870562  | 3.768894  | 2.2143050  | 3.005837e-02 | 1.019273e-01 |
| ## RALY-AS1     | 0.24698870  | 5.351785  | 2.2141671  | 3.006828e-02 | 1.019443e-01 |
| ## GRIN2A       | -0.14636479 | 4.691317  | -2.2140619 | 3.007585e-02 | 1.019467e-01 |
| ## FMR1         | 0.19696125  | 8.598931  | 2.2140213  | 3.007877e-02 | 1.019467e-01 |
| ## SNHG11       | 0.16933514  | 6.972795  | 2.2139143  | 3.008647e-02 | 1.019562e-01 |
| ## CAMK2B       | -0.07298792 | 3.323682  | -2.2138201 | 3.009324e-02 | 1.019612e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## GATB         | 0.17721520  | 6.730484  | 2.2136935  | 3.010235e-02 | 1.019612e-01 |
| ## MT3          | -0.13176973 | 5.845796  | -2.2136894 | 3.010265e-02 | 1.019612e-01 |
| ## SLC27A5      | 0.23306853  | 5.818676  | 2.2132531  | 3.013406e-02 | 1.020510e-01 |
| ## INTS4        | 0.09051864  | 3.788184  | 2.2130137  | 3.015132e-02 | 1.020928e-01 |
| ## MINK1        | 0.17440467  | 5.901112  | 2.2120335  | 3.022203e-02 | 1.023156e-01 |
| ## LINC01504    | -0.15695706 | 5.537340  | -2.2116264 | 3.025144e-02 | 1.023938e-01 |
| ## CDA          | 0.55131997  | 5.430217  | 2.2115781  | 3.025493e-02 | 1.023938e-01 |
| ## CHN1         | 0.37728083  | 7.710044  | 2.2113465  | 3.027168e-02 | 1.024338e-01 |
| ## ACOX3        | -0.26556030 | 6.359966  | -2.2111255 | 3.028766e-02 | 1.024712e-01 |
| ## DENND6A      | -0.17618427 | 9.046818  | -2.2107818 | 3.031254e-02 | 1.025111e-01 |
| ## FGFBP1       | 0.50967624  | 5.394611  | 2.2107164  | 3.031728e-02 | 1.025111e-01 |
| ## CHD3         | -0.25507330 | 7.180058  | -2.2106939 | 3.031891e-02 | 1.025111e-01 |
| ## LRP3         | -0.19190651 | 6.845813  | -2.2106905 | 3.031915e-02 | 1.025111e-01 |
| ## PRSS22       | 0.25416879  | 6.850884  | 2.2103576  | 3.034327e-02 | 1.025760e-01 |
| ## FLJ32255     | 0.39197674  | 5.159507  | 2.2101309  | 3.035971e-02 | 1.026149e-01 |
| ## VPS26B       | -0.13535564 | 7.525281  | -2.2094324 | 3.041039e-02 | 1.027574e-01 |
| ## ALDH1A2-AS1  | -0.08434783 | 3.370692  | -2.2094140 | 3.041172e-02 | 1.027574e-01 |
| ## RASD2        | -0.26526564 | 4.887697  | -2.2084181 | 3.048412e-02 | 1.029853e-01 |
| ## LRRC2        | -0.21600268 | 3.700920  | -2.2082149 | 3.049891e-02 | 1.030185e-01 |
| ## LNPk         | 0.23410978  | 4.889823  | 2.2081273  | 3.050528e-02 | 1.030234e-01 |
| ## PNKP         | 0.23427330  | 7.104946  | 2.2080059  | 3.051412e-02 | 1.030365e-01 |
| ## TCOF1        | 0.19563808  | 6.412657  | 2.2077912  | 3.052976e-02 | 1.030726e-01 |
| ## ICAM4        | 0.20872855  | 4.097979  | 2.2074730  | 3.055295e-02 | 1.031342e-01 |
| ## HIF1A        | 0.19998409  | 11.448341 | 2.2073797  | 3.055976e-02 | 1.031404e-01 |
| ## LAMB2P1      | -0.10387969 | 4.969874  | -2.2070311 | 3.058519e-02 | 1.032095e-01 |
| ## Tmem25       | -0.21916659 | 5.895375  | -2.2068843 | 3.059590e-02 | 1.032289e-01 |
| ## RAB5B        | -0.19629268 | 8.267064  | -2.2067302 | 3.060716e-02 | 1.032467e-01 |
| ## FAM171B      | -0.36421744 | 6.161444  | -2.2066765 | 3.061108e-02 | 1.032467e-01 |
| ## MRPL11       | 0.16753054  | 8.073856  | 2.2062677  | 3.064094e-02 | 1.033307e-01 |
| ## CD96         | 0.25181546  | 3.735540  | 2.2057605  | 3.067804e-02 | 1.034351e-01 |
| ## NPFF         | -0.13450844 | 5.539153  | -2.2056785 | 3.068404e-02 | 1.034351e-01 |
| ## C15orf61     | 0.18871042  | 8.237537  | 2.2056406  | 3.068682e-02 | 1.034351e-01 |
| ## DOK5         | -0.22566089 | 4.951096  | -2.2047490 | 3.075213e-02 | 1.036385e-01 |
| ## KANSL3       | 0.07247631  | 3.687868  | 2.2045957  | 3.076337e-02 | 1.036596e-01 |
| ## ASMTL        | -0.22414929 | 7.248967  | -2.2043068 | 3.078458e-02 | 1.037143e-01 |
| ## CELA3A       | -0.44538289 | 4.556819  | -2.2039273 | 3.081244e-02 | 1.037914e-01 |
| ## RUVBL2       | -0.09345567 | 4.286758  | -2.2037204 | 3.082764e-02 | 1.038248e-01 |
| ## CLC          | -0.80878366 | 5.762659  | -2.2036566 | 3.083233e-02 | 1.038248e-01 |
| ## LOC100289333 | -0.12373863 | 6.936870  | -2.2034583 | 3.084690e-02 | 1.038395e-01 |
| ## LTB4R        | 0.18956185  | 6.002167  | 2.2034015  | 3.085108e-02 | 1.038395e-01 |
| ## RANBP2       | 0.25937801  | 8.899917  | 2.2033936  | 3.085166e-02 | 1.038395e-01 |
| ## LOC105370461 | -0.10197763 | 4.605278  | -2.2030218 | 3.087901e-02 | 1.039148e-01 |
| ## PLIN5        | -0.11713489 | 4.755610  | -2.2025862 | 3.091109e-02 | 1.039991e-01 |
| ## CNTN3        | -0.47882133 | 4.123765  | -2.2025458 | 3.091406e-02 | 1.039991e-01 |
| ## ABHD12B      | -0.05382547 | 3.284009  | -2.2023069 | 3.093166e-02 | 1.040367e-01 |
| ## TPST2        | 0.27454606  | 8.075528  | 2.2022584  | 3.093524e-02 | 1.040367e-01 |
| ## PPP4R3C      | 0.05815377  | 3.128608  | 2.2021522  | 3.094307e-02 | 1.040463e-01 |
| ## HK1          | -0.18936524 | 9.475595  | -2.2018679 | 3.096404e-02 | 1.040955e-01 |
| ## CYP2F1       | -0.08643621 | 3.614963  | -2.2018181 | 3.096771e-02 | 1.040955e-01 |
| ## LOC112268198 | 0.10175329  | 4.395083  | 2.2014828  | 3.099246e-02 | 1.041619e-01 |
| ## BANCR        | 0.44055958  | 4.546440  | 2.2011731  | 3.101533e-02 | 1.042219e-01 |
| ## LINC01599    | -0.11956873 | 4.569790  | -2.2008681 | 3.103787e-02 | 1.042808e-01 |
| ## LOC147004    | -0.10371560 | 3.928339  | -2.2004830 | 3.106635e-02 | 1.043597e-01 |
| ## SHISAL1      | -0.24952893 | 5.672262  | -2.2002650 | 3.108248e-02 | 1.043816e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CCBE1        | -0.23251987 | 4.204222  | -2.2002594 | 3.108290e-02 | 1.043816e-01 |
| ## LAMB2        | -0.32417407 | 8.077580  | -2.2001884 | 3.108815e-02 | 1.043824e-01 |
| ## SCOC-AS1     | -0.08415505 | 3.753636  | -2.1993978 | 3.114673e-02 | 1.045622e-01 |
| ## WNT7B        | 0.16864101  | 4.657772  | 2.1990650  | 3.117142e-02 | 1.046172e-01 |
| ## HTR2C        | 0.24422858  | 3.438489  | 2.1990415  | 3.117316e-02 | 1.046172e-01 |
| ## GM2A         | 0.30282586  | 6.424487  | 2.1987332  | 3.119605e-02 | 1.046637e-01 |
| ## MAT2A        | -0.13521429 | 10.392834 | -2.1986456 | 3.120255e-02 | 1.046637e-01 |
| ## NUDT10       | -0.15657006 | 4.767575  | -2.1985888 | 3.120677e-02 | 1.046637e-01 |
| ## C2orf81      | -0.18607839 | 6.528693  | -2.1985842 | 3.120711e-02 | 1.046637e-01 |
| ## PBX4         | 0.22672200  | 5.989520  | 2.1985137  | 3.121235e-02 | 1.046644e-01 |
| ## CYTL1        | -0.22777614 | 4.268834  | -2.1973291 | 3.130046e-02 | 1.049430e-01 |
| ## USP37        | 0.15169868  | 5.632886  | 2.1962832  | 3.137844e-02 | 1.051875e-01 |
| ## DAZAP2       | -0.12276533 | 11.580113 | -2.1951595 | 3.146240e-02 | 1.054520e-01 |
| ## DDB1         | 0.11283793  | 9.211635  | 2.1948346  | 3.148671e-02 | 1.055165e-01 |
| ## DACH2        | -0.12269345 | 3.383703  | -2.1947534 | 3.149280e-02 | 1.055199e-01 |
| ## DCTN1        | -0.18112417 | 7.407787  | -2.1944836 | 3.151300e-02 | 1.055706e-01 |
| ## RBBP6        | 0.32178549  | 5.916695  | 2.1939796  | 3.155078e-02 | 1.056801e-01 |
| ## DICER1-AS1   | 0.06607286  | 3.482911  | 2.1936021  | 3.157910e-02 | 1.057423e-01 |
| ## SERPING1     | -0.44104760 | 9.475607  | -2.1935969 | 3.157949e-02 | 1.057423e-01 |
| ## CHM          | 0.05392219  | 3.182028  | 2.1933187  | 3.160038e-02 | 1.057952e-01 |
| ## OR7E104P     | -0.14242392 | 8.255268  | -2.1931046 | 3.161646e-02 | 1.058320e-01 |
| ## TMX3         | 0.08576160  | 3.474329  | 2.1928788  | 3.163343e-02 | 1.058655e-01 |
| ## TRAPPC3      | 0.15177219  | 8.673466  | 2.1928289  | 3.163718e-02 | 1.058655e-01 |
| ## PRRG3        | -0.13464377 | 4.887795  | -2.1927567 | 3.164261e-02 | 1.058655e-01 |
| ## CARD9        | 0.18004820  | 5.111895  | 2.1927009  | 3.164680e-02 | 1.058655e-01 |
| ## DCAF8        | 0.15637335  | 4.683609  | 2.1925868  | 3.165539e-02 | 1.058773e-01 |
| ## WDC1         | -0.14688850 | 6.207473  | -2.1922376 | 3.168166e-02 | 1.059399e-01 |
| ## ALG1         | 0.14971288  | 6.794557  | 2.1922025  | 3.168430e-02 | 1.059399e-01 |
| ## XYLB         | -0.09832631 | 4.273948  | -2.1917024 | 3.172196e-02 | 1.060488e-01 |
| ## KLHL4        | -0.09710028 | 4.078821  | -2.1914348 | 3.174213e-02 | 1.060992e-01 |
| ## LOC114224    | 0.29870332  | 7.539092  | 2.1913636  | 3.174750e-02 | 1.061001e-01 |
| ## LOC105376805 | -0.31143055 | 8.891296  | -2.1902893 | 3.182860e-02 | 1.063538e-01 |
| ## TEX2         | -0.17959491 | 7.406798  | -2.1902227 | 3.183363e-02 | 1.063538e-01 |
| ## PPIEL        | -0.11341546 | 5.627167  | -2.1900509 | 3.184662e-02 | 1.063802e-01 |
| ## CHAMP1       | 0.21023465  | 7.639315  | 2.1892485  | 3.190734e-02 | 1.065659e-01 |
| ## NT5E         | 0.37477939  | 4.978620  | 2.1890238  | 3.192436e-02 | 1.066056e-01 |
| ## MVD          | 0.15342884  | 5.768467  | 2.1886968  | 3.194915e-02 | 1.066588e-01 |
| ## ZFP92        | -0.16414613 | 5.480256  | -2.1886789 | 3.195050e-02 | 1.066588e-01 |
| ## UNC80        | -0.18942740 | 3.473888  | -2.1882469 | 3.198327e-02 | 1.066716e-01 |
| ## GCSH         | 0.25151806  | 8.608758  | 2.1881684  | 3.198923e-02 | 1.066716e-01 |
| ## NSL1         | 0.07072217  | 3.765192  | 2.1881554  | 3.199022e-02 | 1.066716e-01 |
| ## MUC15        | 0.21839184  | 3.595436  | 2.1881472  | 3.199085e-02 | 1.066716e-01 |
| ## MFF-DT       | -0.08962522 | 3.714112  | -2.1881320 | 3.199199e-02 | 1.066716e-01 |
| ## ELMOD2       | 0.38255217  | 6.164643  | 2.1881276  | 3.199233e-02 | 1.066716e-01 |
| ## POLM         | 0.21521882  | 6.061885  | 2.1881015  | 3.199431e-02 | 1.066716e-01 |
| ## TNF          | 0.35046938  | 4.609299  | 2.1880880  | 3.199534e-02 | 1.066716e-01 |
| ## SLC35E4      | 0.24389975  | 4.864471  | 2.1877992  | 3.201727e-02 | 1.067276e-01 |
| ## GATA3-AS1    | 0.06484713  | 3.503216  | 2.1877258  | 3.202284e-02 | 1.067291e-01 |
| ## SLC25A23     | -0.17105000 | 5.118998  | -2.1875532 | 3.203596e-02 | 1.067558e-01 |
| ## MAP1LC3C     | -0.16904749 | 4.259123  | -2.1874191 | 3.204615e-02 | 1.067587e-01 |
| ## KBTBD2       | 0.17638964  | 8.432569  | 2.1873394  | 3.205222e-02 | 1.067587e-01 |
| ## KIF1C        | -0.14962221 | 7.263040  | -2.1873392 | 3.205223e-02 | 1.067587e-01 |
| ## LCDR         | -0.18713056 | 5.063831  | -2.1871734 | 3.206484e-02 | 1.067837e-01 |
| ## LINC02243    | -0.09249742 | 3.494331  | -2.1870968 | 3.207066e-02 | 1.067860e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## NAT8         | -0.19852249 | 4.239298  | -2.1859632 | 3.215701e-02 | 1.070564e-01 |
| ## MLYCD        | -0.17775181 | 6.893725  | -2.1852763 | 3.220943e-02 | 1.071843e-01 |
| ## SNHG30       | 0.23813567  | 5.947769  | 2.1852624  | 3.221049e-02 | 1.071843e-01 |
| ## BEST2        | -0.19846888 | 4.684605  | -2.1852574 | 3.221087e-02 | 1.071843e-01 |
| ## RASSF7       | 0.21429644  | 7.277156  | 2.1849305  | 3.223584e-02 | 1.072502e-01 |
| ## LINC03006    | -0.08813082 | 3.666239  | -2.1847086 | 3.225280e-02 | 1.072895e-01 |
| ## GL01         | 0.19829517  | 10.560790 | 2.1840031  | 3.230678e-02 | 1.074400e-01 |
| ## TINAGL1      | 0.19817546  | 7.190796  | 2.1838975  | 3.231487e-02 | 1.074400e-01 |
| ## SLC25A20     | -0.26650344 | 7.796315  | -2.1838951 | 3.231505e-02 | 1.074400e-01 |
| ## SRPK3        | -0.14187118 | 6.227644  | -2.1838475 | 3.231869e-02 | 1.074400e-01 |
| ## ACAD9        | 0.13304621  | 7.595411  | 2.1828976  | 3.239152e-02 | 1.076530e-01 |
| ## SRPK2        | 0.25107302  | 6.223755  | 2.1828336  | 3.239643e-02 | 1.076530e-01 |
| ## TRAF6        | 0.12840097  | 6.732788  | 2.1828099  | 3.239825e-02 | 1.076530e-01 |
| ## SLC10A1      | -0.09178902 | 4.069833  | -2.1824988 | 3.242213e-02 | 1.077151e-01 |
| ## MIR210HG     | 0.35096724  | 5.574515  | 2.1823787  | 3.243136e-02 | 1.077286e-01 |
| ## ECI2         | -0.40626570 | 8.549649  | -2.1820096 | 3.245973e-02 | 1.078056e-01 |
| ## SLC34A2      | 0.34165277  | 4.205536  | 2.1817692  | 3.247822e-02 | 1.078498e-01 |
| ## SP1          | 0.41775845  | 5.509831  | 2.1811844  | 3.252322e-02 | 1.079821e-01 |
| ## MAPKAPK5-AS1 | 0.16107070  | 7.546898  | 2.1810038  | 3.253714e-02 | 1.080111e-01 |
| ## LINC00857    | 0.22261547  | 5.631242  | 2.1809249  | 3.254322e-02 | 1.080140e-01 |
| ## BMP2K        | 0.17528388  | 3.879624  | 2.1808169  | 3.255154e-02 | 1.080244e-01 |
| ## POLE         | 0.20483574  | 6.890245  | 2.1802916  | 3.259205e-02 | 1.081416e-01 |
| ## ZNF26        | 0.23503517  | 5.417445  | 2.1800790  | 3.260846e-02 | 1.081780e-01 |
| ## MUC16        | 0.31367294  | 4.006873  | 2.1800150  | 3.261340e-02 | 1.081780e-01 |
| ## DNAH10       | -0.13541975 | 4.382315  | -2.1797273 | 3.263562e-02 | 1.082247e-01 |
| ## PROK2        | 0.40396463  | 3.945499  | 2.1796858  | 3.263882e-02 | 1.082247e-01 |
| ## CENPI        | 0.06426036  | 3.280738  | 2.1795836  | 3.264671e-02 | 1.082247e-01 |
| ## NSMCE3       | -0.17169864 | 6.077345  | -2.1795635 | 3.264827e-02 | 1.082247e-01 |
| ## LINC01936    | -0.09071383 | 3.809838  | -2.1794913 | 3.265385e-02 | 1.082260e-01 |
| ## ZNF169       | -0.16172743 | 5.902031  | -2.1792661 | 3.267125e-02 | 1.082664e-01 |
| ## INO80E       | 0.19416555  | 7.190200  | 2.1791697  | 3.267871e-02 | 1.082739e-01 |
| ## ABCA3        | -0.19227163 | 6.168900  | -2.1789241 | 3.269771e-02 | 1.083196e-01 |
| ## ODF3L1       | -0.12756789 | 3.953005  | -2.1786368 | 3.271994e-02 | 1.083760e-01 |
| ## BCAM         | -0.15540902 | 5.477021  | -2.1779112 | 3.277617e-02 | 1.085450e-01 |
| ## TDO2         | 0.60213925  | 5.921650  | 2.1778015  | 3.278467e-02 | 1.085559e-01 |
| ## RNF25        | 0.13353602  | 6.533035  | 2.1767807  | 3.286393e-02 | 1.088010e-01 |
| ## LRRC40       | -0.08845979 | 6.990491  | -2.1763153 | 3.290011e-02 | 1.089035e-01 |
| ## ATP6AP1-DT   | -0.20858618 | 7.722544  | -2.1760479 | 3.292092e-02 | 1.089551e-01 |
| ## SPATA2       | 0.27271411  | 6.308758  | 2.1755610  | 3.295884e-02 | 1.090632e-01 |
| ## LOC101926959 | -0.20409609 | 3.847504  | -2.1751458 | 3.299120e-02 | 1.091499e-01 |
| ## TTL          | -0.15542012 | 5.501887  | -2.1750905 | 3.299552e-02 | 1.091499e-01 |
| ## TSHZ3        | -0.35717339 | 6.452778  | -2.1749460 | 3.300679e-02 | 1.091698e-01 |
| ## C16orf91     | 0.16216139  | 7.423587  | 2.1748689  | 3.301280e-02 | 1.091724e-01 |
| ## OTOR         | -0.10477674 | 4.519866  | -2.1745589 | 3.303700e-02 | 1.092351e-01 |
| ## PHTF1        | 0.16796959  | 5.653955  | 2.1744401  | 3.304628e-02 | 1.092484e-01 |
| ## PNMA1        | -0.35067594 | 8.512471  | -2.1743666 | 3.305202e-02 | 1.092500e-01 |
| ## ZNF587       | 0.21145409  | 4.394132  | 2.1742825  | 3.305859e-02 | 1.092544e-01 |
| ## TUSC3        | -0.32814260 | 4.096866  | -2.1733491 | 3.313157e-02 | 1.094782e-01 |
| ## ACP6         | 0.27709297  | 7.821932  | 2.1732548  | 3.313896e-02 | 1.094793e-01 |
| ## STK36        | 0.19420280  | 7.023905  | 2.1732109  | 3.314240e-02 | 1.094793e-01 |
| ## ZIM2         | -0.14041188 | 4.583096  | -2.1731333 | 3.314847e-02 | 1.094820e-01 |
| ## CXorf38      | 0.27517852  | 6.523725  | 2.1729060  | 3.316627e-02 | 1.095234e-01 |
| ## WAKMAR2      | 0.07718748  | 3.419675  | 2.1726766  | 3.318425e-02 | 1.095641e-01 |
| ## LOC100128398 | 0.07015046  | 4.309331  | 2.1726143  | 3.318913e-02 | 1.095641e-01 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## PPP2R2D    | 0.13993517  | 7.156031  | 2.1722362  | 3.321879e-02 | 1.096446e-01 |
| ## ZNF750     | 0.24212052  | 3.161282  | 2.1719358  | 3.324236e-02 | 1.097051e-01 |
| ## TMEM74     | -0.08376033 | 3.534716  | -2.1718670 | 3.324776e-02 | 1.097055e-01 |
| ## HMBX1      | -0.25363345 | 7.425886  | -2.1716771 | 3.326267e-02 | 1.097373e-01 |
| ## RBFOX1     | -0.15026311 | 4.431143  | -2.1702731 | 3.337311e-02 | 1.100842e-01 |
| ## FBX028     | -0.19575508 | 5.363326  | -2.1700593 | 3.338995e-02 | 1.101223e-01 |
| ## RAB39B     | -0.14937105 | 3.782823  | -2.1695396 | 3.343093e-02 | 1.102131e-01 |
| ## POGLUT3    | -0.25612580 | 7.517520  | -2.1695322 | 3.343151e-02 | 1.102131e-01 |
| ## KDM2A      | 0.15923420  | 7.801320  | 2.1695088  | 3.343336e-02 | 1.102131e-01 |
| ## CHL1-AS1   | -0.06751273 | 3.745254  | -2.1690385 | 3.347049e-02 | 1.103180e-01 |
| ## NDUFA6     | -0.17020140 | 7.900851  | -2.1687838 | 3.349061e-02 | 1.103280e-01 |
| ## IL24       | 0.42596194  | 4.762144  | 2.1687802  | 3.349089e-02 | 1.103280e-01 |
| ## MAOB       | 0.04844739  | 3.320396  | 2.1687617  | 3.349235e-02 | 1.103280e-01 |
| ## LSR        | 0.42125554  | 9.038419  | 2.1687320  | 3.349470e-02 | 1.103280e-01 |
| ## CMC4       | -0.18795772 | 7.418049  | -2.1682225 | 3.353498e-02 | 1.104432e-01 |
| ## ENC1       | 0.43440748  | 8.478538  | 2.1680313  | 3.355011e-02 | 1.104713e-01 |
| ## TAF6L      | 0.11006008  | 4.765479  | 2.1679807  | 3.355411e-02 | 1.104713e-01 |
| ## DARS1      | 0.17035300  | 9.166980  | 2.1678150  | 3.356723e-02 | 1.104970e-01 |
| ## BTBD10     | 0.15636153  | 8.367461  | 2.1675981  | 3.358440e-02 | 1.105361e-01 |
| ## LINC00865  | -0.25371429 | 6.395886  | -2.1673821 | 3.360152e-02 | 1.105749e-01 |
| ## ANKRD11    | 0.19493995  | 7.008026  | 2.1672133  | 3.361489e-02 | 1.106014e-01 |
| ## MTRFR      | 0.19505842  | 6.192945  | 2.1669097  | 3.363897e-02 | 1.106632e-01 |
| ## ZNF702P    | 0.18664314  | 3.824545  | 2.1667953  | 3.364805e-02 | 1.106755e-01 |
| ## KDF1       | 0.24492624  | 6.096965  | 2.1664465  | 3.367573e-02 | 1.107491e-01 |
| ## NORAD      | 0.51424197  | 7.413271  | 2.1663112  | 3.368647e-02 | 1.107638e-01 |
| ## NRSN2-AS1  | 0.21819621  | 3.691604  | 2.1662562  | 3.369084e-02 | 1.107638e-01 |
| ## VPS25      | 0.16383764  | 8.944556  | 2.1654159  | 3.375764e-02 | 1.109636e-01 |
| ## AIDA       | 0.21315838  | 8.351223  | 2.1653579  | 3.376225e-02 | 1.109636e-01 |
| ## CTB-49A3.2 | -0.09064905 | 4.199251  | -2.1646362 | 3.381973e-02 | 1.111225e-01 |
| ## FCGR1BP    | 0.52199638  | 6.227865  | 2.1646168  | 3.382127e-02 | 1.111225e-01 |
| ## NDUFA4     | -0.10325254 | 11.462995 | -2.1639973 | 3.387067e-02 | 1.112672e-01 |
| ## JPH2       | -0.14135162 | 5.624541  | -2.1638742 | 3.388050e-02 | 1.112820e-01 |
| ## NHP2       | 0.16396887  | 10.238791 | 2.1634761  | 3.391229e-02 | 1.113688e-01 |
| ## HTN3       | -0.07913694 | 3.350315  | -2.1630371 | 3.394737e-02 | 1.114664e-01 |
| ## RPL32      | -0.08414313 | 13.370413 | -2.1627744 | 3.396838e-02 | 1.115178e-01 |
| ## MIR7-3HG   | -0.15227241 | 4.033195  | -2.1627017 | 3.397420e-02 | 1.115194e-01 |
| ## RUNX1-IT1  | 0.30178019  | 6.126296  | 2.1617384  | 3.405134e-02 | 1.117550e-01 |
| ## LMO7DN     | -0.11866508 | 3.671793  | -2.1615521 | 3.406629e-02 | 1.117864e-01 |
| ## LINC00312  | -0.37038837 | 6.193005  | -2.1610661 | 3.410528e-02 | 1.118967e-01 |
| ## ATG101     | 0.18440891  | 8.002078  | 2.1604752  | 3.415275e-02 | 1.120348e-01 |
| ## CCL16      | -0.08494091 | 3.863185  | -2.1595997 | 3.422318e-02 | 1.122481e-01 |
| ## AGA        | -0.30819729 | 8.202761  | -2.1593726 | 3.424147e-02 | 1.122904e-01 |
| ## UPP2       | -0.05857896 | 3.315176  | -2.1592391 | 3.425222e-02 | 1.123080e-01 |
| ## TNFRSF11A  | 0.45302504  | 5.930142  | 2.1590956  | 3.426379e-02 | 1.123283e-01 |
| ## HOXA5      | -0.55109561 | 7.043687  | -2.1585140 | 3.431070e-02 | 1.124643e-01 |
| ## TFE3       | 0.15395855  | 3.928465  | 2.1575400  | 3.438938e-02 | 1.127040e-01 |
| ## EVI2B      | -0.45933941 | 7.970062  | -2.1574668 | 3.439530e-02 | 1.127040e-01 |
| ## UAP1L1     | 0.29183498  | 5.644268  | 2.1574079  | 3.440006e-02 | 1.127040e-01 |
| ## GRIK1-AS2  | -0.09044673 | 4.761012  | -2.1562538 | 3.449352e-02 | 1.129925e-01 |
| ## TRAPPC13   | 0.08443973  | 3.612957  | 2.1554676  | 3.455731e-02 | 1.131836e-01 |
| ## TBC1D16    | 0.16912933  | 5.190067  | 2.1551881  | 3.458002e-02 | 1.132402e-01 |
| ## MMP14      | 0.22820578  | 8.037073  | 2.1549390  | 3.460027e-02 | 1.132887e-01 |
| ## PROM1      | -0.94139283 | 9.300379  | -2.1548360 | 3.460864e-02 | 1.132964e-01 |
| ## GAB2       | -0.22686466 | 7.815443  | -2.1547762 | 3.461350e-02 | 1.132964e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## GAMT         | -0.18444761 | 6.625460  | -2.1542133 | 3.465930e-02 | 1.134285e-01 |
| ## KLRC3        | 0.24856628  | 3.780528  | 2.1537121  | 3.470013e-02 | 1.135442e-01 |
| ## TRNP1        | -0.65533323 | 8.805623  | -2.1529402 | 3.476309e-02 | 1.137175e-01 |
| ## LOC107984399 | -0.11629400 | 4.239671  | -2.1529290 | 3.476400e-02 | 1.137175e-01 |
| ## DNAJC15      | 0.33318567  | 9.777263  | 2.1525339  | 3.479627e-02 | 1.138052e-01 |
| ## H3-3B        | 0.15043193  | 12.082862 | 2.1522775  | 3.481722e-02 | 1.138486e-01 |
| ## AKR1B1       | -0.26139869 | 9.195084  | -2.1522375 | 3.482049e-02 | 1.138486e-01 |
| ## DDN          | 0.09033144  | 6.167151  | 2.1517249  | 3.486242e-02 | 1.139678e-01 |
| ## LZTS1        | -0.07580307 | 3.506490  | -2.1513141 | 3.489605e-02 | 1.140599e-01 |
| ## SPRYD3       | -0.17264841 | 7.664407  | -2.1510664 | 3.491634e-02 | 1.140971e-01 |
| ## RIOK1        | 0.24226169  | 7.423966  | 2.1510411  | 3.491841e-02 | 1.140971e-01 |
| ## KATNA1       | 0.16763840  | 7.324748  | 2.1509120  | 3.492900e-02 | 1.141074e-01 |
| ## NR2C1        | 0.26849990  | 8.143310  | 2.1508692  | 3.493250e-02 | 1.141074e-01 |
| ## CCDC34       | 0.12845064  | 3.774844  | 2.1506229  | 3.495270e-02 | 1.141554e-01 |
| ## IL36G        | 0.20660374  | 3.963535  | 2.1502791  | 3.498090e-02 | 1.142296e-01 |
| ## LINC00951    | -0.11287563 | 5.005594  | -2.1499345 | 3.500919e-02 | 1.143041e-01 |
| ## C12orf75     | 0.32340646  | 9.073618  | 2.1497174  | 3.502703e-02 | 1.143444e-01 |
| ## SULT2B1      | 0.27919004  | 5.795625  | 2.1496062  | 3.503617e-02 | 1.143563e-01 |
| ## PWWP2A       | 0.06787587  | 3.494081  | 2.1493506  | 3.505718e-02 | 1.144070e-01 |
| ## LINC01448    | -0.06838631 | 3.477827  | -2.1487648 | 3.510538e-02 | 1.145463e-01 |
| ## TRMT44       | 0.09868101  | 5.378784  | 2.1486870  | 3.511178e-02 | 1.145492e-01 |
| ## UBE2G1       | 0.22265442  | 8.210621  | 2.1484723  | 3.512947e-02 | 1.145890e-01 |
| ## METRN        | 0.23078025  | 5.910358  | 2.1480653  | 3.516301e-02 | 1.146503e-01 |
| ## ODAM         | -0.61912823 | 5.032006  | -2.1480469 | 3.516453e-02 | 1.146503e-01 |
| ## RPS6KA6      | -0.07349557 | 3.680858  | -2.1480437 | 3.516479e-02 | 1.146503e-01 |
| ## KANK4        | -0.21886292 | 4.465543  | -2.1474308 | 3.521536e-02 | 1.147972e-01 |
| ## ELM01        | -0.32741952 | 5.949468  | -2.1472960 | 3.522649e-02 | 1.148155e-01 |
| ## WASHC3       | -0.16894829 | 8.552052  | -2.1471923 | 3.523505e-02 | 1.148255e-01 |
| ## SOS1         | 0.07230904  | 3.579628  | 2.1469093  | 3.525843e-02 | 1.148837e-01 |
| ## CDK6         | 0.25263946  | 5.344918  | 2.1463378  | 3.530569e-02 | 1.150099e-01 |
| ## UGCG         | -0.28289438 | 10.190189 | -2.1463073 | 3.530821e-02 | 1.150099e-01 |
| ## HNRNPH3      | 0.12502719  | 8.063286  | 2.1458799  | 3.534360e-02 | 1.151071e-01 |
| ## ABHD14A      | -0.21777849 | 6.705789  | -2.1456252 | 3.536470e-02 | 1.151578e-01 |
| ## IL17RB       | 0.49051176  | 7.751242  | 2.1454199  | 3.538171e-02 | 1.151952e-01 |
| ## RAB3GAP1     | 0.21089398  | 6.805302  | 2.1441938  | 3.548347e-02 | 1.155085e-01 |
| ## ZNF573       | -0.33149833 | 5.310276  | -2.1439550 | 3.550332e-02 | 1.155551e-01 |
| ## CCDC106      | -0.12850853 | 5.075137  | -2.1436662 | 3.552734e-02 | 1.156151e-01 |
| ## SLC39A1      | 0.22299887  | 7.595914  | 2.1434344  | 3.554663e-02 | 1.156598e-01 |
| ## APBA3        | 0.15047092  | 5.756573  | 2.1432286  | 3.556376e-02 | 1.156921e-01 |
| ## COL6A2       | -0.43394626 | 10.119664 | -2.1431820 | 3.556764e-02 | 1.156921e-01 |
| ## TTC3         | 0.34535354  | 4.368839  | 2.1428804  | 3.559276e-02 | 1.157557e-01 |
| ## NOS3         | 0.30009011  | 5.078618  | 2.1424553  | 3.562820e-02 | 1.158528e-01 |
| ## HAUS7        | 0.21691288  | 6.797752  | 2.1419480  | 3.567053e-02 | 1.159724e-01 |
| ## COBL         | 0.38682633  | 5.402140  | 2.1416195  | 3.569796e-02 | 1.160434e-01 |
| ## ZBTB38       | 0.32021743  | 6.540132  | 2.1408276  | 3.576417e-02 | 1.162405e-01 |
| ## ABCA12       | 0.27665573  | 3.663953  | 2.1406849  | 3.577611e-02 | 1.162612e-01 |
| ## USF2         | -0.16011914 | 9.001540  | -2.1405363 | 3.578855e-02 | 1.162835e-01 |
| ## ADGRE5       | 0.25210649  | 8.515402  | 2.1404044  | 3.579960e-02 | 1.163012e-01 |
| ## SERPINE1     | 0.47168176  | 5.574984  | 2.1401542  | 3.582056e-02 | 1.163512e-01 |
| ## FBX08        | -0.22136174 | 7.767314  | -2.1397573 | 3.585383e-02 | 1.164411e-01 |
| ## PHACTR3      | 0.44215584  | 4.024097  | 2.1391899  | 3.590143e-02 | 1.165514e-01 |
| ## HAS1         | -0.29073967 | 4.772158  | -2.1391578 | 3.590413e-02 | 1.165514e-01 |
| ## SNORC        | 0.34842169  | 4.466655  | 2.1391523  | 3.590459e-02 | 1.165514e-01 |
| ## CEP57L1      | 0.10991206  | 3.916562  | 2.1380254  | 3.599931e-02 | 1.168407e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CD19         | -0.34376127 | 5.959501  | -2.1378503 | 3.601405e-02 | 1.168639e-01 |
| ## SLC9A7       | 0.22185326  | 5.121158  | 2.1378029  | 3.601804e-02 | 1.168639e-01 |
| ## CLEC4G       | -0.12682284 | 4.042796  | -2.1377175 | 3.602523e-02 | 1.168639e-01 |
| ## APRG1        | 0.07612380  | 3.872803  | 2.1376735  | 3.602893e-02 | 1.168639e-01 |
| ## FBX030       | -0.23925598 | 7.679736  | -2.1374431 | 3.604834e-02 | 1.169069e-01 |
| ## SEH1L        | 0.23927425  | 9.031593  | 2.1373829  | 3.605341e-02 | 1.169069e-01 |
| ## ZFY          | 0.19330727  | 3.614572  | 2.1367853  | 3.610380e-02 | 1.170390e-01 |
| ## C21orf91     | 0.22147683  | 4.926496  | 2.1367665  | 3.610539e-02 | 1.170390e-01 |
| ## PTGIR        | -0.13161771 | 6.534529  | -2.1364722 | 3.613022e-02 | 1.171013e-01 |
| ## LINC02264    | -0.07336150 | 3.446654  | -2.1362003 | 3.615319e-02 | 1.171575e-01 |
| ## FSTL5        | -0.06747749 | 3.321566  | -2.1360845 | 3.616297e-02 | 1.171709e-01 |
| ## HHAT         | -0.23213083 | 5.271871  | -2.1359422 | 3.617499e-02 | 1.171917e-01 |
| ## RPAP3-DT     | -0.08753153 | 4.964893  | -2.1357488 | 3.619134e-02 | 1.172264e-01 |
| ## CYP3A7       | -0.14654216 | 3.826395  | -2.1355905 | 3.620472e-02 | 1.172388e-01 |
| ## ZNF649       | -0.14168125 | 4.476183  | -2.1355702 | 3.620644e-02 | 1.172388e-01 |
| ## EGR1         | -0.46675368 | 7.623575  | -2.1348415 | 3.626811e-02 | 1.174203e-01 |
| ## CTCF         | 0.09426936  | 8.584745  | 2.1345631  | 3.629170e-02 | 1.174784e-01 |
| ## CHMP2A       | -0.15918481 | 10.152921 | -2.1341219 | 3.632911e-02 | 1.175749e-01 |
| ## OPLAH        | 0.35132394  | 6.239900  | 2.1340784  | 3.633280e-02 | 1.175749e-01 |
| ## ADAMTS5      | 0.06191313  | 3.407128  | 2.1337820  | 3.635795e-02 | 1.176231e-01 |
| ## C9orf78      | 0.20391575  | 7.338407  | 2.1337696  | 3.635901e-02 | 1.176231e-01 |
| ## ABLIM3       | -0.28741014 | 6.182081  | -2.1335142 | 3.638069e-02 | 1.176658e-01 |
| ## ERI2         | 0.20908742  | 7.622243  | 2.1334811  | 3.638350e-02 | 1.176658e-01 |
| ## LOC105370638 | -0.15605334 | 4.954890  | -2.1330952 | 3.641629e-02 | 1.177535e-01 |
| ## SNX13        | 0.26673557  | 5.442236  | 2.1330010  | 3.642430e-02 | 1.177611e-01 |
| ## PRKCI        | 0.47823856  | 5.210728  | 2.1327561  | 3.644513e-02 | 1.178102e-01 |
| ## PIGB         | -0.17610715 | 7.559050  | -2.1324382 | 3.647217e-02 | 1.178485e-01 |
| ## KRR1         | 0.24227046  | 7.893964  | 2.1324191  | 3.647380e-02 | 1.178485e-01 |
| ## TIGD7        | -0.31176133 | 5.048036  | -2.1324173 | 3.647395e-02 | 1.178485e-01 |
| ## HPDL         | 0.38911336  | 6.015728  | 2.1320237  | 3.650746e-02 | 1.179385e-01 |
| ## TUSC8        | -0.13357938 | 3.775914  | -2.1314802 | 3.655379e-02 | 1.180698e-01 |
| ## CDH19        | -0.11201105 | 3.506234  | -2.1311513 | 3.658185e-02 | 1.181421e-01 |
| ## MYO1C        | -0.12959346 | 8.207029  | -2.1309299 | 3.660075e-02 | 1.181816e-01 |
| ## TRIM58       | -0.05231323 | 3.204493  | -2.1308752 | 3.660541e-02 | 1.181816e-01 |
| ## ARNT2        | -0.34351021 | 5.874615  | -2.1306633 | 3.662352e-02 | 1.182112e-01 |
| ## DMTF1        | -0.19737447 | 8.642232  | -2.1306350 | 3.662593e-02 | 1.182112e-01 |
| ## LRTM2        | -0.14313004 | 5.379663  | -2.1305135 | 3.663631e-02 | 1.182263e-01 |
| ## CRLS1        | 0.21511918  | 9.175625  | 2.1304202  | 3.664429e-02 | 1.182331e-01 |
| ## CLCNKB       | -0.14133810 | 5.090187  | -2.1303227 | 3.665262e-02 | 1.182331e-01 |
| ## TCTN1        | -0.12940712 | 5.243087  | -2.1302750 | 3.665670e-02 | 1.182331e-01 |
| ## FBLN7        | -0.12603316 | 4.502580  | -2.1302233 | 3.666112e-02 | 1.182331e-01 |
| ## IL1R2        | -0.72045155 | 8.272372  | -2.1298695 | 3.669137e-02 | 1.183124e-01 |
| ## MAN2A2       | 0.15175849  | 8.072526  | 2.1295263  | 3.672075e-02 | 1.183887e-01 |
| ## RBM42        | 0.24542267  | 7.986358  | 2.1292825  | 3.674163e-02 | 1.184377e-01 |
| ## COQ10A       | -0.18181942 | 6.656496  | -2.1289690 | 3.676850e-02 | 1.185060e-01 |
| ## TMEM201      | 0.17843679  | 6.935457  | 2.1287406  | 3.678807e-02 | 1.185507e-01 |
| ## NOSIP        | 0.22572300  | 8.500504  | 2.1285026  | 3.680849e-02 | 1.185982e-01 |
| ## MYRF-AS1     | -0.13748851 | 5.421970  | -2.1283157 | 3.682453e-02 | 1.186294e-01 |
| ## SRF          | 0.14604925  | 4.924657  | 2.1282568  | 3.682959e-02 | 1.186294e-01 |
| ## IPO13        | -0.12063464 | 6.862250  | -2.1281845 | 3.683579e-02 | 1.186311e-01 |
| ## PTGFR        | -0.19569983 | 3.874516  | -2.1277785 | 3.687067e-02 | 1.187250e-01 |
| ## THADA        | 0.05422264  | 3.188032  | 2.1272633  | 3.691495e-02 | 1.188493e-01 |
| ## PROSER3      | 0.15211748  | 5.532985  | 2.1262122  | 3.700546e-02 | 1.191222e-01 |
| ## SCNN1A       | -0.76339712 | 8.511623  | -2.1260170 | 3.702228e-02 | 1.191580e-01 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## FRG1         | -0.13851525 | 8.519619  | -2.1258200 | 3.703928e-02 | 1.191942e-01 |
| ## SPTLC1       | 0.15229540  | 4.546471  | 2.1255653  | 3.706126e-02 | 1.192465e-01 |
| ## INSM1        | -0.63710939 | 4.360647  | -2.1252062 | 3.709226e-02 | 1.193252e-01 |
| ## TCAF2        | 0.10310260  | 4.215128  | 2.1251495  | 3.709716e-02 | 1.193252e-01 |
| ## ARL14EP      | -0.16863496 | 7.285692  | -2.1249879 | 3.711112e-02 | 1.193517e-01 |
| ## SNX2         | -0.21999988 | 9.034431  | -2.1246147 | 3.714338e-02 | 1.194370e-01 |
| ## RTP3         | -0.09717808 | 4.070694  | -2.1245225 | 3.715136e-02 | 1.194442e-01 |
| ## CCIN         | -0.10341535 | 4.693079  | -2.1243357 | 3.716752e-02 | 1.194777e-01 |
| ## TESK1        | 0.15641177  | 7.450179  | 2.1231474  | 3.727046e-02 | 1.197901e-01 |
| ## TCTA         | -0.21072324 | 7.441667  | -2.1221929 | 3.735332e-02 | 1.200379e-01 |
| ## SLC35D1      | -0.26370560 | 8.230117  | -2.1220586 | 3.736499e-02 | 1.200569e-01 |
| ## FAM218A      | -0.08379841 | 3.547845  | -2.1216135 | 3.740370e-02 | 1.201627e-01 |
| ## CCDC102A     | -0.15161932 | 5.037377  | -2.1212519 | 3.743517e-02 | 1.202453e-01 |
| ## STXBP3       | 0.12593870  | 3.761625  | 2.1208364  | 3.747137e-02 | 1.203430e-01 |
| ## CCDC22       | 0.24250170  | 6.286200  | 2.1205827  | 3.749347e-02 | 1.203954e-01 |
| ## DSCAM-AS1    | -0.08639786 | 3.693183  | -2.1204120 | 3.750836e-02 | 1.204246e-01 |
| ## SLC8A1       | -0.12312969 | 3.721694  | -2.1201567 | 3.753063e-02 | 1.204678e-01 |
| ## PNRC2        | -0.13550890 | 10.465404 | -2.1200335 | 3.754139e-02 | 1.204678e-01 |
| ## DUOX2        | -1.07071460 | 7.649955  | -2.1200144 | 3.754305e-02 | 1.204678e-01 |
| ## GRIA3        | -0.15091637 | 3.812705  | -2.1199746 | 3.754652e-02 | 1.204678e-01 |
| ## PRKAA1       | 0.12761468  | 3.532614  | 2.1199073  | 3.755240e-02 | 1.204678e-01 |
| ## TRAPPC2      | 0.06829229  | 3.479968  | 2.1198602  | 3.755651e-02 | 1.204678e-01 |
| ## BIK          | 0.46256894  | 8.124086  | 2.1196810  | 3.757216e-02 | 1.204994e-01 |
| ## PTPN18       | 0.15239847  | 3.623757  | 2.1190274  | 3.762929e-02 | 1.206640e-01 |
| ## HROB         | 0.16204599  | 5.199883  | 2.1181895  | 3.770263e-02 | 1.208597e-01 |
| ## ATOH1        | -0.19669141 | 4.570504  | -2.1181691 | 3.770442e-02 | 1.208597e-01 |
| ## ABTB2        | 0.17319837  | 6.633649  | 2.1181314  | 3.770772e-02 | 1.208597e-01 |
| ## LRFN5-DT     | -0.10087480 | 3.935704  | -2.1180037 | 3.771891e-02 | 1.208770e-01 |
| ## MYC          | 0.36439363  | 9.671331  | 2.1178889  | 3.772898e-02 | 1.208906e-01 |
| ## SPATS2       | 0.17194336  | 3.942126  | 2.1167087  | 3.783255e-02 | 1.212039e-01 |
| ## LRCH3        | 0.15889166  | 5.144510  | 2.1164919  | 3.785160e-02 | 1.212365e-01 |
| ## Clorf159     | 0.11890493  | 5.041588  | 2.1164603  | 3.785438e-02 | 1.212365e-01 |
| ## ALPK2        | 0.30250616  | 4.529164  | 2.1161848  | 3.787861e-02 | 1.212954e-01 |
| ## ZBTB41       | 0.23651271  | 7.101398  | 2.1159696  | 3.789754e-02 | 1.213374e-01 |
| ## HAS3         | 0.10230421  | 4.166890  | 2.1158139  | 3.791124e-02 | 1.213626e-01 |
| ## TPRN         | 0.22862536  | 6.255348  | 2.1156451  | 3.792611e-02 | 1.213915e-01 |
| ## RSKR         | 0.21368201  | 5.150793  | 2.1155443  | 3.793499e-02 | 1.214013e-01 |
| ## LOC646762    | 0.12734185  | 4.867477  | 2.1154440  | 3.794382e-02 | 1.214109e-01 |
| ## TULP4        | 0.23479622  | 7.367889  | 2.1145679  | 3.802107e-02 | 1.216394e-01 |
| ## PLAC8        | -0.75671388 | 9.964358  | -2.1140790 | 3.806424e-02 | 1.217588e-01 |
| ## MXD1         | 0.41202991  | 5.348377  | 2.1140025  | 3.807099e-02 | 1.217617e-01 |
| ## ENTPD3       | -0.14455389 | 3.676206  | -2.1135981 | 3.810673e-02 | 1.218423e-01 |
| ## ZNF565       | -0.21522368 | 6.166414  | -2.1135848 | 3.810791e-02 | 1.218423e-01 |
| ## MGC32805     | 0.12581543  | 3.509104  | 2.1131862  | 3.814317e-02 | 1.219364e-01 |
| ## TXLNA        | -0.13052329 | 4.405672  | -2.1129101 | 3.816761e-02 | 1.219840e-01 |
| ## LOC101060400 | 0.18377359  | 4.711744  | 2.1128854  | 3.816980e-02 | 1.219840e-01 |
| ## ZNF574       | 0.18281484  | 6.918364  | 2.1124660  | 3.820695e-02 | 1.220805e-01 |
| ## RFX3         | 0.09099301  | 4.043515  | 2.1124122  | 3.821172e-02 | 1.220805e-01 |
| ## MSRA         | -0.24338471 | 7.680285  | -2.1123435 | 3.821781e-02 | 1.220812e-01 |
| ## SPHKAP       | -0.07760526 | 3.661180  | -2.1122250 | 3.822831e-02 | 1.220961e-01 |
| ## USP32P2      | 0.09247117  | 4.367420  | 2.1120804  | 3.824113e-02 | 1.221183e-01 |
| ## PECR         | 0.26389295  | 5.846859  | 2.1118599  | 3.826070e-02 | 1.221620e-01 |
| ## MTDH         | 0.22574388  | 7.460449  | 2.1115938  | 3.828431e-02 | 1.222187e-01 |
| ## MX1          | 0.42762041  | 9.517329  | 2.1113009  | 3.831033e-02 | 1.222830e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ODF2L        | 0.23950771  | 4.820963  | 2.1109748  | 3.833931e-02 | 1.223567e-01 |
| ## TNFRSF10A-DT | 0.12591883  | 4.965324  | 2.1107339  | 3.836072e-02 | 1.223899e-01 |
| ## CMKLR1       | 0.16264445  | 4.805486  | 2.1107256  | 3.836146e-02 | 1.223899e-01 |
| ## DPYSL5       | -0.08324287 | 4.243158  | -2.1106108 | 3.837168e-02 | 1.224038e-01 |
| ## ZNF133-AS1   | -0.07435009 | 3.613555  | -2.1096903 | 3.845363e-02 | 1.226464e-01 |
| ## GPKOW        | 0.20452310  | 7.546619  | 2.1090110  | 3.851421e-02 | 1.228208e-01 |
| ## POLR3B       | -0.13306507 | 3.848601  | -2.1087592 | 3.853669e-02 | 1.228737e-01 |
| ## PYROXD1      | -0.30095961 | 8.196261  | -2.1083572 | 3.857259e-02 | 1.229693e-01 |
| ## CARS2        | 0.18204357  | 8.052728  | 2.1072649  | 3.867031e-02 | 1.232620e-01 |
| ## CFAP20DC     | 0.24743256  | 3.667365  | 2.1068831  | 3.870452e-02 | 1.233521e-01 |
| ## RAD23A       | 0.23079734  | 8.314771  | 2.1064375  | 3.874447e-02 | 1.234606e-01 |
| ## CCDC91       | -0.38142579 | 5.789374  | -2.1061036 | 3.877444e-02 | 1.235372e-01 |
| ## PTX3         | -0.43505335 | 4.305965  | -2.1060367 | 3.878044e-02 | 1.235374e-01 |
| ## GAS8-AS1     | -0.10882527 | 4.157208  | -2.1055297 | 3.882599e-02 | 1.236636e-01 |
| ## CD226        | 0.10640889  | 3.481319  | 2.1053590  | 3.884132e-02 | 1.236935e-01 |
| ## PDE9A-AS1    | -0.07786452 | 3.629239  | -2.1049998 | 3.887362e-02 | 1.237722e-01 |
| ## FN3KRP       | 0.20374599  | 8.383661  | 2.1049068  | 3.888200e-02 | 1.237722e-01 |
| ## RAB23        | -0.50732699 | 6.728051  | -2.1048860 | 3.888387e-02 | 1.237722e-01 |
| ## MINCR        | 0.22082967  | 4.132730  | 2.1047839  | 3.889305e-02 | 1.237825e-01 |
| ## INPPL1       | 0.15173433  | 6.933950  | 2.1044720  | 3.892113e-02 | 1.238436e-01 |
| ## ACOX1        | -0.11604403 | 4.294252  | -2.1044386 | 3.892415e-02 | 1.238436e-01 |
| ## RYR3-DT      | -0.09281844 | 5.379085  | -2.1039854 | 3.896498e-02 | 1.239546e-01 |
| ## NCKAP1       | -0.13510249 | 9.965824  | -2.1038480 | 3.897737e-02 | 1.239599e-01 |
| ## SQLE         | 0.33496570  | 4.795344  | 2.1038349  | 3.897855e-02 | 1.239599e-01 |
| ## ZNF502       | -0.27882172 | 5.242224  | -2.1033798 | 3.901961e-02 | 1.240715e-01 |
| ## LAG3         | 0.30311848  | 4.973286  | 2.1031836  | 3.903732e-02 | 1.241089e-01 |
| ## CAP2         | -0.51181904 | 6.758362  | -2.1030865 | 3.904609e-02 | 1.241178e-01 |
| ## PITHD1       | 0.16260364  | 4.164867  | 2.1027992  | 3.907204e-02 | 1.241660e-01 |
| ## SLC31A2      | 0.32654702  | 7.049107  | 2.1027866  | 3.907318e-02 | 1.241660e-01 |
| ## GSR          | 0.37018600  | 7.245840  | 2.1026529  | 3.908527e-02 | 1.241855e-01 |
| ## BMP10        | -0.16955053 | 4.050039  | -2.1024716 | 3.910165e-02 | 1.242186e-01 |
| ## SLC01B1      | 0.10122087  | 3.683400  | 2.1022065  | 3.912563e-02 | 1.242758e-01 |
| ## CALCOC01     | -0.17106381 | 7.906627  | -2.1018611 | 3.915689e-02 | 1.243561e-01 |
| ## ELK3         | 0.16827089  | 5.306571  | 2.1016256  | 3.917821e-02 | 1.244049e-01 |
| ## KLK5         | 0.50597418  | 3.995769  | 2.1014909  | 3.919042e-02 | 1.244129e-01 |
| ## POU6F2-AS2   | 0.19876712  | 3.292477  | 2.1014660  | 3.919268e-02 | 1.244129e-01 |
| ## MTARC2       | -0.29455276 | 6.502270  | -2.1010863 | 3.922709e-02 | 1.245031e-01 |
| ## IRAG2        | -0.43237982 | 7.130161  | -2.1008831 | 3.924552e-02 | 1.245426e-01 |
| ## UBE2E1       | 0.14303856  | 10.400310 | 2.1007850  | 3.925442e-02 | 1.245519e-01 |
| ## P2RY8        | -0.32479884 | 6.630251  | -2.1006926 | 3.926280e-02 | 1.245595e-01 |
| ## SPATA42      | -0.09132648 | 3.551312  | -2.1004524 | 3.928461e-02 | 1.246097e-01 |
| ## ENDOV        | -0.16318817 | 5.481559  | -2.0998351 | 3.934068e-02 | 1.247686e-01 |
| ## MAGEB2       | 0.49111673  | 3.817676  | 2.0993051  | 3.938888e-02 | 1.248861e-01 |
| ## MAP3K14      | -0.22312832 | 6.003914  | -2.0992958 | 3.938973e-02 | 1.248861e-01 |
| ## SKAP1        | 0.33237457  | 5.975230  | 2.0990643  | 3.941081e-02 | 1.249273e-01 |
| ## NEMP2        | 0.12494789  | 4.353476  | 2.0990212  | 3.941473e-02 | 1.249273e-01 |
| ## FJX1         | 0.29867174  | 6.056418  | 2.0988862  | 3.942702e-02 | 1.249472e-01 |
| ## SKI          | 0.41478177  | 6.345605  | 2.0988198  | 3.943307e-02 | 1.249474e-01 |
| ## RAPGEF5      | 0.06766991  | 3.897334  | 2.0984546  | 3.946634e-02 | 1.250338e-01 |
| ## ELFN1        | 0.10376010  | 4.762738  | 2.0983480  | 3.947606e-02 | 1.250456e-01 |
| ## CA6          | -0.05594113 | 3.286892  | -2.0978390 | 3.952250e-02 | 1.251736e-01 |
| ## DERA         | 0.23797152  | 8.457157  | 2.0974005  | 3.956253e-02 | 1.252814e-01 |
| ## FAM91A1      | 0.15047359  | 8.842174  | 2.0971614  | 3.958437e-02 | 1.253111e-01 |
| ## GABRP        | -1.19058096 | 6.429517  | -2.0971478 | 3.958562e-02 | 1.253111e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## MCHR2        | -0.07407822 | 4.763291  | -2.0971002 | 3.958997e-02 | 1.253111e-01 |
| ## TCEA2        | -0.36919878 | 6.379042  | -2.0961390 | 3.967791e-02 | 1.255703e-01 |
| ## WDR33        | 0.17742371  | 5.036729  | 2.0958065  | 3.970837e-02 | 1.256111e-01 |
| ## SIGIRR       | 0.20159475  | 7.151966  | 2.0957600  | 3.971263e-02 | 1.256111e-01 |
| ## VPS26A       | 0.12350971  | 10.376925 | 2.0957532  | 3.971326e-02 | 1.256111e-01 |
| ## LAD1         | 0.32187611  | 7.757216  | 2.0957350  | 3.971492e-02 | 1.256111e-01 |
| ## RECQL5       | 0.09022393  | 3.446632  | 2.0954788  | 3.973841e-02 | 1.256663e-01 |
| ## LINC00877    | -0.08929131 | 4.062685  | -2.0952364 | 3.976064e-02 | 1.257175e-01 |
| ## PNPLA4       | -0.26588960 | 7.097135  | -2.0951269 | 3.977069e-02 | 1.257302e-01 |
| ## CYBR1        | -0.09290369 | 4.082809  | -2.0948809 | 3.979327e-02 | 1.257825e-01 |
| ## LINC02838    | -0.12647750 | 4.538372  | -2.0946311 | 3.981621e-02 | 1.258359e-01 |
| ## RNF4         | 0.13337788  | 9.319999  | 2.0945549  | 3.982320e-02 | 1.258362e-01 |
| ## WNK1         | 0.08035109  | 3.615688  | 2.0944984  | 3.982839e-02 | 1.258362e-01 |
| ## ZNF784       | -0.14652095 | 5.963824  | -2.0941636 | 3.985917e-02 | 1.259143e-01 |
| ## NINJ1        | 0.18533629  | 7.583131  | 2.0931223  | 3.995501e-02 | 1.261979e-01 |
| ## EGR3         | -0.48497001 | 6.683905  | -2.0928551 | 3.997962e-02 | 1.262566e-01 |
| ## PIK3CD-AS2   | -0.06550215 | 3.364621  | -2.0927341 | 3.999078e-02 | 1.262578e-01 |
| ## WNT4         | -0.14286908 | 5.164056  | -2.0927193 | 3.999215e-02 | 1.262578e-01 |
| ## CBFA2T2      | 0.22860065  | 6.522150  | 2.0925378  | 4.000888e-02 | 1.262915e-01 |
| ## LMNA         | 0.23840392  | 9.396434  | 2.0917890  | 4.007801e-02 | 1.264774e-01 |
| ## RAB11B-AS1   | -0.11081725 | 3.862788  | -2.0917684 | 4.007991e-02 | 1.264774e-01 |
| ## CYMP         | -0.41567545 | 5.237413  | -2.0916883 | 4.008731e-02 | 1.264815e-01 |
| ## SEMG1        | 0.57846177  | 3.964901  | 2.0912792  | 4.012512e-02 | 1.265817e-01 |
| ## ABTB3        | 0.36074481  | 4.615393  | 2.0910893  | 4.014269e-02 | 1.266179e-01 |
| ## LINC02223    | -0.05870247 | 3.433989  | -2.0906483 | 4.018350e-02 | 1.267087e-01 |
| ## PGAP4        | -0.35665921 | 5.894113  | -2.0906469 | 4.018363e-02 | 1.267087e-01 |
| ## FBX021       | -0.22969767 | 9.111920  | -2.0904706 | 4.019996e-02 | 1.267409e-01 |
| ## CUL3         | -0.22122344 | 6.277517  | -2.0901493 | 4.022972e-02 | 1.268156e-01 |
| ## COPB2        | 0.15636020  | 10.201131 | 2.0899814  | 4.024528e-02 | 1.268454e-01 |
| ## NAP1L4       | 0.12737468  | 5.125965  | 2.0899136  | 4.025157e-02 | 1.268461e-01 |
| ## IPO8         | 0.22159885  | 5.609206  | 2.0892676  | 4.031151e-02 | 1.270157e-01 |
| ## SLC30A9      | -0.17898285 | 8.628508  | -2.0890679 | 4.033006e-02 | 1.270549e-01 |
| ## UQCC3        | 0.22766952  | 7.063816  | 2.0888417  | 4.035107e-02 | 1.270879e-01 |
| ## CSGALNACT2   | -0.32731123 | 8.280620  | -2.0888237 | 4.035274e-02 | 1.270879e-01 |
| ## C21orf62     | -0.09912194 | 4.048681  | -2.0884313 | 4.038922e-02 | 1.271836e-01 |
| ## GNG3         | -0.13871746 | 4.775186  | -2.0880033 | 4.042904e-02 | 1.272897e-01 |
| ## TMEM248      | 0.18210218  | 9.746516  | 2.0876360  | 4.046324e-02 | 1.273781e-01 |
| ## IREB2        | 0.15088479  | 3.748470  | 2.0872960  | 4.049492e-02 | 1.274586e-01 |
| ## ARHGAP22-IT1 | -0.06766748 | 3.428501  | -2.0866051 | 4.055936e-02 | 1.276137e-01 |
| ## TBX4         | 0.09265135  | 4.516412  | 2.0866010  | 4.055974e-02 | 1.276137e-01 |
| ## RNF19A       | 0.24445326  | 6.483407  | 2.0865705  | 4.056259e-02 | 1.276137e-01 |
| ## UNC13D       | 0.15774905  | 6.328032  | 2.0864026  | 4.057826e-02 | 1.276438e-01 |
| ## KMT2C        | 0.15919869  | 4.091632  | 2.0861831  | 4.059877e-02 | 1.276890e-01 |
| ## PAWR         | 0.20651737  | 6.719582  | 2.0860362  | 4.061249e-02 | 1.277129e-01 |
| ## ZNF582       | -0.09754960 | 4.914553  | -2.0857274 | 4.064135e-02 | 1.277843e-01 |
| ## DISP2        | -0.09072724 | 4.101428  | -2.0850124 | 4.070825e-02 | 1.279669e-01 |
| ## NCOA7        | 0.06838818  | 3.416591  | 2.0849754  | 4.071172e-02 | 1.279669e-01 |
| ## FAM161B      | -0.13942095 | 3.944142  | -2.0848264 | 4.072567e-02 | 1.279915e-01 |
| ## TUBA3FP      | -0.09624111 | 5.316731  | -2.0847212 | 4.073553e-02 | 1.280031e-01 |
| ## GRB14        | 0.43635074  | 4.722770  | 2.0845637  | 4.075029e-02 | 1.280302e-01 |
| ## TFEC         | 0.48999646  | 5.251919  | 2.0844325  | 4.076258e-02 | 1.280495e-01 |
| ## KDM2B        | 0.17894311  | 7.740970  | 2.0834902  | 4.085100e-02 | 1.283079e-01 |
| ## ZSWIM7       | -0.24508870 | 6.195183  | -2.0829602 | 4.090080e-02 | 1.284449e-01 |
| ## POF1B        | 0.19312247  | 3.592165  | 2.0827583  | 4.091979e-02 | 1.284852e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ALOX5        | 0.25018285  | 5.826177  | 2.0825359  | 4.094071e-02 | 1.285254e-01 |
| ## CD69         | -0.45623494 | 6.343864  | -2.0824432 | 4.094943e-02 | 1.285254e-01 |
| ## ZBTB3        | -0.14758969 | 6.046859  | -2.0824254 | 4.095111e-02 | 1.285254e-01 |
| ## PARD3        | 0.22087695  | 8.077037  | 2.0823256  | 4.096050e-02 | 1.285355e-01 |
| ## RABGGTA      | 0.16445413  | 6.827892  | 2.0821426  | 4.097773e-02 | 1.285654e-01 |
| ## SKIC3        | 0.31773483  | 4.531260  | 2.0820934  | 4.098237e-02 | 1.285654e-01 |
| ## ANXA4        | 0.32361650  | 11.288555 | 2.0818159  | 4.100851e-02 | 1.286280e-01 |
| ## SH2D5        | 0.10717528  | 4.490601  | 2.0817301  | 4.101659e-02 | 1.286340e-01 |
| ## ZNF608       | -0.32434456 | 6.577288  | -2.0816472 | 4.102440e-02 | 1.286391e-01 |
| ## COPS7B       | 0.16010882  | 7.006702  | 2.0814717  | 4.104096e-02 | 1.286716e-01 |
| ## CD2AP        | 0.27211772  | 9.233447  | 2.0812430  | 4.106252e-02 | 1.287198e-01 |
| ## NIPSNAP3B    | -0.15547964 | 3.646864  | -2.0807069 | 4.111312e-02 | 1.288591e-01 |
| ## CEMIP2       | 0.26594099  | 8.498757  | 2.0805019  | 4.113249e-02 | 1.289004e-01 |
| ## RSBN1        | -0.19825952 | 7.787329  | -2.0798804 | 4.119124e-02 | 1.290651e-01 |
| ## TIFA         | 0.31908570  | 7.290335  | 2.0792903  | 4.124710e-02 | 1.292206e-01 |
| ## USP3         | 0.20286185  | 8.940872  | 2.0792219  | 4.125357e-02 | 1.292215e-01 |
| ## ADAM17       | 0.14252164  | 7.420263  | 2.0788936  | 4.128468e-02 | 1.292995e-01 |
| ## MMP1         | 0.72757065  | 9.486513  | 2.0787090  | 4.130218e-02 | 1.293285e-01 |
| ## CHPF         | 0.15079097  | 7.261039  | 2.0786648  | 4.130637e-02 | 1.293285e-01 |
| ## RIMBP2       | -0.49280583 | 4.404769  | -2.0785339 | 4.131878e-02 | 1.293478e-01 |
| ## LOC105369957 | 0.20875283  | 5.190953  | 2.0784689  | 4.132495e-02 | 1.293478e-01 |
| ## MIR3142HG    | 0.46058651  | 5.373102  | 2.0782696  | 4.134386e-02 | 1.293771e-01 |
| ## PXMP4        | 0.20411679  | 6.858185  | 2.0782392  | 4.134675e-02 | 1.293771e-01 |
| ## SLC43A3      | 0.30609251  | 7.137916  | 2.0778855  | 4.138032e-02 | 1.294627e-01 |
| ## MITD1        | 0.20454429  | 8.081581  | 2.0777242  | 4.139565e-02 | 1.294912e-01 |
| ## MCUB         | 0.27021025  | 7.327615  | 2.0776346  | 4.140416e-02 | 1.294984e-01 |
| ## TWF1         | 0.18524158  | 9.418415  | 2.0774871  | 4.141817e-02 | 1.295228e-01 |
| ## ATPAF2       | 0.15128976  | 6.013409  | 2.0772971  | 4.143624e-02 | 1.295520e-01 |
| ## DOCK9-DT     | -0.11493779 | 4.997124  | -2.0772578 | 4.143997e-02 | 1.295520e-01 |
| ## ARHGEF40     | -0.24943904 | 7.359376  | -2.0769684 | 4.146749e-02 | 1.296186e-01 |
| ## HR           | -0.16921017 | 6.041038  | -2.0767907 | 4.148441e-02 | 1.296325e-01 |
| ## TMEM106C     | 0.25483064  | 9.312349  | 2.0766201  | 4.150065e-02 | 1.296325e-01 |
| ## TACC1        | -0.31760287 | 6.567755  | -2.0766085 | 4.150175e-02 | 1.296325e-01 |
| ## ZNF556       | 0.13578686  | 4.251790  | 2.0765572  | 4.150664e-02 | 1.296325e-01 |
| ## ZFTRAF1      | 0.17598026  | 6.024396  | 2.0765344  | 4.150880e-02 | 1.296325e-01 |
| ## WHAMMP2      | -0.13265625 | 5.534779  | -2.0765291 | 4.150931e-02 | 1.296325e-01 |
| ## LOC105374690 | -0.14452101 | 4.977085  | -2.0762628 | 4.153467e-02 | 1.296863e-01 |
| ## UICLM        | 0.14510094  | 4.323918  | 2.0762064  | 4.154005e-02 | 1.296863e-01 |
| ## DNM1P46      | 0.06624779  | 3.949829  | 2.0761190  | 4.154838e-02 | 1.296863e-01 |
| ## NVL          | 0.14687287  | 7.041654  | 2.0760869  | 4.155144e-02 | 1.296863e-01 |
| ## CEP63        | -0.15886290 | 7.651465  | -2.0758553 | 4.157352e-02 | 1.297358e-01 |
| ## LOC105374937 | 0.16275561  | 4.297178  | 2.0755183  | 4.160566e-02 | 1.298166e-01 |
| ## DTX4         | 0.22708089  | 9.020376  | 2.0752578  | 4.163053e-02 | 1.298748e-01 |
| ## CD164        | -0.13025476 | 11.573028 | -2.0746682 | 4.168685e-02 | 1.300310e-01 |
| ## SPINK7       | -0.17527302 | 3.950523  | -2.0745634 | 4.169686e-02 | 1.300427e-01 |
| ## OR1A2        | -0.07305404 | 3.446789  | -2.0744263 | 4.170997e-02 | 1.300642e-01 |
| ## LINC02499    | -0.09674047 | 3.848424  | -2.0739926 | 4.175146e-02 | 1.301740e-01 |
| ## TFCP2        | 0.22372394  | 6.962284  | 2.0730437  | 4.184236e-02 | 1.304379e-01 |
| ## NAALAD2      | -0.05111792 | 3.070843  | -2.0725718 | 4.188763e-02 | 1.305595e-01 |
| ## LINC02871    | -0.13056020 | 4.264915  | -2.0724062 | 4.190353e-02 | 1.305895e-01 |
| ## MUCL1        | 0.13844938  | 4.644908  | 2.0718595  | 4.195604e-02 | 1.307336e-01 |
| ## LINC01821    | -0.08438856 | 4.049636  | -2.0714712 | 4.199338e-02 | 1.308162e-01 |
| ## GZF1         | 0.20674466  | 7.351223  | 2.0714531  | 4.199511e-02 | 1.308162e-01 |
| ## TMEM86A      | 0.12455412  | 5.846619  | 2.0704595  | 4.209078e-02 | 1.310946e-01 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## GLIPR1     | -0.42148343 | 5.456685  | -2.0693981 | 4.219319e-02 | 1.313939e-01 |
| ## FUOM       | 0.29579552  | 6.795317  | 2.0692842  | 4.220419e-02 | 1.314085e-01 |
| ## ZMYND11    | 0.09765918  | 3.765141  | 2.0691568  | 4.221650e-02 | 1.314272e-01 |
| ## TSLP       | -0.28770702 | 3.750110  | -2.0683217 | 4.229725e-02 | 1.316589e-01 |
| ## BCOR       | 0.20199294  | 6.294724  | 2.0677005  | 4.235742e-02 | 1.318265e-01 |
| ## MATCAP1    | -0.13926751 | 6.384702  | -2.0675957 | 4.236757e-02 | 1.318323e-01 |
| ## AXDND1     | -0.65950210 | 5.058954  | -2.0675505 | 4.237195e-02 | 1.318323e-01 |
| ## GTDC1      | -0.17786450 | 6.966310  | -2.0668550 | 4.243942e-02 | 1.320225e-01 |
| ## ZBTB80S    | 0.15089820  | 8.399926  | 2.0667338  | 4.245118e-02 | 1.320393e-01 |
| ## JRKL       | -0.09499412 | 5.239655  | -2.0664798 | 4.247585e-02 | 1.320826e-01 |
| ## FMO6P      | -0.11330841 | 3.753369  | -2.0664600 | 4.247778e-02 | 1.320826e-01 |
| ## MEP1B      | -0.58083763 | 4.192065  | -2.0661293 | 4.250991e-02 | 1.321559e-01 |
| ## GHRH       | -0.23852390 | 4.218043  | -2.0660867 | 4.251405e-02 | 1.321559e-01 |
| ## RNF170     | -0.09346553 | 4.568313  | -2.0659550 | 4.252686e-02 | 1.321697e-01 |
| ## LINC01000  | 0.21884352  | 8.174790  | 2.0659105  | 4.253119e-02 | 1.321697e-01 |
| ## TBL1XR1    | 0.25926652  | 8.099123  | 2.0652249  | 4.259790e-02 | 1.323573e-01 |
| ## ATG2B      | 0.14089927  | 4.632716  | 2.0650048  | 4.261934e-02 | 1.324042e-01 |
| ## STRN       | 0.13147972  | 4.050918  | 2.0649299  | 4.262664e-02 | 1.324071e-01 |
| ## SDK1       | -0.22938866 | 4.668307  | -2.0648631 | 4.263314e-02 | 1.324075e-01 |
| ## CDK5R1     | 0.19667670  | 3.598618  | 2.0643343  | 4.268470e-02 | 1.325479e-01 |
| ## RC3H1      | 0.15059334  | 4.846031  | 2.0641679  | 4.270094e-02 | 1.325786e-01 |
| ## FAM187B    | -0.10729750 | 3.888155  | -2.0640669 | 4.271080e-02 | 1.325833e-01 |
| ## SLC16A1    | 0.39448467  | 6.558797  | 2.0640218  | 4.271520e-02 | 1.325833e-01 |
| ## MYH7       | 0.09237263  | 4.166832  | 2.0633534  | 4.278049e-02 | 1.327662e-01 |
| ## SLC25A3P1  | -0.07481148 | 3.671233  | -2.0630842 | 4.280681e-02 | 1.328214e-01 |
| ## TMEF213    | -0.07993573 | 3.777063  | -2.0630408 | 4.281105e-02 | 1.328214e-01 |
| ## GOLT1A     | 0.41290168  | 6.178364  | 2.0629277  | 4.282212e-02 | 1.328359e-01 |
| ## PPP1R12A   | -0.31990365 | 8.224150  | -2.0628609 | 4.282865e-02 | 1.328364e-01 |
| ## ACTN1      | -0.31128819 | 10.747872 | -2.0624717 | 4.286674e-02 | 1.329170e-01 |
| ## EDNRB      | -0.31527235 | 7.481546  | -2.0624650 | 4.286740e-02 | 1.329170e-01 |
| ## CAVIN4     | 0.08868329  | 3.530400  | 2.0623807  | 4.287565e-02 | 1.329228e-01 |
| ## ZNF436-AS1 | -0.13596463 | 5.578482  | -2.0614439 | 4.296748e-02 | 1.331704e-01 |
| ## AA06       | -0.11611685 | 4.915340  | -2.0614355 | 4.296830e-02 | 1.331704e-01 |
| ## BTBD9      | 0.09194100  | 4.116933  | 2.0613438  | 4.297730e-02 | 1.331785e-01 |
| ## FOXJ1      | 0.20026322  | 5.339332  | 2.0608384  | 4.302691e-02 | 1.333124e-01 |
| ## DCBLD2     | 0.30887504  | 4.411777  | 2.0607547  | 4.303513e-02 | 1.333180e-01 |
| ## CFC1       | -0.08793890 | 4.228330  | -2.0602845 | 4.308136e-02 | 1.334413e-01 |
| ## CCR8       | 0.10600987  | 4.136777  | 2.0601142  | 4.309810e-02 | 1.334734e-01 |
| ## LOC374443  | 0.16520427  | 3.868446  | 2.0600118  | 4.310817e-02 | 1.334847e-01 |
| ## SLC46A3    | -0.41093694 | 7.518778  | -2.0596704 | 4.314178e-02 | 1.335676e-01 |
| ## COL25A1    | -0.06434279 | 3.331984  | -2.0596095 | 4.314778e-02 | 1.335676e-01 |
| ## NOP10      | 0.15884963  | 10.899924 | 2.0592163  | 4.318650e-02 | 1.336676e-01 |
| ## HDAC9      | -0.10811060 | 3.522819  | -2.0591357 | 4.319444e-02 | 1.336723e-01 |
| ## TRAF4      | 0.30205107  | 7.091454  | 2.0586918  | 4.323821e-02 | 1.337879e-01 |
| ## DCTN1-AS1  | -0.09352678 | 3.740193  | -2.0585854 | 4.324871e-02 | 1.338005e-01 |
| ## MEI1       | -0.20801736 | 6.408768  | -2.0585073 | 4.325641e-02 | 1.338044e-01 |
| ## ATP10A     | -0.14664805 | 5.823248  | -2.0583489 | 4.327205e-02 | 1.338329e-01 |
| ## ARHGAP21   | -0.21619149 | 9.357115  | -2.0581444 | 4.329224e-02 | 1.338755e-01 |
| ## ZMIZ2      | 0.18317171  | 6.680703  | 2.0580520  | 4.330137e-02 | 1.338838e-01 |
| ## H4C1       | 0.05839299  | 3.723987  | 2.0578826  | 4.331810e-02 | 1.339081e-01 |
| ## METTL3     | 0.15341928  | 8.710107  | 2.0578128  | 4.332500e-02 | 1.339081e-01 |
| ## NEK9       | -0.20294484 | 8.325060  | -2.0577774 | 4.332850e-02 | 1.339081e-01 |
| ## HOXB-AS3   | -0.17184922 | 4.805355  | -2.0573604 | 4.336972e-02 | 1.340151e-01 |
| ## SULF2      | 0.40272332  | 8.936962  | 2.0572969  | 4.337600e-02 | 1.340151e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## C2orf92      | -0.10955388 | 4.679124  | -2.0565331 | 4.345160e-02 | 1.342288e-01 |
| ## PHF14        | 0.14997274  | 3.524211  | 2.0561677  | 4.348782e-02 | 1.343207e-01 |
| ## IL22RA1      | 0.34781121  | 6.057077  | 2.0560283  | 4.350164e-02 | 1.343343e-01 |
| ## LOC105377320 | -0.19391787 | 6.041018  | -2.0559932 | 4.350512e-02 | 1.343343e-01 |
| ## BLK          | -0.25280712 | 4.847896  | -2.0558362 | 4.352070e-02 | 1.343625e-01 |
| ## DNAH7        | -0.13558506 | 4.466270  | -2.0556731 | 4.353687e-02 | 1.343925e-01 |
| ## RTL8A        | -0.30102734 | 6.635481  | -2.0555367 | 4.355041e-02 | 1.344144e-01 |
| ## IGFL2        | 0.22317084  | 4.867302  | 2.0553671  | 4.356725e-02 | 1.344464e-01 |
| ## CYB5R2       | 0.34317325  | 6.496370  | 2.0549995  | 4.360376e-02 | 1.345391e-01 |
| ## PGM2L1       | 0.12377053  | 5.214809  | 2.0546595  | 4.363756e-02 | 1.346235e-01 |
| ## RNF43        | 0.41716856  | 7.041619  | 2.0543110  | 4.367222e-02 | 1.347105e-01 |
| ## DLK1         | -0.24202530 | 3.903476  | -2.0535270 | 4.375028e-02 | 1.349294e-01 |
| ## MTOR         | 0.14431104  | 6.006916  | 2.0534680  | 4.375617e-02 | 1.349294e-01 |
| ## USP20        | -0.19230295 | 6.299181  | -2.0530665 | 4.379620e-02 | 1.350329e-01 |
| ## PPP1R10      | 0.25241167  | 6.820431  | 2.0529398  | 4.380883e-02 | 1.350518e-01 |
| ## C9orf152     | -0.60048012 | 7.254260  | -2.0520410 | 4.389858e-02 | 1.353085e-01 |
| ## TTC9         | 0.34316979  | 4.044106  | 2.0516565  | 4.393702e-02 | 1.354069e-01 |
| ## ALDH4A1      | 0.24276658  | 6.040673  | 2.0515040  | 4.395228e-02 | 1.354339e-01 |
| ## DRAIC        | -0.25132891 | 4.288692  | -2.0512803 | 4.397467e-02 | 1.354828e-01 |
| ## CYRIB        | 0.20503844  | 5.593971  | 2.0512071  | 4.398199e-02 | 1.354853e-01 |
| ## PTPA         | 0.13986838  | 7.816421  | 2.0509398  | 4.400875e-02 | 1.355477e-01 |
| ## SENCN        | -0.10786238 | 5.409910  | -2.0506268 | 4.404012e-02 | 1.356243e-01 |
| ## RAMP3        | -0.22761727 | 7.126616  | -2.0502740 | 4.407548e-02 | 1.357050e-01 |
| ## PRKRA        | 0.15585470  | 8.632376  | 2.0501886  | 4.408404e-02 | 1.357050e-01 |
| ## LOC105369477 | -0.12885652 | 4.068866  | -2.0501703 | 4.408588e-02 | 1.357050e-01 |
| ## CD2BP2       | 0.10677961  | 7.304339  | 2.0499897  | 4.410401e-02 | 1.357354e-01 |
| ## FUT8         | 0.33999193  | 7.118312  | 2.0499420  | 4.410879e-02 | 1.357354e-01 |
| ## GTF2H1       | 0.17376356  | 8.513566  | 2.0494631  | 4.415687e-02 | 1.358633e-01 |
| ## LHFPL2       | -0.25705833 | 8.471689  | -2.0492852 | 4.417475e-02 | 1.358982e-01 |
| ## HVCN1        | -0.17180907 | 7.036757  | -2.0489061 | 4.421285e-02 | 1.359953e-01 |
| ## CPSF1        | 0.11240444  | 4.423232  | 2.0483094  | 4.427289e-02 | 1.361599e-01 |
| ## INKA2-AS1    | -0.07753813 | 4.485441  | -2.0481786 | 4.428606e-02 | 1.361803e-01 |
| ## NSMCE4A      | 0.14719635  | 8.484190  | 2.0480495  | 4.429906e-02 | 1.361833e-01 |
| ## L3MBTL4      | -0.08148149 | 3.757397  | -2.0479828 | 4.430578e-02 | 1.361833e-01 |
| ## C16orf82     | -0.09519135 | 4.378937  | -2.0479740 | 4.430667e-02 | 1.361833e-01 |
| ## NPY          | -0.58721931 | 4.945186  | -2.0478581 | 4.431834e-02 | 1.361991e-01 |
| ## CABYR        | 0.19098306  | 3.997263  | 2.0477386  | 4.433039e-02 | 1.362160e-01 |
| ## IMMT         | 0.13557428  | 9.519880  | 2.0473300  | 4.437159e-02 | 1.363225e-01 |
| ## MBNL1        | 0.37780934  | 5.882338  | 2.0468521  | 4.441982e-02 | 1.364505e-01 |
| ## KIF25-AS1    | 0.10238882  | 4.066941  | 2.0465027  | 4.445510e-02 | 1.365289e-01 |
| ## TRAPPC10     | 0.20919135  | 5.788595  | 2.0464696  | 4.445845e-02 | 1.365289e-01 |
| ## SYBU         | -0.51309813 | 7.252137  | -2.0463063 | 4.447495e-02 | 1.365595e-01 |
| ## TRAF3IP3     | -0.25195909 | 6.494698  | -2.0459353 | 4.451246e-02 | 1.366545e-01 |
| ## LMAN2        | 0.15212397  | 8.830996  | 2.0455514  | 4.455131e-02 | 1.367536e-01 |
| ## MAX          | 0.26197385  | 6.865083  | 2.0448509  | 4.462226e-02 | 1.369512e-01 |
| ## OR51I2       | -0.06432334 | 4.291701  | -2.0441355 | 4.469482e-02 | 1.371339e-01 |
| ## LOC101927069 | -0.08044042 | 3.399627  | -2.0441342 | 4.469496e-02 | 1.371339e-01 |
| ## KIAA1191     | -0.16826205 | 9.449784  | -2.0439781 | 4.471080e-02 | 1.371623e-01 |
| ## GIMAP1       | -0.21269356 | 5.913475  | -2.0436676 | 4.474233e-02 | 1.372388e-01 |
| ## ECHS1        | 0.18918952  | 10.178963 | 2.0433389  | 4.477574e-02 | 1.373211e-01 |
| ## HOXA1        | 0.31914735  | 5.113799  | 2.0432626  | 4.478350e-02 | 1.373246e-01 |
| ## SSC4D        | 0.17405165  | 5.789023  | 2.0427596  | 4.483467e-02 | 1.374586e-01 |
| ## ATP2B1-AS1   | -0.23486102 | 6.618663  | -2.0425954 | 4.485138e-02 | 1.374586e-01 |
| ## MPDU1        | -0.09261687 | 4.346193  | -2.0425630 | 4.485468e-02 | 1.374586e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## GPR89B       | 0.11034282  | 4.106638  | 2.0425237  | 4.485868e-02 | 1.374586e-01 |
| ## MFN1         | 0.21011570  | 7.964893  | 2.0425088  | 4.486020e-02 | 1.374586e-01 |
| ## DGKZ         | 0.25289906  | 7.860894  | 2.0420728  | 4.490461e-02 | 1.375550e-01 |
| ## OTP          | -0.06393182 | 3.394138  | -2.0419919 | 4.491285e-02 | 1.375550e-01 |
| ## C18orf21     | 0.06674108  | 3.354220  | 2.0419411  | 4.491803e-02 | 1.375550e-01 |
| ## PHB2         | 0.18303910  | 10.991702 | 2.0419408  | 4.491806e-02 | 1.375550e-01 |
| ## FAM111A      | 0.18474765  | 8.812977  | 2.0418431  | 4.492803e-02 | 1.375653e-01 |
| ## BOLL         | -0.08720686 | 3.776372  | -2.0417576 | 4.493675e-02 | 1.375717e-01 |
| ## FOXO4        | -0.12084637 | 6.079584  | -2.0415192 | 4.496106e-02 | 1.376259e-01 |
| ## PTPRE        | 0.16143922  | 3.864273  | 2.0413440  | 4.497894e-02 | 1.376445e-01 |
| ## TSSC4        | 0.16854463  | 6.372869  | 2.0413302  | 4.498035e-02 | 1.376445e-01 |
| ## ADAM15       | 0.14400853  | 7.940344  | 2.0412550  | 4.498802e-02 | 1.376477e-01 |
| ## TLE5         | -0.18481900 | 8.512196  | -2.0411538 | 4.499836e-02 | 1.376591e-01 |
| ## FBXO7        | 0.15885350  | 9.261650  | 2.0410351  | 4.501047e-02 | 1.376701e-01 |
| ## BARHL1       | -0.10104045 | 5.966706  | -2.0409891 | 4.501517e-02 | 1.376701e-01 |
| ## ITGA2B       | 0.10924148  | 5.314554  | 2.0406818  | 4.504657e-02 | 1.377459e-01 |
| ## WDFY1        | 0.20571634  | 8.934408  | 2.0405652  | 4.505848e-02 | 1.377619e-01 |
| ## LETMD1       | -0.17439913 | 8.742529  | -2.0404397 | 4.507131e-02 | 1.377619e-01 |
| ## ZBTB11       | 0.16829124  | 7.943237  | 2.0404193  | 4.507339e-02 | 1.377619e-01 |
| ## ACOT8        | 0.17234679  | 7.336062  | 2.0403582  | 4.507965e-02 | 1.377619e-01 |
| ## SLPI         | 0.64437746  | 9.655242  | 2.0403072  | 4.508486e-02 | 1.377619e-01 |
| ## RAD9A        | 0.16789978  | 6.977493  | 2.0400131  | 4.511494e-02 | 1.378336e-01 |
| ## EVI2A        | -0.38282395 | 7.564662  | -2.0397107 | 4.514590e-02 | 1.379079e-01 |
| ## CCDC116      | -0.14736147 | 4.810036  | -2.0392729 | 4.519074e-02 | 1.380246e-01 |
| ## PIBF1        | 0.27245134  | 6.682625  | 2.0387743  | 4.524186e-02 | 1.381561e-01 |
| ## KLK7         | 0.57637962  | 5.236963  | 2.0387235  | 4.524706e-02 | 1.381561e-01 |
| ## ICAM2        | -0.25676796 | 7.110195  | -2.0386140 | 4.525830e-02 | 1.381702e-01 |
| ## LURAP1       | -0.10577903 | 5.202917  | -2.0384949 | 4.527052e-02 | 1.381872e-01 |
| ## NIPAL4-DT    | -0.08332274 | 5.569035  | -2.0380843 | 4.531268e-02 | 1.382921e-01 |
| ## SLC4A4       | -0.24603116 | 4.171452  | -2.0380310 | 4.531816e-02 | 1.382921e-01 |
| ## CYTH1        | 0.17484423  | 6.393015  | 2.0378793  | 4.533373e-02 | 1.383194e-01 |
| ## LINC01913    | -0.19582972 | 4.203715  | -2.0375652 | 4.536602e-02 | 1.383976e-01 |
| ## SEL1L2       | -0.12763313 | 3.825793  | -2.0372748 | 4.539589e-02 | 1.384684e-01 |
| ## GHITM        | 0.20141899  | 9.098717  | 2.0368831  | 4.543619e-02 | 1.385711e-01 |
| ## EML4         | 0.24814731  | 5.601359  | 2.0365706  | 4.546838e-02 | 1.386489e-01 |
| ## RSPH9        | -0.10446999 | 3.952945  | -2.0364250 | 4.548338e-02 | 1.386744e-01 |
| ## ATF5         | 0.26428364  | 7.450790  | 2.0361886  | 4.550774e-02 | 1.387283e-01 |
| ## LOC652276    | -0.11239033 | 5.881755  | -2.0361040 | 4.551647e-02 | 1.387346e-01 |
| ## LOC102724859 | -0.09065232 | 3.962249  | -2.0359800 | 4.552926e-02 | 1.387533e-01 |
| ## BTK          | -0.24293293 | 5.996787  | -2.0358123 | 4.554655e-02 | 1.387857e-01 |
| ## SLIT2-IT1    | -0.06350442 | 3.364043  | -2.0356208 | 4.556631e-02 | 1.388256e-01 |
| ## TPGS2        | 0.25450071  | 8.001375  | 2.0351811  | 4.561171e-02 | 1.389436e-01 |
| ## COPS3        | 0.13467086  | 8.428951  | 2.0349896  | 4.563150e-02 | 1.389690e-01 |
| ## SLC2A6       | 0.26692526  | 5.966100  | 2.0349391  | 4.563671e-02 | 1.389690e-01 |
| ## OTUD7A       | -0.06824574 | 4.113416  | -2.0349067 | 4.564006e-02 | 1.389690e-01 |
| ## TRMT61A      | 0.10795848  | 5.832511  | 2.0338554  | 4.574882e-02 | 1.392797e-01 |
| ## NFIL3        | 0.27145827  | 8.117077  | 2.0331838  | 4.581842e-02 | 1.394712e-01 |
| ## SNAPC2       | 0.12076851  | 6.461819  | 2.0330545  | 4.583183e-02 | 1.394727e-01 |
| ## LOC105369595 | -0.09406463 | 4.015692  | -2.0330499 | 4.583230e-02 | 1.394727e-01 |
| ## AHCYL1       | -0.23057028 | 9.176657  | -2.0329406 | 4.584364e-02 | 1.394869e-01 |
| ## MAPK6        | 0.18336312  | 9.876135  | 2.0327137  | 4.586719e-02 | 1.395078e-01 |
| ## PPIC         | -0.26450600 | 10.082212 | -2.0327006 | 4.586854e-02 | 1.395078e-01 |
| ## ZNF208       | -0.06510830 | 3.249773  | -2.0326805 | 4.587063e-02 | 1.395078e-01 |
| ## ORC3         | 0.17331517  | 7.268872  | 2.0325127  | 4.588805e-02 | 1.395404e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## GATA6        | -0.51388257 | 9.138570 | -2.0324125 | 4.589846e-02 | 1.395517e-01 |
| ## CTNNA1       | 0.48217577  | 6.912451 | 2.0321704  | 4.592361e-02 | 1.396078e-01 |
| ## CEP20        | 0.16153520  | 8.874767 | 2.0319786  | 4.594354e-02 | 1.396480e-01 |
| ## KLRA1P       | 0.09676847  | 3.770551 | 2.0318809  | 4.595369e-02 | 1.396584e-01 |
| ## P3H1         | 0.20473424  | 7.505417 | 2.0315237  | 4.599084e-02 | 1.397510e-01 |
| ## ZNF768       | 0.16813412  | 6.282093 | 2.0307928  | 4.606693e-02 | 1.399534e-01 |
| ## TMEM184B     | 0.14133294  | 7.841146 | 2.0306820  | 4.607848e-02 | 1.399534e-01 |
| ## FLI1         | -0.35825488 | 6.560186 | -2.0306414 | 4.608271e-02 | 1.399534e-01 |
| ## DVL1         | 0.21052133  | 7.884322 | 2.0306258  | 4.608434e-02 | 1.399534e-01 |
| ## TNP2         | -0.14106065 | 3.938615 | -2.0298867 | 4.616142e-02 | 1.401670e-01 |
| ## FAM239A      | 0.09499270  | 4.138661 | 2.0292237  | 4.623065e-02 | 1.403477e-01 |
| ## IRF1-AS1     | -0.22523066 | 6.847557 | -2.0291879 | 4.623439e-02 | 1.403477e-01 |
| ## PCDHB16      | -0.40857984 | 4.758136 | -2.0290913 | 4.624449e-02 | 1.403579e-01 |
| ## ZFP36L2      | 0.39214490  | 7.341651 | 2.0284742  | 4.630902e-02 | 1.405139e-01 |
| ## CRTC1        | -0.13388774 | 6.569088 | -2.0284134 | 4.631539e-02 | 1.405139e-01 |
| ## SETD7        | -0.26901804 | 9.126630 | -2.0284062 | 4.631614e-02 | 1.405139e-01 |
| ## FLVCR1       | 0.38436051  | 6.473509 | 2.0283321  | 4.632390e-02 | 1.405169e-01 |
| ## MAN1B1-DT    | -0.10168038 | 6.576522 | -2.0279262 | 4.636641e-02 | 1.406254e-01 |
| ## DGKA         | -0.24509348 | 7.404392 | -2.0277247 | 4.638752e-02 | 1.406690e-01 |
| ## SLC36A1      | -0.11167403 | 4.889895 | -2.0272057 | 4.644194e-02 | 1.408027e-01 |
| ## MAEA         | 0.14604880  | 9.136073 | 2.0271751  | 4.644515e-02 | 1.408027e-01 |
| ## LDHAL6A      | 0.09463183  | 4.119098 | 2.0270107  | 4.646240e-02 | 1.408345e-01 |
| ## ANGPTL3      | -0.21279265 | 3.612637 | -2.0264715 | 4.651901e-02 | 1.409856e-01 |
| ## TTLL1        | -0.15113098 | 6.111377 | -2.0259021 | 4.657887e-02 | 1.411464e-01 |
| ## IRF9         | 0.21778559  | 9.375054 | 2.0256692  | 4.660337e-02 | 1.412001e-01 |
| ## OR8D1        | 0.05245388  | 3.997277 | 2.0253909  | 4.663267e-02 | 1.412467e-01 |
| ## VMO1         | 0.41724956  | 5.064587 | 2.0253337  | 4.663868e-02 | 1.412467e-01 |
| ## ZNF746       | 0.07429238  | 3.694291 | 2.0253299  | 4.663909e-02 | 1.412467e-01 |
| ## TNNI3        | 0.22884052  | 4.520103 | 2.0250585  | 4.666767e-02 | 1.413127e-01 |
| ## CLN3         | 0.21497841  | 8.152963 | 2.0246281  | 4.671302e-02 | 1.414295e-01 |
| ## CLIC6        | -0.85025762 | 8.244364 | -2.0244447 | 4.673236e-02 | 1.414675e-01 |
| ## TBC1D15      | 0.18828886  | 8.158606 | 2.0240834  | 4.677049e-02 | 1.415605e-01 |
| ## FCGR3B       | 0.47575555  | 7.175784 | 2.0240143  | 4.677778e-02 | 1.415605e-01 |
| ## HSBP1        | -0.15493693 | 9.218171 | -2.0239603 | 4.678348e-02 | 1.415605e-01 |
| ## BALR6        | 0.05487649  | 3.270121 | 2.0236972  | 4.681127e-02 | 1.416086e-01 |
| ## URM1         | 0.12130075  | 7.822622 | 2.0236808  | 4.681299e-02 | 1.416086e-01 |
| ## GALNS        | 0.18647388  | 7.292083 | 2.0235952  | 4.682204e-02 | 1.416154e-01 |
| ## SEC14L1      | 0.26381142  | 7.336855 | 2.0232030  | 4.686349e-02 | 1.417202e-01 |
| ## PDLIM2       | -0.26542689 | 7.313187 | -2.0231076 | 4.687357e-02 | 1.417301e-01 |
| ## S100A8       | 0.66157542  | 9.740582 | 2.0229396  | 4.689135e-02 | 1.417429e-01 |
| ## MED7         | -0.17436946 | 6.907450 | -2.0229131 | 4.689415e-02 | 1.417429e-01 |
| ## TRMT11       | 0.18520679  | 8.123255 | 2.0228745  | 4.689823e-02 | 1.417429e-01 |
| ## RFPL1S       | -0.06394847 | 3.338185 | -2.0227139 | 4.691523e-02 | 1.417737e-01 |
| ## GPATCH2L     | 0.12936647  | 4.368702 | 2.0214731  | 4.704669e-02 | 1.421504e-01 |
| ## ACSS1        | -0.24873532 | 8.138252 | -2.0210753 | 4.708890e-02 | 1.422522e-01 |
| ## MPRIP-AS1    | 0.23923262  | 5.943027 | 2.0210267  | 4.709406e-02 | 1.422522e-01 |
| ## TAS2R39      | -0.07959985 | 3.719904 | -2.0208417 | 4.711371e-02 | 1.422909e-01 |
| ## SUSD5        | -0.14167595 | 3.542975 | -2.0207289 | 4.712569e-02 | 1.423065e-01 |
| ## KPNA4        | -0.07042712 | 3.338277 | -2.0201171 | 4.719073e-02 | 1.424822e-01 |
| ## LOC101927531 | -0.09387361 | 3.687538 | -2.0200514 | 4.719772e-02 | 1.424826e-01 |
| ## ANGPT1       | 0.04719596  | 3.224910 | 2.0199855  | 4.720473e-02 | 1.424831e-01 |
| ## HSPH1        | 0.24173470  | 9.785131 | 2.0197500  | 4.722979e-02 | 1.425381e-01 |
| ## NLGN4Y       | 0.05830246  | 3.455800 | 2.0195612  | 4.724989e-02 | 1.425725e-01 |
| ## ERP44        | -0.15573665 | 6.321765 | -2.0195142 | 4.725489e-02 | 1.425725e-01 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## SPECC1       | 0.10367382  | 5.239480  | 2.0187254  | 4.733895e-02 | 1.428055e-01 |
| ## FOXI1        | -0.14209637 | 3.968525  | -2.0185322 | 4.735955e-02 | 1.428191e-01 |
| ## KIF17        | -0.09746930 | 5.095164  | -2.0185150 | 4.736139e-02 | 1.428191e-01 |
| ## C11orf86     | -0.24294587 | 6.306437  | -2.0184830 | 4.736481e-02 | 1.428191e-01 |
| ## MAGEA8       | 0.29557284  | 3.912786  | 2.0184258  | 4.737090e-02 | 1.428191e-01 |
| ## SDHAF4       | 0.19582860  | 5.584414  | 2.0182237  | 4.739248e-02 | 1.428635e-01 |
| ## RETREG2      | 0.15356734  | 8.079370  | 2.0181486  | 4.740049e-02 | 1.428670e-01 |
| ## FAM24B       | 0.20240397  | 6.003568  | 2.0179153  | 4.742541e-02 | 1.429214e-01 |
| ## KANSL1L      | 0.09493925  | 4.267062  | 2.0177518  | 4.744288e-02 | 1.429533e-01 |
| ## LOC158434    | -0.05587075 | 3.209677  | -2.0175440 | 4.746508e-02 | 1.429995e-01 |
| ## LINC02703    | -0.12376254 | 5.530717  | -2.0174555 | 4.747454e-02 | 1.430074e-01 |
| ## ASB3         | -0.09725887 | 4.147594  | -2.0173594 | 4.748482e-02 | 1.430176e-01 |
| ## LMBRD2       | -0.20628671 | 8.698142  | -2.0172594 | 4.749552e-02 | 1.430292e-01 |
| ## CLDN19       | -0.08737720 | 5.091827  | -2.0170165 | 4.752149e-02 | 1.430830e-01 |
| ## CD58         | 0.23731693  | 8.564133  | 2.0169639  | 4.752713e-02 | 1.430830e-01 |
| ## ARFGEF1      | 0.21827669  | 7.918587  | 2.0168388  | 4.754052e-02 | 1.431014e-01 |
| ## NDST3        | -0.11243289 | 3.555571  | -2.0167781 | 4.754701e-02 | 1.431014e-01 |
| ## XCL1         | 0.06484337  | 3.611838  | 2.0166187  | 4.756408e-02 | 1.431321e-01 |
| ## ULK2         | -0.14024018 | 4.373001  | -2.0158344 | 4.764812e-02 | 1.433643e-01 |
| ## PACSIN3      | 0.19356728  | 5.354276  | 2.0153652  | 4.769847e-02 | 1.434819e-01 |
| ## SLC3A1       | -0.88491490 | 6.442350  | -2.0153419 | 4.770097e-02 | 1.434819e-01 |
| ## F2RL1        | 0.48600355  | 6.679844  | 2.0152468  | 4.771118e-02 | 1.434918e-01 |
| ## FAM21EP      | 0.08737805  | 4.719814  | 2.0150479  | 4.773254e-02 | 1.435354e-01 |
| ## NTN1         | -0.15338564 | 3.912130  | -2.0148804 | 4.775053e-02 | 1.435687e-01 |
| ## MFSD3        | 0.20196851  | 5.448088  | 2.0147658  | 4.776285e-02 | 1.435715e-01 |
| ## ING4         | -0.12350010 | 7.063762  | -2.0147435 | 4.776524e-02 | 1.435715e-01 |
| ## LINC01558    | 0.17261401  | 3.683284  | 2.0139731  | 4.784810e-02 | 1.437998e-01 |
| ## TRIM16L      | 0.15482039  | 3.889311  | 2.0137592  | 4.787112e-02 | 1.438482e-01 |
| ## PRDX4        | 0.17769590  | 10.511384 | 2.0136652  | 4.788125e-02 | 1.438579e-01 |
| ## NDUFA9       | 0.20051681  | 9.777704  | 2.0135958  | 4.788873e-02 | 1.438596e-01 |
| ## C11orf80     | 0.24150766  | 5.791758  | 2.0135056  | 4.789844e-02 | 1.438673e-01 |
| ## MAN1B1       | 0.14086926  | 7.643471  | 2.0134439  | 4.790509e-02 | 1.438673e-01 |
| ## PPP2R5E      | 0.16549441  | 9.103863  | 2.0125991  | 4.799619e-02 | 1.441201e-01 |
| ## PROX1        | 0.42813002  | 4.615957  | 2.0125065  | 4.800617e-02 | 1.441293e-01 |
| ## GCNT7        | -0.13434793 | 3.592125  | -2.0121656 | 4.804298e-02 | 1.442190e-01 |
| ## SERINC5      | 0.23238332  | 9.835568  | 2.0117690  | 4.808584e-02 | 1.443268e-01 |
| ## RHBDD2       | 0.23247201  | 8.386846  | 2.0112155  | 4.814570e-02 | 1.444857e-01 |
| ## ZNF674-AS1   | 0.12961314  | 4.216544  | 2.0111394  | 4.815394e-02 | 1.444896e-01 |
| ## HIVEP3       | 0.08374588  | 6.382793  | 2.0110532  | 4.816326e-02 | 1.444967e-01 |
| ## LOC105377485 | -0.10157968 | 4.009653  | -2.0108324 | 4.818716e-02 | 1.445383e-01 |
| ## LOC100507634 | 0.05032657  | 3.122571  | 2.0107330  | 4.819793e-02 | 1.445383e-01 |
| ## FOXA3        | -0.52405928 | 7.569753  | -2.0106956 | 4.820198e-02 | 1.445383e-01 |
| ## WDR44        | -0.16657462 | 7.518318  | -2.0106689 | 4.820487e-02 | 1.445383e-01 |
| ## DDX51        | 0.21179748  | 5.253457  | 2.0105885  | 4.821358e-02 | 1.445436e-01 |
| ## YY1AP1       | 0.17600931  | 9.224021  | 2.0104616  | 4.822733e-02 | 1.445611e-01 |
| ## LOC105374768 | -0.11557401 | 3.455214  | -2.0104065 | 4.823330e-02 | 1.445611e-01 |
| ## HLA-DRB4     | 1.02950451  | 7.869574  | 2.0102649  | 4.824865e-02 | 1.445863e-01 |
| ## LOC101926915 | -0.09260067 | 4.476055  | -2.0101887 | 4.825691e-02 | 1.445902e-01 |
| ## ALLC         | -0.12448033 | 4.396351  | -2.0098273 | 4.829611e-02 | 1.446868e-01 |
| ## HDHD3        | 0.23990252  | 7.786378  | 2.0096867  | 4.831136e-02 | 1.447117e-01 |
| ## ZMAT3        | 0.28582483  | 4.855206  | 2.0095513  | 4.832606e-02 | 1.447349e-01 |
| ## ARGLU1       | -0.16415476 | 10.221307 | -2.0092953 | 4.835386e-02 | 1.447974e-01 |
| ## DAG1         | 0.20720343  | 9.193272  | 2.0092121  | 4.836289e-02 | 1.448036e-01 |
| ## CYCS         | 0.15934334  | 11.623003 | 2.0088245  | 4.840502e-02 | 1.449089e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## RRAD         | -0.26532183 | 4.827130  | -2.0087479 | 4.841334e-02 | 1.449130e-01 |
| ## CDC14B       | -0.30579790 | 7.708523  | -2.0083136 | 4.846058e-02 | 1.449904e-01 |
| ## TAC3         | -0.22395512 | 5.630226  | -2.0083119 | 4.846076e-02 | 1.449904e-01 |
| ## GRAMD1A      | 0.20095048  | 7.132049  | 2.0082916  | 4.846297e-02 | 1.449904e-01 |
| ## METTL2B      | 0.15134035  | 4.427854  | 2.0082539  | 4.846708e-02 | 1.449904e-01 |
| ## ANKRD42-DT   | 0.17347323  | 4.667131  | 2.0069253  | 4.861185e-02 | 1.454026e-01 |
| ## CLOCK        | -0.20459544 | 7.869606  | -2.0067253 | 4.863367e-02 | 1.454470e-01 |
| ## ALDH7A1      | -0.24933345 | 8.036147  | -2.0056344 | 4.875286e-02 | 1.457756e-01 |
| ## DNAH9        | -0.11274756 | 4.598684  | -2.0055917 | 4.875753e-02 | 1.457756e-01 |
| ## IL11RA       | -0.15494425 | 5.011883  | -2.0054896 | 4.876871e-02 | 1.457759e-01 |
| ## NDST2        | 0.12368322  | 4.157209  | 2.0054628  | 4.877163e-02 | 1.457759e-01 |
| ## SNX11        | 0.11783432  | 7.153639  | 2.0053308  | 4.878608e-02 | 1.457797e-01 |
| ## SLC35D3      | 0.66656136  | 4.023245  | 2.0053096  | 4.878840e-02 | 1.457797e-01 |
| ## RUNDC3A-AS1  | -0.05934614 | 3.433291  | -2.0052592 | 4.879391e-02 | 1.457797e-01 |
| ## BEAN1        | 0.26566605  | 3.827406  | 2.0050445  | 4.881742e-02 | 1.458290e-01 |
| ## ECHDC1       | 0.22461703  | 8.106189  | 2.0048959  | 4.883369e-02 | 1.458567e-01 |
| ## LOC101929279 | -0.12026964 | 4.271712  | -2.0047932 | 4.884495e-02 | 1.458694e-01 |
| ## NPHS1        | 0.08178667  | 4.620518  | 2.0042264  | 4.890707e-02 | 1.460340e-01 |
| ## FLYWCH1      | -0.14741706 | 6.678333  | -2.0041389 | 4.891667e-02 | 1.460417e-01 |
| ## C22orf15     | -0.11055605 | 4.191228  | -2.0037848 | 4.895552e-02 | 1.461367e-01 |
| ## SLC16A6      | 0.22973994  | 5.039039  | 2.0036129  | 4.897440e-02 | 1.461602e-01 |
| ## GTF2I-AS1    | 0.09957504  | 3.562796  | 2.0035854  | 4.897742e-02 | 1.461602e-01 |
| ## DDX5         | -0.10219936 | 12.199098 | -2.0034761 | 4.898941e-02 | 1.461750e-01 |
| ## MMP27        | -0.08543394 | 3.837034  | -2.0027415 | 4.907015e-02 | 1.463950e-01 |
| ## CASP12       | -0.08912544 | 3.944173  | -2.0024916 | 4.909764e-02 | 1.464386e-01 |
| ## LINC01694    | 0.32596028  | 3.551397  | 2.0024808  | 4.909884e-02 | 1.464386e-01 |
| ## HIGD1A       | -0.15781046 | 11.100374 | -2.0023061 | 4.911807e-02 | 1.464750e-01 |
| ## MTMR9        | -0.25153927 | 6.846618  | -2.0018298 | 4.917052e-02 | 1.466104e-01 |
| ## ZDHHC13      | 0.35607325  | 7.442755  | 2.0016612  | 4.918910e-02 | 1.466448e-01 |
| ## RAB33B       | -0.21720617 | 6.348567  | -2.0015623 | 4.920000e-02 | 1.466563e-01 |
| ## DDX55        | 0.17774892  | 6.317187  | 2.0013754  | 4.922060e-02 | 1.466967e-01 |
| ## DIRC3        | -0.07391313 | 5.231660  | -2.0011205 | 4.924872e-02 | 1.467595e-01 |
| ## DLEC1        | -0.14554227 | 5.476313  | -2.0009783 | 4.926441e-02 | 1.467660e-01 |
| ## LINC02150    | -0.08452947 | 3.643455  | -2.0009730 | 4.926499e-02 | 1.467660e-01 |
| ## VLDLR-AS1    | -0.10050587 | 4.278410  | -2.0007756 | 4.928678e-02 | 1.468099e-01 |
| ## ANKRD13B     | 0.10995667  | 5.585109  | 2.0006762  | 4.929776e-02 | 1.468216e-01 |
| ## CAMK2N1      | 0.38495749  | 9.630309  | 1.9999629  | 4.937658e-02 | 1.470350e-01 |
| ## YTHDF3-DT    | -0.09939490 | 5.642361  | -1.9998999 | 4.938355e-02 | 1.470350e-01 |
| ## LOC100506790 | -0.13424441 | 4.389988  | -1.9996019 | 4.941651e-02 | 1.471122e-01 |
| ## PCDH20       | -0.44024629 | 4.151425  | -1.9990992 | 4.947216e-02 | 1.472568e-01 |
| ## CSF3         | 0.18242812  | 6.040489  | 1.9987317  | 4.951288e-02 | 1.473569e-01 |
| ## NPHP4        | 0.20913070  | 5.494686  | 1.9985782  | 4.952989e-02 | 1.473865e-01 |
| ## FAM53B       | -0.06683152 | 3.430944  | -1.9981104 | 4.958178e-02 | 1.475198e-01 |
| ## FKBP15       | 0.09874074  | 3.952663  | 1.9978993  | 4.960521e-02 | 1.475684e-01 |
| ## KRT77        | 0.07806849  | 3.805127  | 1.9975299  | 4.964623e-02 | 1.476459e-01 |
| ## MLH1         | -0.22650140 | 8.650932  | -1.9974733 | 4.965252e-02 | 1.476459e-01 |
| ## SYN2         | -0.09790896 | 3.652723  | -1.9974548 | 4.965457e-02 | 1.476459e-01 |
| ## SLC44A5      | 0.11927042  | 3.911999  | 1.9972691  | 4.967521e-02 | 1.476459e-01 |
| ## LINC00841    | -0.09162179 | 3.984101  | -1.9972282 | 4.967976e-02 | 1.476459e-01 |
| ## NNT-AS1      | -0.35681390 | 6.468467  | -1.9971964 | 4.968329e-02 | 1.476459e-01 |
| ## NPY5R        | -0.10385858 | 3.822747  | -1.9971726 | 4.968594e-02 | 1.476459e-01 |
| ## LXN          | -0.28772798 | 8.325909  | -1.9971543 | 4.968797e-02 | 1.476459e-01 |
| ## FOXP1-AS1    | -0.06994343 | 3.742841  | -1.9965587 | 4.975423e-02 | 1.478217e-01 |
| ## SND1         | 0.13597978  | 9.340179  | 1.9963782  | 4.977431e-02 | 1.478300e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## DGCR5        | -0.09401654 | 3.852360  | -1.9962934 | 4.978376e-02 | 1.478300e-01 |
| ## LINC02044    | -0.06620489 | 3.910811  | -1.9962822 | 4.978501e-02 | 1.478300e-01 |
| ## DAPK2        | -0.16816761 | 5.985369  | -1.9962286 | 4.979098e-02 | 1.478300e-01 |
| ## NECTIN4      | 0.25703786  | 6.201878  | 1.9962148  | 4.979252e-02 | 1.478300e-01 |
| ## DNAAF4       | 0.31884587  | 4.198461  | 1.9960410  | 4.981187e-02 | 1.478663e-01 |
| ## KIF25        | -0.09890561 | 4.275710  | -1.9959084 | 4.982665e-02 | 1.478878e-01 |
| ## P2RX1        | -0.15956821 | 6.123482  | -1.9958487 | 4.983330e-02 | 1.478878e-01 |
| ## SEC63        | 0.20639757  | 7.588668  | 1.9957009  | 4.984978e-02 | 1.479156e-01 |
| ## NFKBIL1      | 0.12572430  | 6.567985  | 1.9954031  | 4.988298e-02 | 1.479930e-01 |
| ## COMT         | 0.23587512  | 9.013463  | 1.9944726  | 4.998686e-02 | 1.482801e-01 |
| ## DENND5A      | -0.27149507 | 8.275946  | -1.9943770 | 4.999755e-02 | 1.482808e-01 |
| ## PTDSS2       | 0.13029891  | 6.894608  | 1.9943432  | 5.000133e-02 | 1.482808e-01 |
| ## CATSPER1     | 0.08996552  | 4.890921  | 1.9941144  | 5.002691e-02 | 1.483355e-01 |
| ## LINC01347    | 0.12970347  | 4.322898  | 1.9940131  | 5.003824e-02 | 1.483480e-01 |
| ## H3C1         | 0.07130651  | 3.554584  | 1.9937607  | 5.006647e-02 | 1.484106e-01 |
| ## ATAD2B       | 0.08374392  | 3.758595  | 1.9935322  | 5.009204e-02 | 1.484621e-01 |
| ## KATNB1       | 0.15846738  | 6.810520  | 1.9934780  | 5.009812e-02 | 1.484621e-01 |
| ## RETREG3      | -0.17834629 | 9.099239  | -1.9932253 | 5.012641e-02 | 1.485248e-01 |
| ## FGF21        | -0.11682670 | 5.357157  | -1.9925838 | 5.019831e-02 | 1.487167e-01 |
| ## TET3         | 0.07091030  | 5.477985  | 1.9924339  | 5.021512e-02 | 1.487453e-01 |
| ## SPRN         | -0.10641058 | 4.881259  | -1.9923282 | 5.022698e-02 | 1.487593e-01 |
| ## PRB4         | -0.15190045 | 4.709644  | -1.9920435 | 5.025893e-02 | 1.488328e-01 |
| ## ERCC2        | 0.15287085  | 6.144380  | 1.9914797  | 5.032226e-02 | 1.489991e-01 |
| ## MED12        | 0.12608434  | 6.701133  | 1.9912043  | 5.035322e-02 | 1.490696e-01 |
| ## HLA-DQB1     | -1.09762973 | 6.833501  | -1.9910297 | 5.037285e-02 | 1.491065e-01 |
| ## RBMS1        | -0.24434979 | 8.656339  | -1.9906870 | 5.041142e-02 | 1.491453e-01 |
| ## PYCARD-AS1   | -0.11569773 | 4.862196  | -1.9906631 | 5.041411e-02 | 1.491453e-01 |
| ## RAC2         | 0.36260528  | 6.832577  | 1.9906374  | 5.041700e-02 | 1.491453e-01 |
| ## GFAP         | -0.09092144 | 4.440680  | -1.9906089 | 5.042020e-02 | 1.491453e-01 |
| ## AKAP12       | -0.06290038 | 3.702974  | -1.9905951 | 5.042177e-02 | 1.491453e-01 |
| ## DDX42        | 0.07939487  | 3.494252  | 1.9902609  | 5.045940e-02 | 1.492268e-01 |
| ## SH3RF3-AS1   | 0.06019552  | 3.379622  | 1.9902231  | 5.046365e-02 | 1.492268e-01 |
| ## LOC105372733 | -0.14163022 | 4.071225  | -1.9900628 | 5.048171e-02 | 1.492590e-01 |
| ## ZNF706       | 0.17324920  | 10.634718 | 1.9899881  | 5.049013e-02 | 1.492627e-01 |
| ## CDK11B       | 0.17045704  | 7.260759  | 1.9897352  | 5.051864e-02 | 1.493067e-01 |
| ## LINC02582    | 0.12238106  | 3.611909  | 1.9896821  | 5.052464e-02 | 1.493067e-01 |
| ## LINC00244    | 0.07959023  | 3.976379  | 1.9896461  | 5.052870e-02 | 1.493067e-01 |
| ## UBD1         | 0.12876785  | 5.105355  | 1.9895778  | 5.053640e-02 | 1.493067e-01 |
| ## ARMT1        | 0.19749197  | 7.706652  | 1.9895383  | 5.054086e-02 | 1.493067e-01 |
| ## INSYN2B      | 0.07992023  | 3.530741  | 1.9885919  | 5.064771e-02 | 1.496011e-01 |
| ## TGM6         | -0.09713550 | 5.548564  | -1.9884508 | 5.066365e-02 | 1.496249e-01 |
| ## SLC46A1      | -0.14748072 | 4.933526  | -1.9883777 | 5.067192e-02 | 1.496249e-01 |
| ## AHI1-DT      | -0.06904369 | 3.752937  | -1.9883300 | 5.067731e-02 | 1.496249e-01 |
| ## MMP10        | 0.52431819  | 5.019909  | 1.9880195  | 5.071243e-02 | 1.497073e-01 |
| ## FAM66D       | 0.07838268  | 4.325361  | 1.9879155  | 5.072419e-02 | 1.497208e-01 |
| ## ZNF883       | 0.19606267  | 3.544364  | 1.9877003  | 5.074855e-02 | 1.497410e-01 |
| ## JAG2         | 0.24907117  | 6.607148  | 1.9876857  | 5.075020e-02 | 1.497410e-01 |
| ## CYB5A        | -0.24837323 | 9.892959  | -1.9876645 | 5.075260e-02 | 1.497410e-01 |
| ## LOC101927159 | -0.08822234 | 4.092545  | -1.9871880 | 5.080657e-02 | 1.498790e-01 |
| ## GAS1RR       | -0.09263198 | 3.262666  | -1.9859536 | 5.094660e-02 | 1.502640e-01 |
| ## NDST1        | 0.12244674  | 6.064935  | 1.9859022  | 5.095244e-02 | 1.502640e-01 |
| ## ZNF282       | 0.17408921  | 6.584544  | 1.9858471  | 5.095870e-02 | 1.502640e-01 |
| ## BCORP1       | -0.05362124 | 3.518042  | -1.9855558 | 5.099180e-02 | 1.503403e-01 |
| ## GNPTG        | -0.13931993 | 8.103721  | -1.9848339 | 5.107391e-02 | 1.505610e-01 |

|                |             |           |            |              |              |
|----------------|-------------|-----------|------------|--------------|--------------|
| ## LNC-LBCS    | -0.05844154 | 3.482919  | -1.9847213 | 5.108673e-02 | 1.505775e-01 |
| ## LIPJ        | -0.06970491 | 3.389978  | -1.9844921 | 5.111283e-02 | 1.506331e-01 |
| ## IFT20       | -0.16720710 | 9.496064  | -1.9843289 | 5.113142e-02 | 1.506666e-01 |
| ## INPP4A      | -0.22587019 | 6.268876  | -1.9836196 | 5.121228e-02 | 1.508835e-01 |
| ## PGS1        | 0.13674077  | 7.560592  | 1.9833294  | 5.124540e-02 | 1.509597e-01 |
| ## SHISA6      | -0.05435278 | 3.316718  | -1.9831684 | 5.126378e-02 | 1.509925e-01 |
| ## KCNIP1      | -0.15053196 | 4.234859  | -1.9830662 | 5.127545e-02 | 1.510055e-01 |
| ## TAS2R1      | 0.10384126  | 4.130896  | 1.9828478  | 5.130040e-02 | 1.510576e-01 |
| ## UBXN7-AS1   | -0.10068687 | 3.793062  | -1.9827604 | 5.131038e-02 | 1.510657e-01 |
| ## SIRT2       | -0.14519384 | 5.596546  | -1.9826008 | 5.132863e-02 | 1.510827e-01 |
| ## ELP1        | 0.07867415  | 3.651587  | 1.9825827  | 5.133069e-02 | 1.510827e-01 |
| ## NXPE4       | -0.13091633 | 4.450775  | -1.9824724 | 5.134331e-02 | 1.510885e-01 |
| ## UBASH3B     | 0.08227178  | 3.652951  | 1.9824158  | 5.134977e-02 | 1.510885e-01 |
| ## PRIMPOL     | -0.18825420 | 6.712620  | -1.9823753 | 5.135440e-02 | 1.510885e-01 |
| ## FIBP        | 0.11731533  | 8.776006  | 1.9819618  | 5.140171e-02 | 1.512063e-01 |
| ## RHPN1-AS1   | 0.10006695  | 4.690657  | 1.9818439  | 5.141521e-02 | 1.512246e-01 |
| ## DRP2        | -0.17585505 | 3.695184  | -1.9817461 | 5.142640e-02 | 1.512362e-01 |
| ## STAU1       | 0.14568842  | 10.792025 | 1.9812491  | 5.148333e-02 | 1.513822e-01 |
| ## KLHL35      | 0.24783546  | 5.053383  | 1.9811016  | 5.150023e-02 | 1.514105e-01 |
| ## FBXO22      | -0.20511203 | 4.882950  | -1.9808514 | 5.152893e-02 | 1.514735e-01 |
| ## ZNF446      | -0.09191106 | 6.243923  | -1.9807424 | 5.154142e-02 | 1.514889e-01 |
| ## TSPAN9      | 0.10003671  | 4.937212  | 1.9806477  | 5.155229e-02 | 1.514948e-01 |
| ## PSTK        | 0.20526762  | 4.734806  | 1.9805978  | 5.155801e-02 | 1.514948e-01 |
| ## RPS6KL1     | 0.12625041  | 5.090420  | 1.9804410  | 5.157601e-02 | 1.515264e-01 |
| ## MAMLD1      | -0.24287683 | 5.724081  | -1.9798244 | 5.164682e-02 | 1.516972e-01 |
| ## NAV1        | -0.23096321 | 6.125615  | -1.9798079 | 5.164871e-02 | 1.516972e-01 |
| ## RNF217-AS1  | -0.05645856 | 3.188543  | -1.9796384 | 5.166820e-02 | 1.517330e-01 |
| ## MYO1A       | -0.52814180 | 6.840265  | -1.9794002 | 5.169558e-02 | 1.517920e-01 |
| ## DOCK1       | -0.16335335 | 7.510040  | -1.9792100 | 5.171746e-02 | 1.518348e-01 |
| ## EIF2AK2     | 0.17452698  | 8.213011  | 1.9785109  | 5.179794e-02 | 1.520441e-01 |
| ## MCPH1       | 0.20467051  | 5.212274  | 1.9784640  | 5.180334e-02 | 1.520441e-01 |
| ## CYP26B1     | 0.29223124  | 4.824835  | 1.9781836  | 5.183566e-02 | 1.521175e-01 |
| ## KLK2        | -0.07117070 | 4.076290  | -1.9778655 | 5.187234e-02 | 1.522037e-01 |
| ## SAR1A       | -0.17488504 | 9.563006  | -1.9775771 | 5.190562e-02 | 1.522799e-01 |
| ## FAM162B     | -0.24221210 | 5.180746  | -1.9774557 | 5.191962e-02 | 1.522855e-01 |
| ## GPR87       | 0.27437093  | 3.574152  | 1.9774338  | 5.192215e-02 | 1.522855e-01 |
| ## EIF2S2      | 0.22418139  | 6.200450  | 1.9772316  | 5.194550e-02 | 1.523199e-01 |
| ## CDKAL1      | 0.05293279  | 3.252764  | 1.9772056  | 5.194850e-02 | 1.523199e-01 |
| ## RNF10       | -0.13207054 | 8.810649  | -1.9771171 | 5.195873e-02 | 1.523284e-01 |
| ## RNF34       | 0.13307938  | 8.722914  | 1.9760692  | 5.207988e-02 | 1.526621e-01 |
| ## REG4        | -1.26060758 | 9.081841  | -1.9756898 | 5.212380e-02 | 1.527693e-01 |
| ## ELOVL5      | -0.10594748 | 4.785565  | -1.9753549 | 5.216261e-02 | 1.528563e-01 |
| ## MVK         | 0.11434530  | 6.014684  | 1.9753071  | 5.216815e-02 | 1.528563e-01 |
| ## SMYD2       | 0.23570727  | 5.776178  | 1.9751697  | 5.218407e-02 | 1.528814e-01 |
| ## PPP2R3C     | 0.11626952  | 4.145124  | 1.9750623  | 5.219652e-02 | 1.528964e-01 |
| ## L3MBTL4-AS1 | -0.09760505 | 4.186886  | -1.9749780 | 5.220630e-02 | 1.529035e-01 |
| ## RAP1GDS1    | 0.19381930  | 8.073096  | 1.9747944  | 5.222759e-02 | 1.529444e-01 |
| ## APOL5       | -0.11837085 | 4.185626  | -1.9746252 | 5.224723e-02 | 1.529747e-01 |
| ## WASHC5      | 0.15515273  | 8.711278  | 1.9745785  | 5.225264e-02 | 1.529747e-01 |
| ## SPACA9      | -0.13801897 | 5.357062  | -1.9744554 | 5.226693e-02 | 1.529950e-01 |
| ## BMS1P1      | 0.27386222  | 4.834842  | 1.9741673  | 5.230038e-02 | 1.530552e-01 |
| ## SLC12A1     | -0.11042165 | 5.037524  | -1.9741519 | 5.230218e-02 | 1.530552e-01 |
| ## CDK13       | 0.17636919  | 8.353253  | 1.9735710  | 5.236969e-02 | 1.532312e-01 |
| ## SAP30BP     | 0.13656281  | 7.500546  | 1.9733549  | 5.239483e-02 | 1.532832e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## TMC7         | 0.09558820  | 3.390072  | 1.9732838  | 5.240310e-02 | 1.532859e-01 |
| ## SOAT2        | -0.12112218 | 5.028953  | -1.9724690 | 5.249796e-02 | 1.535418e-01 |
| ## ITGAV        | -0.19871112 | 10.646659 | -1.9720166 | 5.255071e-02 | 1.536745e-01 |
| ## ARMCX3       | -0.32105861 | 8.133324  | -1.9717505 | 5.258175e-02 | 1.537437e-01 |
| ## SMIM7        | 0.13553662  | 5.851778  | 1.9716678  | 5.259140e-02 | 1.537503e-01 |
| ## TPPP         | 0.15740456  | 5.960133  | 1.9713832  | 5.262462e-02 | 1.538258e-01 |
| ## RS1          | -0.07341282 | 3.496718  | -1.9712087 | 5.264501e-02 | 1.538638e-01 |
| ## LRP6         | 0.19740377  | 6.582592  | 1.9705904  | 5.271726e-02 | 1.540534e-01 |
| ## NCKAP5L      | 0.07626616  | 4.165968  | 1.9704913  | 5.272886e-02 | 1.540656e-01 |
| ## LOC101929752 | -0.08865442 | 4.169151  | -1.9704257 | 5.273653e-02 | 1.540664e-01 |
| ## PAX8         | 0.13214226  | 7.422485  | 1.9702676  | 5.275503e-02 | 1.540861e-01 |
| ## IL12RB1      | 0.23259925  | 5.968356  | 1.9702416  | 5.275806e-02 | 1.540861e-01 |
| ## KIF7         | -0.13048839 | 5.757097  | -1.9700108 | 5.278508e-02 | 1.541434e-01 |
| ## PCBP1-AS1    | -0.11796835 | 3.735207  | -1.9698534 | 5.280351e-02 | 1.541552e-01 |
| ## LNCATV       | 0.07817677  | 3.846067  | 1.9698478  | 5.280417e-02 | 1.541552e-01 |
| ## SARM1        | -0.13905579 | 5.969509  | -1.9697787 | 5.281226e-02 | 1.541552e-01 |
| ## ATCAY        | -0.11633348 | 4.832920  | -1.9697233 | 5.281875e-02 | 1.541552e-01 |
| ## BCAR1        | 0.12246544  | 6.404482  | 1.9695402  | 5.284020e-02 | 1.541962e-01 |
| ## ZNF358       | -0.15087187 | 6.853192  | -1.9694554 | 5.285014e-02 | 1.541964e-01 |
| ## TRIM9        | -0.18403184 | 4.402032  | -1.9694133 | 5.285507e-02 | 1.541964e-01 |
| ## MAP4K3       | -0.26545097 | 7.974508  | -1.9690682 | 5.289554e-02 | 1.542640e-01 |
| ## LINC01494    | -0.07470832 | 4.051122  | -1.9690410 | 5.289872e-02 | 1.542640e-01 |
| ## GBP1P1       | 0.13228321  | 4.551426  | 1.9690260  | 5.290048e-02 | 1.542640e-01 |
| ## NT5DC4       | 0.06228334  | 3.513642  | 1.9686949  | 5.293932e-02 | 1.543557e-01 |
| ## ACAN         | -0.12593272 | 4.133374  | -1.9685013 | 5.296205e-02 | 1.544003e-01 |
| ## C20orf96     | 0.09532150  | 4.286770  | 1.9678851  | 5.303445e-02 | 1.545898e-01 |
| ## MAPK8IP3-AS1 | -0.07866094 | 4.199225  | -1.9678144 | 5.304275e-02 | 1.545923e-01 |
| ## FAIM2        | -0.10543923 | 5.539754  | -1.9677219 | 5.305362e-02 | 1.546024e-01 |
| ## ITPKC        | 0.21911943  | 6.359251  | 1.9671932  | 5.311582e-02 | 1.547620e-01 |
| ## CST11        | -0.07301782 | 3.623285  | -1.9669328 | 5.314648e-02 | 1.548296e-01 |
| ## SDHB         | 0.18784296  | 9.209441  | 1.9661872  | 5.323434e-02 | 1.550639e-01 |
| ## SLC13A2      | -0.18876075 | 5.069612  | -1.9658498 | 5.327413e-02 | 1.551581e-01 |
| ## CBLC         | 0.33013976  | 6.393499  | 1.9656833  | 5.329378e-02 | 1.551936e-01 |
| ## LMAN1        | 0.30114110  | 6.531580  | 1.9649473  | 5.338071e-02 | 1.554251e-01 |
| ## TOR4A        | 0.24091382  | 6.897855  | 1.9647545  | 5.340350e-02 | 1.554697e-01 |
| ## DNAJA1       | 0.18051011  | 9.090114  | 1.9644266  | 5.344229e-02 | 1.555426e-01 |
| ## TKFC         | 0.23642214  | 6.128139  | 1.9643203  | 5.345487e-02 | 1.555426e-01 |
| ## CCDC184      | -0.12055878 | 4.472667  | -1.9642579 | 5.346225e-02 | 1.555426e-01 |
| ## SHISA9       | -0.07996907 | 3.809490  | -1.9642358 | 5.346487e-02 | 1.555426e-01 |
| ## RPGRIP1      | -0.12236463 | 5.041894  | -1.9642271 | 5.346590e-02 | 1.555426e-01 |
| ## MMADHC       | 0.12117563  | 11.037314 | 1.9638901  | 5.350580e-02 | 1.556369e-01 |
| ## TMSB15B-AS1  | 0.06886090  | 3.512632  | 1.9636900  | 5.352950e-02 | 1.556841e-01 |
| ## METTL7B      | 0.41349132  | 6.942874  | 1.9631936  | 5.358834e-02 | 1.558186e-01 |
| ## EVC2         | -0.13877752 | 4.156642  | -1.9631736 | 5.359071e-02 | 1.558186e-01 |
| ## ACP4         | -0.15552356 | 5.905665  | -1.9630598 | 5.360421e-02 | 1.558361e-01 |
| ## MORN4        | -0.15868954 | 5.700339  | -1.9629905 | 5.361243e-02 | 1.558383e-01 |
| ## DTNB-AS1     | -0.41992871 | 5.549996  | -1.9628957 | 5.362369e-02 | 1.558492e-01 |
| ## TIMM44       | 0.14578774  | 6.941633  | 1.9622663  | 5.369841e-02 | 1.560446e-01 |
| ## SORL1        | -0.30551547 | 8.845311  | -1.9621172 | 5.371612e-02 | 1.560540e-01 |
| ## NAGS         | 0.30574768  | 5.163679  | 1.9621130  | 5.371663e-02 | 1.560540e-01 |
| ## NMD3         | 0.22004304  | 8.116135  | 1.9610318  | 5.384523e-02 | 1.564058e-01 |
| ## SMCP         | -0.13553740 | 4.634519  | -1.9602395 | 5.393964e-02 | 1.566582e-01 |
| ## IL1RAPL1     | -0.07954020 | 3.994791  | -1.9601108 | 5.395499e-02 | 1.566809e-01 |
| ## LOC101927253 | -0.21051090 | 4.143330  | -1.9599035 | 5.397972e-02 | 1.567309e-01 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## DCP1B      | -0.21829366 | 6.718614  | -1.9596717 | 5.400739e-02 | 1.567893e-01 |
| ## KCNK12     | -0.08524718 | 4.192670  | -1.9594679 | 5.403173e-02 | 1.568381e-01 |
| ## AKAP11     | -0.20277913 | 8.979590  | -1.9591426 | 5.407059e-02 | 1.569290e-01 |
| ## OR7A10     | -0.07288862 | 3.639750  | -1.9590014 | 5.408747e-02 | 1.569562e-01 |
| ## CPT1C      | -0.24975349 | 4.932315  | -1.9586065 | 5.413468e-02 | 1.570713e-01 |
| ## OR7C1      | -0.07934663 | 4.084068  | -1.9582560 | 5.417662e-02 | 1.571711e-01 |
| ## XYLT1      | -0.38279706 | 7.331720  | -1.9581432 | 5.419013e-02 | 1.571884e-01 |
| ## GRASLND    | -0.20884264 | 5.433706  | -1.9579530 | 5.421291e-02 | 1.571987e-01 |
| ## RGS10      | -0.10698397 | 6.197936  | -1.9579353 | 5.421502e-02 | 1.571987e-01 |
| ## ERMAP      | -0.17517475 | 5.438078  | -1.9579242 | 5.421635e-02 | 1.571987e-01 |
| ## DPY19L3-DT | 0.08404781  | 3.897492  | 1.9576483  | 5.424941e-02 | 1.572727e-01 |
| ## AVPR1B     | -0.09345885 | 5.841283  | -1.9573801 | 5.428155e-02 | 1.573440e-01 |
| ## SASH3      | -0.29527043 | 7.438825  | -1.9573113 | 5.428980e-02 | 1.573460e-01 |
| ## FBXL21P    | -0.13092789 | 3.767608  | -1.9571770 | 5.430591e-02 | 1.573707e-01 |
| ## CDC42-IT1  | 0.23419451  | 5.663261  | 1.9570878  | 5.431661e-02 | 1.573799e-01 |
| ## RCOR1      | 0.19357382  | 8.227548  | 1.9570064  | 5.432637e-02 | 1.573862e-01 |
| ## MYOF       | 0.25694386  | 10.065345 | 1.9569207  | 5.433665e-02 | 1.573941e-01 |
| ## DAPK3      | 0.29118645  | 5.750039  | 1.9567780  | 5.435378e-02 | 1.574219e-01 |
| ## ERN2       | -0.20283165 | 9.614962  | -1.9565515 | 5.438098e-02 | 1.574587e-01 |
| ## MATN1      | -0.06016278 | 4.509128  | -1.9564669 | 5.439113e-02 | 1.574587e-01 |
| ## CRB1       | -0.08151248 | 4.296627  | -1.9564403 | 5.439433e-02 | 1.574587e-01 |
| ## NT5DC1     | 0.19967819  | 7.936590  | 1.9564201  | 5.439675e-02 | 1.574587e-01 |
| ## SRRD       | 0.16545028  | 7.007713  | 1.9561260  | 5.443210e-02 | 1.574991e-01 |
| ## ZDHHC12-DT | 0.20434778  | 5.995355  | 1.9560198  | 5.444486e-02 | 1.574991e-01 |
| ## WDSUB1     | 0.23100339  | 6.901322  | 1.9559536  | 5.445282e-02 | 1.574991e-01 |
| ## CNTD1      | -0.28460915 | 4.638913  | -1.9558962 | 5.445972e-02 | 1.574991e-01 |
| ## STIMATE    | 0.17308701  | 6.034358  | 1.9558407  | 5.446639e-02 | 1.574991e-01 |
| ## ZNF131     | 0.24233691  | 7.251303  | 1.9557718  | 5.447468e-02 | 1.574991e-01 |
| ## TANC2      | 0.22356706  | 4.315656  | 1.9557631  | 5.447573e-02 | 1.574991e-01 |
| ## SLC10A3    | 0.21911310  | 7.111775  | 1.9557264  | 5.448013e-02 | 1.574991e-01 |
| ## AIMP1      | 0.16965446  | 7.818639  | 1.9556887  | 5.448467e-02 | 1.574991e-01 |
| ## ACOT6      | -0.07666771 | 3.735255  | -1.9556749 | 5.448633e-02 | 1.574991e-01 |
| ## GPC5       | -0.15441538 | 3.419874  | -1.9555181 | 5.450520e-02 | 1.575317e-01 |
| ## PHF3       | 0.10053560  | 6.812396  | 1.9552705  | 5.453499e-02 | 1.575960e-01 |
| ## PATZ1      | 0.17529794  | 7.189787  | 1.9547546  | 5.459712e-02 | 1.577536e-01 |
| ## MPP1       | -0.27597652 | 7.614365  | -1.9544538 | 5.463337e-02 | 1.578365e-01 |
| ## CAMTA2     | -0.14233071 | 6.110915  | -1.9543324 | 5.464801e-02 | 1.578569e-01 |
| ## SNAI1      | 0.13571213  | 5.273930  | 1.9534135  | 5.475891e-02 | 1.581553e-01 |
| ## AP3M2      | 0.20233132  | 5.961305  | 1.9524689  | 5.487312e-02 | 1.584511e-01 |
| ## ENTPD7     | 0.24740573  | 5.899329  | 1.9523990  | 5.488157e-02 | 1.584511e-01 |
| ## ZC3H18     | 0.17400474  | 6.635022  | 1.9523027  | 5.489322e-02 | 1.584511e-01 |
| ## NTM        | 0.27177898  | 5.531296  | 1.9522636  | 5.489797e-02 | 1.584511e-01 |
| ## SLC6A16    | -0.26329853 | 4.700273  | -1.9522364 | 5.490126e-02 | 1.584511e-01 |
| ## VASN       | -0.22860885 | 6.218065  | -1.9521890 | 5.490699e-02 | 1.584511e-01 |
| ## XRCC4      | 0.28796459  | 6.216075  | 1.9519087  | 5.494094e-02 | 1.585271e-01 |
| ## IDI2-AS1   | 0.09805438  | 3.897363  | 1.9518129  | 5.495255e-02 | 1.585386e-01 |
| ## ARHGEF2    | 0.11840625  | 4.282546  | 1.9516884  | 5.496763e-02 | 1.585602e-01 |
| ## IGF2R      | 0.11970913  | 4.016056  | 1.9514239  | 5.499969e-02 | 1.586307e-01 |
| ## LINC02140  | -0.07751756 | 4.052215  | -1.9513143 | 5.501298e-02 | 1.586359e-01 |
| ## LINC01012  | 0.05574869  | 3.372991  | 1.9512833  | 5.501674e-02 | 1.586359e-01 |
| ## CALHM6     | 0.14837055  | 4.040211  | 1.9508689  | 5.506702e-02 | 1.587589e-01 |
| ## PCGF6      | 0.15018300  | 6.777805  | 1.9503691  | 5.512771e-02 | 1.589119e-01 |
| ## ELFN1-AS1  | 0.16053244  | 5.008883  | 1.9502121  | 5.514678e-02 | 1.589235e-01 |
| ## FOXD2      | 0.12805306  | 4.085351  | 1.9500977  | 5.516069e-02 | 1.589235e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CAPN12       | 0.21571646  | 6.588513  | 1.9500715  | 5.516387e-02 | 1.589235e-01 |
| ## CEP250       | 0.14503343  | 6.170897  | 1.9500493  | 5.516657e-02 | 1.589235e-01 |
| ## ZNF678       | 0.08938307  | 3.259099  | 1.9499660  | 5.517669e-02 | 1.589235e-01 |
| ## RNASEH1      | 0.14800633  | 7.880194  | 1.9499593  | 5.517751e-02 | 1.589235e-01 |
| ## ATP5PD       | 0.10378187  | 6.011112  | 1.9498284  | 5.519343e-02 | 1.589389e-01 |
| ## XRCC3        | 0.14237487  | 5.258164  | 1.9497896  | 5.519815e-02 | 1.589389e-01 |
| ## CLDN6        | 0.12584326  | 6.404684  | 1.9496993  | 5.520913e-02 | 1.589485e-01 |
| ## RIMKLA       | -0.17028377 | 5.717560  | -1.9495216 | 5.523075e-02 | 1.589767e-01 |
| ## DPY19L4      | 0.27112142  | 5.851113  | 1.9494279  | 5.524215e-02 | 1.589767e-01 |
| ## BRS3         | -0.09728777 | 3.547712  | -1.9493780 | 5.524823e-02 | 1.589767e-01 |
| ## HAVCR2       | 0.30312017  | 5.612337  | 1.9493680  | 5.524944e-02 | 1.589767e-01 |
| ## LOC100128288 | -0.08136037 | 3.533268  | -1.9492445 | 5.526447e-02 | 1.589900e-01 |
| ## AMBN         | -0.14301496 | 4.257173  | -1.9491790 | 5.527245e-02 | 1.589900e-01 |
| ## MFHAS1       | 0.37967905  | 7.715891  | 1.9491078  | 5.528112e-02 | 1.589900e-01 |
| ## MARCHF10-DT  | -0.08628597 | 4.356856  | -1.9490791 | 5.528462e-02 | 1.589900e-01 |
| ## MSTO1        | 0.23831408  | 7.175422  | 1.9489586  | 5.529930e-02 | 1.590103e-01 |
| ## MFSD5        | 0.16665909  | 7.486223  | 1.9488291  | 5.531507e-02 | 1.590337e-01 |
| ## SNAI3        | -0.08260791 | 4.128853  | -1.9485700 | 5.534664e-02 | 1.591025e-01 |
| ## IER5         | 0.08004011  | 3.690618  | 1.9484667  | 5.535923e-02 | 1.591167e-01 |
| ## POLR2J4      | 0.12741723  | 5.045605  | 1.9483122  | 5.537808e-02 | 1.591489e-01 |
| ## ETNK2        | -0.10925557 | 4.829042  | -1.9480663 | 5.540807e-02 | 1.592131e-01 |
| ## NMRAL1       | 0.15484099  | 7.714779  | 1.9479662  | 5.542028e-02 | 1.592263e-01 |
| ## DMP1         | 0.05388825  | 3.202929  | 1.9478539  | 5.543399e-02 | 1.592437e-01 |
| ## FBXO2        | 0.34017875  | 6.382779  | 1.9476756  | 5.545575e-02 | 1.592842e-01 |
| ## DLG2         | -0.07433775 | 3.714301  | -1.9475043 | 5.547668e-02 | 1.593223e-01 |
| ## RHPN1        | 0.13279267  | 6.340555  | 1.9474142  | 5.548769e-02 | 1.593320e-01 |
| ## PINLYP       | -0.13152322 | 5.899721  | -1.9473168 | 5.549959e-02 | 1.593442e-01 |
| ## DCP1A        | 0.15233675  | 7.061010  | 1.9469082  | 5.554953e-02 | 1.594656e-01 |
| ## TME60        | 0.14256469  | 8.095428  | 1.9467170  | 5.557291e-02 | 1.594915e-01 |
| ## VTI1A        | 0.17269355  | 5.764797  | 1.9467091  | 5.557387e-02 | 1.594915e-01 |
| ## ISOC1        | -0.20678785 | 8.592865  | -1.9465204 | 5.559696e-02 | 1.595358e-01 |
| ## LRP2BP       | -0.10456947 | 4.018074  | -1.9464420 | 5.560656e-02 | 1.595413e-01 |
| ## KRT73        | -0.08403823 | 3.867396  | -1.9463602 | 5.561657e-02 | 1.595481e-01 |
| ## ACYP2        | -0.19049962 | 6.877064  | -1.9461138 | 5.564673e-02 | 1.596126e-01 |
| ## OTUD5        | 0.15916600  | 6.572472  | 1.9458732  | 5.567621e-02 | 1.596537e-01 |
| ## RPL26L1-AS1  | 0.05417958  | 3.464545  | 1.9458718  | 5.567638e-02 | 1.596537e-01 |
| ## THBD         | -0.31859303 | 7.502860  | -1.9458076 | 5.568424e-02 | 1.596542e-01 |
| ## POU2AF2      | -0.12841633 | 5.694778  | -1.9455266 | 5.571869e-02 | 1.597194e-01 |
| ## CPSF2        | -0.14918237 | 7.610401  | -1.9454970 | 5.572231e-02 | 1.597194e-01 |
| ## PRB1         | -0.14946311 | 6.234336  | -1.9450864 | 5.577267e-02 | 1.598417e-01 |
| ## SPOCK1       | -0.63686354 | 6.959993  | -1.9450091 | 5.578216e-02 | 1.598469e-01 |
| ## KLHL26       | -0.15250473 | 5.830755  | -1.9447634 | 5.581231e-02 | 1.599113e-01 |
| ## HFM1         | -0.07845853 | 3.454713  | -1.9445069 | 5.584381e-02 | 1.599709e-01 |
| ## MT1H         | -0.43032701 | 9.484565  | -1.9444166 | 5.585490e-02 | 1.599709e-01 |
| ## IGHM         | -0.69294114 | 11.053222 | -1.9443905 | 5.585812e-02 | 1.599709e-01 |
| ## CC2D2A       | -0.09768098 | 3.884048  | -1.9443439 | 5.586384e-02 | 1.599709e-01 |
| ## SCAT1        | 0.19123917  | 3.775424  | 1.9439743  | 5.590926e-02 | 1.600704e-01 |
| ## C8orf82      | 0.23667448  | 7.429206  | 1.9439063  | 5.591762e-02 | 1.600704e-01 |
| ## RMC1         | 0.20702428  | 7.748724  | 1.9438738  | 5.592162e-02 | 1.600704e-01 |
| ## SCYL1        | 0.15731060  | 7.056576  | 1.9436057  | 5.595460e-02 | 1.601349e-01 |
| ## NKAPP1       | 0.09955057  | 5.191038  | 1.9435653  | 5.595956e-02 | 1.601349e-01 |
| ## FUT9         | -0.09478604 | 3.261158  | -1.9434223 | 5.597717e-02 | 1.601633e-01 |
| ## PDPR         | 0.10568546  | 4.199468  | 1.9430966  | 5.601726e-02 | 1.602560e-01 |
| ## RHOC         | 0.11727263  | 4.153284  | 1.9428924  | 5.604241e-02 | 1.603059e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## BLOC1S4      | 0.16193080  | 7.191276  | 1.9425193  | 5.608840e-02 | 1.604155e-01 |
| ## EXTL1        | -0.10459882 | 4.400686  | -1.9423477 | 5.610956e-02 | 1.604539e-01 |
| ## ACTR3C       | 0.27456913  | 5.593670  | 1.9421511  | 5.613381e-02 | 1.605012e-01 |
| ## RCL1         | 0.17816374  | 7.215696  | 1.9420304  | 5.614871e-02 | 1.605218e-01 |
| ## GNRHR2       | 0.06974086  | 3.957498  | 1.9419512  | 5.615847e-02 | 1.605277e-01 |
| ## RET          | -0.13428584 | 5.470607  | -1.9415209 | 5.621160e-02 | 1.606575e-01 |
| ## MPPED2       | -0.35092892 | 3.897085  | -1.9411845 | 5.625316e-02 | 1.607542e-01 |
| ## PRSS37       | -0.10659119 | 4.241246  | -1.9410890 | 5.626497e-02 | 1.607659e-01 |
| ## IDH1         | 0.28800859  | 10.275027 | 1.9409459  | 5.628266e-02 | 1.607944e-01 |
| ## TTC32        | 0.24841738  | 7.383489  | 1.9408330  | 5.629663e-02 | 1.608122e-01 |
| ## HRCT1        | -0.15110791 | 6.136331  | -1.9401145 | 5.638554e-02 | 1.610441e-01 |
| ## CCDC81       | -0.05693107 | 3.928859  | -1.9395705 | 5.645294e-02 | 1.612144e-01 |
| ## TTC14        | -0.27740301 | 7.453163  | -1.9395083 | 5.646066e-02 | 1.612144e-01 |
| ## VMA21        | 0.18278478  | 8.652696  | 1.9393405  | 5.648146e-02 | 1.612517e-01 |
| ## CHTF8        | 0.09439128  | 8.442551  | 1.9387426  | 5.655566e-02 | 1.614414e-01 |
| ## TUT7         | 0.14757360  | 8.600502  | 1.9385672  | 5.657744e-02 | 1.614815e-01 |
| ## INTS8        | 0.21345029  | 8.985906  | 1.9381896  | 5.662435e-02 | 1.615932e-01 |
| ## SLC12A5      | -0.09656984 | 3.668925  | -1.9377762 | 5.667576e-02 | 1.616961e-01 |
| ## CDKN2A       | 0.42562108  | 4.426809  | 1.9377746  | 5.667596e-02 | 1.616961e-01 |
| ## AP1M2        | 0.25264239  | 7.817533  | 1.9376864  | 5.668693e-02 | 1.617053e-01 |
| ## CCDC121      | -0.08262793 | 3.429560  | -1.9373061 | 5.673426e-02 | 1.618116e-01 |
| ## ICOS         | 0.24140222  | 5.462964  | 1.9372621  | 5.673973e-02 | 1.618116e-01 |
| ## IFNA17       | -0.10627425 | 4.757345  | -1.9367781 | 5.680001e-02 | 1.619613e-01 |
| ## SLC25A37     | 0.31389693  | 7.212801  | 1.9365981  | 5.682245e-02 | 1.619937e-01 |
| ## ALG10        | 0.10084454  | 3.787193  | 1.9365175  | 5.683250e-02 | 1.619937e-01 |
| ## ANKRD12      | 0.16082502  | 7.791646  | 1.9364850  | 5.683655e-02 | 1.619937e-01 |
| ## SELE         | 0.55216550  | 5.030297  | 1.9364374  | 5.684249e-02 | 1.619937e-01 |
| ## ITFG1        | -0.14617268 | 8.479440  | -1.9361839 | 5.687410e-02 | 1.620616e-01 |
| ## SNORA71B     | 0.10259670  | 4.463974  | 1.9360211  | 5.689441e-02 | 1.620973e-01 |
| ## ALAS1        | 0.23030258  | 8.561297  | 1.9358019  | 5.692177e-02 | 1.621531e-01 |
| ## THAP4        | -0.16533693 | 7.975815  | -1.9355825 | 5.694917e-02 | 1.622089e-01 |
| ## MCPH1-DT     | 0.13288749  | 3.949465  | 1.9353682  | 5.697593e-02 | 1.622630e-01 |
| ## USP3-AS1     | 0.10296660  | 3.608953  | 1.9352331  | 5.699282e-02 | 1.622840e-01 |
| ## UNC93A       | 0.34636871  | 4.152057  | 1.9351843  | 5.699892e-02 | 1.622840e-01 |
| ## AFP          | 0.13587107  | 4.160685  | 1.9351088  | 5.700836e-02 | 1.622887e-01 |
| ## LOC285097    | -0.05453143 | 3.137298  | -1.9345993 | 5.707208e-02 | 1.624319e-01 |
| ## UTS2B        | -0.05922723 | 3.546081  | -1.9345819 | 5.707425e-02 | 1.624319e-01 |
| ## ZNF484       | 0.06670499  | 3.892255  | 1.9342897  | 5.711083e-02 | 1.625138e-01 |
| ## GET4         | 0.08243150  | 5.344429  | 1.9336686  | 5.718862e-02 | 1.627129e-01 |
| ## UMODL1-AS1   | -0.09839557 | 3.906885  | -1.9334337 | 5.721808e-02 | 1.627745e-01 |
| ## TECTA        | -0.07709507 | 3.788167  | -1.9331877 | 5.724893e-02 | 1.628400e-01 |
| ## SEC31B       | -0.18985449 | 5.876904  | -1.9329854 | 5.727431e-02 | 1.628900e-01 |
| ## DOK6         | -0.27941478 | 3.519708  | -1.9328669 | 5.728919e-02 | 1.629100e-01 |
| ## LILRA3       | 0.14517594  | 4.931171  | 1.9324633  | 5.733987e-02 | 1.630319e-01 |
| ## LOC100190986 | 0.59982895  | 7.698902  | 1.9320424  | 5.739276e-02 | 1.631600e-01 |
| ## FRAT1        | -0.22329151 | 6.207096  | -1.9317851 | 5.742512e-02 | 1.632297e-01 |
| ## AURKAIP1     | 0.14272671  | 9.608846  | 1.9314933  | 5.746183e-02 | 1.632752e-01 |
| ## IMPA2        | -0.36828861 | 8.668857  | -1.9314765 | 5.746394e-02 | 1.632752e-01 |
| ## NPY1R        | -0.38702721 | 3.819860  | -1.9314708 | 5.746466e-02 | 1.632752e-01 |
| ## SORCS1       | -0.06284266 | 3.685097  | -1.9306053 | 5.757367e-02 | 1.635510e-01 |
| ## LINC00557    | -0.07269881 | 3.963680  | -1.9305338 | 5.758269e-02 | 1.635510e-01 |
| ## NAP1L1       | -0.31916672 | 5.965223  | -1.9305105 | 5.758563e-02 | 1.635510e-01 |
| ## ADCK5        | 0.18791888  | 5.883933  | 1.9304509  | 5.759314e-02 | 1.635510e-01 |
| ## PRPSAP2      | 0.16258160  | 7.895866  | 1.9301058  | 5.763667e-02 | 1.636388e-01 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ERP27        | -0.30883146 | 4.951506  | -1.9300262 | 5.764671e-02 | 1.636388e-01 |
| ## ZNF471       | -0.04408557 | 3.348770  | -1.9300188 | 5.764764e-02 | 1.636388e-01 |
| ## LINC02064    | -0.09280865 | 5.811584  | -1.9293694 | 5.772964e-02 | 1.638364e-01 |
| ## SOX3         | -0.13544031 | 4.384184  | -1.9293430 | 5.773298e-02 | 1.638364e-01 |
| ## DNAJB13      | -0.09677160 | 4.557577  | -1.9292428 | 5.774564e-02 | 1.638500e-01 |
| ## GSTA3        | -0.18510407 | 4.498993  | -1.9289217 | 5.778623e-02 | 1.639428e-01 |
| ## INSR         | 0.20823164  | 4.486310  | 1.9287062  | 5.781348e-02 | 1.639890e-01 |
| ## CREB3        | 0.17611506  | 8.041840  | 1.9286686  | 5.781825e-02 | 1.639890e-01 |
| ## KCNS2        | -0.11983270 | 5.273103  | -1.9284762 | 5.784259e-02 | 1.640276e-01 |
| ## SDCBP2-AS1   | 0.14449786  | 4.606888  | 1.9284364  | 5.784762e-02 | 1.640276e-01 |
| ## RTF2         | 0.14795450  | 8.301345  | 1.9282345  | 5.787319e-02 | 1.640456e-01 |
| ## SKA2         | 0.22964299  | 8.735350  | 1.9281909  | 5.787871e-02 | 1.640456e-01 |
| ## H2AJ         | -0.21987640 | 4.901539  | -1.9281560 | 5.788312e-02 | 1.640456e-01 |
| ## ARHGEF11     | 0.14397896  | 6.901109  | 1.9281376  | 5.788546e-02 | 1.640456e-01 |
| ## AKR1C3       | -0.64143535 | 10.986240 | -1.9279235 | 5.791257e-02 | 1.641001e-01 |
| ## FAM184A      | -0.15994558 | 3.660299  | -1.9277187 | 5.793852e-02 | 1.641512e-01 |
| ## HINT3        | 0.30895869  | 4.604087  | 1.9275125  | 5.796466e-02 | 1.642030e-01 |
| ## IGF2BP1      | 0.12288654  | 4.553026  | 1.9273148  | 5.798973e-02 | 1.642517e-01 |
| ## IL6-AS1      | -0.08949702 | 4.673153  | -1.9269297 | 5.803858e-02 | 1.643677e-01 |
| ## GP2          | -0.50621201 | 6.448976  | -1.9265034 | 5.809272e-02 | 1.644986e-01 |
| ## OR51J1       | -0.08673805 | 4.130443  | -1.9263587 | 5.811110e-02 | 1.645283e-01 |
| ## SPRR1A       | 0.73752993  | 4.393168  | 1.9261580  | 5.813660e-02 | 1.645680e-01 |
| ## GALNTL6-AS1  | -0.08191188 | 3.686164  | -1.9260180 | 5.815440e-02 | 1.645680e-01 |
| ## RAPGEF1      | 0.11905088  | 5.071863  | 1.9260141  | 5.815489e-02 | 1.645680e-01 |
| ## RTN4R        | 0.14561328  | 5.017109  | 1.9259959  | 5.815721e-02 | 1.645680e-01 |
| ## LRGUK        | 0.12355960  | 4.042371  | 1.9259373  | 5.816465e-02 | 1.645680e-01 |
| ## NLRP5        | -0.12967299 | 4.418712  | -1.9257391 | 5.818987e-02 | 1.646050e-01 |
| ## IL17RA       | 0.17046770  | 7.511896  | 1.9257102  | 5.819354e-02 | 1.646050e-01 |
| ## TUBA4A       | 0.25011167  | 9.030686  | 1.9250700  | 5.827502e-02 | 1.648035e-01 |
| ## H4C8         | 0.47816433  | 4.144660  | 1.9250347  | 5.827952e-02 | 1.648035e-01 |
| ## SPP1         | 0.22711656  | 3.531866  | 1.9249462  | 5.829079e-02 | 1.648130e-01 |
| ## PKNOX1       | 0.14949711  | 6.661519  | 1.9245011  | 5.834751e-02 | 1.649509e-01 |
| ## LINC01138    | 0.19212606  | 6.125751  | 1.9239246  | 5.842106e-02 | 1.651204e-01 |
| ## MTRF1L       | -0.07248391 | 4.991882  | -1.9239068 | 5.842332e-02 | 1.651204e-01 |
| ## CDK5R2       | -0.19317493 | 4.592253  | -1.9234751 | 5.847845e-02 | 1.652538e-01 |
| ## VEGFB        | -0.16458544 | 6.310579  | -1.9232544 | 5.850665e-02 | 1.652841e-01 |
| ## PAOX         | 0.14404487  | 6.479733  | 1.9232430  | 5.850810e-02 | 1.652841e-01 |
| ## DIO3         | 0.14448001  | 5.828523  | 1.9232048  | 5.851299e-02 | 1.652841e-01 |
| ## AGTR2        | -0.09210567 | 3.621456  | -1.9226169 | 5.858816e-02 | 1.654589e-01 |
| ## NAV2-AS6     | 0.07222550  | 4.254728  | 1.9225966  | 5.859075e-02 | 1.654589e-01 |
| ## MCOLN2       | 0.18880246  | 4.350412  | 1.9224090  | 5.861476e-02 | 1.655042e-01 |
| ## CMTR1        | 0.14014052  | 8.010528  | 1.9222116  | 5.864003e-02 | 1.655531e-01 |
| ## GPRC5C       | -0.37630494 | 7.551174  | -1.9218270 | 5.868929e-02 | 1.656694e-01 |
| ## PPP1CB       | -0.16568547 | 9.168526  | -1.9217658 | 5.869713e-02 | 1.656694e-01 |
| ## KPTN         | 0.15940637  | 5.929100  | 1.9214012  | 5.874386e-02 | 1.657789e-01 |
| ## PARP10       | 0.12973740  | 6.349954  | 1.9206343  | 5.884227e-02 | 1.660341e-01 |
| ## CLEC4GP1     | -0.07627048 | 3.724134  | -1.9205501 | 5.885309e-02 | 1.660421e-01 |
| ## CACNA1D      | -0.19665539 | 4.847025  | -1.9203437 | 5.887960e-02 | 1.660944e-01 |
| ## BABAM2       | -0.12912254 | 8.619624  | -1.9200399 | 5.891864e-02 | 1.661820e-01 |
| ## CSHL1        | -0.08308171 | 3.871757  | -1.9197323 | 5.895819e-02 | 1.662475e-01 |
| ## RELB         | 0.19044450  | 6.675977  | 1.9197274  | 5.895882e-02 | 1.662475e-01 |
| ## LOC100996756 | -0.21888117 | 4.986579  | -1.9196686 | 5.896639e-02 | 1.662475e-01 |
| ## UBE2H        | 0.24014925  | 8.050811  | 1.9196111  | 5.897378e-02 | 1.662475e-01 |
| ## ERLIN1       | 0.19133486  | 9.329285  | 1.9192218  | 5.902389e-02 | 1.663662e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LOC105378130 | -0.09427734 | 4.014163  | -1.9190045 | 5.905186e-02 | 1.664225e-01 |
| ## ISCA2        | 0.16774466  | 7.845450  | 1.9188870  | 5.906700e-02 | 1.664427e-01 |
| ## LOC101928894 | -0.08828070 | 4.365300  | -1.9183552 | 5.913555e-02 | 1.666133e-01 |
| ## CTSC         | 0.25985304  | 10.035845 | 1.9181797  | 5.915818e-02 | 1.666529e-01 |
| ## PINX1        | 0.15787750  | 6.594614  | 1.9181221  | 5.916561e-02 | 1.666529e-01 |
| ## KIZ          | -0.29233723 | 7.416686  | -1.9174830 | 5.924811e-02 | 1.668627e-01 |
| ## NEUROD1      | -0.25774903 | 3.984467  | -1.9170943 | 5.929833e-02 | 1.669566e-01 |
| ## PPL          | 0.43704487  | 8.234075  | 1.9170819  | 5.929993e-02 | 1.669566e-01 |
| ## LINC01181    | 0.07623171  | 4.063847  | 1.9170388  | 5.930549e-02 | 1.669566e-01 |
| ## PRAMEF11     | -0.13871574 | 4.723604  | -1.9169712 | 5.931424e-02 | 1.669586e-01 |
| ## LSP1         | -0.25455171 | 7.701533  | -1.9164412 | 5.938279e-02 | 1.671290e-01 |
| ## OR51I1       | -0.10255113 | 5.347802  | -1.9162918 | 5.940212e-02 | 1.671608e-01 |
| ## CARD8        | -0.23968602 | 7.468068  | -1.9161110 | 5.942553e-02 | 1.672041e-01 |
| ## BRWD3        | 0.17537385  | 4.990599  | 1.9158145  | 5.946394e-02 | 1.672708e-01 |
| ## LZTR1        | -0.11921511 | 7.121625  | -1.9158038 | 5.946532e-02 | 1.672708e-01 |
| ## PARVB        | 0.23947014  | 5.447225  | 1.9150063  | 5.956872e-02 | 1.675390e-01 |
| ## CCDC152      | -0.13382497 | 9.613801  | -1.9148099 | 5.959422e-02 | 1.675881e-01 |
| ## IDI1         | 0.22951677  | 9.163314  | 1.9142981  | 5.966067e-02 | 1.677523e-01 |
| ## KRT23        | 0.61927824  | 5.285298  | 1.9141726  | 5.967698e-02 | 1.677756e-01 |
| ## CCDC85C      | 0.10249793  | 6.506813  | 1.9139813  | 5.970184e-02 | 1.678228e-01 |
| ## LINC00158    | 0.05963486  | 3.486970  | 1.9136319  | 5.974729e-02 | 1.679272e-01 |
| ## RABGEF1      | -0.13461300 | 8.386442  | -1.9135716 | 5.975513e-02 | 1.679272e-01 |
| ## NAGA         | 0.15768625  | 7.875595  | 1.9134063  | 5.977663e-02 | 1.679650e-01 |
| ## TPTE2P5      | -0.11611850 | 4.444045  | -1.9133012 | 5.979031e-02 | 1.679808e-01 |
| ## METTL14      | -0.17882936 | 7.718690  | -1.9132020 | 5.980322e-02 | 1.679944e-01 |
| ## ZNF90        | 0.05689632  | 3.382461  | 1.9128345  | 5.985109e-02 | 1.680869e-01 |
| ## TTLL6        | -0.28971001 | 5.426840  | -1.9128177 | 5.985327e-02 | 1.680869e-01 |
| ## HEXIM1       | 0.19081131  | 8.053617  | 1.9127632  | 5.986037e-02 | 1.680869e-01 |
| ## SH3BP5       | -0.29157856 | 8.002175  | -1.9126788 | 5.987137e-02 | 1.680951e-01 |
| ## GPRIN3       | 0.06468279  | 3.345385  | 1.9125211  | 5.989192e-02 | 1.681120e-01 |
| ## ZNF449       | -0.19447258 | 6.844672  | -1.9125087 | 5.989354e-02 | 1.681120e-01 |
| ## BMS1P20      | 0.12227456  | 3.879764  | 1.9121432  | 5.994119e-02 | 1.682172e-01 |
| ## EIF4EBP2     | -0.07138685 | 3.703412  | -1.9120975 | 5.994716e-02 | 1.682172e-01 |
| ## H2BC3        | 0.07695480  | 4.149321  | 1.9119121  | 5.997134e-02 | 1.682624e-01 |
| ## PAFAH1B1     | -0.16699411 | 8.183628  | -1.9118237 | 5.998288e-02 | 1.682721e-01 |
| ## ANAPC4       | -0.13935067 | 8.574416  | -1.9115458 | 6.001917e-02 | 1.683512e-01 |
| ## MB           | -0.17612554 | 4.373078  | -1.9109875 | 6.009211e-02 | 1.685331e-01 |
| ## DUSP11       | 0.12678559  | 8.226085  | 1.9109195  | 6.010099e-02 | 1.685353e-01 |
| ## C4orf17      | -0.12138524 | 4.045251  | -1.9104689 | 6.015992e-02 | 1.686778e-01 |
| ## NOP14-AS1    | 0.14882190  | 4.594752  | 1.9102875  | 6.018367e-02 | 1.687217e-01 |
| ## AK8          | -0.09712061 | 5.107919  | -1.9097615 | 6.025255e-02 | 1.688921e-01 |
| ## C20orf27     | 0.17243606  | 6.950615  | 1.9096551  | 6.026649e-02 | 1.689084e-01 |
| ## COMMD1       | -0.10072456 | 8.600872  | -1.9095124 | 6.028519e-02 | 1.689381e-01 |
| ## SFXN4        | 0.20814611  | 8.009568  | 1.9093627  | 6.030481e-02 | 1.689672e-01 |
| ## SEM1         | 0.13637631  | 10.335946 | 1.9093094  | 6.031180e-02 | 1.689672e-01 |
| ## GRIN2C       | -0.07845977 | 4.159087  | -1.9092272 | 6.032257e-02 | 1.689746e-01 |
| ## FCER1G       | 0.42296475  | 7.881636  | 1.9090135  | 6.035061e-02 | 1.690304e-01 |
| ## SLC25A1      | 0.22624219  | 7.354347  | 1.9088274  | 6.037503e-02 | 1.690761e-01 |
| ## AADACL2      | -0.06295239 | 3.418110  | -1.9085463 | 6.041193e-02 | 1.691567e-01 |
| ## MPHOSPH8     | -0.24402595 | 7.888045  | -1.9077378 | 6.051817e-02 | 1.694313e-01 |
| ## RPS29        | -0.06955035 | 13.181232 | -1.9076568 | 6.052881e-02 | 1.694384e-01 |
| ## LOC101926948 | -0.10033521 | 4.257060  | -1.9073163 | 6.057362e-02 | 1.695410e-01 |
| ## KRT78        | 0.14385147  | 4.551009  | 1.9070014  | 6.061507e-02 | 1.696342e-01 |
| ## DCLK2        | -0.14158640 | 4.336630  | -1.9064717 | 6.068485e-02 | 1.698067e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ITGA10       | -0.21618219 | 5.555238  | -1.9056468 | 6.079366e-02 | 1.700883e-01 |
| ## ADI1         | -0.26433254 | 9.578647  | -1.9055601 | 6.080511e-02 | 1.700975e-01 |
| ## LINC02688    | -0.26031380 | 5.874653  | -1.9054575 | 6.081865e-02 | 1.701125e-01 |
| ## PANK4        | 0.15120289  | 6.893945  | 1.9053741  | 6.082967e-02 | 1.701205e-01 |
| ## PAG1         | 0.23617114  | 6.348966  | 1.9050499  | 6.087250e-02 | 1.702083e-01 |
| ## HPS3         | 0.18582298  | 8.487390  | 1.9049944  | 6.087983e-02 | 1.702083e-01 |
| ## LMO2         | -0.27863002 | 7.446280  | -1.9049509 | 6.088558e-02 | 1.702083e-01 |
| ## LINC01732    | -0.19444497 | 6.622940  | -1.9045444 | 6.093933e-02 | 1.703357e-01 |
| ## EXOC8        | 0.13599216  | 7.341976  | 1.9038716  | 6.102838e-02 | 1.705617e-01 |
| ## ENY2         | 0.16006759  | 9.803781  | 1.9036756  | 6.105434e-02 | 1.705999e-01 |
| ## CAPN2        | -0.20796055 | 11.507240 | -1.9036447 | 6.105844e-02 | 1.705999e-01 |
| ## LOC101927044 | -0.09380790 | 3.737006  | -1.9025070 | 6.120933e-02 | 1.709985e-01 |
| ## ALDH1A1      | -0.71805910 | 10.210521 | -1.9023331 | 6.123243e-02 | 1.710401e-01 |
| ## SPN          | -0.10782754 | 7.473622  | -1.9021697 | 6.125413e-02 | 1.710691e-01 |
| ## WDR13        | -0.18364347 | 8.602287  | -1.9021312 | 6.125924e-02 | 1.710691e-01 |
| ## TAMALIN      | -0.11825790 | 6.875644  | -1.9019955 | 6.127727e-02 | 1.710965e-01 |
| ## CCL26        | 0.21510334  | 4.546864  | 1.9018467  | 6.129705e-02 | 1.711016e-01 |
| ## AK5          | -0.17982921 | 4.026908  | -1.9018242 | 6.130005e-02 | 1.711016e-01 |
| ## CYSRT1       | 0.21506270  | 5.371796  | 1.9017965  | 6.130373e-02 | 1.711016e-01 |
| ## TMEM126B     | 0.11773874  | 4.009110  | 1.9014397  | 6.135118e-02 | 1.712111e-01 |
| ## LOC101928196 | 0.05567231  | 3.425405  | 1.9012601  | 6.137507e-02 | 1.712523e-01 |
| ## KIAA2026     | -0.20364310 | 7.232850  | -1.9012049 | 6.138242e-02 | 1.712523e-01 |
| ## MARCHF2      | -0.25060421 | 6.586472  | -1.9009598 | 6.141504e-02 | 1.713204e-01 |
| ## DNASE1L3     | -0.11214936 | 4.435920  | -1.9008910 | 6.142421e-02 | 1.713230e-01 |
| ## SNAI3-AS1    | -0.09471825 | 4.051855  | -1.9007263 | 6.144614e-02 | 1.713613e-01 |
| ## RSF1         | 0.31871990  | 5.965840  | 1.9006573  | 6.145533e-02 | 1.713639e-01 |
| ## ACTR1A       | 0.15973614  | 7.997940  | 1.9001413  | 6.152411e-02 | 1.715327e-01 |
| ## IL1B         | 0.49503492  | 8.012612  | 1.8999188  | 6.155378e-02 | 1.715810e-01 |
| ## NUP210       | 0.17515330  | 5.672224  | 1.8998879  | 6.155791e-02 | 1.715810e-01 |
| ## AIRE         | -0.12473204 | 5.078332  | -1.8994580 | 6.161528e-02 | 1.717180e-01 |
| ## PITPNA-AS1   | 0.19468520  | 6.206526  | 1.8989600  | 6.168180e-02 | 1.718622e-01 |
| ## COL8A1       | -0.37847072 | 4.276713  | -1.8989470 | 6.168354e-02 | 1.718622e-01 |
| ## TTC13        | 0.20219445  | 8.297434  | 1.8986133  | 6.172816e-02 | 1.719635e-01 |
| ## NLGN3        | -0.11179555 | 4.641588  | -1.8983909 | 6.175789e-02 | 1.720233e-01 |
| ## CCL2         | -0.40120426 | 9.136262  | -1.8981625 | 6.178846e-02 | 1.720855e-01 |
| ## LINC01917    | -0.07211328 | 3.374724  | -1.8978135 | 6.183518e-02 | 1.721925e-01 |
| ## HDAC2-AS2    | -0.07821546 | 4.088899  | -1.8976138 | 6.186193e-02 | 1.722440e-01 |
| ## ETAA1        | -0.12175545 | 6.559841  | -1.8973891 | 6.189204e-02 | 1.723030e-01 |
| ## CLVS2        | -0.06240655 | 3.408647  | -1.8973322 | 6.189966e-02 | 1.723030e-01 |
| ## MLH3         | 0.20457342  | 6.433759  | 1.8970547  | 6.193686e-02 | 1.723835e-01 |
| ## KLF16        | 0.09993925  | 6.929019  | 1.8964544  | 6.201742e-02 | 1.725674e-01 |
| ## HLA-DPA1     | -0.25623750 | 12.225001 | -1.8963977 | 6.202503e-02 | 1.725674e-01 |
| ## SELENOS      | 0.14830701  | 10.200777 | 1.8962632  | 6.204308e-02 | 1.725674e-01 |
| ## PAEP         | 0.34614343  | 3.869868  | 1.8961250  | 6.206165e-02 | 1.725674e-01 |
| ## ZNF124       | 0.25982048  | 7.192943  | 1.8961123  | 6.206335e-02 | 1.725674e-01 |
| ## RPS2P45      | -0.08989892 | 3.677024  | -1.8960931 | 6.206593e-02 | 1.725674e-01 |
| ## LINC01921    | -0.06075468 | 3.908326  | -1.8960805 | 6.206763e-02 | 1.725674e-01 |
| ## PPY          | -0.11479633 | 3.913688  | -1.8960637 | 6.206988e-02 | 1.725674e-01 |
| ## PYCARD       | 0.26349476  | 8.594673  | 1.8960068  | 6.207753e-02 | 1.725674e-01 |
| ## SMAGP        | 0.33191850  | 8.398195  | 1.8958331  | 6.210087e-02 | 1.726092e-01 |
| ## HNRNPH1      | -0.14015417 | 10.727175 | -1.8956762 | 6.212195e-02 | 1.726448e-01 |
| ## SAFB2        | 0.13797624  | 6.614777  | 1.8954416  | 6.215351e-02 | 1.726970e-01 |
| ## CCDC149      | -0.13163771 | 5.847419  | -1.8954132 | 6.215733e-02 | 1.726970e-01 |
| ## RNF139-DT    | 0.17438790  | 5.396418  | 1.8953328  | 6.216814e-02 | 1.727040e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ATP2A3       | -0.26839201 | 4.998339  | -1.8951089 | 6.219827e-02 | 1.727647e-01 |
| ## CALML4       | -0.14852350 | 4.758068  | -1.8948776 | 6.222941e-02 | 1.728281e-01 |
| ## CADM2        | -0.07937723 | 3.683616  | -1.8944873 | 6.228197e-02 | 1.729425e-01 |
| ## ZFP91        | 0.24603031  | 7.511569  | 1.8944484  | 6.228721e-02 | 1.729425e-01 |
| ## KCNJ13       | -0.14777546 | 3.758164  | -1.8943508 | 6.230037e-02 | 1.729560e-01 |
| ## POLR2L       | 0.14270677  | 5.564363  | 1.8941182  | 6.233172e-02 | 1.730200e-01 |
| ## LINC01410    | -0.08406510 | 3.809099  | -1.8938661 | 6.236572e-02 | 1.730846e-01 |
| ## ZFAND2A-DT   | 0.09851777  | 4.840949  | 1.8937914  | 6.237579e-02 | 1.730846e-01 |
| ## ITPR1-DT     | -0.12172529 | 3.946421  | -1.8937605 | 6.237996e-02 | 1.730846e-01 |
| ## BCKDHB       | 0.34327389  | 5.733911  | 1.8935444  | 6.240913e-02 | 1.731425e-01 |
| ## GJA8         | -0.11988994 | 5.218824  | -1.8934638 | 6.242000e-02 | 1.731496e-01 |
| ## ANXA11       | 0.14658421  | 10.949252 | 1.8933797  | 6.243136e-02 | 1.731580e-01 |
| ## HGSNAT       | -0.17929992 | 5.769424  | -1.8933083 | 6.244099e-02 | 1.731617e-01 |
| ## KMT2A        | 0.14181724  | 4.051986  | 1.8930110  | 6.248114e-02 | 1.732331e-01 |
| ## PPP6R3       | -0.12322576 | 7.855809  | -1.8929945 | 6.248337e-02 | 1.732331e-01 |
| ## LACC1        | 0.17202780  | 4.517902  | 1.8928223  | 6.250665e-02 | 1.732746e-01 |
| ## OGA          | 0.16698074  | 8.775492  | 1.8926439  | 6.253076e-02 | 1.733183e-01 |
| ## H2AC11       | 0.24826331  | 4.144894  | 1.8925394  | 6.254489e-02 | 1.733344e-01 |
| ## C12orf40     | -0.12493899 | 3.732001  | -1.8921279 | 6.260056e-02 | 1.734656e-01 |
| ## MGAT4B       | 0.23156298  | 8.691742  | 1.8918044  | 6.264434e-02 | 1.735603e-01 |
| ## LOC101929536 | 0.11387239  | 5.582828  | 1.8917522  | 6.265141e-02 | 1.735603e-01 |
| ## SLC02B1      | 0.26676368  | 5.426691  | 1.8912924  | 6.271369e-02 | 1.736858e-01 |
| ## SGTA         | 0.10808283  | 7.248491  | 1.8912810  | 6.271524e-02 | 1.736858e-01 |
| ## SGCG         | -0.12728097 | 3.801351  | -1.8912331 | 6.272173e-02 | 1.736858e-01 |
| ## ELOF1        | 0.10878141  | 7.997117  | 1.8911459  | 6.273355e-02 | 1.736955e-01 |
| ## ZNF687       | 0.12347412  | 6.779335  | 1.8908183  | 6.277798e-02 | 1.737953e-01 |
| ## FASTKD1      | 0.18399676  | 8.411867  | 1.8907230  | 6.279090e-02 | 1.738080e-01 |
| ## C1orf56      | 0.25060463  | 5.463050  | 1.8905814  | 6.281012e-02 | 1.738381e-01 |
| ## LINC01144    | -0.06203466 | 4.710059  | -1.8904516 | 6.282773e-02 | 1.738637e-01 |
| ## HOXA11-AS    | 0.23098187  | 4.291401  | 1.8903255  | 6.284485e-02 | 1.738880e-01 |
| ## LOC102724965 | -0.08525992 | 4.384190  | -1.8900420 | 6.288335e-02 | 1.739714e-01 |
| ## GNMT         | -0.18104622 | 4.408609  | -1.8897505 | 6.292296e-02 | 1.740579e-01 |
| ## TNIP3        | 0.14552587  | 3.514212  | 1.8896716  | 6.293368e-02 | 1.740644e-01 |
| ## LOC105371693 | -0.06858239 | 3.998220  | -1.8895036 | 6.295652e-02 | 1.741044e-01 |
| ## ADNP2        | 0.20752323  | 8.046029  | 1.8889651  | 6.302977e-02 | 1.742839e-01 |
| ## GS1-279B7.1  | -0.10145255 | 4.221854  | -1.8884836 | 6.309533e-02 | 1.744420e-01 |
| ## UGDH         | -0.25272224 | 8.673720  | -1.8884144 | 6.310476e-02 | 1.744449e-01 |
| ## MANSC1       | -0.29776284 | 8.924724  | -1.8882215 | 6.313105e-02 | 1.744944e-01 |
| ## PRSS55       | -0.06082352 | 3.862022  | -1.8879134 | 6.317304e-02 | 1.745723e-01 |
| ## TEX26        | -0.06915428 | 3.473206  | -1.8878918 | 6.317598e-02 | 1.745723e-01 |
| ## SHKBP1       | 0.17504526  | 7.316829  | 1.8876825  | 6.320453e-02 | 1.746108e-01 |
| ## H4C9         | 0.11141594  | 5.466372  | 1.8876666  | 6.320670e-02 | 1.746108e-01 |
| ## HSF1         | 0.18305799  | 7.028604  | 1.8868134  | 6.332319e-02 | 1.748963e-01 |
| ## NEUROD6      | -0.07811208 | 5.233339  | -1.8867866 | 6.332685e-02 | 1.748963e-01 |
| ## LPCAT4       | -0.30999826 | 6.260639  | -1.8862306 | 6.340286e-02 | 1.750830e-01 |
| ## PPIE         | 0.15926502  | 6.940824  | 1.8859645  | 6.343927e-02 | 1.751603e-01 |
| ## ALMS1        | 0.16285741  | 6.563356  | 1.8853790  | 6.351943e-02 | 1.753584e-01 |
| ## PRKCG        | 0.09310539  | 5.266100  | 1.8851198  | 6.355495e-02 | 1.754332e-01 |
| ## RPS6KA2-AS1  | -0.13540772 | 4.911522  | -1.8849950 | 6.357205e-02 | 1.754572e-01 |
| ## UBAC2        | 0.14837711  | 8.071988  | 1.8847007  | 6.361241e-02 | 1.755453e-01 |
| ## MUC13        | 0.56819362  | 8.798210  | 1.8846356  | 6.362135e-02 | 1.755467e-01 |
| ## MON2         | -0.13410989 | 8.086266  | -1.8844908 | 6.364121e-02 | 1.755782e-01 |
| ## SLC27A1      | -0.18151812 | 7.258506  | -1.8844163 | 6.365143e-02 | 1.755832e-01 |
| ## LOC105376023 | -0.21098622 | 4.356679  | -1.8840379 | 6.370337e-02 | 1.756834e-01 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## CREG1     | 0.16587900  | 10.721891 | 1.8839977  | 6.370890e-02 | 1.756834e-01 |
| ## AAK1      | -0.19030383 | 8.232716  | -1.8839672 | 6.371308e-02 | 1.756834e-01 |
| ## GABRA5    | -0.07047831 | 3.318580  | -1.8837503 | 6.374288e-02 | 1.757423e-01 |
| ## SMAP2     | -0.25312425 | 8.334393  | -1.8836028 | 6.376316e-02 | 1.757750e-01 |
| ## CASP4     | 0.21651001  | 7.668723  | 1.8834964  | 6.377778e-02 | 1.757920e-01 |
| ## ZNF738    | 0.33435421  | 6.380626  | 1.8833439  | 6.379874e-02 | 1.758128e-01 |
| ## LINC00491 | -0.15459555 | 6.678748  | -1.8833187 | 6.380220e-02 | 1.758128e-01 |
| ## RDX       | 0.22816330  | 4.366648  | 1.8830518  | 6.383892e-02 | 1.758907e-01 |
| ## LINC00615 | 0.05028224  | 3.312037  | 1.8829889  | 6.384758e-02 | 1.758912e-01 |
| ## SHANK3    | -0.25964994 | 6.552439  | -1.8827082 | 6.388620e-02 | 1.759744e-01 |
| ## FMO1      | -0.49243687 | 5.811307  | -1.8823244 | 6.393905e-02 | 1.760892e-01 |
| ## MAPRE3    | -0.13490010 | 4.478463  | -1.8822827 | 6.394480e-02 | 1.760892e-01 |
| ## LINC00943 | -0.09721683 | 4.475182  | -1.8821536 | 6.396259e-02 | 1.761149e-01 |
| ## IKZF3     | 0.05806338  | 3.358624  | 1.8818285  | 6.400740e-02 | 1.762150e-01 |
| ## LFNG      | 0.10205969  | 4.792864  | 1.8815780  | 6.404194e-02 | 1.762868e-01 |
| ## GJB6      | 0.48300385  | 3.887915  | 1.8814673  | 6.405722e-02 | 1.763055e-01 |
| ## CSNK1G1   | 0.10036812  | 4.784179  | 1.8810329  | 6.411717e-02 | 1.764472e-01 |
| ## ARMH4     | -0.09496866 | 4.290353  | -1.8808318 | 6.414495e-02 | 1.765003e-01 |
| ## PAK4      | 0.20958396  | 8.068565  | 1.8805316  | 6.418642e-02 | 1.765911e-01 |
| ## DLG1      | 0.21848551  | 8.373008  | 1.8803655  | 6.420938e-02 | 1.766096e-01 |
| ## JAKMIP1   | 0.19812249  | 4.712995  | 1.8803602  | 6.421011e-02 | 1.766096e-01 |
| ## HIF1AN    | 0.11638492  | 6.181496  | 1.8801640  | 6.423725e-02 | 1.766609e-01 |
| ## IL31RA    | -0.08962564 | 3.949987  | -1.8800467 | 6.425347e-02 | 1.766822e-01 |
| ## ANKRA2    | -0.18302259 | 7.721573  | -1.8796576 | 6.430731e-02 | 1.768069e-01 |
| ## INTS13    | 0.23717353  | 8.676964  | 1.8794420  | 6.433716e-02 | 1.768656e-01 |
| ## ENHO      | -0.12175413 | 5.285519  | -1.8789984 | 6.439862e-02 | 1.770112e-01 |
| ## PEX11G    | -0.09467233 | 6.299041  | -1.8788457 | 6.441978e-02 | 1.770460e-01 |
| ## ZNF333    | -0.08885217 | 4.263371  | -1.8786635 | 6.444504e-02 | 1.770820e-01 |
| ## GYS2      | -0.04867123 | 3.240990  | -1.8786286 | 6.444988e-02 | 1.770820e-01 |
| ## ERVH-1    | -0.14943073 | 7.851521  | -1.8781389 | 6.451782e-02 | 1.772437e-01 |
| ## MRPL24    | 0.17111506  | 8.385215  | 1.8780818  | 6.452575e-02 | 1.772437e-01 |
| ## TDRD12    | -0.07673395 | 3.910744  | -1.8780014 | 6.453691e-02 | 1.772509e-01 |
| ## LINC01974 | -0.10992092 | 3.634305  | -1.8778498 | 6.455796e-02 | 1.772854e-01 |
| ## HOMER1    | 0.30429152  | 6.723955  | 1.8775826  | 6.459508e-02 | 1.773639e-01 |
| ## PPFIBP2   | -0.33228505 | 8.092958  | -1.8774354 | 6.461554e-02 | 1.773967e-01 |
| ## GAD2      | -0.07902827 | 3.709070  | -1.8772640 | 6.463936e-02 | 1.774387e-01 |
| ## KCNN4     | -0.37275057 | 7.357805  | -1.8771038 | 6.466164e-02 | 1.774607e-01 |
| ## FOXN3-AS2 | -0.08109426 | 3.932375  | -1.8770839 | 6.466440e-02 | 1.774607e-01 |
| ## SFXN1     | 0.20413499  | 7.219545  | 1.8770160  | 6.467385e-02 | 1.774632e-01 |
| ## LRRC8D    | 0.13605695  | 8.572595  | 1.8768800  | 6.469276e-02 | 1.774801e-01 |
| ## HOXC13    | 0.11888858  | 4.509473  | 1.8768492  | 6.469705e-02 | 1.774801e-01 |
| ## ICA1L     | -0.06666235 | 4.038296  | -1.8762015 | 6.478721e-02 | 1.777013e-01 |
| ## LINC01847 | -0.06819685 | 4.225279  | -1.8761473 | 6.479477e-02 | 1.777013e-01 |
| ## PLXND1    | -0.10455700 | 5.550677  | -1.8757600 | 6.484875e-02 | 1.778260e-01 |
| ## CYP1A1    | -0.14988332 | 4.476082  | -1.8752077 | 6.492578e-02 | 1.780137e-01 |
| ## PITX1-AS1 | -0.11845390 | 6.091445  | -1.8748055 | 6.498192e-02 | 1.781442e-01 |
| ## GATAD2B   | 0.12361656  | 6.334484  | 1.8745051  | 6.502387e-02 | 1.782358e-01 |
| ## SUSD2     | -0.24217858 | 5.716324  | -1.8740369 | 6.508933e-02 | 1.783675e-01 |
| ## RNF126P1  | 0.12189790  | 6.099245  | 1.8739847  | 6.509663e-02 | 1.783675e-01 |
| ## THOP1     | 0.25764836  | 6.228736  | 1.8739774  | 6.509764e-02 | 1.783675e-01 |
| ## CIB1      | 0.17647656  | 9.866197  | 1.8734912  | 6.516567e-02 | 1.785065e-01 |
| ## VSTM2B-DT | -0.08180120 | 5.612156  | -1.8734845 | 6.516661e-02 | 1.785065e-01 |
| ## PCNX3     | 0.14773189  | 6.535965  | 1.8734272  | 6.517464e-02 | 1.785065e-01 |
| ## HLCS      | 0.14055597  | 4.585483  | 1.8733699  | 6.518265e-02 | 1.785065e-01 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## CALCR     | -0.08077229 | 3.563905  | -1.8730768 | 6.522371e-02 | 1.785955e-01 |
| ## HEG1      | -0.19912350 | 7.416815  | -1.8726302 | 6.528629e-02 | 1.787205e-01 |
| ## TRIP12    | 0.10970165  | 9.731293  | 1.8726283  | 6.528655e-02 | 1.787205e-01 |
| ## LINC02179 | -0.06961690 | 3.729023  | -1.8723902 | 6.531995e-02 | 1.787885e-01 |
| ## RAB9A     | 0.17314358  | 8.646304  | 1.8722762  | 6.533594e-02 | 1.788087e-01 |
| ## TST       | -0.36102801 | 9.738749  | -1.8716891 | 6.541835e-02 | 1.790107e-01 |
| ## THAP9     | 0.05594836  | 3.540061  | 1.8714449  | 6.545265e-02 | 1.790811e-01 |
| ## TRPV3     | -0.11506273 | 4.867010  | -1.8713379 | 6.546767e-02 | 1.790986e-01 |
| ## COG4      | 0.11187011  | 7.754822  | 1.8709375  | 6.552396e-02 | 1.792291e-01 |
| ## APLF      | -0.08724637 | 3.924767  | -1.8707878 | 6.554502e-02 | 1.792631e-01 |
| ## MGAT5B    | -0.09075483 | 4.243077  | -1.8705680 | 6.557594e-02 | 1.793050e-01 |
| ## ITGA6-AS1 | 0.07869052  | 4.175812  | 1.8705111  | 6.558395e-02 | 1.793050e-01 |
| ## SEC24C    | 0.12154604  | 8.339868  | 1.8704359  | 6.559454e-02 | 1.793050e-01 |
| ## HNF4G     | 0.37392919  | 4.960691  | 1.8704343  | 6.559477e-02 | 1.793050e-01 |
| ## GSTP1     | 0.21212054  | 10.260648 | 1.8700937  | 6.564271e-02 | 1.794125e-01 |
| ## PIGA      | 0.17468747  | 6.079157  | 1.8697801  | 6.568691e-02 | 1.795097e-01 |
| ## GON4L     | 0.22071254  | 6.667460  | 1.8694483  | 6.573367e-02 | 1.796140e-01 |
| ## OR1E1     | -0.05837716 | 3.367068  | -1.8691983 | 6.576893e-02 | 1.796651e-01 |
| ## CLK4      | 0.11365884  | 3.735434  | 1.8691183  | 6.578022e-02 | 1.796651e-01 |
| ## BAG1      | -0.16373251 | 8.404000  | -1.8690907 | 6.578411e-02 | 1.796651e-01 |
| ## SLC1A3    | 0.17155263  | 3.608909  | 1.8690473  | 6.579024e-02 | 1.796651e-01 |
| ## ATG13     | 0.12722509  | 7.365193  | 1.8690097  | 6.579554e-02 | 1.796651e-01 |
| ## PDCD1LG2  | 0.16034460  | 4.094582  | 1.8687377  | 6.583393e-02 | 1.797464e-01 |
| ## DAPL1     | 0.40312272  | 4.668049  | 1.8683308  | 6.589140e-02 | 1.798605e-01 |
| ## SNIP1     | 0.12053999  | 6.049040  | 1.8683194  | 6.589301e-02 | 1.798605e-01 |
| ## ZCWPW2    | -0.09068983 | 3.495668  | -1.8679943 | 6.593896e-02 | 1.799624e-01 |
| ## RGR       | -0.08029621 | 4.417838  | -1.8677683 | 6.597092e-02 | 1.800181e-01 |
| ## PDXP-DT   | -0.08670844 | 5.557255  | -1.8677277 | 6.597666e-02 | 1.800181e-01 |
| ## CCDC78    | 0.09976390  | 4.020036  | 1.8671303  | 6.606121e-02 | 1.802252e-01 |
| ## SMAD2     | -0.17300757 | 8.606795  | -1.8669343 | 6.608897e-02 | 1.802710e-01 |
| ## MBP       | 0.21496077  | 7.783304  | 1.8668350  | 6.610304e-02 | 1.802710e-01 |
| ## TMEM26    | -0.05245817 | 3.271907  | -1.8668284 | 6.610397e-02 | 1.802710e-01 |
| ## DDX60     | -0.37472936 | 9.177801  | -1.8665289 | 6.614641e-02 | 1.803483e-01 |
| ## PRB3      | -0.12635534 | 5.393053  | -1.8665061 | 6.614964e-02 | 1.803483e-01 |
| ## OSBPL10   | 0.15508722  | 5.939189  | 1.8662700  | 6.618312e-02 | 1.804159e-01 |
| ## SMCHD1    | 0.27782726  | 8.176296  | 1.8661511  | 6.619998e-02 | 1.804383e-01 |
| ## RHBG      | 0.09416368  | 5.719537  | 1.8659254  | 6.623200e-02 | 1.805019e-01 |
| ## USP13     | 0.24374718  | 7.019977  | 1.8655353  | 6.628738e-02 | 1.806292e-01 |
| ## DBH       | -0.10855437 | 5.020091  | -1.8654323 | 6.630201e-02 | 1.806454e-01 |
| ## SYDE2     | -0.17896692 | 3.525003  | -1.8653502 | 6.631367e-02 | 1.806536e-01 |
| ## LRG1      | 0.32765292  | 6.837854  | 1.8649962  | 6.636398e-02 | 1.807670e-01 |
| ## ZNF345    | -0.16296824 | 4.050474  | -1.8647556 | 6.639819e-02 | 1.808209e-01 |
| ## PRKCA-AS1 | 0.03910854  | 3.052440  | 1.8647349  | 6.640113e-02 | 1.808209e-01 |
| ## TPTE2P1   | -0.06858370 | 3.769072  | -1.8645707 | 6.642448e-02 | 1.808608e-01 |
| ## IFIT5     | 0.23906331  | 8.102853  | 1.8644202  | 6.644589e-02 | 1.808954e-01 |
| ## ZNF271P   | -0.24884444 | 6.931116  | -1.8643160 | 6.646072e-02 | 1.809122e-01 |
| ## TNFRSF13C | -0.12514400 | 5.500948  | -1.8641753 | 6.648074e-02 | 1.809430e-01 |
| ## CRIPT     | 0.20237952  | 6.460929  | 1.8635716  | 6.656673e-02 | 1.811534e-01 |
| ## IL11      | 0.43703740  | 4.575844  | 1.8632964  | 6.660596e-02 | 1.812364e-01 |
| ## CAPZB     | -0.10455747 | 9.807441  | -1.8629261 | 6.665878e-02 | 1.813565e-01 |
| ## HECW1-IT1 | -0.04705328 | 3.215162  | -1.8626852 | 6.669315e-02 | 1.814263e-01 |
| ## KCNRG     | 0.10464811  | 4.226004  | 1.8625790  | 6.670831e-02 | 1.814438e-01 |
| ## NNT       | -0.29903881 | 8.226400  | -1.8620578 | 6.678276e-02 | 1.816069e-01 |
| ## JOSD1     | 0.15123596  | 9.066630  | 1.8620370  | 6.678573e-02 | 1.816069e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LINC02032    | -0.06052723 | 3.528629  | -1.8618607 | 6.681093e-02 | 1.816518e-01 |
| ## KHSRP        | 0.12376161  | 5.669878  | 1.8617147  | 6.683180e-02 | 1.816672e-01 |
| ## NECTIN3      | -0.50169815 | 7.071897  | -1.8616988 | 6.683407e-02 | 1.816672e-01 |
| ## UBE2R2       | 0.14696783  | 8.938661  | 1.8616164  | 6.684586e-02 | 1.816756e-01 |
| ## CYP3A43      | -0.09931015 | 4.664366  | -1.8612581 | 6.689711e-02 | 1.817911e-01 |
| ## CRTC3        | -0.19586153 | 8.952259  | -1.8611716 | 6.690949e-02 | 1.817950e-01 |
| ## FBXL15       | -0.13577052 | 6.847526  | -1.8611261 | 6.691600e-02 | 1.817950e-01 |
| ## PHF6         | 0.07915198  | 4.244611  | 1.8607446  | 6.697064e-02 | 1.819197e-01 |
| ## LINC02180    | 0.06553691  | 3.669176  | 1.8604187  | 6.701732e-02 | 1.820228e-01 |
| ## ABCB9        | -0.11965880 | 5.469849  | -1.8602775 | 6.703757e-02 | 1.820336e-01 |
| ## LOC100132077 | -0.07373180 | 3.605693  | -1.8602691 | 6.703877e-02 | 1.820336e-01 |
| ## PPP2R3B      | -0.12218511 | 4.886107  | -1.8600506 | 6.707010e-02 | 1.820949e-01 |
| ## SLC26A3      | -1.02425486 | 4.912841  | -1.8599661 | 6.708222e-02 | 1.821040e-01 |
| ## CA11         | -0.28638127 | 5.835166  | -1.8598306 | 6.710165e-02 | 1.821140e-01 |
| ## BRF1         | 0.09809511  | 4.047433  | 1.8598187  | 6.710336e-02 | 1.821140e-01 |
| ## CSTA         | -0.51062177 | 8.453407  | -1.8597014 | 6.712019e-02 | 1.821242e-01 |
| ## ANKRD34A     | -0.09377319 | 4.781070  | -1.8596627 | 6.712575e-02 | 1.821242e-01 |
| ## P4HA3-AS1    | -0.10657965 | 4.057219  | -1.8596097 | 6.713336e-02 | 1.821242e-01 |
| ## TMEM63B      | 0.15172019  | 7.311005  | 1.8594245  | 6.715994e-02 | 1.821725e-01 |
| ## ESRRA        | 0.17632862  | 7.750259  | 1.8586008  | 6.727828e-02 | 1.824698e-01 |
| ## TMEM107      | 0.14038104  | 4.165404  | 1.8582810  | 6.732429e-02 | 1.825708e-01 |
| ## ADH5         | -0.14433252 | 9.753900  | -1.8582088 | 6.733467e-02 | 1.825752e-01 |
| ## ALKBH7       | 0.07892179  | 3.979811  | 1.8580096  | 6.736334e-02 | 1.826135e-01 |
| ## SULF1        | 0.55233208  | 8.586148  | 1.8579887  | 6.736635e-02 | 1.826135e-01 |
| ## CNGB3        | -0.08469719 | 4.521968  | -1.8576774 | 6.741117e-02 | 1.826742e-01 |
| ## APOBEC3D     | -0.12018741 | 4.898113  | -1.8576503 | 6.741509e-02 | 1.826742e-01 |
| ## CEBPZ        | 0.15216844  | 8.668066  | 1.8576013  | 6.742214e-02 | 1.826742e-01 |
| ## HES4         | 0.28567040  | 6.709456  | 1.8575895  | 6.742384e-02 | 1.826742e-01 |
| ## CDC14C       | -0.04125832 | 3.193803  | -1.8574687 | 6.744124e-02 | 1.826976e-01 |
| ## TAFA2        | -0.14023317 | 4.878642  | -1.8573269 | 6.746167e-02 | 1.827113e-01 |
| ## ST3GAL6      | -0.23438790 | 5.266971  | -1.8573011 | 6.746539e-02 | 1.827113e-01 |
| ## ZDHHC2       | 0.08491808  | 3.796863  | 1.8572039  | 6.747940e-02 | 1.827113e-01 |
| ## PSMB10       | 0.27747271  | 8.961504  | 1.8571902  | 6.748138e-02 | 1.827113e-01 |
| ## TM4SF1       | 0.30854329  | 11.162433 | 1.8570480  | 6.750187e-02 | 1.827430e-01 |
| ## LINC02043    | -0.08972557 | 4.906760  | -1.8567526 | 6.754448e-02 | 1.828326e-01 |
| ## KKRX         | 0.08980281  | 3.907817  | 1.8566969  | 6.755252e-02 | 1.828326e-01 |
| ## LINC02860    | -0.05965961 | 3.600586  | -1.8564957 | 6.758156e-02 | 1.828874e-01 |
| ## ATP10B       | 0.66521189  | 8.293261  | 1.8556938  | 6.769738e-02 | 1.831512e-01 |
| ## AP4M1        | 0.15322712  | 6.757309  | 1.8556544  | 6.770308e-02 | 1.831512e-01 |
| ## CRYZL1       | -0.22355498 | 7.499355  | -1.8556244 | 6.770741e-02 | 1.831512e-01 |
| ## SSX1         | 0.34370214  | 4.525423  | 1.8555773  | 6.771422e-02 | 1.831512e-01 |
| ## CTNNA3       | -0.08163843 | 3.393195  | -1.8553363 | 6.774907e-02 | 1.832216e-01 |
| ## METTL18      | 0.21851912  | 6.659051  | 1.8547362  | 6.783591e-02 | 1.834314e-01 |
| ## F3           | -0.36275442 | 9.003741  | -1.8546316 | 6.785105e-02 | 1.834314e-01 |
| ## SOHLH1       | 0.15007923  | 5.375355  | 1.8546177  | 6.785307e-02 | 1.834314e-01 |
| ## ZBED5        | -0.14525602 | 8.782101  | -1.8542953 | 6.789977e-02 | 1.835339e-01 |
| ## UBR2         | 0.04642252  | 3.292135  | 1.8535146  | 6.801298e-02 | 1.838160e-01 |
| ## KRTAP4-4     | -0.04569789 | 3.347156  | -1.8534165 | 6.802721e-02 | 1.838306e-01 |
| ## ST20         | 0.12597895  | 7.277673  | 1.8532107  | 6.805709e-02 | 1.838875e-01 |
| ## ZBTB8B       | -0.05849315 | 3.631658  | -1.8529490 | 6.809509e-02 | 1.839663e-01 |
| ## SASH1        | -0.22797099 | 8.009917  | -1.8525147 | 6.815819e-02 | 1.840891e-01 |
| ## BRINP3-DT    | -0.07205852 | 3.813998  | -1.8524053 | 6.817411e-02 | 1.840891e-01 |
| ## CABLES1      | 0.23187289  | 4.631024  | 1.8523850  | 6.817705e-02 | 1.840891e-01 |
| ## HACE1        | -0.20540573 | 6.128029  | -1.8523612 | 6.818052e-02 | 1.840891e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## MTA3         | 0.18447927  | 7.359902  | 1.8522885  | 6.819110e-02 | 1.840891e-01 |
| ## CCN4         | 0.29590831  | 4.718469  | 1.8522345  | 6.819894e-02 | 1.840891e-01 |
| ## INTS14       | 0.09108515  | 3.959282  | 1.8522106  | 6.820242e-02 | 1.840891e-01 |
| ## NEURL2       | -0.11853842 | 4.647438  | -1.8520628 | 6.822391e-02 | 1.841232e-01 |
| ## FKBP4        | 0.08823450  | 3.571838  | 1.8517855  | 6.826427e-02 | 1.842083e-01 |
| ## CCDC92       | -0.21577213 | 8.145488  | -1.8514359 | 6.831518e-02 | 1.843218e-01 |
| ## ASMTL-AS1    | -0.20399709 | 4.873453  | -1.8511307 | 6.835964e-02 | 1.844178e-01 |
| ## COL5A2       | 0.34501867  | 10.029126 | 1.8510273  | 6.837470e-02 | 1.844346e-01 |
| ## MAPK10-AS1   | -0.08214269 | 4.216067  | -1.8505948 | 6.843777e-02 | 1.845808e-01 |
| ## NR4A1        | -0.38214158 | 8.628801  | -1.8505072 | 6.845055e-02 | 1.845913e-01 |
| ## ADCY1        | -0.25764320 | 4.483328  | -1.8503166 | 6.847837e-02 | 1.846424e-01 |
| ## MORN2        | 0.21663792  | 6.872161  | 1.8502134  | 6.849342e-02 | 1.846424e-01 |
| ## FAM9C        | -0.07331828 | 3.610655  | -1.8501446 | 6.850347e-02 | 1.846424e-01 |
| ## PLP2         | 0.32170999  | 10.087407 | 1.8501345  | 6.850494e-02 | 1.846424e-01 |
| ## WDFY2        | 0.16519254  | 4.831383  | 1.8499909  | 6.852591e-02 | 1.846750e-01 |
| ## ZNF826P      | -0.13246606 | 4.246322  | -1.8498493 | 6.854659e-02 | 1.847068e-01 |
| ## DHCR24       | 0.38061753  | 8.880465  | 1.8495247  | 6.859401e-02 | 1.848107e-01 |
| ## STAR         | 0.07010741  | 3.850031  | 1.8490087  | 6.866945e-02 | 1.849863e-01 |
| ## XPNPEP3      | 0.15128827  | 5.321915  | 1.8489574  | 6.867697e-02 | 1.849863e-01 |
| ## TUFT1        | 0.26923282  | 8.243532  | 1.8486613  | 6.872029e-02 | 1.850791e-01 |
| ## DPF2         | 0.14945227  | 7.867664  | 1.8474768  | 6.889386e-02 | 1.855225e-01 |
| ## RNF38        | -0.19069689 | 8.686750  | -1.8472786 | 6.892294e-02 | 1.855768e-01 |
| ## CLVS1        | -0.09263991 | 3.885212  | -1.8469716 | 6.896799e-02 | 1.856736e-01 |
| ## CMC1         | 0.15516684  | 7.939717  | 1.8469123  | 6.897670e-02 | 1.856736e-01 |
| ## KRBOX1-AS1   | -0.10127796 | 3.909740  | -1.8462253 | 6.907764e-02 | 1.859212e-01 |
| ## ZNF397       | -0.23548416 | 7.398758  | -1.8461005 | 6.909599e-02 | 1.859466e-01 |
| ## MOB3A        | -0.19770599 | 7.426433  | -1.8459421 | 6.911929e-02 | 1.859539e-01 |
| ## ZNF212       | 0.10366499  | 7.377723  | 1.8459321  | 6.912074e-02 | 1.859539e-01 |
| ## CAPZA3       | -0.09753978 | 3.594788  | -1.8459000 | 6.912547e-02 | 1.859539e-01 |
| ## ERV3-1       | 0.09665943  | 3.572452  | 1.8456978  | 6.915522e-02 | 1.860099e-01 |
| ## CLCC1        | 0.20337126  | 6.780758  | 1.8455889  | 6.917125e-02 | 1.860289e-01 |
| ## SYNGAP1      | -0.09966835 | 4.711316  | -1.8454364 | 6.919370e-02 | 1.860508e-01 |
| ## ALCAM        | 0.17604710  | 4.029343  | 1.8454123  | 6.919725e-02 | 1.860508e-01 |
| ## ZDHHC21      | -0.20004557 | 6.123772  | -1.8451468 | 6.923635e-02 | 1.861319e-01 |
| ## LCN6         | -0.11090056 | 4.408340  | -1.8448361 | 6.928212e-02 | 1.862184e-01 |
| ## HPYR1        | -0.12361309 | 3.854474  | -1.8448070 | 6.928641e-02 | 1.862184e-01 |
| ## RECQL        | 0.22679571  | 7.301318  | 1.8446168  | 6.931444e-02 | 1.862697e-01 |
| ## ATPSCKMT     | 0.15543613  | 5.200254  | 1.8442897  | 6.936268e-02 | 1.863753e-01 |
| ## SRSF4        | -0.10468491 | 9.491725  | -1.8441405 | 6.938470e-02 | 1.864104e-01 |
| ## C3orf33      | 0.09205534  | 3.472406  | 1.8440362  | 6.940008e-02 | 1.864277e-01 |
| ## GLOD5        | -0.13575453 | 4.195199  | -1.8437644 | 6.944021e-02 | 1.865114e-01 |
| ## MGMT1        | -0.15354506 | 9.059170  | -1.8435197 | 6.947635e-02 | 1.865844e-01 |
| ## TMCC1-DT     | 0.04823205  | 3.162168  | 1.8433813  | 6.949680e-02 | 1.865960e-01 |
| ## CYP11A1      | -0.12458866 | 4.348718  | -1.8433693 | 6.949857e-02 | 1.865960e-01 |
| ## TAF4         | 0.08474113  | 4.133918  | 1.8431803  | 6.952651e-02 | 1.866400e-01 |
| ## ZNF24        | 0.10098700  | 4.329816  | 1.8431370  | 6.953291e-02 | 1.866400e-01 |
| ## CLTCL1       | 0.23634802  | 5.147286  | 1.8429339  | 6.956293e-02 | 1.866966e-01 |
| ## LGALS3BP     | 0.21328614  | 10.717517 | 1.8427643  | 6.958802e-02 | 1.867180e-01 |
| ## ZMYND15      | 0.16117855  | 5.396800  | 1.8427587  | 6.958885e-02 | 1.867180e-01 |
| ## SAGE1        | 0.19279400  | 3.575574  | 1.8425230  | 6.962372e-02 | 1.867813e-01 |
| ## LOC105370178 | -0.11448086 | 5.582501  | -1.8424779 | 6.963039e-02 | 1.867813e-01 |
| ## ANKRD10-IT1  | -0.10092133 | 8.431663  | -1.8424029 | 6.964149e-02 | 1.867870e-01 |
| ## XPA          | -0.14336637 | 7.624965  | -1.8420985 | 6.968656e-02 | 1.868838e-01 |
| ## ZBED8        | -0.25376695 | 4.693500  | -1.8417347 | 6.974046e-02 | 1.870043e-01 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ITGB8        | 0.20633098  | 3.946277  | 1.8416224  | 6.975710e-02 | 1.870248e-01 |
| ## SERPINB1     | 0.30816664  | 10.071953 | 1.8415492  | 6.976796e-02 | 1.870299e-01 |
| ## PPP1R21      | -0.15841025 | 7.663088  | -1.8411014 | 6.983436e-02 | 1.871838e-01 |
| ## CYP2R1       | 0.10407938  | 4.532267  | 1.8406507  | 6.990125e-02 | 1.873389e-01 |
| ## GARS1-DT     | -0.12894294 | 5.469971  | -1.8404869 | 6.992558e-02 | 1.873800e-01 |
| ## PRR3         | 0.12188911  | 5.705976  | 1.8401795  | 6.997125e-02 | 1.874574e-01 |
| ## NRSN2        | -0.16771379 | 6.293742  | -1.8401714 | 6.997245e-02 | 1.874574e-01 |
| ## PPP1R16B     | -0.25732141 | 6.702522  | -1.8399786 | 7.000111e-02 | 1.875101e-01 |
| ## MSM01        | 0.36804797  | 9.036245  | 1.8398731  | 7.001680e-02 | 1.875279e-01 |
| ## HSDL1        | 0.12842590  | 6.031706  | 1.8390961  | 7.013241e-02 | 1.878134e-01 |
| ## LINC02842    | -0.04949769 | 3.422202  | -1.8387673 | 7.018138e-02 | 1.879204e-01 |
| ## SALL4        | 0.41829471  | 5.941764  | 1.8381426  | 7.027449e-02 | 1.881455e-01 |
| ## FAM81A       | 0.15266112  | 4.882496  | 1.8377123  | 7.033870e-02 | 1.882797e-01 |
| ## LSM14A       | -0.16028837 | 9.359450  | -1.8376856 | 7.034268e-02 | 1.882797e-01 |
| ## LOC105375116 | -0.10664576 | 4.675890  | -1.8375258 | 7.036654e-02 | 1.883193e-01 |
| ## MRPL21       | 0.17057950  | 8.212133  | 1.8372607  | 7.040613e-02 | 1.884011e-01 |
| ## FGF19        | 0.11832134  | 4.171181  | 1.8367582  | 7.048123e-02 | 1.885778e-01 |
| ## NBPF5P       | -0.07673217 | 3.864963  | -1.8363140 | 7.054766e-02 | 1.887313e-01 |
| ## PSMC5        | 0.11864080  | 9.972758  | 1.8362137  | 7.056268e-02 | 1.887472e-01 |
| ## CEP41        | -0.07427973 | 3.871285  | -1.8357950 | 7.062535e-02 | 1.888906e-01 |
| ## PLA2G15      | 0.17345392  | 5.818097  | 1.8356398  | 7.064861e-02 | 1.889207e-01 |
| ## NME6         | 0.16084033  | 5.756950  | 1.8355664  | 7.065960e-02 | 1.889207e-01 |
| ## NT5C2        | 0.15050401  | 9.029241  | 1.8355384  | 7.066380e-02 | 1.889207e-01 |
| ## PRSS23       | -0.14927724 | 4.854309  | -1.8351544 | 7.072135e-02 | 1.890502e-01 |
| ## SRP9         | 0.10179730  | 11.799884 | 1.8350278  | 7.074034e-02 | 1.890767e-01 |
| ## HTR1D        | 0.14126351  | 4.061362  | 1.8345268  | 7.081550e-02 | 1.892533e-01 |
| ## TTF1         | 0.17895983  | 7.902673  | 1.8342846  | 7.085187e-02 | 1.893262e-01 |
| ## CFAP45       | 0.07966765  | 5.144968  | 1.8340672  | 7.088452e-02 | 1.893892e-01 |
| ## BAAT         | 0.21616027  | 5.193932  | 1.8337765  | 7.092820e-02 | 1.894164e-01 |
| ## SHLD2        | -0.12322560 | 9.493359  | -1.8337703 | 7.092914e-02 | 1.894164e-01 |
| ## TMEM40       | 0.07456452  | 4.485350  | 1.8337681  | 7.092946e-02 | 1.894164e-01 |
| ## DPYSL3       | -0.48657031 | 6.454068  | -1.8337573 | 7.093109e-02 | 1.894164e-01 |
| ## WFIKK1       | -0.11717868 | 5.574788  | -1.8330807 | 7.103285e-02 | 1.896429e-01 |
| ## MYO1D        | 0.06394937  | 3.498113  | 1.8330723  | 7.103412e-02 | 1.896429e-01 |
| ## NDUFAF3      | 0.12574057  | 8.387799  | 1.8327728  | 7.107921e-02 | 1.897389e-01 |
| ## ZHX2         | -0.14347805 | 4.431490  | -1.8322469 | 7.115843e-02 | 1.899261e-01 |
| ## ZBP1         | 0.13258122  | 5.266506  | 1.8321625  | 7.117115e-02 | 1.899357e-01 |
| ## SRCAP        | 0.12796280  | 5.227817  | 1.8320127  | 7.119373e-02 | 1.899716e-01 |
| ## DNER         | -0.42616210 | 4.137831  | -1.8319309 | 7.120607e-02 | 1.899802e-01 |
| ## NPNT         | -0.53437080 | 8.165478  | -1.8317197 | 7.123793e-02 | 1.900408e-01 |
| ## OR10A5       | -0.08647500 | 3.924244  | -1.8311709 | 7.132075e-02 | 1.902239e-01 |
| ## AARS2        | 0.13827354  | 6.259366  | 1.8311439  | 7.132483e-02 | 1.902239e-01 |
| ## C17orf80     | 0.08945884  | 4.290989  | 1.8309849  | 7.134885e-02 | 1.902577e-01 |
| ## GALK2        | 0.23731963  | 6.958881  | 1.8309390  | 7.135578e-02 | 1.902577e-01 |
| ## MYRFL        | -0.25235847 | 4.217540  | -1.8306869 | 7.139386e-02 | 1.902925e-01 |
| ## NMRK2        | -0.12194365 | 4.569992  | -1.8306773 | 7.139532e-02 | 1.902925e-01 |
| ## UBQLN2       | -0.19917871 | 8.932182  | -1.8306711 | 7.139625e-02 | 1.902925e-01 |
| ## DBT          | 0.21624512  | 5.878544  | 1.8304317  | 7.143244e-02 | 1.903646e-01 |
| ## DHPS         | 0.13697523  | 6.892221  | 1.8303139  | 7.145026e-02 | 1.903877e-01 |
| ## UBE2V2       | 0.15840312  | 8.980654  | 1.8300846  | 7.148495e-02 | 1.904558e-01 |
| ## FSCN3        | -0.09204700 | 4.446653  | -1.8298105 | 7.152643e-02 | 1.905419e-01 |
| ## ZNF778       | -0.11709616 | 6.140984  | -1.8294682 | 7.157826e-02 | 1.906326e-01 |
| ## EGFLAM-AS2   | -0.09641890 | 4.485541  | -1.8294647 | 7.157879e-02 | 1.906326e-01 |
| ## SCRN3        | 0.09354836  | 3.832723  | 1.8292900  | 7.160524e-02 | 1.906754e-01 |

|                   |             |           |            |              |              |
|-------------------|-------------|-----------|------------|--------------|--------------|
| ## CHRM1          | -0.11036117 | 3.667388  | -1.8292378 | 7.161316e-02 | 1.906754e-01 |
| ## NECAP2         | 0.14590970  | 8.071315  | 1.8291567  | 7.162545e-02 | 1.906838e-01 |
| ## TTC9C          | 0.14235663  | 4.384927  | 1.8285310  | 7.172032e-02 | 1.908955e-01 |
| ## PCGF2          | 0.13575184  | 6.220107  | 1.8285113  | 7.172330e-02 | 1.908955e-01 |
| ## FHIP2B         | -0.13659830 | 7.721541  | -1.8279367 | 7.181053e-02 | 1.910909e-01 |
| ## IL1F10         | 0.07618525  | 4.478705  | 1.8279066  | 7.181509e-02 | 1.910909e-01 |
| ## MSANTD4        | 0.17528139  | 4.792649  | 1.8276274  | 7.185751e-02 | 1.911794e-01 |
| ## UBR4           | 0.07219953  | 3.729271  | 1.8274283  | 7.188778e-02 | 1.912136e-01 |
| ## ZNF770         | 0.10970126  | 3.914440  | 1.8274220  | 7.188873e-02 | 1.912136e-01 |
| ## SNX24          | -0.24111293 | 6.388305  | -1.8270276 | 7.194870e-02 | 1.913486e-01 |
| ## MIB1           | 0.17460471  | 8.180143  | 1.8269571  | 7.195942e-02 | 1.913527e-01 |
| ## MED24          | 0.33674048  | 7.187767  | 1.8266377  | 7.200804e-02 | 1.914575e-01 |
| ## TBC1D10C       | -0.24277882 | 6.877544  | -1.8265568 | 7.202035e-02 | 1.914658e-01 |
| ## FAHD1          | 0.22395960  | 6.437255  | 1.8264601  | 7.203507e-02 | 1.914805e-01 |
| ## NID1           | -0.08047800 | 5.031414  | -1.8259610 | 7.211110e-02 | 1.916582e-01 |
| ## CPNE9          | -0.10621244 | 5.149506  | -1.8257621 | 7.214141e-02 | 1.917093e-01 |
| ## UNC93B1        | 0.12912504  | 6.929826  | 1.8257139  | 7.214876e-02 | 1.917093e-01 |
| ## SMARCD1        | 0.10762730  | 5.022286  | 1.8254397  | 7.219058e-02 | 1.917960e-01 |
| ## MAG            | -0.15190261 | 4.065026  | -1.8253191 | 7.220898e-02 | 1.918204e-01 |
| ## TLR8           | 0.23403586  | 4.298816  | 1.8249893  | 7.225932e-02 | 1.919296e-01 |
| ## ZNF564         | -0.14930174 | 6.689805  | -1.8246279 | 7.231451e-02 | 1.920517e-01 |
| ## ABCA7          | 0.15760764  | 6.221458  | 1.8241094  | 7.239375e-02 | 1.922376e-01 |
| ## FLYWCH2        | -0.10291882 | 6.241353  | -1.8239817 | 7.241328e-02 | 1.922569e-01 |
| ## KRT1           | -0.07344740 | 4.423205  | -1.8239412 | 7.241948e-02 | 1.922569e-01 |
| ## PDPN           | 0.32008110  | 6.443320  | 1.8237636  | 7.244663e-02 | 1.923045e-01 |
| ## OR8B8          | -0.07147049 | 4.508394  | -1.8231299 | 7.254364e-02 | 1.925184e-01 |
| ## PDCD6IP        | 0.13760449  | 10.123853 | 1.8231163  | 7.254573e-02 | 1.925184e-01 |
| ## IMPDH1         | 0.12234235  | 7.318624  | 1.8229834  | 7.256608e-02 | 1.925479e-01 |
| ## LOC105371703   | 0.24474631  | 3.818214  | 1.8227133  | 7.260747e-02 | 1.926332e-01 |
| ## ARHGAP19-SLIT1 | -0.06617201 | 4.830752  | -1.8226293 | 7.262035e-02 | 1.926428e-01 |
| ## CRACR2B        | -0.29040979 | 7.078200  | -1.8222641 | 7.267636e-02 | 1.927594e-01 |
| ## GPRIN1         | 0.11482268  | 5.206477  | 1.8222221  | 7.268281e-02 | 1.927594e-01 |
| ## LRRC4          | -0.09794934 | 5.904175  | -1.8220323 | 7.271192e-02 | 1.928120e-01 |
| ## CD1A           | 0.14279810  | 4.917477  | 1.8215975  | 7.277867e-02 | 1.929545e-01 |
| ## LOC101927377   | 0.04594305  | 3.349575  | 1.8215617  | 7.278417e-02 | 1.929545e-01 |
| ## ZSWIM4         | 0.09258777  | 3.979597  | 1.8214770  | 7.279718e-02 | 1.929644e-01 |
| ## ICE1           | 0.15727967  | 8.238043  | 1.8212407  | 7.283348e-02 | 1.930361e-01 |
| ## PIGP           | -0.17600640 | 9.140299  | -1.8208036 | 7.290069e-02 | 1.931896e-01 |
| ## ANKZF1         | 0.11128734  | 7.436107  | 1.8199693  | 7.302910e-02 | 1.935053e-01 |
| ## TLK1           | -0.12145392 | 9.117283  | -1.8197154 | 7.306822e-02 | 1.935819e-01 |
| ## VWC2           | -0.03760920 | 3.186112  | -1.8196609 | 7.307660e-02 | 1.935819e-01 |
| ## TMEM108        | -0.09365074 | 3.653224  | -1.8188513 | 7.320146e-02 | 1.938414e-01 |
| ## PANK1          | 0.32864152  | 6.950421  | 1.8188244  | 7.320561e-02 | 1.938414e-01 |
| ## BAG2           | -0.51634640 | 7.005630  | -1.8187968 | 7.320987e-02 | 1.938414e-01 |
| ## TCEAL8         | -0.25767571 | 8.359057  | -1.8187842 | 7.321182e-02 | 1.938414e-01 |
| ## ASB16          | -0.11587081 | 5.955002  | -1.8187135 | 7.322273e-02 | 1.938457e-01 |
| ## PPP6R1         | 0.11121022  | 7.524366  | 1.8182725  | 7.329083e-02 | 1.939792e-01 |
| ## ABCC2          | 0.30939050  | 4.401121  | 1.8182260  | 7.329801e-02 | 1.939792e-01 |
| ## LRATD2         | 0.29936758  | 8.999448  | 1.8182059  | 7.330112e-02 | 1.939792e-01 |
| ## RHBDL1         | 0.12692966  | 4.028252  | 1.8180562  | 7.332425e-02 | 1.940158e-01 |
| ## IKBIP          | 0.24357236  | 6.148069  | 1.8174159  | 7.342326e-02 | 1.942531e-01 |
| ## POFUT1         | 0.07457358  | 4.090257  | 1.8172171  | 7.345403e-02 | 1.943098e-01 |
| ## RPL3L          | -0.13763350 | 4.809745  | -1.8168649 | 7.350856e-02 | 1.944293e-01 |
| ## B3GAT2         | -0.07674466 | 3.770219  | -1.8161361 | 7.362148e-02 | 1.946875e-01 |

|                |             |           |            |              |              |
|----------------|-------------|-----------|------------|--------------|--------------|
| ## GALNTL6     | -0.07164928 | 3.824456  | -1.8160853 | 7.362937e-02 | 1.946875e-01 |
| ## PLA2R1      | 0.12865714  | 3.702539  | 1.8160541  | 7.363421e-02 | 1.946875e-01 |
| ## MORC3       | -0.16219779 | 7.311756  | -1.8159583 | 7.364907e-02 | 1.947021e-01 |
| ## CARD14      | -0.08986889 | 4.521118  | -1.8157941 | 7.367453e-02 | 1.947447e-01 |
| ## OPTN        | -0.22744522 | 7.761921  | -1.8157043 | 7.368847e-02 | 1.947568e-01 |
| ## PCDH17      | -0.25589951 | 7.295492  | -1.8153571 | 7.374237e-02 | 1.948745e-01 |
| ## KCTD16      | -0.07571374 | 4.114133  | -1.8150808 | 7.378529e-02 | 1.949537e-01 |
| ## MT1HL1      | -0.34080332 | 11.056032 | -1.8150436 | 7.379106e-02 | 1.949537e-01 |
| ## PDLIM4      | -0.32991547 | 5.819597  | -1.8148218 | 7.382553e-02 | 1.950200e-01 |
| ## RNF152      | 0.05232903  | 3.327444  | 1.8140419  | 7.394682e-02 | 1.953055e-01 |
| ## LINC01477   | -0.08052640 | 3.981089  | -1.8140063 | 7.395236e-02 | 1.953055e-01 |
| ## EDF1        | -0.12279655 | 10.475483 | -1.8139197 | 7.396585e-02 | 1.953161e-01 |
| ## SOS2        | 0.23275093  | 5.657776  | 1.8138601  | 7.397512e-02 | 1.953161e-01 |
| ## VPS35L      | -0.05111270 | 3.290181  | -1.8135271 | 7.402699e-02 | 1.954282e-01 |
| ## RAB20       | 0.19216115  | 9.000916  | 1.8132913  | 7.406372e-02 | 1.955004e-01 |
| ## FAM201A     | 0.21061996  | 3.606568  | 1.8129266  | 7.412058e-02 | 1.956105e-01 |
| ## POLD3       | 0.22467019  | 7.492288  | 1.8129033  | 7.412421e-02 | 1.956105e-01 |
| ## B4GALT2     | 0.11700919  | 6.793348  | 1.8125972  | 7.417195e-02 | 1.956949e-01 |
| ## APOC3       | -0.44842210 | 5.456213  | -1.8125778 | 7.417498e-02 | 1.956949e-01 |
| ## ALG10B      | -0.23968419 | 4.635053  | -1.8124004 | 7.420267e-02 | 1.957432e-01 |
| ## PHF5A       | 0.19582236  | 8.537323  | 1.8122054  | 7.423311e-02 | 1.957987e-01 |
| ## ATP6V1G1    | 0.14282853  | 10.877236 | 1.8120802  | 7.425266e-02 | 1.958139e-01 |
| ## TSC1        | -0.18358314 | 7.505987  | -1.8120479 | 7.425772e-02 | 1.958139e-01 |
| ## CISH        | -0.12895013 | 7.155984  | -1.8119825 | 7.426792e-02 | 1.958160e-01 |
| ## GCA         | 0.21769080  | 7.498256  | 1.8117583  | 7.430295e-02 | 1.958836e-01 |
| ## THUMPD3-AS1 | 0.23600585  | 6.622214  | 1.8116000  | 7.432769e-02 | 1.959240e-01 |
| ## FGF13       | -0.05616451 | 3.416422  | -1.8115346 | 7.433791e-02 | 1.959262e-01 |
| ## RAB3IP      | 0.04737009  | 3.100732  | 1.8113814  | 7.436186e-02 | 1.959645e-01 |
| ## MAF         | -0.04707933 | 3.197687  | -1.8109593 | 7.442790e-02 | 1.961137e-01 |
| ## C2orf42     | -0.14140769 | 6.681695  | -1.8108582 | 7.444372e-02 | 1.961306e-01 |
| ## MAP3K19     | -0.06815533 | 3.649480  | -1.8104531 | 7.450714e-02 | 1.962728e-01 |
| ## HPS4        | -0.10324385 | 6.174546  | -1.8102634 | 7.453686e-02 | 1.963263e-01 |
| ## HA01        | 0.05623826  | 3.413045  | 1.8098583  | 7.460034e-02 | 1.964686e-01 |
| ## SLC35B4     | -0.21590183 | 7.226311  | -1.8095988 | 7.464104e-02 | 1.965510e-01 |
| ## KCNB2       | -0.17610276 | 3.944358  | -1.8094362 | 7.466655e-02 | 1.965933e-01 |
| ## YTHDC2      | 0.20594258  | 5.744370  | 1.8089271  | 7.474647e-02 | 1.967788e-01 |
| ## IRF4        | -0.32294747 | 6.629074  | -1.8085024 | 7.481318e-02 | 1.969296e-01 |
| ## DGCR8       | 0.21039540  | 6.689933  | 1.8081592  | 7.486713e-02 | 1.970467e-01 |
| ## TRIM17      | 0.14663761  | 5.034738  | 1.8078896  | 7.490954e-02 | 1.971334e-01 |
| ## SLC30A5     | 0.21164990  | 7.296002  | 1.8073871  | 7.498864e-02 | 1.973166e-01 |
| ## TP53I3      | 0.25463718  | 7.898939  | 1.8073004  | 7.500229e-02 | 1.973276e-01 |
| ## ANO8        | 0.15473885  | 5.486782  | 1.8071708  | 7.502270e-02 | 1.973443e-01 |
| ## C14orf180   | -0.13298783 | 5.865015  | -1.8071396 | 7.502762e-02 | 1.973443e-01 |
| ## LINC00467   | 0.24376739  | 5.534134  | 1.8069892  | 7.505131e-02 | 1.973817e-01 |
| ## COL10A1     | 0.58349287  | 6.516550  | 1.8067368  | 7.509109e-02 | 1.974395e-01 |
| ## UTP15       | 0.11064292  | 4.088774  | 1.8067296  | 7.509223e-02 | 1.974395e-01 |
| ## CECR2       | -0.07772799 | 4.366347  | -1.8064442 | 7.513723e-02 | 1.975328e-01 |
| ## SH2D3A      | 0.27171377  | 5.374289  | 1.8063685  | 7.514917e-02 | 1.975393e-01 |
| ## ADSS1       | -0.31934646 | 6.021811  | -1.8062516 | 7.516762e-02 | 1.975629e-01 |
| ## YIF1A       | 0.12757954  | 9.165055  | 1.8061500  | 7.518364e-02 | 1.975800e-01 |
| ## SLC16A11    | -0.11412869 | 6.198021  | -1.8060771 | 7.519516e-02 | 1.975854e-01 |
| ## MAFF        | 0.20197445  | 7.595530  | 1.8059269  | 7.521886e-02 | 1.976170e-01 |
| ## SNTG2       | -0.04505498 | 3.355523  | -1.8058641 | 7.522877e-02 | 1.976170e-01 |
| ## WDR24       | 0.17219641  | 5.637910  | 1.8058204  | 7.523567e-02 | 1.976170e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ALG2         | 0.15723197  | 9.192603  | 1.8051333  | 7.534423e-02 | 1.978736e-01 |
| ## THRS         | -0.13540267 | 5.573535  | -1.8050818 | 7.535237e-02 | 1.978736e-01 |
| ## CARNMT1      | 0.21551237  | 7.137097  | 1.8048982  | 7.538141e-02 | 1.979249e-01 |
| ## IGLC1        | 0.32335353  | 4.646416  | 1.8043142  | 7.547381e-02 | 1.981425e-01 |
| ## NDUFS6       | 0.14854332  | 10.751733 | 1.8041694  | 7.549674e-02 | 1.981664e-01 |
| ## SLC13A4      | -0.12986821 | 5.463911  | -1.8041366 | 7.550193e-02 | 1.981664e-01 |
| ## CCL23        | -0.09999885 | 3.728955  | -1.8030592 | 7.567272e-02 | 1.985896e-01 |
| ## TMEM18       | -0.09864066 | 5.505069  | -1.8027749 | 7.571783e-02 | 1.986747e-01 |
| ## HOPX         | -0.05741627 | 3.740092  | -1.8027348 | 7.572421e-02 | 1.986747e-01 |
| ## AAAS         | 0.11498430  | 7.174147  | 1.8025831  | 7.574829e-02 | 1.987128e-01 |
| ## GARRE1       | -0.18363232 | 7.565087  | -1.8022051 | 7.580833e-02 | 1.988453e-01 |
| ## ELP3         | 0.14994745  | 7.286868  | 1.8020625  | 7.583100e-02 | 1.988797e-01 |
| ## ACSS3        | -0.19863808 | 4.866446  | -1.8019574 | 7.584770e-02 | 1.988984e-01 |
| ## SNRNP27      | 0.15093480  | 8.136009  | 1.8017918  | 7.587403e-02 | 1.989424e-01 |
| ## LECT2        | -0.07808892 | 3.658450  | -1.8016520 | 7.589627e-02 | 1.989757e-01 |
| ## NQO2         | 0.25501997  | 8.427792  | 1.8014742  | 7.592454e-02 | 1.990248e-01 |
| ## FADD         | 0.18053812  | 8.115682  | 1.8011984  | 7.596843e-02 | 1.991147e-01 |
| ## LOC102723335 | -0.08969326 | 4.083315  | -1.8009416 | 7.600932e-02 | 1.991835e-01 |
| ## FSIP2        | -0.06786392 | 3.249271  | -1.8009134 | 7.601381e-02 | 1.991835e-01 |
| ## CDK5RAP2     | 0.10293999  | 6.668447  | 1.8006318  | 7.605867e-02 | 1.992760e-01 |
| ## BBS9         | 0.05268744  | 3.783401  | 1.8003774  | 7.609922e-02 | 1.993539e-01 |
| ## MRPL22       | 0.14382142  | 8.278194  | 1.8003251  | 7.610756e-02 | 1.993539e-01 |
| ## SMIM22       | -0.27176820 | 8.392992  | -1.7998647 | 7.618099e-02 | 1.995212e-01 |
| ## ELOVL7       | 0.44215816  | 7.385120  | 1.7996822  | 7.621010e-02 | 1.995529e-01 |
| ## LRRC39       | 0.08794626  | 3.720670  | 1.7996407  | 7.621673e-02 | 1.995529e-01 |
| ## PNMA2        | 0.10265849  | 4.328590  | 1.7995711  | 7.622784e-02 | 1.995529e-01 |
| ## SMIM29       | 0.16247454  | 6.254960  | 1.7995485  | 7.623145e-02 | 1.995529e-01 |
| ## STAB1        | 0.06639273  | 4.108137  | 1.7991189  | 7.630004e-02 | 1.997074e-01 |
| ## NAGLU        | -0.13469867 | 6.644242  | -1.7989987 | 7.631926e-02 | 1.997326e-01 |
| ## NOP9         | 0.11812345  | 4.886582  | 1.7985655  | 7.638851e-02 | 1.998555e-01 |
| ## LINC01270    | 0.06311256  | 4.089945  | 1.7985582  | 7.638966e-02 | 1.998555e-01 |
| ## KALRN        | -0.08557778 | 4.041929  | -1.7985248 | 7.639501e-02 | 1.998555e-01 |
| ## SLX4         | 0.10149620  | 5.715992  | 1.7984479  | 7.640732e-02 | 1.998626e-01 |
| ## EXOC7        | -0.14515438 | 6.506029  | -1.7980161 | 7.647639e-02 | 2.000181e-01 |
| ## ZSCAN5A      | -0.13885573 | 4.789523  | -1.7978059 | 7.651005e-02 | 2.000810e-01 |
| ## GDE1         | 0.23496370  | 8.505255  | 1.7974413  | 7.656846e-02 | 2.002086e-01 |
| ## RRAGB        | -0.14984993 | 4.708902  | -1.7970837 | 7.662576e-02 | 2.003243e-01 |
| ## PMM2         | 0.18961157  | 7.505207  | 1.7970228  | 7.663553e-02 | 2.003243e-01 |
| ## GPCPD1       | 0.21475315  | 8.890003  | 1.7969853  | 7.664155e-02 | 2.003243e-01 |
| ## RSAD1        | -0.15008702 | 7.535929  | -1.7961361 | 7.677782e-02 | 2.006553e-01 |
| ## PCAT18       | -0.09308005 | 3.757884  | -1.7957421 | 7.684112e-02 | 2.007955e-01 |
| ## TXLNG        | 0.18466322  | 6.969047  | 1.7954555  | 7.688719e-02 | 2.008907e-01 |
| ## RFFL         | -0.12114925 | 5.145674  | -1.7950608 | 7.695066e-02 | 2.010313e-01 |
| ## ABCB5        | -0.11134283 | 4.523112  | -1.7948033 | 7.699210e-02 | 2.011143e-01 |
| ## KLF6         | -0.20233460 | 10.842806 | -1.7946274 | 7.702042e-02 | 2.011631e-01 |
| ## SCARF2       | -0.19619797 | 6.010423  | -1.7944670 | 7.704625e-02 | 2.012053e-01 |
| ## UAP1         | -0.22026955 | 9.924117  | -1.7941001 | 7.710536e-02 | 2.013341e-01 |
| ## FKBP10       | 0.34662461  | 7.004916  | 1.7940407  | 7.711492e-02 | 2.013341e-01 |
| ## SLC25A48     | -0.07842182 | 5.006460  | -1.7937242 | 7.716596e-02 | 2.014421e-01 |
| ## RPSA         | 0.08640795  | 12.829231 | 1.7934967  | 7.720265e-02 | 2.015126e-01 |
| ## MALAT1       | -0.28821039 | 13.139263 | -1.7934089 | 7.721682e-02 | 2.015244e-01 |
| ## OPRPN        | -0.06650058 | 3.673500  | -1.7927121 | 7.732932e-02 | 2.017927e-01 |
| ## TLR3         | -0.36525006 | 6.274670  | -1.7919150 | 7.745818e-02 | 2.021036e-01 |
| ## GALNT15      | -0.20175031 | 4.647195  | -1.7917031 | 7.749246e-02 | 2.021678e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CLSTN2-AS1   | -0.08512491 | 4.207202  | -1.7914731 | 7.752970e-02 | 2.022169e-01 |
| ## TAF2         | 0.13003090  | 7.159195  | 1.7914668  | 7.753072e-02 | 2.022169e-01 |
| ## TAAR5        | -0.08697609 | 4.787678  | -1.7912316 | 7.756880e-02 | 2.022678e-01 |
| ## TLE1-DT      | -0.06099061 | 3.697687  | -1.7912263 | 7.756967e-02 | 2.022678e-01 |
| ## CERT1        | -0.15366655 | 7.866204  | -1.7910826 | 7.759294e-02 | 2.023032e-01 |
| ## ELAPOR2      | -0.31944874 | 5.669665  | -1.7908806 | 7.762567e-02 | 2.023632e-01 |
| ## NDFIP1       | -0.16394319 | 9.368534  | -1.7906873 | 7.765699e-02 | 2.024195e-01 |
| ## STK35        | 0.07810364  | 3.847003  | 1.7903058  | 7.771888e-02 | 2.025538e-01 |
| ## CDON         | -0.05279032 | 3.283177  | -1.7902498 | 7.772796e-02 | 2.025538e-01 |
| ## ELOVL3       | 0.10968068  | 3.714777  | 1.7899262  | 7.778047e-02 | 2.026395e-01 |
| ## MFF          | -0.13317455 | 8.229021  | -1.7898617 | 7.779094e-02 | 2.026395e-01 |
| ## GJD2         | -0.13155725 | 5.709079  | -1.7898477 | 7.779321e-02 | 2.026395e-01 |
| ## GARIN3       | -0.11944229 | 4.413180  | -1.7898023 | 7.780059e-02 | 2.026395e-01 |
| ## LINC00919    | -0.08280146 | 4.032327  | -1.7896430 | 7.782646e-02 | 2.026395e-01 |
| ## LOC105370612 | -0.04956362 | 3.267844  | -1.7896338 | 7.782796e-02 | 2.026395e-01 |
| ## WNK3         | -0.06282584 | 4.170928  | -1.7896275 | 7.782897e-02 | 2.026395e-01 |
| ## ZNF674       | 0.04136405  | 3.119772  | 1.7891604  | 7.790487e-02 | 2.028117e-01 |
| ## IBTK         | -0.17631178 | 8.739394  | -1.7889666 | 7.793638e-02 | 2.028496e-01 |
| ## ELP2         | -0.23100581 | 6.550159  | -1.7889512 | 7.793889e-02 | 2.028496e-01 |
| ## SCG3         | -0.22795786 | 3.460944  | -1.7881112 | 7.807557e-02 | 2.031799e-01 |
| ## AP2M1        | 0.13963150  | 9.748184  | 1.7877952  | 7.812705e-02 | 2.032885e-01 |
| ## LINC00574    | -0.07589744 | 4.372052  | -1.7876590 | 7.814925e-02 | 2.033208e-01 |
| ## LYG1         | 0.14990017  | 5.108642  | 1.7875172  | 7.817235e-02 | 2.033555e-01 |
| ## LINC02036    | 0.06032397  | 3.768878  | 1.7874272  | 7.818702e-02 | 2.033683e-01 |
| ## C2orf74-DT   | -0.14472262 | 3.749363  | -1.7872320 | 7.821886e-02 | 2.034257e-01 |
| ## CD27         | -0.37324486 | 6.991708  | -1.7870331 | 7.825129e-02 | 2.034846e-01 |
| ## DYRK3        | -0.06654171 | 4.078934  | -1.7869226 | 7.826932e-02 | 2.035061e-01 |
| ## GXYLT2       | -0.48161879 | 6.441018  | -1.7865860 | 7.832427e-02 | 2.036235e-01 |
| ## ODF3L2       | 0.09512571  | 5.263631  | 1.7864134  | 7.835246e-02 | 2.036714e-01 |
| ## BCL2L15      | -0.38760212 | 5.890919  | -1.7863047 | 7.837021e-02 | 2.036921e-01 |
| ## IFI44L       | 0.58558647  | 7.347928  | 1.7861069  | 7.840253e-02 | 2.037507e-01 |
| ## SEC61B       | 0.11448491  | 11.033123 | 1.7858855  | 7.843872e-02 | 2.038102e-01 |
| ## LINC01023    | -0.11606768 | 4.831717  | -1.7858470 | 7.844501e-02 | 2.038102e-01 |
| ## FBXL14       | -0.05408215 | 3.680688  | -1.7856779 | 7.847267e-02 | 2.038566e-01 |
| ## MAGEC1       | 0.21849201  | 3.968096  | 1.7855094  | 7.850022e-02 | 2.039028e-01 |
| ## LOC100130744 | 0.10944037  | 4.280898  | 1.7853023  | 7.853411e-02 | 2.039601e-01 |
| ## STARD3       | 0.26615136  | 6.553644  | 1.7852549  | 7.854187e-02 | 2.039601e-01 |
| ## RIPPLY1      | -0.06070951 | 3.853195  | -1.7851829 | 7.855365e-02 | 2.039652e-01 |
| ## NCBP3        | 0.17223764  | 6.768522  | 1.7849046  | 7.859920e-02 | 2.040581e-01 |
| ## LINC00642    | -0.11596880 | 6.397296  | -1.7848268 | 7.861195e-02 | 2.040657e-01 |
| ## PRR15        | 0.33266989  | 7.445795  | 1.7845558  | 7.865635e-02 | 2.041555e-01 |
| ## AXIN1        | 0.13062332  | 6.644960  | 1.7844926  | 7.866671e-02 | 2.041570e-01 |
| ## TNIP1        | 0.15193787  | 9.024858  | 1.7843154  | 7.869574e-02 | 2.042069e-01 |
| ## LEXM         | -0.11439008 | 3.983898  | -1.7842310 | 7.870958e-02 | 2.042105e-01 |
| ## NEK1         | -0.06856029 | 3.900867  | -1.7841873 | 7.871675e-02 | 2.042105e-01 |
| ## NPAP1        | -0.09231651 | 4.126627  | -1.7838744 | 7.876806e-02 | 2.043182e-01 |
| ## KIF19        | -0.06125883 | 3.717853  | -1.7837808 | 7.878342e-02 | 2.043325e-01 |
| ## LRRC58       | 0.12993239  | 8.380056  | 1.7837132  | 7.879451e-02 | 2.043358e-01 |
| ## ERAP2        | 0.04098386  | 3.184989  | 1.7836357  | 7.880723e-02 | 2.043434e-01 |
| ## WASF1        | -0.28124845 | 5.567090  | -1.7834292 | 7.884111e-02 | 2.044058e-01 |
| ## MFAP3L       | -0.07702811 | 4.756193  | -1.7832521 | 7.887020e-02 | 2.044558e-01 |
| ## DSG4         | -0.05989596 | 3.273023  | -1.7831163 | 7.889250e-02 | 2.044748e-01 |
| ## EFHC2        | -0.04363885 | 3.290248  | -1.7830877 | 7.889720e-02 | 2.044748e-01 |
| ## SLC19A1      | 0.10839904  | 5.092696  | 1.7826716  | 7.896558e-02 | 2.046266e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ANKRD27      | 0.18598491  | 8.379525  | 1.7825618  | 7.898363e-02 | 2.046479e-01 |
| ## P2RX6        | -0.10991953 | 5.560439  | -1.7821583 | 7.905000e-02 | 2.047814e-01 |
| ## KCNAB2       | 0.16648304  | 6.822562  | 1.7821290  | 7.905481e-02 | 2.047814e-01 |
| ## PPARGC1B     | -0.12263078 | 5.642133  | -1.7817711 | 7.911373e-02 | 2.049085e-01 |
| ## LINC01741    | -0.09830191 | 4.953477  | -1.7814322 | 7.916954e-02 | 2.049928e-01 |
| ## PRR35        | -0.09316247 | 6.116627  | -1.7814300 | 7.916990e-02 | 2.049928e-01 |
| ## LINC00958    | 0.10637185  | 4.660326  | 1.7813941  | 7.917582e-02 | 2.049928e-01 |
| ## ZNF789       | 0.13875466  | 5.213074  | 1.7811694  | 7.921285e-02 | 2.050632e-01 |
| ## PTRH1        | 0.07657462  | 4.324741  | 1.7810866  | 7.922649e-02 | 2.050730e-01 |
| ## OGT          | 0.20819922  | 8.124431  | 1.7809383  | 7.925094e-02 | 2.051108e-01 |
| ## RECK         | -0.07242928 | 3.740800  | -1.7806696 | 7.929525e-02 | 2.052000e-01 |
| ## FGF18        | 0.12053820  | 4.926751  | 1.7798898  | 7.942398e-02 | 2.055076e-01 |
| ## B4GALT1      | 0.07982146  | 5.070999  | 1.7788986  | 7.958784e-02 | 2.059060e-01 |
| ## ECM1         | 0.29605143  | 7.807871  | 1.7788003  | 7.960410e-02 | 2.059225e-01 |
| ## ANP32A-IT1   | 0.14371747  | 3.878024  | 1.7787253  | 7.961651e-02 | 2.059290e-01 |
| ## CSTF2T       | 0.16724229  | 6.321135  | 1.7783141  | 7.968460e-02 | 2.060795e-01 |
| ## CAPSL-DT     | -0.08440485 | 5.722668  | -1.7779203 | 7.974985e-02 | 2.062095e-01 |
| ## ZNF618       | 0.23070244  | 6.436472  | 1.7778911  | 7.975469e-02 | 2.062095e-01 |
| ## SLITRK3      | -0.16722508 | 3.625003  | -1.7774731 | 7.982399e-02 | 2.063631e-01 |
| ## ATXN3L       | -0.07722644 | 3.363163  | -1.7773009 | 7.985256e-02 | 2.064113e-01 |
| ## HERPUD1      | -0.12857243 | 5.952556  | -1.7768839 | 7.992177e-02 | 2.065646e-01 |
| ## PDIA3        | 0.19385571  | 11.485929 | 1.7767716  | 7.994042e-02 | 2.065872e-01 |
| ## LOC101929109 | 0.04663142  | 3.504904  | 1.7765751  | 7.997306e-02 | 2.066459e-01 |
| ## NOTCH1       | 0.18783085  | 7.545433  | 1.7763387  | 8.001235e-02 | 2.066920e-01 |
| ## GTF2A1-AS1   | -0.06008571 | 3.536189  | -1.7763126 | 8.001669e-02 | 2.066920e-01 |
| ## OXGR1        | -0.07007179 | 3.604896  | -1.7762884 | 8.002071e-02 | 2.066920e-01 |
| ## PTTG1IP      | -0.15703336 | 11.145974 | -1.7760749 | 8.005619e-02 | 2.067277e-01 |
| ## DHX32        | -0.17973333 | 8.671921  | -1.7760454 | 8.006110e-02 | 2.067277e-01 |
| ## ZMYM6        | 0.09119104  | 3.819032  | 1.7760262  | 8.006430e-02 | 2.067277e-01 |
| ## C1orf54      | -0.24486189 | 8.864669  | -1.7755356 | 8.014591e-02 | 2.068898e-01 |
| ## MRPL44       | 0.12386992  | 5.110936  | 1.7754320  | 8.016314e-02 | 2.068898e-01 |
| ## FSCB         | -0.04883529 | 3.529911  | -1.7754277 | 8.016386e-02 | 2.068898e-01 |
| ## AP5Z1        | 0.15331980  | 6.499814  | 1.7754099  | 8.016682e-02 | 2.068898e-01 |
| ## MDH1         | -0.14690913 | 10.581172 | -1.7752028 | 8.020131e-02 | 2.069532e-01 |
| ## HOXD4        | 0.11925895  | 4.335043  | 1.7748129  | 8.026625e-02 | 2.070780e-01 |
| ## GPR17        | -0.06769016 | 3.449910  | -1.7747929 | 8.026959e-02 | 2.070780e-01 |
| ## FOXO6        | 0.16725254  | 5.719834  | 1.7742912  | 8.035323e-02 | 2.072681e-01 |
| ## RNF144A      | -0.05008131 | 3.540631  | -1.7740951 | 8.038594e-02 | 2.073268e-01 |
| ## LINC00665    | 0.05214559  | 3.168697  | 1.7739736  | 8.040622e-02 | 2.073477e-01 |
| ## PLCH1        | 0.20781878  | 5.932118  | 1.7739273  | 8.041394e-02 | 2.073477e-01 |
| ## HOXC10       | 0.58106773  | 5.830613  | 1.7738016  | 8.043492e-02 | 2.073761e-01 |
| ## C18orf15     | -0.11993753 | 4.134992  | -1.7736399 | 8.046192e-02 | 2.074200e-01 |
| ## PRDM4        | 0.11070726  | 8.084841  | 1.7733500  | 8.051034e-02 | 2.074951e-01 |
| ## LOC283194    | -0.12411055 | 5.205845  | -1.7733087 | 8.051723e-02 | 2.074951e-01 |
| ## HOXB2        | -0.32276045 | 7.147658  | -1.7732865 | 8.052094e-02 | 2.074951e-01 |
| ## ALMS1P1      | -0.08203264 | 4.302901  | -1.7728010 | 8.060209e-02 | 2.076785e-01 |
| ## ITSN1        | -0.10361869 | 4.230790  | -1.7724823 | 8.065539e-02 | 2.077902e-01 |
| ## ZNF286A      | 0.17964214  | 5.412459  | 1.7722395  | 8.069602e-02 | 2.078629e-01 |
| ## NTSR2        | -0.07951544 | 3.865711  | -1.7721649 | 8.070851e-02 | 2.078629e-01 |
| ## LINC00473    | -0.11785772 | 4.426799  | -1.7721347 | 8.071356e-02 | 2.078629e-01 |
| ## FXYD4        | -0.19106843 | 4.341750  | -1.7720441 | 8.072873e-02 | 2.078762e-01 |
| ## GPR143       | 0.17407931  | 4.084059  | 1.7717786  | 8.077319e-02 | 2.079650e-01 |
| ## LOC389834    | 0.11221114  | 4.416264  | 1.7713417  | 8.084641e-02 | 2.081278e-01 |
| ## YIPF3        | 0.23773611  | 7.750003  | 1.7712300  | 8.086513e-02 | 2.081502e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LGALSL       | 0.19777606  | 5.678279  | 1.7707667  | 8.094284e-02 | 2.082906e-01 |
| ## TME97        | 0.32526995  | 9.180319  | 1.7707452  | 8.094645e-02 | 2.082906e-01 |
| ## DENND6B      | -0.07442786 | 5.372186  | -1.7706774 | 8.095782e-02 | 2.082906e-01 |
| ## EME1         | 0.27308209  | 6.652285  | 1.7706665  | 8.095965e-02 | 2.082906e-01 |
| ## FGB          | 0.34983977  | 4.496285  | 1.7701798  | 8.104137e-02 | 2.084750e-01 |
| ## ECSCR        | -0.20106234 | 6.808216  | -1.7698827 | 8.109128e-02 | 2.085777e-01 |
| ## GYP A        | -0.06017026 | 3.356457  | -1.7695941 | 8.113979e-02 | 2.086767e-01 |
| ## MAPK1        | 0.20830999  | 5.838870  | 1.7690773  | 8.122673e-02 | 2.088745e-01 |
| ## ZNF548       | -0.14186157 | 7.742870  | -1.7689718 | 8.124448e-02 | 2.088943e-01 |
| ## C5orf63      | -0.20350005 | 4.954931  | -1.7687897 | 8.127515e-02 | 2.089474e-01 |
| ## ANKRD16      | 0.20152150  | 6.094898  | 1.7685771  | 8.131095e-02 | 2.090136e-01 |
| ## SHISAL2A     | -0.12847435 | 3.856377  | -1.7684647 | 8.132988e-02 | 2.090311e-01 |
| ## DENND3       | 0.15218053  | 5.766805  | 1.7684176  | 8.133781e-02 | 2.090311e-01 |
| ## ZSWIM1       | 0.10576813  | 4.164677  | 1.7679959  | 8.140888e-02 | 2.091879e-01 |
| ## LOC730098    | -0.10982137 | 5.171847  | -1.7677280 | 8.145407e-02 | 2.092782e-01 |
| ## S100A12      | 0.42385517  | 5.136227  | 1.7672722  | 8.153097e-02 | 2.094281e-01 |
| ## MID1IP1      | -0.21835589 | 6.896278  | -1.7672336 | 8.153748e-02 | 2.094281e-01 |
| ## RRN3P2       | 0.27588657  | 5.852032  | 1.7672033  | 8.154260e-02 | 2.094281e-01 |
| ## ISYNA1       | 0.32574262  | 6.100566  | 1.7670367  | 8.157073e-02 | 2.094615e-01 |
| ## PDE6G        | -0.12719251 | 6.019618  | -1.7669771 | 8.158080e-02 | 2.094615e-01 |
| ## LOC105376301 | -0.11353486 | 6.151170  | -1.7669476 | 8.158578e-02 | 2.094615e-01 |
| ## NHLH2        | -0.08995868 | 4.333518  | -1.7666589 | 8.163455e-02 | 2.095609e-01 |
| ## SPACA1       | 0.05187834  | 3.736053  | 1.7664088  | 8.167683e-02 | 2.096436e-01 |
| ## RPS27        | -0.05842107 | 13.545310 | -1.7658776 | 8.176667e-02 | 2.098483e-01 |
| ## FPR1         | 0.08159344  | 3.946969  | 1.7656413  | 8.180666e-02 | 2.099251e-01 |
| ## TFF3         | -0.79629008 | 8.727984  | -1.7654634 | 8.183678e-02 | 2.099765e-01 |
| ## CHRND        | -0.09939469 | 4.309363  | -1.7651981 | 8.188172e-02 | 2.100659e-01 |
| ## LOC100507053 | -0.13540496 | 4.330334  | -1.7650649 | 8.190429e-02 | 2.100976e-01 |
| ## RGS6         | -0.15962337 | 5.272485  | -1.7650060 | 8.191426e-02 | 2.100976e-01 |
| ## PBLD         | -0.47460744 | 6.574349  | -1.7649031 | 8.193171e-02 | 2.101142e-01 |
| ## PRKAA2       | -0.06576978 | 3.770279  | -1.7648488 | 8.194091e-02 | 2.101142e-01 |
| ## PCTP         | -0.22731842 | 7.712535  | -1.7646637 | 8.197229e-02 | 2.101688e-01 |
| ## SUPT4H1      | 0.17596536  | 8.502086  | 1.7644908  | 8.200162e-02 | 2.102181e-01 |
| ## PPARGC1A     | -0.06145808 | 3.630895  | -1.7643911 | 8.201852e-02 | 2.102356e-01 |
| ## LINC01213    | 0.05232547  | 3.400450  | 1.7642103  | 8.204920e-02 | 2.102510e-01 |
| ## MYL7         | 0.06761302  | 5.073245  | 1.7642061  | 8.204991e-02 | 2.102510e-01 |
| ## HOMER2       | -0.28072566 | 3.796642  | -1.7641772 | 8.205482e-02 | 2.102510e-01 |
| ## PCDHB4       | -0.06210079 | 3.454077  | -1.7639585 | 8.209195e-02 | 2.102979e-01 |
| ## EIF5A2       | 0.14443087  | 4.499592  | 1.7639502  | 8.209336e-02 | 2.102979e-01 |
| ## LINC02520    | -0.06356203 | 4.102995  | -1.7634945 | 8.217074e-02 | 2.104703e-01 |
| ## HTR7         | -0.06415858 | 3.694337  | -1.7633429 | 8.219650e-02 | 2.105104e-01 |
| ## FZD8         | -0.12840468 | 4.327643  | -1.7632613 | 8.221037e-02 | 2.105200e-01 |
| ## PTGES        | 0.13129520  | 6.450812  | 1.7628886  | 8.227374e-02 | 2.106564e-01 |
| ## APOB         | -0.70750699 | 4.939933  | -1.7626554 | 8.231342e-02 | 2.107321e-01 |
| ## STX5         | 0.10160429  | 6.138162  | 1.7618327  | 8.245350e-02 | 2.110647e-01 |
| ## LINC00598    | 0.06288772  | 3.874038  | 1.7611814  | 8.256454e-02 | 2.113071e-01 |
| ## MALL         | 0.48687045  | 8.344531  | 1.7611364  | 8.257221e-02 | 2.113071e-01 |
| ## MOGS         | 0.16386061  | 7.480583  | 1.7610987  | 8.257863e-02 | 2.113071e-01 |
| ## FAM153B      | -0.06380220 | 3.534329  | -1.7605984 | 8.266402e-02 | 2.114996e-01 |
| ## ZBTB21       | -0.22359688 | 7.038407  | -1.7601652 | 8.273801e-02 | 2.116630e-01 |
| ## LINC01977    | 0.10797347  | 3.701880  | 1.7599494  | 8.277491e-02 | 2.117313e-01 |
| ## NEK4         | -0.06946504 | 4.172598  | -1.7597144 | 8.281508e-02 | 2.118081e-01 |
| ## COLGALT2     | -0.32918488 | 5.421991  | -1.7596144 | 8.283219e-02 | 2.118258e-01 |
| ## EDA2R        | -0.16011815 | 5.137575  | -1.7593039 | 8.288530e-02 | 2.119299e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## EFR3A        | -0.12961514 | 10.221310 | -1.7592574 | 8.289326e-02 | 2.119299e-01 |
| ## TUBB6        | -0.31938169 | 8.985950  | -1.7590471 | 8.292926e-02 | 2.119721e-01 |
| ## APOL4        | 0.23945117  | 5.322785  | 1.7589781  | 8.294108e-02 | 2.119721e-01 |
| ## CYP4F2       | -0.39873318 | 5.437671  | -1.7589345 | 8.294855e-02 | 2.119721e-01 |
| ## SLC9B1       | -0.12028879 | 4.479838  | -1.7589232 | 8.295047e-02 | 2.119721e-01 |
| ## BBS7         | 0.15659633  | 4.184867  | 1.7584461  | 8.303221e-02 | 2.121549e-01 |
| ## GGT7         | -0.12799788 | 6.025038  | -1.7582984 | 8.305752e-02 | 2.121936e-01 |
| ## COL19A1      | -0.07800445 | 4.135832  | -1.7581529 | 8.308247e-02 | 2.122313e-01 |
| ## HTR3B        | -0.12708404 | 4.087613  | -1.7580664 | 8.309730e-02 | 2.122431e-01 |
| ## TP73-AS1     | -0.12172624 | 4.925079  | -1.7579419 | 8.311866e-02 | 2.122716e-01 |
| ## CYP2C8       | -0.34585191 | 3.858307  | -1.7578709 | 8.313082e-02 | 2.122767e-01 |
| ## APOL2        | 0.11743557  | 7.077345  | 1.7575394  | 8.318772e-02 | 2.123959e-01 |
| ## BEND6        | -0.07754736 | 3.401232  | -1.7568018 | 8.331440e-02 | 2.126883e-01 |
| ## SEMA5B       | -0.09362058 | 7.076313  | -1.7567537 | 8.332267e-02 | 2.126883e-01 |
| ## CD300LB      | -0.09317810 | 5.918459  | -1.7562444 | 8.341023e-02 | 2.128727e-01 |
| ## BBX          | 0.18029312  | 4.284393  | 1.7562032  | 8.341733e-02 | 2.128727e-01 |
| ## LSG1         | 0.21156062  | 7.857366  | 1.7561553  | 8.342556e-02 | 2.128727e-01 |
| ## EMD          | 0.12485000  | 7.379357  | 1.7557034  | 8.350335e-02 | 2.130451e-01 |
| ## TONSL        | 0.18647351  | 5.860188  | 1.7555370  | 8.353201e-02 | 2.130921e-01 |
| ## ZBTB5        | 0.14469620  | 7.663128  | 1.7553167  | 8.356995e-02 | 2.131628e-01 |
| ## KPNA5        | 0.13206130  | 4.159919  | 1.7551790  | 8.359367e-02 | 2.131971e-01 |
| ## P2RY2        | 0.18189753  | 4.919864  | 1.7550323  | 8.361896e-02 | 2.132355e-01 |
| ## TMEM170A     | 0.21353204  | 8.001453  | 1.7546288  | 8.368854e-02 | 2.133868e-01 |
| ## PLXNA3       | 0.16407173  | 4.715848  | 1.7544908  | 8.371235e-02 | 2.134214e-01 |
| ## KAT2A        | 0.13767611  | 7.750531  | 1.7543657  | 8.373394e-02 | 2.134503e-01 |
| ## ANKLE2       | 0.27061099  | 6.602652  | 1.7540922  | 8.378114e-02 | 2.135445e-01 |
| ## EPS8L1       | 0.11760680  | 5.934839  | 1.7539867  | 8.379937e-02 | 2.135648e-01 |
| ## CLEC4C       | -0.07912207 | 3.430800  | -1.7539050 | 8.381348e-02 | 2.135746e-01 |
| ## LINC01359    | -0.07650798 | 4.317836  | -1.7535907 | 8.386778e-02 | 2.136869e-01 |
| ## WDR54        | 0.20922716  | 7.404497  | 1.7532087  | 8.393380e-02 | 2.138289e-01 |
| ## CLEC11A      | -0.24338961 | 5.702840  | -1.7530851 | 8.395518e-02 | 2.138432e-01 |
| ## SAP25        | 0.18209595  | 7.073274  | 1.7530576  | 8.395993e-02 | 2.138432e-01 |
| ## LINC00265    | -0.13280186 | 4.620374  | -1.7529365 | 8.398087e-02 | 2.138703e-01 |
| ## ZNF396       | -0.06187441 | 3.533001  | -1.7528455 | 8.399663e-02 | 2.138843e-01 |
| ## NPR2         | -0.17281396 | 6.505581  | -1.7527151 | 8.401918e-02 | 2.139028e-01 |
| ## LOC101928462 | -0.10025136 | 4.030008  | -1.7526849 | 8.402442e-02 | 2.139028e-01 |
| ## GRTP1-AS1    | 0.03926983  | 3.078404  | 1.7525594  | 8.404614e-02 | 2.139172e-01 |
| ## LOC101929050 | 0.05116863  | 3.430123  | 1.7525333  | 8.405065e-02 | 2.139172e-01 |
| ## CMAHP        | -0.05184936 | 3.291831  | -1.7517096 | 8.419335e-02 | 2.142542e-01 |
| ## CRISPLD2     | -0.08181953 | 5.435534  | -1.7516381 | 8.420575e-02 | 2.142596e-01 |
| ## AQP5         | -0.35548803 | 5.571632  | -1.7514821 | 8.423279e-02 | 2.143022e-01 |
| ## MIR924HG     | 0.05883652  | 3.518804  | 1.7513461  | 8.425638e-02 | 2.143361e-01 |
| ## DHTKD1       | 0.15955789  | 5.465968  | 1.7512223  | 8.427787e-02 | 2.143645e-01 |
| ## WDR53        | 0.11811839  | 5.011218  | 1.7511511  | 8.429022e-02 | 2.143694e-01 |
| ## NIFK-AS1     | 0.09821304  | 3.928121  | 1.7510653  | 8.430511e-02 | 2.143694e-01 |
| ## NUDT16L1     | -0.11886272 | 6.288497  | -1.7510332 | 8.431068e-02 | 2.143694e-01 |
| ## CELA3B       | -0.28609493 | 5.312932  | -1.7508824 | 8.433685e-02 | 2.144098e-01 |
| ## PKD1L1       | -0.07447137 | 3.866940  | -1.7504224 | 8.441674e-02 | 2.145651e-01 |
| ## FREM3        | -0.04498044 | 3.270240  | -1.7503825 | 8.442368e-02 | 2.145651e-01 |
| ## ZFHx4-AS1    | -0.20674936 | 3.467284  | -1.7503404 | 8.443099e-02 | 2.145651e-01 |
| ## LOC100129175 | -0.09239143 | 4.058044  | -1.7502933 | 8.443917e-02 | 2.145651e-01 |
| ## MOCS2-DT     | -0.09567043 | 3.816430  | -1.7502069 | 8.445419e-02 | 2.145771e-01 |
| ## NDUFB3       | 0.09537057  | 9.860828  | 1.7498939  | 8.450861e-02 | 2.146704e-01 |
| ## TRDV3        | 0.33980891  | 4.549226  | 1.7498771  | 8.451152e-02 | 2.146704e-01 |



|              |             |          |            |              |              |
|--------------|-------------|----------|------------|--------------|--------------|
| ## C2orf73   | -0.06164481 | 4.154703 | -1.7489301 | 8.467634e-02 | 2.150628e-01 |
| ## VRTN      | 0.11228105  | 5.656253 | 1.7488499  | 8.469032e-02 | 2.150721e-01 |
| ## SOX1-OT   | 0.04568267  | 3.140154 | 1.7486610  | 8.472323e-02 | 2.151294e-01 |
| ## HBP1      | 0.15633261  | 3.934263 | 1.7484098  | 8.476700e-02 | 2.152143e-01 |
| ## ROPN1     | -0.07482349 | 3.879861 | -1.7482310 | 8.479818e-02 | 2.152673e-01 |
| ## SLC18A1   | -0.32539548 | 3.984896 | -1.7477851 | 8.487597e-02 | 2.154022e-01 |
| ## APOH      | 0.26352908  | 4.254942 | 1.7477691  | 8.487876e-02 | 2.154022e-01 |
| ## ARL11     | 0.27595177  | 4.012123 | 1.7477038  | 8.489016e-02 | 2.154022e-01 |
| ## ABHD8     | -0.12219325 | 4.895773 | -1.7476893 | 8.489270e-02 | 2.154022e-01 |
| ## HAL       | 0.13521544  | 3.926584 | 1.7475321  | 8.492014e-02 | 2.154455e-01 |
| ## RDH8      | 0.08028137  | 5.230665 | 1.7474091  | 8.494161e-02 | 2.154738e-01 |
| ## ZNF366    | -0.28793326 | 5.326391 | -1.7472883 | 8.496271e-02 | 2.155010e-01 |
| ## GAU1      | -0.27995324 | 4.477647 | -1.7467733 | 8.505271e-02 | 2.157030e-01 |
| ## DQX1      | -0.29560192 | 5.556244 | -1.7462968 | 8.513603e-02 | 2.158881e-01 |
| ## PEX12     | -0.20218600 | 6.258762 | -1.7460581 | 8.517780e-02 | 2.159677e-01 |
| ## GNAO1-AS1 | -0.09317941 | 4.162066 | -1.7459045 | 8.520470e-02 | 2.160096e-01 |
| ## IGFALS    | -0.15899777 | 6.603404 | -1.7455432 | 8.526796e-02 | 2.161436e-01 |
| ## AMACR     | 0.14886348  | 4.323256 | 1.7451050  | 8.534476e-02 | 2.163120e-01 |
| ## DPPA4     | -0.04046745 | 3.279899 | -1.7446750 | 8.542018e-02 | 2.164768e-01 |
| ## PELP1-DT  | 0.05770846  | 3.788831 | 1.7444980  | 8.545124e-02 | 2.165292e-01 |
| ## ANKRD36C  | -0.19502052 | 4.964443 | -1.7440570 | 8.552866e-02 | 2.166990e-01 |
| ## POP5      | 0.14825291  | 9.140178 | 1.7437820  | 8.557696e-02 | 2.167950e-01 |
| ## GABRG2    | -0.05213649 | 3.249051 | -1.7436788 | 8.559510e-02 | 2.168145e-01 |
| ## WASIR2    | 0.21882725  | 3.549803 | 1.7432221  | 8.567538e-02 | 2.169915e-01 |
| ## LINC01356 | -0.11044130 | 4.741212 | -1.7431334 | 8.569099e-02 | 2.170046e-01 |
| ## TAGAP     | 0.11034045  | 5.734382 | 1.7429315  | 8.572651e-02 | 2.170682e-01 |
| ## MAGEF1    | 0.18532000  | 6.662924 | 1.7426924  | 8.576860e-02 | 2.171484e-01 |
| ## ZNF669    | 0.10933554  | 5.450602 | 1.7423042  | 8.583696e-02 | 2.172874e-01 |
| ## TBX19     | 0.10440305  | 5.350029 | 1.7422621  | 8.584437e-02 | 2.172874e-01 |
| ## SG01      | 0.11594906  | 4.243987 | 1.7419844  | 8.589330e-02 | 2.173848e-01 |
| ## MTMR3     | -0.13066487 | 7.211282 | -1.7418006 | 8.592570e-02 | 2.174404e-01 |
| ## RHOU      | -0.35290776 | 8.998674 | -1.7414151 | 8.599368e-02 | 2.175859e-01 |
| ## CPN2      | -0.07433349 | 3.657560 | -1.7406657 | 8.612597e-02 | 2.178942e-01 |
| ## USP16     | -0.12854264 | 8.529826 | -1.7395732 | 8.631913e-02 | 2.183564e-01 |
| ## GABRG3    | 0.04886947  | 3.255619 | 1.7392037  | 8.638453e-02 | 2.184953e-01 |
| ## GPR137    | 0.09965988  | 4.029538 | 1.7390820  | 8.640608e-02 | 2.185232e-01 |
| ## TVP23A    | -0.07415597 | 3.884462 | -1.7389319 | 8.643268e-02 | 2.185640e-01 |
| ## FN1       | 0.38143772  | 4.669860 | 1.7387213  | 8.647000e-02 | 2.186318e-01 |
| ## EMP2      | -0.26925913 | 8.142840 | -1.7383925 | 8.652828e-02 | 2.187526e-01 |
| ## LINC00689 | -0.07032508 | 3.892387 | -1.7383271 | 8.653988e-02 | 2.187553e-01 |
| ## SRRM3     | -0.05355956 | 3.447279 | -1.7380502 | 8.658900e-02 | 2.188529e-01 |
| ## B3GNT9    | -0.17160968 | 6.410790 | -1.7378241 | 8.662912e-02 | 2.189278e-01 |
| ## ZIC2      | 0.63660911  | 4.637049 | 1.7376247  | 8.666452e-02 | 2.189906e-01 |
| ## GSTM4     | 0.37322850  | 6.706326 | 1.7374117  | 8.670234e-02 | 2.190596e-01 |
| ## EXOG      | 0.15806299  | 5.516116 | 1.7371620  | 8.674670e-02 | 2.191451e-01 |
| ## LMO7      | 0.16887603  | 4.878526 | 1.7370175  | 8.677238e-02 | 2.191775e-01 |
| ## METTL25   | -0.16114200 | 6.789373 | -1.7369715 | 8.678055e-02 | 2.191775e-01 |
| ## RAB34     | -0.34017639 | 8.393052 | -1.7365476 | 8.685592e-02 | 2.193412e-01 |
| ## SERPINI2  | -0.07810231 | 3.706832 | -1.7364224 | 8.687820e-02 | 2.193709e-01 |
| ## P4HA1     | 0.21501801  | 8.542034 | 1.7362980  | 8.690033e-02 | 2.194002e-01 |
| ## G6PC1     | -0.08173475 | 3.982806 | -1.7361318 | 8.692991e-02 | 2.194482e-01 |
| ## PDE6D     | 0.14503270  | 7.421531 | 1.7359366  | 8.696465e-02 | 2.195093e-01 |
| ## IGF2-AS   | -0.15650826 | 4.939075 | -1.7350693 | 8.711920e-02 | 2.198728e-01 |
| ## STH       | -0.10713012 | 4.921055 | -1.7347851 | 8.716989e-02 | 2.199740e-01 |

|                |             |           |            |              |              |
|----------------|-------------|-----------|------------|--------------|--------------|
| ## LOC439933   | -0.03921274 | 3.097156  | -1.7346768 | 8.718922e-02 | 2.199823e-01 |
| ## H4C6        | 0.04951534  | 3.568434  | 1.7346484  | 8.719428e-02 | 2.199823e-01 |
| ## ACY3        | -0.14907421 | 5.742227  | -1.7341536 | 8.728262e-02 | 2.201630e-01 |
| ## HEBP2       | 0.15683567  | 10.018985 | 1.7341288  | 8.728705e-02 | 2.201630e-01 |
| ## FRMD8       | 0.12969734  | 5.110855  | 1.7339942  | 8.731108e-02 | 2.201969e-01 |
| ## SCOC        | -0.33933397 | 7.611749  | -1.7338713 | 8.733305e-02 | 2.202256e-01 |
| ## TBX5        | -0.06133470 | 3.642096  | -1.7334780 | 8.740334e-02 | 2.203504e-01 |
| ## FGF4        | -0.05691504 | 4.095459  | -1.7334761 | 8.740368e-02 | 2.203504e-01 |
| ## TXN2        | -0.12076089 | 8.304940  | -1.7330485 | 8.748017e-02 | 2.205165e-01 |
| ## PCDHA3      | -0.11741671 | 4.291490  | -1.7328557 | 8.751467e-02 | 2.205768e-01 |
| ## AVPI1       | 0.22365961  | 8.000590  | 1.7326094  | 8.755875e-02 | 2.206612e-01 |
| ## DEFB127     | -0.07293790 | 3.438405  | -1.7322026 | 8.763162e-02 | 2.208181e-01 |
| ## STX18-AS1   | -0.06715267 | 3.744536  | -1.7320524 | 8.765854e-02 | 2.208467e-01 |
| ## MRM3        | 0.14329070  | 7.187625  | 1.7320210  | 8.766416e-02 | 2.208467e-01 |
| ## ENSA        | 0.13996655  | 9.958565  | 1.7317136  | 8.771928e-02 | 2.209588e-01 |
| ## NPL         | 0.38174188  | 6.627797  | 1.7314792  | 8.776131e-02 | 2.210379e-01 |
| ## SEZ6L       | -0.09520434 | 4.916591  | -1.7310235 | 8.784310e-02 | 2.212172e-01 |
| ## KHDRBS2     | -0.13020012 | 4.513913  | -1.7307291 | 8.789596e-02 | 2.213235e-01 |
| ## ZNF331      | -0.33534219 | 8.087791  | -1.7305205 | 8.793344e-02 | 2.213911e-01 |
| ## STXBP6      | -0.32992705 | 5.793693  | -1.7304294 | 8.794981e-02 | 2.214056e-01 |
| ## LINC00472   | -0.12276478 | 3.586679  | -1.7298411 | 8.805559e-02 | 2.216451e-01 |
| ## DNAJC17     | 0.13023432  | 6.166220  | 1.7297472  | 8.807249e-02 | 2.216608e-01 |
| ## HMGA2       | 0.13919903  | 3.612343  | 1.7295995  | 8.809907e-02 | 2.216861e-01 |
| ## ETNK1       | -0.35089404 | 8.888043  | -1.7295731 | 8.810382e-02 | 2.216861e-01 |
| ## ANKRD20A12P | -0.11332622 | 3.776379  | -1.7291321 | 8.818322e-02 | 2.218591e-01 |
| ## GHET1       | 0.06704898  | 3.580207  | 1.7287655  | 8.824927e-02 | 2.219984e-01 |
| ## TIMM9       | 0.15317742  | 7.355439  | 1.7286620  | 8.826792e-02 | 2.219997e-01 |
| ## PSMG2       | 0.10312228  | 10.488684 | 1.7286442  | 8.827112e-02 | 2.219997e-01 |
| ## VSIG10L     | 0.17693885  | 4.685273  | 1.7284666  | 8.830315e-02 | 2.220535e-01 |
| ## KCTD21      | -0.14708699 | 5.226134  | -1.7283513 | 8.832393e-02 | 2.220789e-01 |
| ## SH3TC1      | -0.21735623 | 6.461130  | -1.7282534 | 8.834159e-02 | 2.220945e-01 |
| ## HOTTIP      | -0.18996973 | 6.049369  | -1.7281987 | 8.835146e-02 | 2.220945e-01 |
| ## CCNL2       | 0.14778049  | 8.563316  | 1.7280027  | 8.838682e-02 | 2.221482e-01 |
| ## PCDH10-DT   | -0.06122625 | 3.277492  | -1.7279043 | 8.840457e-02 | 2.221482e-01 |
| ## CYC1        | 0.22459269  | 9.937099  | 1.7279030  | 8.840482e-02 | 2.221482e-01 |
| ## OSBPL8      | -0.16145434 | 10.070117 | -1.7278220 | 8.841943e-02 | 2.221581e-01 |
| ## TRIM4       | 0.28874415  | 5.746552  | 1.7276887  | 8.844350e-02 | 2.221918e-01 |
| ## COPS4       | -0.11809840 | 8.974599  | -1.7276093 | 8.845784e-02 | 2.222010e-01 |
| ## EFCAB7      | -0.19078117 | 5.353147  | -1.7272228 | 8.852764e-02 | 2.223317e-01 |
| ## RIMS1       | -0.04825368 | 3.256533  | -1.7271748 | 8.853633e-02 | 2.223317e-01 |
| ## TMEM154     | 0.20794767  | 5.337051  | 1.7270899  | 8.855166e-02 | 2.223317e-01 |
| ## RPS10P7     | 0.08828506  | 4.495248  | 1.7270849  | 8.855258e-02 | 2.223317e-01 |
| ## CTXND1      | -0.16593209 | 5.387011  | -1.7265709 | 8.864550e-02 | 2.225381e-01 |
| ## TRIM38      | 0.18633273  | 8.058331  | 1.7264041  | 8.867567e-02 | 2.225675e-01 |
| ## IL22RA2     | 0.05651708  | 3.661926  | 1.7263861  | 8.867894e-02 | 2.225675e-01 |
| ## CMAS        | 0.26810041  | 6.964152  | 1.7262909  | 8.869617e-02 | 2.225675e-01 |
| ## SPAG7       | -0.09083023 | 8.763270  | -1.7262520 | 8.870320e-02 | 2.225675e-01 |
| ## RBM5        | -0.14642317 | 8.751334  | -1.7262110 | 8.871063e-02 | 2.225675e-01 |
| ## FER1L6-AS1  | -0.05207034 | 3.861225  | -1.7261188 | 8.872732e-02 | 2.225825e-01 |
| ## ANK1        | -0.06652570 | 3.802760  | -1.7259385 | 8.875995e-02 | 2.226376e-01 |
| ## DNAJC27     | -0.22087210 | 5.433765  | -1.7256529 | 8.881168e-02 | 2.227405e-01 |
| ## FERMT3      | -0.24419792 | 7.209027  | -1.7255276 | 8.883439e-02 | 2.227706e-01 |
| ## CTRB2       | -0.29618594 | 5.639456  | -1.7253676 | 8.886338e-02 | 2.228165e-01 |
| ## TM6SF2      | -0.11322978 | 5.088657  | -1.7253046 | 8.887480e-02 | 2.228183e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## RLF          | 0.15227564  | 7.129595  | 1.7251288  | 8.890668e-02 | 2.228714e-01 |
| ## ICOSLG       | -0.09637906 | 5.933328  | -1.7247562 | 8.897426e-02 | 2.230140e-01 |
| ## LHX1         | 0.10813385  | 4.827888  | 1.7246710  | 8.898971e-02 | 2.230258e-01 |
| ## LNP1         | -0.18206574 | 5.979654  | -1.7246122 | 8.900038e-02 | 2.230258e-01 |
| ## NECTIN3-AS1  | -0.10411107 | 4.008278  | -1.7245183 | 8.901744e-02 | 2.230416e-01 |
| ## LOC101928834 | -0.06681295 | 3.544774  | -1.7239870 | 8.911391e-02 | 2.232069e-01 |
| ## MEF2D        | 0.13453070  | 6.197239  | 1.7238802  | 8.913332e-02 | 2.232069e-01 |
| ## KLHDC3       | 0.21691824  | 7.712496  | 1.7238758  | 8.913412e-02 | 2.232069e-01 |
| ## ADGRG4       | -0.16682424 | 3.739818  | -1.7238233 | 8.914366e-02 | 2.232069e-01 |
| ## ADGRG5       | -0.07401318 | 5.549220  | -1.7238196 | 8.914433e-02 | 2.232069e-01 |
| ## TEX19        | 0.22295780  | 3.975345  | 1.7238011  | 8.914770e-02 | 2.232069e-01 |
| ## CCNB1IP1     | 0.19591030  | 8.618304  | 1.7237283  | 8.916092e-02 | 2.232131e-01 |
| ## AASDH        | -0.15451373 | 6.690976  | -1.7236634 | 8.917273e-02 | 2.232137e-01 |
| ## PP12613      | -0.11457864 | 3.969587  | -1.7236091 | 8.918259e-02 | 2.232137e-01 |
| ## C9orf72      | 0.18622129  | 5.433740  | 1.7234810  | 8.920587e-02 | 2.232452e-01 |
| ## LY75         | 0.39766333  | 8.055692  | 1.7231591  | 8.926442e-02 | 2.233648e-01 |
| ## BOLA3        | 0.15402063  | 9.557912  | 1.7228893  | 8.931352e-02 | 2.234609e-01 |
| ## GZMK         | -0.45379845 | 7.167002  | -1.7226590 | 8.935544e-02 | 2.235389e-01 |
| ## DNAI4        | -0.08677892 | 3.501071  | -1.7225778 | 8.937023e-02 | 2.235490e-01 |
| ## FECH         | -0.20431169 | 5.525599  | -1.7223692 | 8.940823e-02 | 2.236172e-01 |
| ## SBN01        | 0.10798137  | 4.836437  | 1.7221746  | 8.944367e-02 | 2.236693e-01 |
| ## POU6F2       | -0.11537863 | 3.613188  | -1.7221370 | 8.945052e-02 | 2.236693e-01 |
| ## NME8         | -0.08643253 | 4.097461  | -1.7217404 | 8.952283e-02 | 2.238232e-01 |
| ## C20orf173    | -0.09890078 | 4.709206  | -1.7215284 | 8.956149e-02 | 2.238930e-01 |
| ## LINC02875    | -0.08572922 | 6.105035  | -1.7208451 | 8.968622e-02 | 2.241779e-01 |
| ## EMC3         | -0.17238890 | 5.485969  | -1.7207129 | 8.971036e-02 | 2.242113e-01 |
| ## TTC6         | -0.09205959 | 4.121985  | -1.7206180 | 8.972770e-02 | 2.242123e-01 |
| ## OBP2A        | 0.08572068  | 5.797370  | 1.7205929  | 8.973229e-02 | 2.242123e-01 |
| ## MMEL1        | -0.24625416 | 6.596493  | -1.7201429 | 8.981454e-02 | 2.243909e-01 |
| ## ZNF598       | 0.16305569  | 7.096473  | 1.7200165  | 8.983765e-02 | 2.244217e-01 |
| ## NDUFAF5      | 0.05751593  | 3.717031  | 1.7197204  | 8.989181e-02 | 2.245095e-01 |
| ## FBXL12       | -0.10542233 | 7.886160  | -1.7197064 | 8.989438e-02 | 2.245095e-01 |
| ## NAGPA        | -0.17187679 | 7.006067  | -1.7196442 | 8.990576e-02 | 2.245110e-01 |
| ## AEBP2        | 0.19403289  | 7.946683  | 1.7195029  | 8.993162e-02 | 2.245228e-01 |
| ## TTYH2        | -0.22008129 | 6.828696  | -1.7194417 | 8.994282e-02 | 2.245228e-01 |
| ## MATN1-AS1    | -0.07849941 | 3.622447  | -1.7194416 | 8.994283e-02 | 2.245228e-01 |
| ## RHOG         | 0.12503817  | 7.976880  | 1.7193600  | 8.995778e-02 | 2.245332e-01 |
| ## PRRG1        | 0.28756102  | 6.587826  | 1.7187132  | 9.007626e-02 | 2.247997e-01 |
| ## DCUN1D4      | -0.19507047 | 7.034935  | -1.7186593 | 9.008614e-02 | 2.247997e-01 |
| ## SLC22A7      | -0.07556227 | 5.063130  | -1.7180511 | 9.019767e-02 | 2.250511e-01 |
| ## CAAP1        | 0.15952786  | 8.435158  | 1.7179773  | 9.021123e-02 | 2.250579e-01 |
| ## MKX          | -0.06532084 | 3.979242  | -1.7171650 | 9.036039e-02 | 2.254031e-01 |
| ## FTH1P5       | 0.09110799  | 12.563604 | 1.7169387  | 9.040199e-02 | 2.254786e-01 |
| ## OR2W1        | -0.05828554 | 3.406927  | -1.7168825 | 9.041231e-02 | 2.254786e-01 |
| ## PLA2G2A      | 0.89900357  | 8.911749  | 1.7166544  | 9.045426e-02 | 2.255562e-01 |
| ## STX10        | 0.12764150  | 8.003499  | 1.7164404  | 9.049362e-02 | 2.256156e-01 |
| ## SORCS3-AS1   | -0.07674440 | 4.139978  | -1.7164071 | 9.049975e-02 | 2.256156e-01 |
| ## SNX25        | 0.13237754  | 5.584437  | 1.7161545  | 9.054624e-02 | 2.257044e-01 |
| ## TFIP11       | 0.10359588  | 7.750304  | 1.7160702  | 9.056176e-02 | 2.257161e-01 |
| ## TMEM72       | -0.06188038 | 5.002612  | -1.7158164 | 9.060849e-02 | 2.258056e-01 |
| ## CTC-338M12.4 | 0.19274823  | 6.377848  | 1.7156799  | 9.063363e-02 | 2.258073e-01 |
| ## LCAT         | -0.18499231 | 5.467962  | -1.7156549 | 9.063823e-02 | 2.258073e-01 |
| ## CPNE8        | -0.24378747 | 5.707794  | -1.7156257 | 9.064362e-02 | 2.258073e-01 |
| ## BANF2        | -0.06845532 | 3.903196  | -1.7155772 | 9.065255e-02 | 2.258073e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## SLC6A8       | -0.38826317 | 7.335743  | -1.7142131 | 9.090417e-02 | 2.263944e-01 |
| ## GPR35        | 0.24845450  | 7.024379  | 1.7141816  | 9.090999e-02 | 2.263944e-01 |
| ## CASC22       | 0.06058563  | 3.509420  | 1.7136014  | 9.101719e-02 | 2.266292e-01 |
| ## ZGPAT        | 0.14518131  | 7.334288  | 1.7135106  | 9.103397e-02 | 2.266292e-01 |
| ## COX5A        | 0.14342563  | 11.088878 | 1.7134946  | 9.103693e-02 | 2.266292e-01 |
| ## EPC1         | 0.09999133  | 4.105059  | 1.7132498  | 9.108221e-02 | 2.267148e-01 |
| ## TDRKH-AS1    | 0.09564385  | 4.940106  | 1.7128772  | 9.115115e-02 | 2.268508e-01 |
| ## NBAS         | -0.10582257 | 7.881540  | -1.7128368 | 9.115863e-02 | 2.268508e-01 |
| ## SLC37A3      | 0.17110406  | 8.222876  | 1.7127265  | 9.117904e-02 | 2.268745e-01 |
| ## AMDHD1       | 0.27014438  | 3.528392  | 1.7119138  | 9.132958e-02 | 2.272162e-01 |
| ## NOD2         | 0.19858270  | 4.676641  | 1.7118673  | 9.133822e-02 | 2.272162e-01 |
| ## LOC100421494 | -0.06059999 | 3.824838  | -1.7116154 | 9.138492e-02 | 2.273052e-01 |
| ## CACNA1G-AS1  | -0.10312762 | 4.678852  | -1.7114952 | 9.140722e-02 | 2.273336e-01 |
| ## ATXN10       | -0.15580104 | 6.619758  | -1.7114236 | 9.142050e-02 | 2.273394e-01 |
| ## PRELID1      | 0.15246956  | 10.119948 | 1.7108545  | 9.152614e-02 | 2.275750e-01 |
| ## KLK8         | 0.17898836  | 4.007723  | 1.7103999  | 9.161059e-02 | 2.277311e-01 |
| ## ASAP1-IT1    | 0.15274984  | 5.912165  | 1.7103987  | 9.161081e-02 | 2.277311e-01 |
| ## HS3ST2       | -0.27634622 | 5.530539  | -1.7101202 | 9.166259e-02 | 2.278148e-01 |
| ## VWDE         | 0.21777827  | 3.531748  | 1.7100998  | 9.166637e-02 | 2.278148e-01 |
| ## SH3TC2       | 0.12811225  | 3.944280  | 1.7097391  | 9.173347e-02 | 2.279544e-01 |
| ## ZNF780A      | 0.15336852  | 4.439754  | 1.7095992  | 9.175950e-02 | 2.279919e-01 |
| ## HIP1         | -0.08815663 | 3.800776  | -1.7094718 | 9.178322e-02 | 2.280236e-01 |
| ## RPL35        | 0.11371962  | 12.397460 | 1.7092435  | 9.182571e-02 | 2.280876e-01 |
| ## ERGIC3       | -0.08918070 | 4.578864  | -1.7092156 | 9.183090e-02 | 2.280876e-01 |
| ## C19orf53     | 0.12076230  | 9.708154  | 1.7090510  | 9.186157e-02 | 2.281366e-01 |
| ## RNMT         | 0.14274876  | 7.669938  | 1.7087335  | 9.192072e-02 | 2.282563e-01 |
| ## CHP2         | -0.60448843 | 5.838082  | -1.7084648 | 9.197081e-02 | 2.283490e-01 |
| ## LINC01568    | -0.06037225 | 3.426885  | -1.7084155 | 9.197999e-02 | 2.283490e-01 |
| ## C9orf64      | -0.11908619 | 9.893171  | -1.7078863 | 9.207871e-02 | 2.285652e-01 |
| ## SNRPB2       | 0.07883035  | 3.616218  | 1.7078309  | 9.208904e-02 | 2.285652e-01 |
| ## GLT8D1       | -0.13822743 | 9.294791  | -1.7076449 | 9.212377e-02 | 2.286242e-01 |
| ## MIXL1        | -0.08659716 | 4.507783  | -1.7072617 | 9.219533e-02 | 2.287550e-01 |
| ## NAA35        | 0.07393902  | 3.861000  | 1.7072449  | 9.219847e-02 | 2.287550e-01 |
| ## COX6A2       | -0.08081203 | 4.494524  | -1.7071760 | 9.221134e-02 | 2.287597e-01 |
| ## PPP2R2C      | -0.07804222 | 3.798960  | -1.7070582 | 9.223336e-02 | 2.287871e-01 |
| ## IQCG         | -0.10775634 | 3.949003  | -1.7067428 | 9.229231e-02 | 2.289060e-01 |
| ## TRIM42       | -0.06207243 | 3.369410  | -1.7066095 | 9.231725e-02 | 2.289375e-01 |
| ## CABS1        | -0.03714632 | 3.176836  | -1.7065573 | 9.232700e-02 | 2.289375e-01 |
| ## MGC16025     | -0.05977387 | 3.602859  | -1.7064270 | 9.235139e-02 | 2.289707e-01 |
| ## EEIG2        | -0.20369967 | 8.645469  | -1.7062527 | 9.238399e-02 | 2.289857e-01 |
| ## TMEM17       | -0.17250475 | 5.313207  | -1.7062372 | 9.238689e-02 | 2.289857e-01 |
| ## LINC00293    | -0.10141401 | 4.154081  | -1.7062185 | 9.239040e-02 | 2.289857e-01 |
| ## PRSS1        | -0.64809666 | 5.463555  | -1.7060601 | 9.242004e-02 | 2.290055e-01 |
| ## PURG         | -0.05193715 | 3.433255  | -1.7059666 | 9.243755e-02 | 2.290055e-01 |
| ## PSMC2        | -0.21657984 | 8.458962  | -1.7059596 | 9.243885e-02 | 2.290055e-01 |
| ## RNF115       | 0.20580939  | 7.935250  | 1.7059408  | 9.244237e-02 | 2.290055e-01 |
| ## LOC339352    | -0.05961427 | 3.359461  | -1.7057358 | 9.248076e-02 | 2.290733e-01 |
| ## ZNF295-AS1   | -0.14511004 | 4.558826  | -1.7056538 | 9.249613e-02 | 2.290841e-01 |
| ## IFNA14       | -0.07427300 | 3.615423  | -1.7053043 | 9.256161e-02 | 2.292191e-01 |
| ## SSUH2        | -0.20218657 | 5.156495  | -1.7050138 | 9.261607e-02 | 2.293266e-01 |
| ## GCN1         | 0.13412245  | 8.136983  | 1.7048456  | 9.264761e-02 | 2.293775e-01 |
| ## CYP7B1       | -0.06798730 | 3.587634  | -1.7047237 | 9.267048e-02 | 2.294068e-01 |
| ## ELK2AP       | 0.07681159  | 6.049011  | 1.7046364  | 9.268685e-02 | 2.294173e-01 |
| ## TPD52L3      | -0.12084361 | 4.720369  | -1.7045837 | 9.269676e-02 | 2.294173e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## GRPR         | -0.11046851 | 5.606657  | -1.7044801 | 9.271619e-02 | 2.294381e-01 |
| ## PMS2P4       | -0.07520217 | 3.612247  | -1.7037514 | 9.285304e-02 | 2.297495e-01 |
| ## SMIM17       | -0.09344606 | 3.460255  | -1.7034147 | 9.291632e-02 | 2.298788e-01 |
| ## VPS13A       | -0.23679307 | 6.104372  | -1.7033086 | 9.293628e-02 | 2.299008e-01 |
| ## USP38        | 0.20764597  | 8.417770  | 1.7032116  | 9.295451e-02 | 2.299186e-01 |
| ## PEG3-AS1     | -0.07928898 | 3.795578  | -1.7030221 | 9.299017e-02 | 2.299795e-01 |
| ## BEST1        | -0.11307147 | 6.853775  | -1.7026856 | 9.305350e-02 | 2.301088e-01 |
| ## IRAG1-AS1    | -0.09109751 | 5.828479  | -1.7022102 | 9.314303e-02 | 2.303000e-01 |
| ## PIK3CD-AS1   | -0.12550098 | 6.323283  | -1.7021575 | 9.315294e-02 | 2.303000e-01 |
| ## FGF22        | -0.10449150 | 4.403129  | -1.7019243 | 9.319689e-02 | 2.303813e-01 |
| ## NRGN         | 0.14928758  | 4.967840  | 1.7017841  | 9.322332e-02 | 2.303858e-01 |
| ## DNAJC5       | 0.17767164  | 7.648002  | 1.7017438  | 9.323092e-02 | 2.303858e-01 |
| ## DOCK8        | -0.35277116 | 6.861236  | -1.7017386 | 9.323189e-02 | 2.303858e-01 |
| ## CCDC27       | -0.08944906 | 4.439396  | -1.7015655 | 9.326454e-02 | 2.304391e-01 |
| ## LINC01310    | -0.08330819 | 4.763089  | -1.7014804 | 9.328059e-02 | 2.304463e-01 |
| ## CLEC4D       | 0.09654380  | 4.010494  | 1.7014327  | 9.328960e-02 | 2.304463e-01 |
| ## LOC101927237 | -0.03915435 | 3.335389  | -1.7012978 | 9.331504e-02 | 2.304818e-01 |
| ## RASD1        | -0.32664912 | 7.193154  | -1.7011763 | 9.333796e-02 | 2.304881e-01 |
| ## LOC101927603 | 0.06854478  | 4.594584  | 1.7011456  | 9.334375e-02 | 2.304881e-01 |
| ## CHKA         | 0.20718706  | 7.469413  | 1.7011085  | 9.335077e-02 | 2.304881e-01 |
| ## LINC01845    | -0.06165400 | 3.677657  | -1.7009527 | 9.338016e-02 | 2.305333e-01 |
| ## ZNF225       | 0.07115145  | 3.645586  | 1.7008864  | 9.339269e-02 | 2.305369e-01 |
| ## RBP2         | -0.63219180 | 5.947666  | -1.7000583 | 9.354914e-02 | 2.308957e-01 |
| ## ZBTB25       | 0.13303235  | 5.439878  | 1.6992898  | 9.369454e-02 | 2.312272e-01 |
| ## SLC5A7       | -0.07357866 | 3.959072  | -1.6990815 | 9.373398e-02 | 2.312971e-01 |
| ## LOC101928475 | -0.07000392 | 3.276892  | -1.6989887 | 9.375154e-02 | 2.313130e-01 |
| ## PRR4         | -0.53637498 | 6.417608  | -1.6987551 | 9.379580e-02 | 2.313753e-01 |
| ## LRRC8E       | 0.23257615  | 5.145410  | 1.6987383  | 9.379898e-02 | 2.313753e-01 |
| ## CCR9         | -0.06369947 | 3.738071  | -1.6981650 | 9.390765e-02 | 2.316009e-01 |
| ## ATOX1        | 0.14943120  | 8.794356  | 1.6981383  | 9.391272e-02 | 2.316009e-01 |
| ## ANKUB1       | 0.04688180  | 3.267833  | 1.6976107  | 9.401284e-02 | 2.318204e-01 |
| ## B3GNT3       | 0.20748457  | 7.670296  | 1.6974943  | 9.403493e-02 | 2.318474e-01 |
| ## FAM205C      | -0.08975567 | 4.069879  | -1.6971429 | 9.410167e-02 | 2.319845e-01 |
| ## SSR4P1       | -0.07658896 | 4.673495  | -1.6967967 | 9.416746e-02 | 2.320830e-01 |
| ## LINC01635    | -0.09072593 | 3.739228  | -1.6967832 | 9.417003e-02 | 2.320830e-01 |
| ## LOC101930149 | -0.05623092 | 3.635699  | -1.6967567 | 9.417506e-02 | 2.320830e-01 |
| ## PCDHB8       | 0.11084358  | 3.674644  | 1.6966794  | 9.418977e-02 | 2.320918e-01 |
| ## PLEC         | 0.18379378  | 8.141653  | 1.6964538  | 9.423265e-02 | 2.321510e-01 |
| ## SELENOT      | 0.17642039  | 9.818791  | 1.6964357  | 9.423610e-02 | 2.321510e-01 |
| ## AEBP1        | -0.37941766 | 9.597025  | -1.6963580 | 9.425089e-02 | 2.321600e-01 |
| ## TRIM6        | -0.32200441 | 4.785882  | -1.6961941 | 9.428206e-02 | 2.321753e-01 |
| ## DIS3L2       | 0.10405482  | 5.272699  | 1.6961726  | 9.428615e-02 | 2.321753e-01 |
| ## CLCN7        | 0.10211324  | 7.209883  | 1.6961495  | 9.429055e-02 | 2.321753e-01 |
| ## SEZ6L2       | 0.34170811  | 6.851675  | 1.6960400  | 9.431140e-02 | 2.321992e-01 |
| ## TMEM123      | 0.17877150  | 10.471114 | 1.6958539  | 9.434681e-02 | 2.322589e-01 |
| ## EPN2-AS1     | -0.06625302 | 3.659822  | -1.6956464 | 9.438633e-02 | 2.323287e-01 |
| ## NTF3         | -0.18207323 | 5.777214  | -1.6950114 | 9.450733e-02 | 2.325991e-01 |
| ## SAPCD1-AS1   | -0.11693616 | 5.050768  | -1.6948038 | 9.454692e-02 | 2.326690e-01 |
| ## NBPF6        | 0.04673588  | 3.715874  | 1.6945760  | 9.459036e-02 | 2.327484e-01 |
| ## LOC284379    | -0.06660112 | 4.036723  | -1.6937676 | 9.474469e-02 | 2.330734e-01 |
| ## TFEB         | -0.11776040 | 7.156415  | -1.6937670 | 9.474481e-02 | 2.330734e-01 |
| ## TRMU         | 0.10329959  | 6.174422  | 1.6935890  | 9.477883e-02 | 2.331295e-01 |
| ## GFM2         | -0.17738216 | 7.999320  | -1.6933022 | 9.483364e-02 | 2.332183e-01 |
| ## NDUFB4       | 0.08728931  | 11.485432 | 1.6932742  | 9.483901e-02 | 2.332183e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## TIGIT        | 0.23301978  | 5.081929  | 1.6932244  | 9.484853e-02 | 2.332183e-01 |
| ## LOC105370829 | -0.07771628 | 5.075850  | -1.6930761 | 9.487687e-02 | 2.332605e-01 |
| ## MMP26        | -0.08443585 | 4.063608  | -1.6929433 | 9.490228e-02 | 2.332952e-01 |
| ## TMEM203      | 0.11737952  | 8.430876  | 1.6928808  | 9.491424e-02 | 2.332952e-01 |
| ## TNFRSF13B    | -0.13706358 | 5.648206  | -1.6927803 | 9.493348e-02 | 2.332952e-01 |
| ## TBX15        | 0.10033616  | 4.941085  | 1.6927679  | 9.493584e-02 | 2.332952e-01 |
| ## CHPF2        | 0.11353002  | 7.585974  | 1.6926954  | 9.494971e-02 | 2.333018e-01 |
| ## FYN          | -0.19439494 | 9.145395  | -1.6926181 | 9.496451e-02 | 2.333106e-01 |
| ## MYL12B       | 0.11160624  | 11.722835 | 1.6922635  | 9.503241e-02 | 2.334499e-01 |
| ## NGDN         | 0.12196383  | 8.411615  | 1.6921670  | 9.505089e-02 | 2.334678e-01 |
| ## ESRG         | -0.04958140 | 3.484026  | -1.6919539 | 9.509171e-02 | 2.335198e-01 |
| ## RACGAP1P1    | 0.04637256  | 3.413116  | 1.6919393  | 9.509450e-02 | 2.335198e-01 |
| ## TTBK1        | -0.09611280 | 5.737946  | -1.6918229 | 9.511682e-02 | 2.335471e-01 |
| ## LOC100506606 | -0.09243379 | 4.687458  | -1.6915277 | 9.517340e-02 | 2.336584e-01 |
| ## MTSS2        | -0.13652569 | 4.288791  | -1.6914424 | 9.518976e-02 | 2.336711e-01 |
| ## LINC01720    | -0.05902781 | 3.228970  | -1.6911367 | 9.524841e-02 | 2.337875e-01 |
| ## PABPC1       | 0.06331816  | 3.654664  | 1.6909719  | 9.528004e-02 | 2.338375e-01 |
| ## MED4         | 0.13978853  | 7.601200  | 1.6905122  | 9.536829e-02 | 2.340265e-01 |
| ## RSP01        | -0.10103119 | 4.622807  | -1.6900790 | 9.545152e-02 | 2.342032e-01 |
| ## UTS2         | 0.31455394  | 3.701713  | 1.6896433  | 9.553529e-02 | 2.343811e-01 |
| ## TMEM71       | -0.29322828 | 5.670249  | -1.6893538 | 9.559100e-02 | 2.344902e-01 |
| ## KCNJ12       | -0.09263329 | 4.069345  | -1.6892470 | 9.561156e-02 | 2.344939e-01 |
| ## PHLDA2       | 0.06737718  | 4.843180  | 1.6892135  | 9.561801e-02 | 2.344939e-01 |
| ## ECE2         | -0.07436661 | 4.941276  | -1.6891704 | 9.562629e-02 | 2.344939e-01 |
| ## PHAF1        | -0.09742392 | 4.370379  | -1.6887272 | 9.571164e-02 | 2.346755e-01 |
| ## RASSF9       | -0.13608772 | 3.968869  | -1.6886407 | 9.572830e-02 | 2.346887e-01 |
| ## CFLAR        | 0.23091829  | 7.653877  | 1.6882164  | 9.581008e-02 | 2.348616e-01 |
| ## MERTK        | -0.25120458 | 7.248616  | -1.6879158 | 9.586804e-02 | 2.349760e-01 |
| ## FAM86C1P     | 0.10885705  | 5.389125  | 1.6878367  | 9.588330e-02 | 2.349857e-01 |
| ## FBX034       | 0.17467627  | 8.900173  | 1.6876807  | 9.591341e-02 | 2.350061e-01 |
| ## LOC101928516 | -0.09328294 | 3.863015  | -1.6876767 | 9.591418e-02 | 2.350061e-01 |
| ## KLHL21       | 0.21100686  | 6.561428  | 1.6869758  | 9.604951e-02 | 2.353100e-01 |
| ## DIAPH3       | 0.05468423  | 3.257388  | 1.6867044  | 9.610195e-02 | 2.354108e-01 |
| ## ADD3-AS1     | -0.09044575 | 3.817751  | -1.6862886 | 9.618235e-02 | 2.355800e-01 |
| ## STS          | -0.34748721 | 6.759341  | -1.6860387 | 9.623069e-02 | 2.356665e-01 |
| ## MBOAT2       | -0.30010255 | 7.307223  | -1.6859739 | 9.624323e-02 | 2.356665e-01 |
| ## LILRB5       | -0.13160818 | 5.061050  | -1.6859305 | 9.625162e-02 | 2.356665e-01 |
| ## SIMC1        | -0.22764402 | 7.351120  | -1.6858565 | 9.626594e-02 | 2.356739e-01 |
| ## CLDN4        | -0.08887468 | 4.525063  | -1.6857945 | 9.627795e-02 | 2.356756e-01 |
| ## ZNF275       | -0.18076271 | 6.889517  | -1.6856510 | 9.630572e-02 | 2.357158e-01 |
| ## FAM168B      | -0.14496278 | 8.671365  | -1.6854638 | 9.634197e-02 | 2.357769e-01 |
| ## CCDC24       | 0.15103198  | 6.082954  | 1.6853453  | 9.636493e-02 | 2.358053e-01 |
| ## JMJD1C       | -0.16291553 | 8.718129  | -1.6845835 | 9.651259e-02 | 2.360988e-01 |
| ## DNAJB2       | -0.15721542 | 7.203599  | -1.6845490 | 9.651929e-02 | 2.360988e-01 |
| ## LOC100289230 | -0.15795227 | 5.072935  | -1.6845212 | 9.652467e-02 | 2.360988e-01 |
| ## NRBP1        | 0.11333465  | 7.641530  | 1.6844925  | 9.653023e-02 | 2.360988e-01 |
| ## LINC02380    | -0.07712233 | 4.129313  | -1.6844308 | 9.654220e-02 | 2.361004e-01 |
| ## ASTN1        | -0.05182574 | 3.243619  | -1.6842457 | 9.657812e-02 | 2.361605e-01 |
| ## PCDHB7       | -0.20145554 | 4.309161  | -1.6840995 | 9.660649e-02 | 2.362021e-01 |
| ## AGGF1        | 0.17962384  | 5.240150  | 1.6839943  | 9.662692e-02 | 2.362244e-01 |
| ## JAGN1        | 0.13283354  | 8.904529  | 1.6838908  | 9.664702e-02 | 2.362457e-01 |
| ## AICDA        | 0.06125986  | 3.610029  | 1.6836781  | 9.668833e-02 | 2.363062e-01 |
| ## SMIM14-DT    | -0.03851829 | 3.251920  | -1.6836466 | 9.669444e-02 | 2.363062e-01 |
| ## SYT9-AS1     | -0.04766594 | 3.361580  | -1.6833668 | 9.674880e-02 | 2.364113e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## GON7         | 0.18838115  | 6.782985  | 1.6832180  | 9.677772e-02 | 2.364542e-01 |
| ## NXPE3        | -0.16565639 | 4.364133  | -1.6830214 | 9.681595e-02 | 2.365159e-01 |
| ## HISLA        | 0.06435151  | 3.206171  | 1.6829712  | 9.682570e-02 | 2.365159e-01 |
| ## CBLB         | 0.05386428  | 3.432295  | 1.6826925  | 9.687991e-02 | 2.366206e-01 |
| ## ZNF136       | -0.20622426 | 6.660703  | -1.6825649 | 9.690474e-02 | 2.366535e-01 |
| ## RAB4A        | -0.18159763 | 8.644095  | -1.6824426 | 9.692855e-02 | 2.366839e-01 |
| ## LINC00589    | -0.07743671 | 4.084062  | -1.6823839 | 9.693998e-02 | 2.366840e-01 |
| ## RNLS         | -0.05204272 | 3.947841  | -1.6823131 | 9.695375e-02 | 2.366899e-01 |
| ## SCAF8        | 0.13005569  | 8.778391  | 1.6822064  | 9.697453e-02 | 2.366930e-01 |
| ## PSD3         | -0.31097133 | 6.161239  | -1.6821899 | 9.697773e-02 | 2.366930e-01 |
| ## ARFIP1       | 0.28408992  | 6.795303  | 1.6818898  | 9.703619e-02 | 2.368079e-01 |
| ## LOC105375875 | -0.06421242 | 3.555492  | -1.6815088 | 9.711044e-02 | 2.369050e-01 |
| ## ZNF709       | -0.05539623 | 3.419526  | -1.6814576 | 9.712042e-02 | 2.369050e-01 |
| ## LINC01838    | -0.13760997 | 5.030657  | -1.6814524 | 9.712143e-02 | 2.369050e-01 |
| ## LINC02724    | -0.13018032 | 3.754423  | -1.6813130 | 9.714862e-02 | 2.369050e-01 |
| ## ANK3         | -0.29211940 | 8.229509  | -1.6812914 | 9.715283e-02 | 2.369050e-01 |
| ## LOC105371932 | 0.07964233  | 4.201721  | 1.6812527  | 9.716038e-02 | 2.369050e-01 |
| ## AMH          | 0.12972500  | 4.703079  | 1.6812248  | 9.716580e-02 | 2.369050e-01 |
| ## NRIP1        | -0.18565781 | 8.746906  | -1.6811992 | 9.717080e-02 | 2.369050e-01 |
| ## LOC101929076 | -0.14395471 | 5.375668  | -1.6811604 | 9.717836e-02 | 2.369050e-01 |
| ## GS1-24F4.2   | -0.05175210 | 3.501930  | -1.6808299 | 9.724284e-02 | 2.370344e-01 |
| ## EIF4H        | 0.09185260  | 10.587567 | 1.6805056  | 9.730616e-02 | 2.371610e-01 |
| ## LINC01852    | -0.06509867 | 3.815509  | -1.6804297 | 9.732097e-02 | 2.371693e-01 |
| ## LHB          | 0.11045767  | 5.766179  | 1.6803017  | 9.734597e-02 | 2.371754e-01 |
| ## LOC101929297 | -0.05215706 | 3.675815  | -1.6802930 | 9.734768e-02 | 2.371754e-01 |
| ## CBR1         | -0.29346367 | 8.687194  | -1.6802420 | 9.735764e-02 | 2.371754e-01 |
| ## KRT86        | 0.16260250  | 4.966310  | 1.6801212  | 9.738123e-02 | 2.372014e-01 |
| ## ZNF747       | -0.12259142 | 7.143031  | -1.6800708 | 9.739108e-02 | 2.372014e-01 |
| ## TEX264       | 0.10719131  | 7.353541  | 1.6798954  | 9.742535e-02 | 2.372571e-01 |
| ## ACO1         | -0.18330989 | 8.347020  | -1.6796424 | 9.747482e-02 | 2.373498e-01 |
| ## RPS7         | 0.08625626  | 12.704484 | 1.6795809  | 9.748684e-02 | 2.373513e-01 |
| ## HCG11        | -0.22186901 | 4.003068  | -1.6790179 | 9.759699e-02 | 2.375917e-01 |
| ## KPNA6        | 0.12770760  | 7.287770  | 1.6788820  | 9.762359e-02 | 2.376287e-01 |
| ## UCN          | 0.11401608  | 4.646348  | 1.6786189  | 9.767510e-02 | 2.377094e-01 |
| ## RRM2B        | 0.23715921  | 7.237694  | 1.6785961  | 9.767957e-02 | 2.377094e-01 |
| ## MAP3K5       | -0.20472449 | 7.911338  | -1.6783529 | 9.772722e-02 | 2.377976e-01 |
| ## ODAD1        | -0.12261263 | 4.074478  | -1.6782152 | 9.775421e-02 | 2.378093e-01 |
| ## HOXA10-AS    | 0.14519164  | 3.908475  | 1.6782118  | 9.775487e-02 | 2.378093e-01 |
| ## KIRREL3      | -0.06234585 | 4.217616  | -1.6779647 | 9.780330e-02 | 2.378993e-01 |
| ## CGA          | -0.26457241 | 4.575660  | -1.6779016 | 9.781567e-02 | 2.379016e-01 |
| ## KYAT3        | -0.16158943 | 8.502870  | -1.6776600 | 9.786306e-02 | 2.379891e-01 |
| ## APOA1        | -0.51148122 | 5.965688  | -1.6770625 | 9.798033e-02 | 2.382280e-01 |
| ## FMO9P        | 0.11810293  | 3.595724  | 1.6770429  | 9.798418e-02 | 2.382280e-01 |
| ## WIZ          | 0.11066265  | 6.910487  | 1.6766944  | 9.805263e-02 | 2.383666e-01 |
| ## HECTD3       | -0.18824573 | 7.729604  | -1.6766218 | 9.806690e-02 | 2.383734e-01 |
| ## KIAA0586     | 0.09438712  | 6.693265  | 1.6765487  | 9.808126e-02 | 2.383805e-01 |
| ## HSD11B1      | -0.36524793 | 6.159918  | -1.6764489 | 9.810088e-02 | 2.384004e-01 |
| ## PLCB3        | 0.15816470  | 6.888575  | 1.6752884  | 9.832919e-02 | 2.389273e-01 |
| ## PDIA4        | 0.19682725  | 8.627504  | 1.6747202  | 9.844114e-02 | 2.391714e-01 |
| ## LOC389895    | -0.08311007 | 3.433790  | -1.6745295 | 9.847873e-02 | 2.392348e-01 |
| ## DNAJC3       | 0.32547619  | 8.476474  | 1.6742671  | 9.853049e-02 | 2.393327e-01 |
| ## C17orf99     | 0.10857045  | 4.059162  | 1.6741941  | 9.854487e-02 | 2.393397e-01 |
| ## TRBV7-8      | 0.09553212  | 4.347737  | 1.6740428  | 9.857473e-02 | 2.393843e-01 |
| ## RYR1         | 0.28663641  | 4.351985  | 1.6738610  | 9.861062e-02 | 2.394435e-01 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## PRSS3      | 0.44856543  | 8.595383  | 1.6737808  | 9.862644e-02 | 2.394540e-01 |
| ## LRRC71     | 0.08323086  | 5.465336  | 1.6733131  | 9.871881e-02 | 2.396503e-01 |
| ## MAPK14     | 0.12796826  | 8.412659  | 1.6731082  | 9.875930e-02 | 2.397207e-01 |
| ## MESP1      | 0.17247205  | 5.326132  | 1.6727506  | 9.883000e-02 | 2.398440e-01 |
| ## COMMD7     | 0.15810186  | 9.656640  | 1.6727346  | 9.883315e-02 | 2.398440e-01 |
| ## MMP8       | 0.20007462  | 3.743961  | 1.6724204  | 9.889530e-02 | 2.399669e-01 |
| ## ATP6V1G2   | -0.09129195 | 4.238246  | -1.6722130 | 9.893635e-02 | 2.400109e-01 |
| ## LOC729870  | -0.05690447 | 4.263723  | -1.6722115 | 9.893664e-02 | 2.400109e-01 |
| ## AFDN-DT    | 0.19129216  | 4.029855  | 1.6721539  | 9.894804e-02 | 2.400109e-01 |
| ## PBX1       | -0.20302866 | 5.801122  | -1.6718045 | 9.901722e-02 | 2.401508e-01 |
| ## PPFIA3     | 0.10065272  | 5.791688  | 1.6715649  | 9.906469e-02 | 2.402379e-01 |
| ## RABGGTB    | 0.13180456  | 8.591720  | 1.6714490  | 9.908765e-02 | 2.402656e-01 |
| ## RASL10A    | -0.14444507 | 4.644634  | -1.6712259 | 9.913186e-02 | 2.403448e-01 |
| ## LMBR1L     | -0.11833513 | 7.220887  | -1.6708899 | 9.919850e-02 | 2.404349e-01 |
| ## HLX        | 0.16373894  | 6.671143  | 1.6708162  | 9.921311e-02 | 2.404349e-01 |
| ## NLRP4      | -0.12022613 | 3.833527  | -1.6708097 | 9.921440e-02 | 2.404349e-01 |
| ## ZSWIM9     | -0.09016561 | 6.168765  | -1.6708058 | 9.921517e-02 | 2.404349e-01 |
| ## ARHGEF5    | 0.19251427  | 8.291727  | 1.6700931  | 9.935664e-02 | 2.407082e-01 |
| ## GOLGA1     | 0.12068371  | 7.023046  | 1.6700243  | 9.937030e-02 | 2.407082e-01 |
| ## APOBEC1    | -0.48031735 | 5.665695  | -1.6700177 | 9.937162e-02 | 2.407082e-01 |
| ## ADCYAP1R1  | -0.06946821 | 4.414310  | -1.6700046 | 9.937421e-02 | 2.407082e-01 |
| ## MYH9       | 0.13600355  | 9.049956  | 1.6698025  | 9.941437e-02 | 2.407775e-01 |
| ## NPHS2      | -0.08159761 | 4.449649  | -1.6696206 | 9.945052e-02 | 2.408370e-01 |
| ## PKHD1L1    | -0.21353028 | 3.904761  | -1.6693728 | 9.949978e-02 | 2.409165e-01 |
| ## DDIT4      | 0.34299385  | 10.162361 | 1.6693391  | 9.950647e-02 | 2.409165e-01 |
| ## TSKU       | -0.15272420 | 7.531908  | -1.6692445 | 9.952529e-02 | 2.409340e-01 |
| ## VPS37B     | 0.18130406  | 8.268745  | 1.6689693  | 9.958003e-02 | 2.410126e-01 |
| ## ABCC13     | -0.15512656 | 3.741356  | -1.6689651 | 9.958087e-02 | 2.410126e-01 |
| ## ITGAE      | 0.17437861  | 9.315157  | 1.6688276  | 9.960823e-02 | 2.410508e-01 |
| ## HPSE2      | -0.06982483 | 3.890608  | -1.6687561 | 9.962246e-02 | 2.410572e-01 |
| ## PFN2       | -0.37974291 | 9.156414  | -1.6686567 | 9.964224e-02 | 2.410770e-01 |
| ## ING2-DT    | -0.11909853 | 4.083613  | -1.6685893 | 9.965566e-02 | 2.410815e-01 |
| ## ADAM5      | -0.07799454 | 3.913532  | -1.6684144 | 9.969048e-02 | 2.411377e-01 |
| ## ZNF607     | 0.13535911  | 5.314393  | 1.6683104  | 9.971121e-02 | 2.411598e-01 |
| ## CARD18     | 0.10526217  | 3.728754  | 1.6681091  | 9.975130e-02 | 2.412288e-01 |
| ## ZNF680     | 0.15904646  | 6.817010  | 1.6674922  | 9.987428e-02 | 2.414546e-01 |
| ## LGALS4     | -0.50661943 | 11.198041 | -1.6674815 | 9.987642e-02 | 2.414546e-01 |
| ## PWAR5      | -0.08743755 | 3.426501  | -1.6674662 | 9.987946e-02 | 2.414546e-01 |
| ## FZD5       | 0.22269319  | 5.801601  | 1.6673474  | 9.990317e-02 | 2.414839e-01 |
| ## UBN1       | 0.09586569  | 7.335601  | 1.6668175  | 1.000089e-01 | 2.417114e-01 |
| ## MIR670HG   | -0.08189932 | 4.875620  | -1.6667236 | 1.000277e-01 | 2.417287e-01 |
| ## RIMOC1     | 0.15831271  | 8.302822  | 1.6664463  | 1.000831e-01 | 2.418163e-01 |
| ## RGCC       | 0.24310773  | 8.599168  | 1.6664258  | 1.000872e-01 | 2.418163e-01 |
| ## RBM12B-AS1 | -0.12062685 | 4.292168  | -1.6661559 | 1.001411e-01 | 2.419186e-01 |
| ## USP44      | -0.07604851 | 3.764771  | -1.6660391 | 1.001644e-01 | 2.419296e-01 |
| ## LINC02533  | -0.06075046 | 3.424018  | -1.6660168 | 1.001689e-01 | 2.419296e-01 |
| ## ZBTB20-AS1 | 0.08471751  | 4.739680  | 1.6658439  | 1.002035e-01 | 2.419850e-01 |
| ## CDKL5      | -0.07798092 | 4.451933  | -1.6657851 | 1.002152e-01 | 2.419854e-01 |
| ## NDUFV2     | 0.14380640  | 9.837366  | 1.6651835  | 1.003356e-01 | 2.422480e-01 |
| ## TMEM80     | 0.27117418  | 5.612150  | 1.6650570  | 1.003609e-01 | 2.422652e-01 |
| ## SUMF1      | -0.18083958 | 8.914436  | -1.6650058 | 1.003712e-01 | 2.422652e-01 |
| ## ALS2       | 0.09383769  | 3.685962  | 1.6649735  | 1.003777e-01 | 2.422652e-01 |
| ## SNHG8      | -0.16890949 | 9.829366  | -1.6647225 | 1.004279e-01 | 2.423585e-01 |
| ## CMPK2      | 0.36945332  | 8.353127  | 1.6646621  | 1.004400e-01 | 2.423596e-01 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CA4          | 0.25560594  | 4.972742  | 1.6645982  | 1.004528e-01 | 2.423624e-01 |
| ## DDX28        | 0.09444883  | 3.938456  | 1.6645218  | 1.004682e-01 | 2.423713e-01 |
| ## SOX6         | 0.05512188  | 3.335711  | 1.6644270  | 1.004871e-01 | 2.423890e-01 |
| ## PJA1         | -0.17890662 | 8.006439  | -1.6643227 | 1.005081e-01 | 2.424006e-01 |
| ## CSNK1A1      | 0.21898439  | 6.891508  | 1.6642868  | 1.005153e-01 | 2.424006e-01 |
| ## CFAP99       | -0.11822896 | 4.510430  | -1.6639719 | 1.005784e-01 | 2.424977e-01 |
| ## GABRG3-AS1   | -0.08477571 | 4.608756  | -1.6639559 | 1.005816e-01 | 2.424977e-01 |
| ## POLG         | 0.10914293  | 7.099293  | 1.6638883  | 1.005952e-01 | 2.424977e-01 |
| ## CYP2C9       | -0.29931073 | 5.380203  | -1.6638538 | 1.006021e-01 | 2.424977e-01 |
| ## PDHX         | 0.15252193  | 8.261935  | 1.6632662  | 1.007200e-01 | 2.427539e-01 |
| ## ARDC1-AS1    | -0.11018774 | 6.086967  | -1.6628198 | 1.008097e-01 | 2.429340e-01 |
| ## BTNL3        | -0.22293501 | 6.893138  | -1.6627783 | 1.008181e-01 | 2.429340e-01 |
| ## PRPF8        | 0.11628874  | 9.328358  | 1.6624397  | 1.008861e-01 | 2.430699e-01 |
| ## ERLNC1       | -0.09936877 | 4.657747  | -1.6621962 | 1.009351e-01 | 2.431532e-01 |
| ## CALR3        | -0.11301148 | 3.643112  | -1.6621516 | 1.009441e-01 | 2.431532e-01 |
| ## ZNRF2        | 0.17220702  | 6.616334  | 1.6620670  | 1.009611e-01 | 2.431661e-01 |
| ## INKA1        | -0.10154594 | 6.063912  | -1.6616515 | 1.010447e-01 | 2.433135e-01 |
| ## FAM210A      | 0.16120251  | 6.548705  | 1.6616469  | 1.010457e-01 | 2.433135e-01 |
| ## ZFP36L1      | -0.18015011 | 10.547859 | -1.6613803 | 1.010993e-01 | 2.434146e-01 |
| ## C22orf23     | -0.07259780 | 4.679886  | -1.6612761 | 1.011203e-01 | 2.434370e-01 |
| ## INPP4B       | 0.10520418  | 3.546820  | 1.6611348  | 1.011488e-01 | 2.434774e-01 |
| ## PDZK1        | -0.43780161 | 4.421616  | -1.6609687 | 1.011823e-01 | 2.435298e-01 |
| ## MTPN         | 0.10502506  | 4.333172  | 1.6603568  | 1.013057e-01 | 2.437987e-01 |
| ## MAFB         | -0.31408174 | 9.471468  | -1.6598931 | 1.013993e-01 | 2.439957e-01 |
| ## C1orf174     | 0.14660147  | 8.307745  | 1.6597567  | 1.014268e-01 | 2.440184e-01 |
| ## DEFB126      | 0.08543052  | 3.910897  | 1.6597117  | 1.014359e-01 | 2.440184e-01 |
| ## LINC00960    | 0.28309652  | 4.134894  | 1.6596693  | 1.014445e-01 | 2.440184e-01 |
| ## RPL27        | -0.06128545 | 13.070257 | -1.6596142 | 1.014556e-01 | 2.440184e-01 |
| ## KEL          | -0.10503273 | 5.464742  | -1.6594630 | 1.014862e-01 | 2.440638e-01 |
| ## INPP5K       | -0.09875826 | 7.033151  | -1.6593946 | 1.015000e-01 | 2.440688e-01 |
| ## IL9          | -0.04856999 | 3.361374  | -1.6591765 | 1.015441e-01 | 2.441207e-01 |
| ## CHRM4        | -0.07637135 | 4.557506  | -1.6591718 | 1.015450e-01 | 2.441207e-01 |
| ## ZFYVE19      | 0.13513641  | 6.475659  | 1.6590147  | 1.015768e-01 | 2.441688e-01 |
| ## RTL3         | -0.08034125 | 5.269697  | -1.6588272 | 1.016147e-01 | 2.442040e-01 |
| ## SFPQ         | -0.14943628 | 9.442487  | -1.6588264 | 1.016149e-01 | 2.442040e-01 |
| ## CD81         | -0.17987435 | 10.516886 | -1.6586044 | 1.016598e-01 | 2.442442e-01 |
| ## SH3BP1       | 0.10501239  | 6.252423  | 1.6585681  | 1.016671e-01 | 2.442442e-01 |
| ## MEIOC        | 0.05609223  | 3.191700  | 1.6584364  | 1.016938e-01 | 2.442442e-01 |
| ## TJP1         | -0.12426709 | 10.293395 | -1.6584277 | 1.016955e-01 | 2.442442e-01 |
| ## ZSCAN23      | -0.03878496 | 3.238411  | -1.6584031 | 1.017005e-01 | 2.442442e-01 |
| ## PRM1         | -0.08090211 | 5.371688  | -1.6583764 | 1.017059e-01 | 2.442442e-01 |
| ## DNALI1       | -0.23798647 | 5.937730  | -1.6583380 | 1.017137e-01 | 2.442442e-01 |
| ## DNAH17-AS1   | -0.08366116 | 3.833386  | -1.6581226 | 1.017573e-01 | 2.443207e-01 |
| ## BOD1L1       | -0.14091601 | 7.988902  | -1.6578526 | 1.018120e-01 | 2.444239e-01 |
| ## TCIM         | -0.47126796 | 9.144497  | -1.6574135 | 1.019010e-01 | 2.446093e-01 |
| ## ZNF343       | 0.07223129  | 3.906218  | 1.6572270  | 1.019388e-01 | 2.446719e-01 |
| ## HP           | -0.14517799 | 5.303641  | -1.6571560 | 1.019532e-01 | 2.446783e-01 |
| ## ZBED9        | 0.17524091  | 3.885470  | 1.6570686  | 1.019709e-01 | 2.446926e-01 |
| ## WEE2-AS1     | -0.06317213 | 4.035523  | -1.6569697 | 1.019910e-01 | 2.447125e-01 |
| ## LINC01241    | -0.07210360 | 3.745077  | -1.6568019 | 1.020250e-01 | 2.447660e-01 |
| ## SIX4         | 0.27988097  | 5.968160  | 1.6566315  | 1.020596e-01 | 2.448101e-01 |
| ## C21orf62-AS1 | -0.07075791 | 4.077316  | -1.6565956 | 1.020669e-01 | 2.448101e-01 |
| ## GCKR         | -0.22820087 | 6.240113  | -1.6561485 | 1.021577e-01 | 2.449410e-01 |
| ## ND2          | 0.09987888  | 13.680427 | 1.6561083  | 1.021659e-01 | 2.449410e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## SUGCT-AS1    | 0.08441837  | 3.632119 | 1.6561005  | 1.021674e-01 | 2.449410e-01 |
| ## LINC01931    | -0.05453598 | 3.769138 | -1.6560952 | 1.021685e-01 | 2.449410e-01 |
| ## HBB          | -0.06556632 | 5.401914 | -1.6557959 | 1.022294e-01 | 2.450586e-01 |
| ## CLEC2D       | 0.20789707  | 4.288666 | 1.6555338  | 1.022826e-01 | 2.451304e-01 |
| ## CPOG2        | 0.18489395  | 5.140342 | 1.6555105  | 1.022874e-01 | 2.451304e-01 |
| ## KRTAP11-1    | 0.06147207  | 4.321427 | 1.6554748  | 1.022946e-01 | 2.451304e-01 |
| ## NCAM1        | -0.15027595 | 5.216248 | -1.6553631 | 1.023174e-01 | 2.451567e-01 |
| ## POLI         | -0.25689269 | 6.140838 | -1.6549968 | 1.023919e-01 | 2.453070e-01 |
| ## CD99L2       | -0.10566409 | 4.587225 | -1.6548299 | 1.024259e-01 | 2.453568e-01 |
| ## AIG1         | 0.13131377  | 3.407287 | 1.6547789  | 1.024362e-01 | 2.453568e-01 |
| ## SLC39A4      | 0.32671689  | 8.126916 | 1.6546663  | 1.024592e-01 | 2.453835e-01 |
| ## ASCL3        | -0.08700625 | 4.474809 | -1.6545384 | 1.024852e-01 | 2.454177e-01 |
| ## PHF1         | -0.12688595 | 6.002883 | -1.6544530 | 1.025026e-01 | 2.454243e-01 |
| ## APRT         | 0.14737519  | 7.891159 | 1.6544090  | 1.025116e-01 | 2.454243e-01 |
| ## SGIP1        | -0.18438579 | 4.423918 | -1.6543464 | 1.025243e-01 | 2.454267e-01 |
| ## CARNMT1-AS1  | 0.06148809  | 3.892755 | 1.6541699  | 1.025603e-01 | 2.454787e-01 |
| ## SKIL         | 0.27200836  | 4.620759 | 1.6541240  | 1.025696e-01 | 2.454787e-01 |
| ## SAG          | -0.10233321 | 4.752646 | -1.6538744 | 1.026205e-01 | 2.455723e-01 |
| ## LARGE1       | -0.05265624 | 3.363155 | -1.6535375 | 1.026892e-01 | 2.457084e-01 |
| ## CNGA4        | -0.11837370 | 3.993995 | -1.6534676 | 1.027035e-01 | 2.457143e-01 |
| ## FBX039       | 0.04892162  | 4.075413 | 1.6533845  | 1.027205e-01 | 2.457267e-01 |
| ## TMEM255B     | -0.11860857 | 5.425236 | -1.6529776 | 1.028035e-01 | 2.458971e-01 |
| ## NPR1         | -0.10402468 | 6.455067 | -1.6528559 | 1.028284e-01 | 2.459283e-01 |
| ## TUBB2B       | 0.30003214  | 4.104132 | 1.6525364  | 1.028936e-01 | 2.460390e-01 |
| ## ZNF134       | -0.15634588 | 6.110606 | -1.6525137 | 1.028983e-01 | 2.460390e-01 |
| ## NID2         | 0.32614416  | 7.831580 | 1.6524373  | 1.029139e-01 | 2.460481e-01 |
| ## ZC3HC1       | 0.10747994  | 7.210919 | 1.6523225  | 1.029374e-01 | 2.460759e-01 |
| ## LINC02796    | -0.05411163 | 3.428266 | -1.6516595 | 1.030730e-01 | 2.463484e-01 |
| ## TUBB4A       | -0.07315855 | 3.909191 | -1.6516495 | 1.030750e-01 | 2.463484e-01 |
| ## RWDD2A       | 0.17022628  | 5.640146 | 1.6514316  | 1.031196e-01 | 2.464186e-01 |
| ## TRIM5        | 0.16725939  | 6.091130 | 1.6513904  | 1.031280e-01 | 2.464186e-01 |
| ## OLFM2        | 0.05764948  | 4.500122 | 1.6509498  | 1.032182e-01 | 2.466059e-01 |
| ## C20orf204    | -0.13884015 | 4.588048 | -1.6507843 | 1.032522e-01 | 2.466586e-01 |
| ## LINC01007    | -0.10365306 | 4.713114 | -1.6505675 | 1.032966e-01 | 2.467364e-01 |
| ## LINC02985    | 0.17134224  | 4.409529 | 1.6504153  | 1.033278e-01 | 2.467827e-01 |
| ## AGFG2        | 0.21240688  | 4.368421 | 1.6503501  | 1.033412e-01 | 2.467863e-01 |
| ## SIRT5        | 0.04536108  | 3.579864 | 1.6502158  | 1.033687e-01 | 2.468238e-01 |
| ## MEGF10       | -0.10371221 | 5.637737 | -1.6497504 | 1.034642e-01 | 2.470235e-01 |
| ## CHIT1        | 0.44875081  | 5.014024 | 1.6496074  | 1.034936e-01 | 2.470652e-01 |
| ## GNG8         | -0.16298136 | 4.512063 | -1.6492390 | 1.035692e-01 | 2.472175e-01 |
| ## SYCN         | -0.14743999 | 4.087573 | -1.6491165 | 1.035944e-01 | 2.472492e-01 |
| ## SNCAIP       | -0.36186705 | 6.318151 | -1.6489300 | 1.036327e-01 | 2.473123e-01 |
| ## SYDE1        | -0.10146990 | 4.928437 | -1.6486423 | 1.036919e-01 | 2.474251e-01 |
| ## RTP1         | 0.04483792  | 3.274956 | 1.6483757  | 1.037467e-01 | 2.475276e-01 |
| ## XRR1         | 0.19308029  | 5.390197 | 1.6483142  | 1.037593e-01 | 2.475294e-01 |
| ## CAMTA1       | -0.30205943 | 5.749040 | -1.6480371 | 1.038164e-01 | 2.476311e-01 |
| ## C9orf24      | -0.20514431 | 4.910530 | -1.6479062 | 1.038433e-01 | 2.476311e-01 |
| ## ARHGAP12     | 0.25113524  | 7.984024 | 1.6479012  | 1.038443e-01 | 2.476311e-01 |
| ## SF3B6        | 0.07484012  | 3.825743 | 1.6478760  | 1.038495e-01 | 2.476311e-01 |
| ## CTTNBP2NL    | 0.15649452  | 8.780064 | 1.6477580  | 1.038738e-01 | 2.476490e-01 |
| ## VKORC1       | -0.12874663 | 9.106315 | -1.6477241 | 1.038808e-01 | 2.476490e-01 |
| ## LINC01141    | -0.05200495 | 3.994082 | -1.6476543 | 1.038952e-01 | 2.476549e-01 |
| ## IFNA5        | 0.04056228  | 3.203416 | 1.6473068  | 1.039667e-01 | 2.477971e-01 |
| ## LOC105378146 | -0.11419171 | 3.913051 | -1.6466904 | 1.040938e-01 | 2.480716e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## RENBP        | 0.17306254  | 5.186708  | 1.6465172  | 1.041296e-01 | 2.481284e-01 |
| ## COL4A1       | 0.25762620  | 10.876831 | 1.6464059  | 1.041525e-01 | 2.481547e-01 |
| ## CHST3        | 0.09638635  | 4.348547  | 1.6462610  | 1.041825e-01 | 2.481853e-01 |
| ## LINC01348    | 0.07186948  | 6.274768  | 1.6461825  | 1.041987e-01 | 2.481853e-01 |
| ## HOXB4        | -0.12814799 | 6.666903  | -1.6461316 | 1.042092e-01 | 2.481853e-01 |
| ## GRAMD2B      | -0.28052553 | 7.745336  | -1.6461128 | 1.042130e-01 | 2.481853e-01 |
| ## GABARAPL1    | -0.16864447 | 7.170603  | -1.6457696 | 1.042839e-01 | 2.483257e-01 |
| ## CADPS2       | -0.16284711 | 7.508984  | -1.6453968 | 1.043610e-01 | 2.484807e-01 |
| ## CCNC         | 0.09165621  | 3.953574  | 1.6453185  | 1.043771e-01 | 2.484909e-01 |
| ## UPB1         | -0.14672507 | 4.429492  | -1.6452128 | 1.043990e-01 | 2.485145e-01 |
| ## AGR3         | -0.70014491 | 9.764481  | -1.6451513 | 1.044117e-01 | 2.485163e-01 |
| ## REX01        | 0.10295017  | 4.969239  | 1.6450629  | 1.044300e-01 | 2.485314e-01 |
| ## POGZ         | -0.12145324 | 8.903710  | -1.6447504 | 1.044946e-01 | 2.486569e-01 |
| ## RELL2        | 0.13479734  | 5.785406  | 1.6444532  | 1.045561e-01 | 2.487592e-01 |
| ## GGT6         | -0.38992943 | 6.062818  | -1.6444185 | 1.045633e-01 | 2.487592e-01 |
| ## LINC01449    | -0.08618661 | 3.580104  | -1.6443696 | 1.045735e-01 | 2.487592e-01 |
| ## PLD4         | -0.08272859 | 4.563422  | -1.6442384 | 1.046006e-01 | 2.487953e-01 |
| ## PLCB2        | -0.10048439 | 6.819879  | -1.6439075 | 1.046692e-01 | 2.489300e-01 |
| ## LAS1L        | 0.14859475  | 8.187810  | 1.6438172  | 1.046879e-01 | 2.489460e-01 |
| ## TIMMDC1      | 0.12805769  | 9.429915  | 1.6437270  | 1.047066e-01 | 2.489479e-01 |
| ## SNX3         | -0.09669716 | 10.475592 | -1.6436981 | 1.047126e-01 | 2.489479e-01 |
| ## STAP1        | -0.14626651 | 4.363902  | -1.6435379 | 1.047458e-01 | 2.489984e-01 |
| ## ARF5         | 0.13012663  | 8.808678  | 1.6430150  | 1.048542e-01 | 2.492112e-01 |
| ## LOC101928551 | -0.06947092 | 4.598188  | -1.6429908 | 1.048592e-01 | 2.492112e-01 |
| ## TMEM163      | -0.34855151 | 5.979108  | -1.6421158 | 1.050409e-01 | 2.495951e-01 |
| ## PRKCQ        | -0.32543262 | 5.918518  | -1.6420479 | 1.050550e-01 | 2.495951e-01 |
| ## NR2C2        | 0.12753865  | 4.492521  | 1.6420397  | 1.050567e-01 | 2.495951e-01 |
| ## PER3         | -0.06905123 | 3.517907  | -1.6414108 | 1.051875e-01 | 2.498497e-01 |
| ## WWC2-AS2     | -0.10786989 | 4.633960  | -1.6414089 | 1.051879e-01 | 2.498497e-01 |
| ## CCR2         | -0.33586375 | 5.419645  | -1.6411206 | 1.052479e-01 | 2.499637e-01 |
| ## FANCC        | 0.08711416  | 4.072919  | 1.6410087  | 1.052712e-01 | 2.499905e-01 |
| ## ZSWIM2       | -0.04513271 | 3.330745  | -1.6408844 | 1.052971e-01 | 2.500235e-01 |
| ## CR1L         | 0.05540093  | 3.755238  | 1.6406989  | 1.053357e-01 | 2.500866e-01 |
| ## TAF12        | 0.14748605  | 7.032950  | 1.6405627  | 1.053640e-01 | 2.501255e-01 |
| ## CD81-AS1     | -0.09364818 | 4.615644  | -1.6402396 | 1.054314e-01 | 2.502343e-01 |
| ## SLC2A2       | -0.20119670 | 3.493948  | -1.6402275 | 1.054339e-01 | 2.502343e-01 |
| ## C14orf93     | 0.04865545  | 3.346389  | 1.6401574  | 1.054485e-01 | 2.502404e-01 |
| ## TYW1         | 0.12980651  | 7.866084  | 1.6400159  | 1.054780e-01 | 2.502819e-01 |
| ## SLC40A1      | -0.29677515 | 10.988914 | -1.6396375 | 1.055569e-01 | 2.504406e-01 |
| ## FRMPD3       | -0.07990252 | 4.745235  | -1.6392139 | 1.056453e-01 | 2.506218e-01 |
| ## S100A3       | 0.40332001  | 5.040936  | 1.6390681  | 1.056758e-01 | 2.506655e-01 |
| ## TBXA2R       | -0.10624107 | 5.081452  | -1.6387087 | 1.057508e-01 | 2.508149e-01 |
| ## BTN2A1       | 0.12433122  | 8.323566  | 1.6385512  | 1.057837e-01 | 2.508644e-01 |
| ## FNIP2        | 0.11622993  | 4.387608  | 1.6380202  | 1.058948e-01 | 2.510991e-01 |
| ## VAPB         | 0.25386858  | 5.013349  | 1.6378717  | 1.059258e-01 | 2.511165e-01 |
| ## GADD45G      | -0.17119733 | 5.888536  | -1.6378699 | 1.059262e-01 | 2.511165e-01 |
| ## PRNT         | -0.07562148 | 3.797003  | -1.6373240 | 1.060404e-01 | 2.513587e-01 |
| ## TCL1A        | -0.22456506 | 6.010464  | -1.6372374 | 1.060586e-01 | 2.513731e-01 |
| ## NEUROG1      | -0.06949512 | 4.419956  | -1.6368618 | 1.061373e-01 | 2.515310e-01 |
| ## RPE          | 0.05022361  | 3.227285  | 1.6367386  | 1.061631e-01 | 2.515635e-01 |
| ## TMEM169      | 0.07685923  | 4.033090  | 1.6366208  | 1.061878e-01 | 2.515811e-01 |
| ## ANAPC10      | 0.15870321  | 7.009574  | 1.6365880  | 1.061947e-01 | 2.515811e-01 |
| ## PMCHL1       | 0.04117590  | 3.503452  | 1.6363435  | 1.062459e-01 | 2.516637e-01 |
| ## OGFOD1       | 0.18313966  | 7.208858  | 1.6363063  | 1.062537e-01 | 2.516637e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## CCSER2       | 0.04279240  | 3.136337 | 1.6359041  | 1.063381e-01 | 2.518349e-01 |
| ## MACROH2A2    | -0.17781818 | 7.133215 | -1.6356582 | 1.063897e-01 | 2.518851e-01 |
| ## STRADA       | -0.10108677 | 5.033557 | -1.6356332 | 1.063950e-01 | 2.518851e-01 |
| ## LINC01549    | -0.04781821 | 3.355359 | -1.6356304 | 1.063956e-01 | 2.518851e-01 |
| ## PRSS54       | -0.07292047 | 3.919231 | -1.6354562 | 1.064321e-01 | 2.519261e-01 |
| ## NAALADL1     | -0.18387159 | 4.988200 | -1.6354231 | 1.064391e-01 | 2.519261e-01 |
| ## SACS-AS1     | -0.06336911 | 3.350046 | -1.6353750 | 1.064492e-01 | 2.519261e-01 |
| ## CRCP         | 0.18505003  | 6.428197 | 1.6353010  | 1.064647e-01 | 2.519343e-01 |
| ## TEX22        | -0.08526841 | 4.440017 | -1.6352253 | 1.064806e-01 | 2.519433e-01 |
| ## EIF4A1       | 0.19759272  | 7.717421 | 1.6350633  | 1.065147e-01 | 2.519952e-01 |
| ## TME161B      | -0.21593219 | 8.177051 | -1.6347771 | 1.065748e-01 | 2.521089e-01 |
| ## FAM30A       | -0.40669554 | 5.359090 | -1.6346182 | 1.066083e-01 | 2.521593e-01 |
| ## PAQR3        | -0.07550606 | 3.752332 | -1.6345431 | 1.066240e-01 | 2.521680e-01 |
| ## RPAP2        | 0.11522340  | 6.034408 | 1.6340179  | 1.067346e-01 | 2.524007e-01 |
| ## MAP3K21      | 0.32422567  | 7.294951 | 1.6339492  | 1.067490e-01 | 2.524062e-01 |
| ## EDN1         | 0.15482241  | 4.629943 | 1.6338194  | 1.067764e-01 | 2.524413e-01 |
| ## SLC20A1-DT   | -0.08996232 | 4.502118 | -1.6337535 | 1.067902e-01 | 2.524413e-01 |
| ## CFAP92       | 0.14377202  | 4.767158 | 1.6337059  | 1.068003e-01 | 2.524413e-01 |
| ## SRGN         | 0.33549742  | 5.225399 | 1.6336486  | 1.068123e-01 | 2.524413e-01 |
| ## TC2N         | 0.35140321  | 7.253354 | 1.6335543  | 1.068322e-01 | 2.524459e-01 |
| ## MARVELD1     | -0.22097676 | 7.913866 | -1.6335241 | 1.068385e-01 | 2.524459e-01 |
| ## UBE2B        | -0.10033140 | 9.589889 | -1.6334111 | 1.068624e-01 | 2.524625e-01 |
| ## CNM4         | 0.19441314  | 7.089299 | 1.6333756  | 1.068698e-01 | 2.524625e-01 |
| ## LETM2        | 0.29992345  | 4.029920 | 1.6332039  | 1.069060e-01 | 2.524912e-01 |
| ## BMPR1B       | -0.14378996 | 3.905364 | -1.6332012 | 1.069066e-01 | 2.524912e-01 |
| ## PLXNC1       | 0.31140782  | 5.678247 | 1.6331181  | 1.069241e-01 | 2.524912e-01 |
| ## LINC02475    | -0.08916654 | 3.969848 | -1.6330880 | 1.069304e-01 | 2.524912e-01 |
| ## PTPRC        | 0.14105801  | 3.341074 | 1.6327884  | 1.069936e-01 | 2.526117e-01 |
| ## PQBP1        | 0.15640782  | 8.091538 | 1.6326526  | 1.070223e-01 | 2.526507e-01 |
| ## CNBD2        | -0.09571102 | 4.295356 | -1.6318858 | 1.071841e-01 | 2.530041e-01 |
| ## HECTD1       | 0.29091434  | 6.011341 | 1.6315905  | 1.072465e-01 | 2.531227e-01 |
| ## GTF2IP7      | 0.06384144  | 4.178971 | 1.6313642  | 1.072943e-01 | 2.531867e-01 |
| ## PRKAG2-AS2   | -0.08510139 | 4.425714 | -1.6313472 | 1.072980e-01 | 2.531867e-01 |
| ## PYHIN1       | 0.08902687  | 4.008685 | 1.6310614  | 1.073584e-01 | 2.532776e-01 |
| ## MAGOH-DT     | 0.07557391  | 4.011305 | 1.6310499  | 1.073608e-01 | 2.532776e-01 |
| ## TGM5         | -0.12199903 | 5.425069 | -1.6308686 | 1.073992e-01 | 2.533394e-01 |
| ## TSSK6        | -0.08879525 | 5.149589 | -1.6307360 | 1.074272e-01 | 2.533769e-01 |
| ## UBE2G2       | -0.12772170 | 7.370758 | -1.6305330 | 1.074702e-01 | 2.534495e-01 |
| ## DYNLT5       | -0.05003771 | 3.862364 | -1.6304748 | 1.074825e-01 | 2.534499e-01 |
| ## NFYB         | -0.19429067 | 7.739213 | -1.6303633 | 1.075061e-01 | 2.534717e-01 |
| ## GALR1        | -0.05056650 | 4.290152 | -1.6303161 | 1.075161e-01 | 2.534717e-01 |
| ## TREML1       | -0.10173156 | 4.642890 | -1.6299457 | 1.075946e-01 | 2.536279e-01 |
| ## EP300-AS1    | -0.29822489 | 4.577150 | -1.6296906 | 1.076486e-01 | 2.537266e-01 |
| ## ELAVL2       | -0.06274898 | 3.417907 | -1.6295325 | 1.076821e-01 | 2.537769e-01 |
| ## TENT5B       | -0.28690217 | 5.112759 | -1.6294283 | 1.077042e-01 | 2.538002e-01 |
| ## LOC100132249 | -0.06282352 | 4.529382 | -1.6293345 | 1.077241e-01 | 2.538184e-01 |
| ## CEP170B      | 0.13043359  | 7.970094 | 1.6291998  | 1.077527e-01 | 2.538570e-01 |
| ## C1QTNF3      | 0.08569549  | 3.702144 | 1.6287832  | 1.078411e-01 | 2.540365e-01 |
| ## SH2B1        | -0.09720612 | 7.190609 | -1.6286290 | 1.078738e-01 | 2.540849e-01 |
| ## PNMT         | 0.11434602  | 5.650896 | 1.6283954  | 1.079234e-01 | 2.541494e-01 |
| ## HBZ          | -0.10393161 | 4.090729 | -1.6283296 | 1.079374e-01 | 2.541494e-01 |
| ## LOC101929473 | 0.04578856  | 3.435782 | 1.6283275  | 1.079378e-01 | 2.541494e-01 |
| ## BTF3P11      | -0.07311894 | 3.496563 | -1.6280261 | 1.080019e-01 | 2.542715e-01 |
| ## RSAD2        | 0.42559635  | 7.077550 | 1.6278888  | 1.080311e-01 | 2.543114e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## KRTAP9-4     | -0.06735669 | 3.743703  | -1.6278164 | 1.080465e-01 | 2.543189e-01 |
| ## TM7SF3       | -0.21553042 | 5.738838  | -1.6268500 | 1.082521e-01 | 2.547741e-01 |
| ## EIF5B        | 0.16087515  | 9.280966  | 1.6267815  | 1.082667e-01 | 2.547796e-01 |
| ## CILP2        | -0.14402095 | 4.115172  | -1.6262503 | 1.083798e-01 | 2.549919e-01 |
| ## LINC00161    | -0.06020456 | 3.262101  | -1.6262431 | 1.083813e-01 | 2.549919e-01 |
| ## CCDC112      | -0.14797383 | 4.739495  | -1.6258587 | 1.084633e-01 | 2.551559e-01 |
| ## SUB1         | 0.09633860  | 11.422105 | 1.6257521  | 1.084860e-01 | 2.551805e-01 |
| ## GATAD2A      | 0.14741252  | 8.560791  | 1.6256037  | 1.085177e-01 | 2.552262e-01 |
| ## ANXA2R-OT1   | 0.11434767  | 5.653657  | 1.6254150  | 1.085579e-01 | 2.552920e-01 |
| ## LOC100505774 | -0.07975492 | 4.529021  | -1.6251073 | 1.086236e-01 | 2.554176e-01 |
| ## AJM1         | 0.09905129  | 5.481914  | 1.6247968  | 1.086899e-01 | 2.555447e-01 |
| ## RPS11        | -0.06675379 | 13.379370 | -1.6246002 | 1.087319e-01 | 2.556146e-01 |
| ## ZNF22-AS1    | -0.13973026 | 4.644521  | -1.6245227 | 1.087485e-01 | 2.556247e-01 |
| ## OSTM1-AS1    | -0.06354475 | 3.657852  | -1.6235382 | 1.089591e-01 | 2.560818e-01 |
| ## LOC728024    | -0.09874819 | 4.696252  | -1.6234986 | 1.089676e-01 | 2.560818e-01 |
| ## ZNF227       | 0.16686264  | 5.886470  | 1.6233423  | 1.090010e-01 | 2.561315e-01 |
| ## FBXW2        | -0.07555449 | 3.759792  | -1.6229262 | 1.090901e-01 | 2.563120e-01 |
| ## TMEM14B      | 0.13420515  | 9.460921  | 1.6227514  | 1.091276e-01 | 2.563667e-01 |
| ## BFSP1        | -0.14585730 | 5.183894  | -1.6227025 | 1.091381e-01 | 2.563667e-01 |
| ## SECISBP2     | -0.14101448 | 7.330981  | -1.6222364 | 1.092380e-01 | 2.565725e-01 |
| ## EAF1         | 0.16701717  | 7.568388  | 1.6218541  | 1.093200e-01 | 2.567362e-01 |
| ## LINC02345    | 0.07269722  | 3.985528  | 1.6217198  | 1.093488e-01 | 2.567750e-01 |
| ## NSMCE2       | 0.25437579  | 8.512585  | 1.6211976  | 1.094610e-01 | 2.570093e-01 |
| ## EPM2AIP1     | -0.19031590 | 4.796287  | -1.6210262 | 1.094978e-01 | 2.570668e-01 |
| ## LIPH         | 0.34051594  | 7.272610  | 1.6209076  | 1.095233e-01 | 2.570977e-01 |
| ## DMAC2        | 0.05870271  | 3.842312  | 1.6207054  | 1.095668e-01 | 2.571707e-01 |
| ## TRANK1       | -0.17908824 | 6.786326  | -1.6202674 | 1.096610e-01 | 2.573628e-01 |
| ## ZSCAN31      | -0.27184886 | 6.237811  | -1.6198762 | 1.097452e-01 | 2.575314e-01 |
| ## SCN3B        | -0.11153932 | 3.743925  | -1.6197345 | 1.097757e-01 | 2.575740e-01 |
| ## INTS12       | 0.13030382  | 7.753147  | 1.6195802  | 1.098089e-01 | 2.576229e-01 |
| ## LYRM1        | 0.15867370  | 8.745551  | 1.6194970  | 1.098268e-01 | 2.576257e-01 |
| ## GOLGA7       | 0.23004817  | 8.502972  | 1.6193936  | 1.098491e-01 | 2.576257e-01 |
| ## UPK3B        | 0.08521797  | 5.041303  | 1.6193441  | 1.098598e-01 | 2.576257e-01 |
| ## TLDC2        | 0.17926404  | 4.456387  | 1.6193393  | 1.098608e-01 | 2.576257e-01 |
| ## KRTAP17-1    | -0.07314202 | 4.447555  | -1.6192875 | 1.098720e-01 | 2.576257e-01 |
| ## ACO2         | -0.16858507 | 9.694153  | -1.6190241 | 1.099287e-01 | 2.577298e-01 |
| ## CPA4         | -0.08695882 | 4.944532  | -1.6188735 | 1.099612e-01 | 2.577667e-01 |
| ## LPP-AS2      | -0.08385189 | 3.675474  | -1.6188364 | 1.099692e-01 | 2.577667e-01 |
| ## GSTO2        | 0.32324506  | 7.919117  | 1.6186473  | 1.100100e-01 | 2.578300e-01 |
| ## PTCO2        | 0.16987519  | 6.318960  | 1.6185751  | 1.100256e-01 | 2.578300e-01 |
| ## TEF          | -0.12027145 | 3.914149  | -1.6185110 | 1.100394e-01 | 2.578300e-01 |
| ## BTG1-DT      | -0.10017322 | 6.195572  | -1.6184678 | 1.100487e-01 | 2.578300e-01 |
| ## MXI1         | -0.18078075 | 9.608084  | -1.6184241 | 1.100582e-01 | 2.578300e-01 |
| ## CTF1         | -0.09882930 | 5.499461  | -1.6183639 | 1.100711e-01 | 2.578314e-01 |
| ## TNS4         | 0.12463255  | 6.217646  | 1.6182783  | 1.100896e-01 | 2.578457e-01 |
| ## HIBADH       | 0.19425084  | 8.674447  | 1.6182126  | 1.101038e-01 | 2.578499e-01 |
| ## PRXL2A       | -0.31181077 | 8.445795  | -1.6176249 | 1.102307e-01 | 2.581181e-01 |
| ## POTES        | 0.22077803  | 5.700185  | 1.6175230  | 1.102527e-01 | 2.581407e-01 |
| ## CHPT1        | -0.29378274 | 6.470687  | -1.6172811 | 1.103050e-01 | 2.582340e-01 |
| ## KMT2B        | 0.13974211  | 7.471601  | 1.6166783  | 1.104354e-01 | 2.585102e-01 |
| ## ARF3         | 0.15174806  | 9.499315  | 1.6165795  | 1.104568e-01 | 2.585312e-01 |
| ## CASP3        | 0.18502303  | 8.420138  | 1.6164213  | 1.104910e-01 | 2.585823e-01 |
| ## TMEM31       | -0.11580494 | 3.757376  | -1.6161719 | 1.105450e-01 | 2.586796e-01 |
| ## COQ8A        | -0.20853308 | 8.164431  | -1.6158275 | 1.106196e-01 | 2.588250e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## RASSF10      | 0.43674383  | 4.841615  | 1.6155794  | 1.106734e-01 | 2.589082e-01 |
| ## MARK4        | 0.09463263  | 6.645522  | 1.6155488  | 1.106800e-01 | 2.589082e-01 |
| ## LYST         | -0.08218367 | 4.252915  | -1.6153302 | 1.107274e-01 | 2.589900e-01 |
| ## TNPO3        | 0.09454145  | 7.130585  | 1.6150509  | 1.107880e-01 | 2.590844e-01 |
| ## UBE2K        | 0.15455850  | 7.937125  | 1.6150294  | 1.107927e-01 | 2.590844e-01 |
| ## TLCD4        | -0.26867896 | 6.184872  | -1.6148942 | 1.108220e-01 | 2.591196e-01 |
| ## CYP2B7P      | 0.15769393  | 4.429419  | 1.6148452  | 1.108326e-01 | 2.591196e-01 |
| ## MT1E         | -0.38555774 | 11.199278 | -1.6144329 | 1.109221e-01 | 2.592998e-01 |
| ## AP1G2-AS1    | -0.07908362 | 3.715027  | -1.6140308 | 1.110095e-01 | 2.594748e-01 |
| ## SERPINB6     | 0.21938330  | 6.067291  | 1.6137888  | 1.110621e-01 | 2.595653e-01 |
| ## FHAD1        | -0.07992187 | 3.971975  | -1.6136868 | 1.110842e-01 | 2.595653e-01 |
| ## LOC497256    | 0.03744880  | 3.323334  | 1.6136807  | 1.110856e-01 | 2.595653e-01 |
| ## PGGT1B       | 0.21727224  | 5.392652  | 1.6132822  | 1.111722e-01 | 2.597231e-01 |
| ## AFAP1L2      | 0.28262563  | 4.667962  | 1.6132554  | 1.111781e-01 | 2.597231e-01 |
| ## ATG4A        | -0.16842939 | 7.225690  | -1.6124706 | 1.113489e-01 | 2.600930e-01 |
| ## ELP6         | -0.09367743 | 4.629156  | -1.6122050 | 1.114068e-01 | 2.601990e-01 |
| ## GTPBP3       | 0.07995118  | 4.101254  | 1.6118746  | 1.114788e-01 | 2.603380e-01 |
| ## SNX31        | -0.05356790 | 3.332623  | -1.6117904 | 1.114971e-01 | 2.603517e-01 |
| ## PAM16        | 0.13571492  | 7.345928  | 1.6115528  | 1.115490e-01 | 2.604435e-01 |
| ## LY6H         | -0.29970697 | 4.056892  | -1.6114045 | 1.115813e-01 | 2.604898e-01 |
| ## ZKSCAN1      | -0.20466574 | 8.235590  | -1.6112164 | 1.116224e-01 | 2.605565e-01 |
| ## C14orf119    | 0.11634912  | 9.517028  | 1.6109877  | 1.116723e-01 | 2.606438e-01 |
| ## PSORS1C2     | 0.13806262  | 4.844151  | 1.6109206  | 1.116869e-01 | 2.606487e-01 |
| ## LOC105371508 | -0.09240387 | 3.717425  | -1.6107631 | 1.117213e-01 | 2.606774e-01 |
| ## MYO10        | 0.22657991  | 5.275909  | 1.6107497  | 1.117243e-01 | 2.606774e-01 |
| ## FGD2         | -0.19491308 | 8.917722  | -1.6105691 | 1.117637e-01 | 2.607403e-01 |
| ## USP36        | 0.09160643  | 3.876308  | 1.6099464  | 1.118998e-01 | 2.609998e-01 |
| ## LINC01753    | -0.07915171 | 4.170621  | -1.6099454 | 1.119000e-01 | 2.609998e-01 |
| ## TMEM30B      | -0.30632414 | 8.923117  | -1.6095295 | 1.119910e-01 | 2.611828e-01 |
| ## NKX1-1       | -0.15231384 | 5.474434  | -1.6091769 | 1.120682e-01 | 2.613223e-01 |
| ## MT4          | -0.08254629 | 5.055292  | -1.6091415 | 1.120760e-01 | 2.613223e-01 |
| ## MRPL20-AS1   | 0.08862852  | 7.580154  | 1.6089187  | 1.121248e-01 | 2.613808e-01 |
| ## MAP4K4       | 0.24324331  | 6.329203  | 1.6088563  | 1.121384e-01 | 2.613808e-01 |
| ## SDHAF1       | -0.10973016 | 7.641458  | -1.6088421 | 1.121415e-01 | 2.613808e-01 |
| ## ATOH8        | -0.08172116 | 5.540453  | -1.6087978 | 1.121512e-01 | 2.613808e-01 |
| ## ECH1         | -0.18123787 | 9.100041  | -1.6085697 | 1.122012e-01 | 2.614680e-01 |
| ## ITPRID1      | -0.06226923 | 3.654306  | -1.6083777 | 1.122433e-01 | 2.615368e-01 |
| ## FAM219B      | -0.12841953 | 6.333663  | -1.6080198 | 1.123218e-01 | 2.616904e-01 |
| ## REM1         | -0.21725748 | 5.685207  | -1.6076130 | 1.124111e-01 | 2.618691e-01 |
| ## LDAH         | 0.21995055  | 6.285058  | 1.6075116  | 1.124333e-01 | 2.618792e-01 |
| ## KCTD15       | -0.14205247 | 6.353608  | -1.6074786 | 1.124406e-01 | 2.618792e-01 |
| ## CIB2         | 0.17500866  | 5.088555  | 1.6072568  | 1.124893e-01 | 2.619633e-01 |
| ## ZMAT2        | -0.10498750 | 8.910386  | -1.6069108 | 1.125653e-01 | 2.621111e-01 |
| ## MT1X         | -0.34475221 | 9.700312  | -1.6068307 | 1.125829e-01 | 2.621227e-01 |
| ## ZNF791       | -0.17242227 | 8.558517  | -1.6067156 | 1.126082e-01 | 2.621523e-01 |
| ## TMEM165      | 0.13108378  | 8.965337  | 1.6065741  | 1.126393e-01 | 2.621954e-01 |
| ## TDRD6        | -0.12417997 | 4.082916  | -1.6063233 | 1.126944e-01 | 2.622945e-01 |
| ## GUK1         | 0.13701856  | 9.803049  | 1.6061217  | 1.127388e-01 | 2.623684e-01 |
| ## LINC03008    | 0.08384186  | 4.731463  | 1.6055738  | 1.128594e-01 | 2.626197e-01 |
| ## SARDH        | -0.07872153 | 3.587042  | -1.6048169 | 1.130262e-01 | 2.629546e-01 |
| ## MYEF2        | -0.05099227 | 3.740742  | -1.6048060 | 1.130286e-01 | 2.629546e-01 |
| ## CCHCR1       | 0.11169606  | 6.868401  | 1.6044896  | 1.130983e-01 | 2.630711e-01 |
| ## DCAF12L2     | -0.09717642 | 3.529149  | -1.6044644 | 1.131039e-01 | 2.630711e-01 |
| ## LINC01315    | -0.13901195 | 5.774003  | -1.6042702 | 1.131467e-01 | 2.631413e-01 |

|    |              |             |           |            |              |              |
|----|--------------|-------------|-----------|------------|--------------|--------------|
| ## | OR52K3P      | 0.06502349  | 3.627578  | 1.6041956  | 1.131632e-01 | 2.631502e-01 |
| ## | PCDHGB8P     | -0.04702082 | 3.698647  | -1.6039522 | 1.132169e-01 | 2.632458e-01 |
| ## | C8A          | -0.08748791 | 3.912336  | -1.6037619 | 1.132589e-01 | 2.633078e-01 |
| ## | LINC02580    | -0.09234900 | 4.319427  | -1.6037169 | 1.132689e-01 | 2.633078e-01 |
| ## | KCNJ1        | -0.04905143 | 3.534094  | -1.6031925 | 1.133847e-01 | 2.635476e-01 |
| ## | ANO6         | -0.17342220 | 9.068740  | -1.6030492 | 1.134164e-01 | 2.635919e-01 |
| ## | LRRC20       | 0.12681292  | 5.967292  | 1.6025995  | 1.135159e-01 | 2.637936e-01 |
| ## | LINC00710    | -0.04286396 | 3.352056  | -1.6021895 | 1.136066e-01 | 2.639585e-01 |
| ## | MKLN1        | -0.15698745 | 6.315527  | -1.6021625 | 1.136125e-01 | 2.639585e-01 |
| ## | ALOX12-AS1   | 0.09357757  | 5.963915  | 1.6021069  | 1.136249e-01 | 2.639585e-01 |
| ## | ALS2CL       | 0.13299475  | 6.733337  | 1.6019803  | 1.136529e-01 | 2.639942e-01 |
| ## | RSBN1L       | 0.16459140  | 7.405382  | 1.6018596  | 1.136796e-01 | 2.640268e-01 |
| ## | RRN3         | 0.12711519  | 7.789966  | 1.6016459  | 1.137270e-01 | 2.641073e-01 |
| ## | DENND11      | 0.22037970  | 7.813822  | 1.6014828  | 1.137631e-01 | 2.641618e-01 |
| ## | PDK3         | 0.08691414  | 4.261851  | 1.6014067  | 1.137800e-01 | 2.641715e-01 |
| ## | ZNF624       | -0.09970684 | 3.876454  | -1.6011389 | 1.138393e-01 | 2.642799e-01 |
| ## | MORF4L2      | 0.07974339  | 11.974384 | 1.6010058  | 1.138689e-01 | 2.643189e-01 |
| ## | NDUFB8       | -0.11194358 | 10.202181 | -1.6006916 | 1.139386e-01 | 2.644277e-01 |
| ## | RNF135       | -0.16642029 | 7.644293  | -1.6006503 | 1.139477e-01 | 2.644277e-01 |
| ## | MAGOH2P      | 0.06770184  | 3.757579  | 1.6005815  | 1.139630e-01 | 2.644277e-01 |
| ## | DUSP9        | 0.07090232  | 4.382740  | 1.6005656  | 1.139665e-01 | 2.644277e-01 |
| ## | USP45        | 0.07964117  | 3.652001  | 1.6004382  | 1.139948e-01 | 2.644359e-01 |
| ## | LOC102724542 | 0.06564341  | 3.529244  | 1.6004352  | 1.139955e-01 | 2.644359e-01 |
| ## | ARMC10       | 0.17065450  | 8.244114  | 1.6001941  | 1.140490e-01 | 2.645307e-01 |
| ## | PPBP         | 0.47185881  | 4.210180  | 1.5999162  | 1.141107e-01 | 2.646444e-01 |
| ## | LINC02575    | 0.15306080  | 4.979364  | 1.5998544  | 1.141245e-01 | 2.646467e-01 |
| ## | PLEKHA2      | 0.13428090  | 4.122729  | 1.5996008  | 1.141808e-01 | 2.647480e-01 |
| ## | AQP10        | -0.26602051 | 4.378235  | -1.5994669 | 1.142106e-01 | 2.647875e-01 |
| ## | LINC01305    | -0.06166675 | 3.427251  | -1.5993917 | 1.142273e-01 | 2.647968e-01 |
| ## | LINC01187    | -0.07931290 | 3.672521  | -1.5992138 | 1.142669e-01 | 2.648343e-01 |
| ## | PIK3CA       | 0.20030512  | 7.274643  | 1.5992044  | 1.142689e-01 | 2.648343e-01 |
| ## | YARS2        | 0.14178089  | 7.249764  | 1.5991307  | 1.142853e-01 | 2.648429e-01 |
| ## | STAT4        | -0.22721215 | 5.938212  | -1.5989083 | 1.143348e-01 | 2.649280e-01 |
| ## | TNFAIP8L2    | -0.14454071 | 5.159350  | -1.5986840 | 1.143847e-01 | 2.650142e-01 |
| ## | GPR161       | 0.07009454  | 4.779027  | 1.5985826  | 1.144073e-01 | 2.650370e-01 |
| ## | BTF3         | -0.08473376 | 12.093715 | -1.5984100 | 1.144458e-01 | 2.650966e-01 |
| ## | UQCRRFS1     | 0.17859672  | 11.246034 | 1.5979342  | 1.145517e-01 | 2.653126e-01 |
| ## | RPS15A       | -0.06159112 | 13.367061 | -1.5978176 | 1.145777e-01 | 2.653433e-01 |
| ## | KIN          | 0.20670624  | 6.929599  | 1.5976986  | 1.146043e-01 | 2.653592e-01 |
| ## | GUCY2F       | -0.08232176 | 3.917063  | -1.5976345 | 1.146185e-01 | 2.653592e-01 |
| ## | LINC00205    | 0.21021518  | 5.087954  | 1.5976153  | 1.146228e-01 | 2.653592e-01 |
| ## | H1-8         | -0.08687503 | 4.671640  | -1.5975525 | 1.146368e-01 | 2.653621e-01 |
| ## | ZNF827       | -0.14857749 | 4.410275  | -1.5974801 | 1.146530e-01 | 2.653699e-01 |
| ## | ARID3A       | 0.24105661  | 5.014324  | 1.5971638  | 1.147235e-01 | 2.655038e-01 |
| ## | GEMIN8       | -0.09991328 | 4.687665  | -1.5968699 | 1.147891e-01 | 2.656002e-01 |
| ## | CECR9        | -0.05519139 | 3.798898  | -1.5968226 | 1.147997e-01 | 2.656002e-01 |
| ## | PCDHB9       | -0.07026494 | 4.703311  | -1.5967794 | 1.148093e-01 | 2.656002e-01 |
| ## | DOCK9        | 0.20566129  | 8.291527  | 1.5967463  | 1.148167e-01 | 2.656002e-01 |
| ## | TEX49        | -0.10769174 | 3.684533  | -1.5966913 | 1.148290e-01 | 2.656002e-01 |
| ## | IGFBP1       | 0.36453617  | 3.589998  | 1.5966223  | 1.148444e-01 | 2.656064e-01 |
| ## | PEBP1        | -0.17207546 | 9.714084  | -1.5963190 | 1.149121e-01 | 2.656714e-01 |
| ## | CDYL2        | -0.09752437 | 5.709662  | -1.5963177 | 1.149124e-01 | 2.656714e-01 |
| ## | LOC101928861 | -0.04335493 | 3.412943  | -1.5962508 | 1.149274e-01 | 2.656714e-01 |
| ## | TECR         | 0.08202746  | 4.001968  | 1.5962328  | 1.149314e-01 | 2.656714e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## C8orf34-AS1  | -0.05856862 | 3.259893  | -1.5961595 | 1.149478e-01 | 2.656714e-01 |
| ## LINC02303    | 0.23104150  | 3.722254  | 1.5961200  | 1.149566e-01 | 2.656714e-01 |
| ## GYS1         | 0.15139831  | 7.469610  | 1.5960825  | 1.149650e-01 | 2.656714e-01 |
| ## FIG4         | -0.11806247 | 7.896120  | -1.5960395 | 1.149746e-01 | 2.656714e-01 |
| ## SP5          | 0.21960814  | 6.213398  | 1.5956402  | 1.150639e-01 | 2.658482e-01 |
| ## MYEOV        | 0.29417459  | 6.982599  | 1.5952795  | 1.151446e-01 | 2.659897e-01 |
| ## SIKE1        | 0.07561788  | 3.732614  | 1.5952523  | 1.151507e-01 | 2.659897e-01 |
| ## TMEM106A     | -0.20704007 | 5.175641  | -1.5949044 | 1.152285e-01 | 2.661401e-01 |
| ## A4GALT       | -0.08936935 | 6.629913  | -1.5948053 | 1.152507e-01 | 2.661618e-01 |
| ## LOC102724938 | -0.04590740 | 3.396258  | -1.5945017 | 1.153187e-01 | 2.662894e-01 |
| ## RAMP2        | -0.13087179 | 5.926202  | -1.5942346 | 1.153786e-01 | 2.663981e-01 |
| ## LINC01981    | -0.05813299 | 3.313510  | -1.5937309 | 1.154915e-01 | 2.666292e-01 |
| ## CD163L1      | -0.21950628 | 6.414773  | -1.5936108 | 1.155185e-01 | 2.666619e-01 |
| ## TDH          | -0.06936255 | 3.810176  | -1.5935014 | 1.155430e-01 | 2.666890e-01 |
| ## ZNF420       | -0.15428729 | 4.838357  | -1.5934413 | 1.155565e-01 | 2.666905e-01 |
| ## DPYD         | 0.13219529  | 4.051643  | 1.5933844  | 1.155693e-01 | 2.666905e-01 |
| ## RAPSN        | -0.06698670 | 3.777474  | -1.5931538 | 1.156211e-01 | 2.667804e-01 |
| ## PLPP6        | -0.21771033 | 6.824181  | -1.5928667 | 1.156855e-01 | 2.668996e-01 |
| ## LOXL3        | -0.11629633 | 6.085673  | -1.5927854 | 1.157038e-01 | 2.669121e-01 |
| ## LOC401442    | -0.05852090 | 3.588811  | -1.5926840 | 1.157266e-01 | 2.669351e-01 |
| ## RRAGC        | 0.14560999  | 8.922422  | 1.5924112  | 1.157879e-01 | 2.670469e-01 |
| ## ZNRFP2P1     | 0.04301910  | 3.386768  | 1.5920725  | 1.158640e-01 | 2.671930e-01 |
| ## GRK7         | -0.04963698 | 3.443622  | -1.5916769 | 1.159530e-01 | 2.673686e-01 |
| ## LRIF1        | 0.27544201  | 6.528844  | 1.5915993  | 1.159705e-01 | 2.673793e-01 |
| ## C15orf48     | 0.46415274  | 10.365983 | 1.5910029  | 1.161048e-01 | 2.676592e-01 |
| ## FOSB         | -0.52416982 | 7.793831  | -1.5904175 | 1.162367e-01 | 2.679290e-01 |
| ## DOT1L        | 0.06266691  | 4.042613  | 1.5903695  | 1.162475e-01 | 2.679290e-01 |
| ## GAB4         | -0.08642612 | 4.664834  | -1.5901410 | 1.162991e-01 | 2.679713e-01 |
| ## OR5H1        | -0.05157687 | 3.135664  | -1.5901236 | 1.163030e-01 | 2.679713e-01 |
| ## GATA5        | -0.16210793 | 4.637770  | -1.5901170 | 1.163045e-01 | 2.679713e-01 |
| ## TMEM43       | -0.16336188 | 8.555812  | -1.5899045 | 1.163525e-01 | 2.680296e-01 |
| ## MAN2B2       | -0.15581306 | 7.870967  | -1.5898909 | 1.163555e-01 | 2.680296e-01 |
| ## KLF12        | -0.16991041 | 4.247919  | -1.5895833 | 1.164249e-01 | 2.681401e-01 |
| ## GMDS         | -0.44002924 | 9.458185  | -1.5895643 | 1.164292e-01 | 2.681401e-01 |
| ## CYB5D1       | 0.14145134  | 6.333929  | 1.5892050  | 1.165104e-01 | 2.682973e-01 |
| ## IGHV3-47     | 0.13886919  | 4.690873  | 1.5885897  | 1.166495e-01 | 2.685878e-01 |
| ## PAX8-AS1     | 0.48436680  | 7.533801  | 1.5884613  | 1.166785e-01 | 2.686249e-01 |
| ## FAM151A      | -0.10184749 | 3.997693  | -1.5878330 | 1.168207e-01 | 2.689226e-01 |
| ## CCDC38       | -0.08061368 | 3.876790  | -1.5877328 | 1.168433e-01 | 2.689450e-01 |
| ## CIB3         | -0.06300206 | 3.583245  | -1.5872851 | 1.169447e-01 | 2.691487e-01 |
| ## LINC00955    | -0.06423450 | 3.372077  | -1.5872046 | 1.169630e-01 | 2.691610e-01 |
| ## SLC30A1      | 0.12764740  | 9.790688  | 1.5867877  | 1.170575e-01 | 2.693486e-01 |
| ## PCAT4        | -0.08447160 | 4.223205  | -1.5865828 | 1.171040e-01 | 2.694228e-01 |
| ## CUX1         | 0.12056484  | 7.814551  | 1.5865315  | 1.171156e-01 | 2.694228e-01 |
| ## ETF1         | 0.13577369  | 8.466230  | 1.5864549  | 1.171330e-01 | 2.694330e-01 |
| ## ZNF443       | 0.13773342  | 7.159552  | 1.5862814  | 1.171723e-01 | 2.694930e-01 |
| ## CTBS         | -0.16598623 | 7.219549  | -1.5862260 | 1.171849e-01 | 2.694930e-01 |
| ## MAPK8IP2     | -0.10351683 | 6.213798  | -1.5860465 | 1.172257e-01 | 2.695567e-01 |
| ## PLA2G6       | -0.09128110 | 7.012286  | -1.5859358 | 1.172508e-01 | 2.695567e-01 |
| ## LOC646214    | -0.16958816 | 5.635322  | -1.5858896 | 1.172613e-01 | 2.695567e-01 |
| ## INS          | 0.05939474  | 4.001649  | 1.5858759  | 1.172644e-01 | 2.695567e-01 |
| ## LPAR2        | 0.15440369  | 6.079298  | 1.5852477  | 1.174071e-01 | 2.698550e-01 |
| ## CFAP276      | -0.11356790 | 4.295185  | -1.5851286 | 1.174342e-01 | 2.698874e-01 |
| ## DYNLL2       | -0.13204126 | 8.429500  | -1.5849437 | 1.174762e-01 | 2.699542e-01 |



|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## LHX4         | 0.07132344  | 4.803033 | 1.5847409  | 1.175224e-01 | 2.700305e-01 |
| ## LOC105370834 | -0.05811015 | 3.524489 | -1.5844531 | 1.175879e-01 | 2.701511e-01 |
| ## HPS6         | 0.10711966  | 7.063037 | 1.5842000  | 1.176455e-01 | 2.702536e-01 |
| ## PRSS36       | -0.08592182 | 5.606592 | -1.5835692 | 1.177892e-01 | 2.705445e-01 |
| ## CLDN2        | 0.41072412  | 5.698187 | 1.5835300  | 1.177981e-01 | 2.705445e-01 |
| ## ZNF501       | -0.08118799 | 3.624645 | -1.5833534 | 1.178383e-01 | 2.706071e-01 |
| ## TFPI2        | -0.18947218 | 3.907924 | -1.5830075 | 1.179172e-01 | 2.707584e-01 |
| ## ZNF445       | 0.09740285  | 6.631290 | 1.5824560  | 1.180431e-01 | 2.710175e-01 |
| ## TWF2-DT      | -0.11586121 | 5.555810 | -1.5822390 | 1.180926e-01 | 2.710852e-01 |
| ## RAB43        | 0.11090310  | 5.653980 | 1.5822129  | 1.180986e-01 | 2.710852e-01 |
| ## ABCC5        | -0.08190050 | 4.333235 | -1.5816903 | 1.182180e-01 | 2.713293e-01 |
| ## PDE3B        | 0.11029735  | 4.722819 | 1.5815966  | 1.182394e-01 | 2.713486e-01 |
| ## FOXP1-IT1    | -0.11634904 | 5.684599 | -1.5814122 | 1.182815e-01 | 2.714154e-01 |
| ## MTMR14       | 0.11891300  | 8.029347 | 1.5812651  | 1.183152e-01 | 2.714627e-01 |
| ## GLCE         | -0.23746150 | 6.257255 | -1.5811353 | 1.183449e-01 | 2.714852e-01 |
| ## CYP4Z2P      | 0.11267852  | 3.423815 | 1.5811052  | 1.183518e-01 | 2.714852e-01 |
| ## BTBD17       | 0.05975844  | 4.484053 | 1.5809852  | 1.183792e-01 | 2.714852e-01 |
| ## A2M          | 0.06858233  | 4.413402 | 1.5809733  | 1.183819e-01 | 2.714852e-01 |
| ## KRT4         | 0.44340315  | 4.378387 | 1.5809059  | 1.183973e-01 | 2.714852e-01 |
| ## ZNF404       | -0.17636189 | 3.814999 | -1.5808804 | 1.184032e-01 | 2.714852e-01 |
| ## LOC148696    | -0.06537261 | 3.901274 | -1.5806612 | 1.184534e-01 | 2.715522e-01 |
| ## CALB1        | 0.55928596  | 3.756040 | 1.5806195  | 1.184629e-01 | 2.715522e-01 |
| ## ORMDL3       | 0.16443996  | 8.310228 | 1.5805817  | 1.184716e-01 | 2.715522e-01 |
| ## CPVL         | -0.34186210 | 7.973975 | -1.5804254 | 1.185074e-01 | 2.716035e-01 |
| ## SKAP1-AS2    | -0.11021410 | 3.536645 | -1.5803395 | 1.185270e-01 | 2.716035e-01 |
| ## DNAJC19      | -0.13982409 | 7.212249 | -1.5803131 | 1.185331e-01 | 2.716035e-01 |
| ## EEF2K        | -0.16793820 | 8.580613 | -1.5802042 | 1.185580e-01 | 2.716308e-01 |
| ## KCND2        | -0.07943522 | 3.462865 | -1.5800785 | 1.185868e-01 | 2.716669e-01 |
| ## H2AC6        | 0.38845464  | 8.666140 | 1.5799763  | 1.186102e-01 | 2.716906e-01 |
| ## FITM2        | 0.19033907  | 7.573434 | 1.5798082  | 1.186488e-01 | 2.717377e-01 |
| ## SNTN         | -0.05466699 | 3.544886 | -1.5797728 | 1.186569e-01 | 2.717377e-01 |
| ## AHDC1        | -0.14128835 | 5.074634 | -1.5785288 | 1.189423e-01 | 2.723614e-01 |
| ## RHCG         | 0.34110329  | 4.586466 | 1.5784068  | 1.189704e-01 | 2.723957e-01 |
| ## PAPLN-AS1    | 0.06369474  | 3.658129 | 1.5782550  | 1.190052e-01 | 2.724456e-01 |
| ## ANKRD13D     | 0.08671294  | 5.158996 | 1.5779519  | 1.190749e-01 | 2.725501e-01 |
| ## LOC100128993 | -0.04644117 | 3.606913 | -1.5778959 | 1.190878e-01 | 2.725501e-01 |
| ## FGF9         | -0.38124189 | 5.986633 | -1.5778605 | 1.190959e-01 | 2.725501e-01 |
| ## GK2          | -0.11254086 | 3.738373 | -1.5778286 | 1.191032e-01 | 2.725501e-01 |
| ## AQP8         | -0.06315630 | 4.074825 | -1.5772980 | 1.192253e-01 | 2.727994e-01 |
| ## ABCD2        | -0.05197085 | 3.257170 | -1.5770702 | 1.192777e-01 | 2.728894e-01 |
| ## DNHD1        | 0.03831001  | 3.161920 | 1.5766027  | 1.193854e-01 | 2.731057e-01 |
| ## LINC01734    | -0.05724371 | 3.934921 | -1.5764145 | 1.194287e-01 | 2.731638e-01 |
| ## OIT3         | 0.09120783  | 3.902082 | 1.5763785  | 1.194370e-01 | 2.731638e-01 |
| ## SSTR4        | -0.08113135 | 4.355961 | -1.5762829 | 1.194591e-01 | 2.731842e-01 |
| ## REV1         | -0.10795204 | 7.872718 | -1.5761689 | 1.194853e-01 | 2.732143e-01 |
| ## SEC24D       | -0.18245983 | 7.077149 | -1.5757550 | 1.195808e-01 | 2.734025e-01 |
| ## KDM4A        | 0.12171309  | 6.827559 | 1.5756742  | 1.195994e-01 | 2.734151e-01 |
| ## NSMCE1       | -0.10977562 | 9.116813 | -1.5754501 | 1.196511e-01 | 2.734803e-01 |
| ## ALDOB        | -0.40052840 | 3.733553 | -1.5754367 | 1.196542e-01 | 2.734803e-01 |
| ## ANKRD33      | 0.12965352  | 3.963776 | 1.5753798  | 1.196673e-01 | 2.734803e-01 |
| ## C19orf12     | 0.31493141  | 8.411493 | 1.5753143  | 1.196825e-01 | 2.734849e-01 |
| ## LAMB4        | -0.05071080 | 3.350724 | -1.5746501 | 1.198359e-01 | 2.738054e-01 |
| ## C11orf65     | 0.04460441  | 3.291867 | 1.5743826  | 1.198977e-01 | 2.739165e-01 |
| ## SLC26A4      | -0.15143559 | 3.660139 | -1.5740339 | 1.199783e-01 | 2.740707e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CCDC117      | 0.16726843  | 7.774121  | 1.5738432  | 1.200224e-01 | 2.741414e-01 |
| ## PIGF         | 0.13640641  | 8.422329  | 1.5737623  | 1.200411e-01 | 2.741540e-01 |
| ## TMEM95       | -0.07199747 | 4.590752  | -1.5737018 | 1.200551e-01 | 2.741560e-01 |
| ## TINF2        | -0.12214589 | 7.298566  | -1.5734997 | 1.201019e-01 | 2.742134e-01 |
| ## PLK2         | 0.32187019  | 7.680071  | 1.5734793  | 1.201066e-01 | 2.742134e-01 |
| ## KRTAP4-2     | -0.08048303 | 4.464592  | -1.5732882 | 1.201509e-01 | 2.742844e-01 |
| ## ZNF80        | -0.05258488 | 3.615693  | -1.5732189 | 1.201669e-01 | 2.742909e-01 |
| ## KIDINS220    | -0.17695894 | 5.433867  | -1.5730734 | 1.202006e-01 | 2.743378e-01 |
| ## AWAT1        | -0.05085362 | 3.857246  | -1.5729495 | 1.202293e-01 | 2.743444e-01 |
| ## KDM5C        | 0.10757979  | 6.941064  | 1.5729470  | 1.202299e-01 | 2.743444e-01 |
| ## PVRIG        | -0.18905574 | 6.586688  | -1.5726057 | 1.203090e-01 | 2.744948e-01 |
| ## LINC01532    | -0.11593036 | 3.904183  | -1.5724407 | 1.203472e-01 | 2.745105e-01 |
| ## LINC01770    | -0.14302658 | 5.490354  | -1.5724261 | 1.203506e-01 | 2.745105e-01 |
| ## KRBOX1       | -0.25101821 | 5.442908  | -1.5724055 | 1.203554e-01 | 2.745105e-01 |
| ## VDR          | 0.10203319  | 5.652131  | 1.5722740  | 1.203859e-01 | 2.745463e-01 |
| ## LRRC8C       | -0.15036705 | 5.512562  | -1.5722242 | 1.203974e-01 | 2.745463e-01 |
| ## TRARG1       | -0.12227812 | 5.386573  | -1.5720358 | 1.204411e-01 | 2.745951e-01 |
| ## LDHD         | -0.19514481 | 4.667692  | -1.5720181 | 1.204453e-01 | 2.745951e-01 |
| ## CLCN6        | -0.12030743 | 5.879536  | -1.5718902 | 1.204749e-01 | 2.746327e-01 |
| ## RSPH14       | -0.12548452 | 4.247877  | -1.5716420 | 1.205325e-01 | 2.746797e-01 |
| ## GBX2         | -0.12040816 | 4.393915  | -1.5716120 | 1.205395e-01 | 2.746797e-01 |
| ## PDZD11       | 0.13020548  | 9.296733  | 1.5715650  | 1.205504e-01 | 2.746797e-01 |
| ## LOC105376100 | -0.08031005 | 3.735706  | -1.5715344 | 1.205575e-01 | 2.746797e-01 |
| ## SIGLEC10     | 0.16089212  | 4.313559  | 1.5715173  | 1.205615e-01 | 2.746797e-01 |
| ## GIPC1        | 0.10089931  | 8.647829  | 1.5710656  | 1.206664e-01 | 2.748886e-01 |
| ## VTN          | -0.22508932 | 5.341940  | -1.5708795 | 1.207096e-01 | 2.749571e-01 |
| ## DELEC1       | -0.06777717 | 3.524694  | -1.5707104 | 1.207489e-01 | 2.750165e-01 |
| ## TMEM225B     | -0.07859719 | 4.158864  | -1.5706306 | 1.207675e-01 | 2.750287e-01 |
| ## BTN1A1       | 0.10171200  | 3.794338  | 1.5702335  | 1.208598e-01 | 2.751928e-01 |
| ## C1QL1        | -0.22211077 | 5.011888  | -1.5701993 | 1.208678e-01 | 2.751928e-01 |
| ## ZNF654       | 0.11206744  | 4.774596  | 1.5701504  | 1.208792e-01 | 2.751928e-01 |
| ## LOC100505851 | -0.04576288 | 3.477037  | -1.5700500 | 1.209025e-01 | 2.752158e-01 |
| ## COPS5        | 0.13794968  | 9.671495  | 1.5699688  | 1.209214e-01 | 2.752288e-01 |
| ## TMPRSS15     | -0.64662845 | 4.044248  | -1.5698330 | 1.209530e-01 | 2.752495e-01 |
| ## LINC01503    | 0.22639224  | 5.570439  | 1.5698160  | 1.209570e-01 | 2.752495e-01 |
| ## FCRL1        | -0.11794349 | 3.780384  | -1.5694159 | 1.210502e-01 | 2.753999e-01 |
| ## PIH1D1       | 0.11990129  | 8.822960  | 1.5693785  | 1.210589e-01 | 2.753999e-01 |
| ## CYP4F22      | -0.07374135 | 3.926874  | -1.5693619 | 1.210628e-01 | 2.753999e-01 |
| ## TNXB         | -0.06148653 | 3.729410  | -1.5691977 | 1.211010e-01 | 2.754568e-01 |
| ## ACVR2B-AS1   | -0.11389199 | 4.361000  | -1.5689323 | 1.211628e-01 | 2.755674e-01 |
| ## LINC01816    | -0.10992598 | 4.118851  | -1.5686233 | 1.212349e-01 | 2.757011e-01 |
| ## PSME3IP1     | -0.10314175 | 7.106405  | -1.5678776 | 1.214089e-01 | 2.760667e-01 |
| ## WDR35-DT     | -0.06778814 | 4.300716  | -1.5671851 | 1.215707e-01 | 2.764044e-01 |
| ## CPT1A        | -0.16737491 | 9.254803  | -1.5670897 | 1.215930e-01 | 2.764249e-01 |
| ## LRRC37BP1    | -0.06379239 | 3.988242  | -1.5670006 | 1.216138e-01 | 2.764335e-01 |
| ## ZNF175       | -0.12436499 | 6.842827  | -1.5669050 | 1.216362e-01 | 2.764335e-01 |
| ## FGA          | -0.20551440 | 3.385858  | -1.5669032 | 1.216366e-01 | 2.764335e-01 |
| ## GBP6         | 0.07541114  | 3.279990  | 1.5668406  | 1.216512e-01 | 2.764366e-01 |
| ## GRK6         | 0.08747379  | 6.956276  | 1.5666197  | 1.217029e-01 | 2.765130e-01 |
| ## RNASE11-AS1  | -0.07931508 | 4.149858  | -1.5665834 | 1.217114e-01 | 2.765130e-01 |
| ## DLGAP4-AS1   | 0.07057706  | 4.325191  | 1.5659313  | 1.218640e-01 | 2.768295e-01 |
| ## ZC3H7A       | -0.10428430 | 7.941473  | -1.5656674 | 1.219258e-01 | 2.769397e-01 |
| ## LAPTM5       | 0.30367546  | 9.519346  | 1.5655247  | 1.219593e-01 | 2.769855e-01 |
| ## DYNLT3       | -0.19885411 | 10.174159 | -1.5652574 | 1.220219e-01 | 2.770710e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## NXF1         | -0.08784838 | 8.558183 | -1.5652505 | 1.220235e-01 | 2.770710e-01 |
| ## FOXE1        | 0.04536887  | 3.477594 | 1.5651910  | 1.220375e-01 | 2.770725e-01 |
| ## GAL3ST1      | -0.17421692 | 5.582140 | -1.5650320 | 1.220748e-01 | 2.771269e-01 |
| ## UBA1         | 0.05974420  | 4.452228 | 1.5647537  | 1.221400e-01 | 2.772401e-01 |
| ## ATP6V1B1     | -0.10930230 | 4.468698 | -1.5647059 | 1.221512e-01 | 2.772401e-01 |
| ## ORAI1        | 0.14138866  | 7.202460 | 1.5636747  | 1.223934e-01 | 2.777549e-01 |
| ## MYPN         | -0.05525827 | 4.535269 | -1.5636262 | 1.224048e-01 | 2.777549e-01 |
| ## REPS2        | -0.22468207 | 6.733701 | -1.5635272 | 1.224280e-01 | 2.777775e-01 |
| ## CD5          | -0.09549402 | 5.930045 | -1.5634031 | 1.224572e-01 | 2.778134e-01 |
| ## ALG14-AS1    | -0.06794913 | 3.417216 | -1.5631789 | 1.225099e-01 | 2.779027e-01 |
| ## EDRF1        | 0.06199222  | 4.630833 | 1.5630513  | 1.225399e-01 | 2.779405e-01 |
| ## CYP2A7       | -0.09150649 | 4.101008 | -1.5629769 | 1.225574e-01 | 2.779499e-01 |
| ## CYRIA        | 0.22377112  | 5.870841 | 1.5628151  | 1.225955e-01 | 2.779970e-01 |
| ## RWDD3        | -0.14416656 | 7.297884 | -1.5627752 | 1.226049e-01 | 2.779970e-01 |
| ## MOSMO        | -0.13236113 | 6.741802 | -1.5625885 | 1.226488e-01 | 2.780363e-01 |
| ## PLA2G7       | 0.44060479  | 7.663486 | 1.5625881  | 1.226489e-01 | 2.780363e-01 |
| ## APOA4        | -0.32741401 | 6.420745 | -1.5624692 | 1.226769e-01 | 2.780695e-01 |
| ## NHEJ1        | 0.11848860  | 6.488279 | 1.5619777  | 1.227927e-01 | 2.783016e-01 |
| ## C6           | -0.29277093 | 4.717549 | -1.5618806 | 1.228156e-01 | 2.783232e-01 |
| ## SYN1         | -0.16079903 | 5.906362 | -1.5616545 | 1.228689e-01 | 2.784136e-01 |
| ## ATP5MF       | 0.08398688  | 4.490210 | 1.5611627  | 1.229848e-01 | 2.786294e-01 |
| ## SSPN         | -0.04255020 | 3.435844 | -1.5611371 | 1.229908e-01 | 2.786294e-01 |
| ## PMEL         | 0.06937378  | 5.851932 | 1.5608926  | 1.230486e-01 | 2.787298e-01 |
| ## RXRA         | 0.13572591  | 5.474797 | 1.5604017  | 1.231644e-01 | 2.789620e-01 |
| ## AP3B2        | -0.08164246 | 3.712295 | -1.5599924 | 1.232611e-01 | 2.791506e-01 |
| ## ALPK3        | -0.22124562 | 5.726156 | -1.5598626 | 1.232918e-01 | 2.791897e-01 |
| ## IGSF6        | 0.34346906  | 5.931121 | 1.5596008  | 1.233537e-01 | 2.792995e-01 |
| ## DMRTA1       | 0.08930104  | 4.590499 | 1.5593684  | 1.234087e-01 | 2.793174e-01 |
| ## FRMD6        | -0.37588878 | 8.231708 | -1.5593510 | 1.234128e-01 | 2.793174e-01 |
| ## IL23A        | 0.08652833  | 5.055003 | 1.5593484  | 1.234134e-01 | 2.793174e-01 |
| ## CCR3         | -0.12945906 | 4.245530 | -1.5593406 | 1.234152e-01 | 2.793174e-01 |
| ## ABI3BP       | -0.04254171 | 3.300380 | -1.5591745 | 1.234545e-01 | 2.793759e-01 |
| ## PCF11-AS1    | 0.18892880  | 5.247846 | 1.5589052  | 1.235183e-01 | 2.794898e-01 |
| ## LMX1A        | -0.11980579 | 3.911698 | -1.5587196 | 1.235622e-01 | 2.795589e-01 |
| ## UGT3A1       | 0.14258373  | 4.008194 | 1.5585471  | 1.236031e-01 | 2.795910e-01 |
| ## LINC02555    | 0.04709429  | 3.238631 | 1.5585462  | 1.236033e-01 | 2.795910e-01 |
| ## LOC105373418 | -0.10559025 | 4.687674 | -1.5584764 | 1.236198e-01 | 2.795981e-01 |
| ## TUG1         | 0.11953133  | 8.948932 | 1.5581978  | 1.236858e-01 | 2.797013e-01 |
| ## IKBKB-DT     | -0.08973610 | 5.540883 | -1.5581703 | 1.236923e-01 | 2.797013e-01 |
| ## TCP11L1      | 0.14447435  | 4.540118 | 1.5579046  | 1.237553e-01 | 2.798133e-01 |
| ## DCAKD        | 0.12288276  | 5.261227 | 1.5571693  | 1.239297e-01 | 2.801773e-01 |
| ## UBE20        | -0.07257472 | 5.755803 | -1.5570599 | 1.239557e-01 | 2.802055e-01 |
| ## C8orf34      | -0.03306948 | 3.118888 | -1.5567859 | 1.240208e-01 | 2.803057e-01 |
| ## PKD1L2       | -0.08227485 | 4.104629 | -1.5567600 | 1.240269e-01 | 2.803057e-01 |
| ## EPS15L1      | 0.07070316  | 5.726729 | 1.5566111  | 1.240623e-01 | 2.803552e-01 |
| ## TTLL1-AS1    | -0.10184435 | 4.731776 | -1.5563573 | 1.241226e-01 | 2.804610e-01 |
| ## CHST12       | -0.06675317 | 4.932113 | -1.5562469 | 1.241488e-01 | 2.804898e-01 |
| ## CFAP221      | -0.13992928 | 4.194455 | -1.5560715 | 1.241905e-01 | 2.805437e-01 |
| ## HEYL         | -0.09838280 | 5.552887 | -1.5560128 | 1.242045e-01 | 2.805437e-01 |
| ## TRAF3IP2     | -0.05675763 | 3.634213 | -1.5559767 | 1.242131e-01 | 2.805437e-01 |
| ## SPEN-AS1     | -0.20067482 | 6.043401 | -1.5556746 | 1.242849e-01 | 2.806547e-01 |
| ## FAM83C       | 0.12957577  | 3.736929 | 1.5556566  | 1.242892e-01 | 2.806547e-01 |
| ## LINC02145    | -0.06544898 | 3.936141 | -1.5553903 | 1.243526e-01 | 2.807674e-01 |
| ## CHMP4C       | 0.35603754  | 8.595234 | 1.5551974  | 1.243985e-01 | 2.808246e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## OR13C4       | -0.07863449 | 4.605492  | -1.5550694 | 1.244289e-01 | 2.808246e-01 |
| ## LINC02864    | 0.10772796  | 3.497487  | 1.5550357  | 1.244370e-01 | 2.808246e-01 |
| ## TNFRSF19     | 0.10660594  | 3.854012  | 1.5549719  | 1.244522e-01 | 2.808246e-01 |
| ## DDX19A       | -0.04955625 | 3.478478  | -1.5549398 | 1.244598e-01 | 2.808246e-01 |
| ## LOC105374584 | -0.07440685 | 4.406084  | -1.5549084 | 1.244673e-01 | 2.808246e-01 |
| ## PTAFR        | 0.15284252  | 6.277363  | 1.5548276  | 1.244865e-01 | 2.808246e-01 |
| ## ING3         | -0.15952127 | 8.053062  | -1.5546900 | 1.245193e-01 | 2.808246e-01 |
| ## PNLIP        | -0.48750953 | 3.970226  | -1.5546827 | 1.245210e-01 | 2.808246e-01 |
| ## TAT          | -0.05343723 | 3.581335  | -1.5546729 | 1.245234e-01 | 2.808246e-01 |
| ## COA8         | 0.14421988  | 6.936118  | 1.5546609  | 1.245262e-01 | 2.808246e-01 |
| ## EPB41L2      | 0.27987754  | 7.636392  | 1.5545890  | 1.245434e-01 | 2.808328e-01 |
| ## CCDC12       | 0.09652530  | 8.796403  | 1.5544587  | 1.245744e-01 | 2.808423e-01 |
| ## KDM6A        | 0.19702575  | 5.509158  | 1.5544581  | 1.245746e-01 | 2.808423e-01 |
| ## NSG1         | 0.20138939  | 5.039069  | 1.5541335  | 1.246519e-01 | 2.809863e-01 |
| ## LINC00494    | 0.15116471  | 4.604054  | 1.5536806  | 1.247600e-01 | 2.811414e-01 |
| ## FOXP4-AS1    | 0.29544576  | 5.104491  | 1.5536299  | 1.247721e-01 | 2.811414e-01 |
| ## IL17RC       | 0.11669668  | 5.571748  | 1.5536254  | 1.247731e-01 | 2.811414e-01 |
| ## KRT38        | -0.06181231 | 4.310574  | -1.5535483 | 1.247915e-01 | 2.811414e-01 |
| ## MGAT5        | -0.06767331 | 4.251635  | -1.5535006 | 1.248029e-01 | 2.811414e-01 |
| ## ENTHD1       | 0.04531057  | 3.252555  | 1.5534302  | 1.248197e-01 | 2.811414e-01 |
| ## IER2         | 0.16667521  | 10.616869 | 1.5534264  | 1.248206e-01 | 2.811414e-01 |
| ## LINC00479    | -0.10946809 | 4.783341  | -1.5533925 | 1.248287e-01 | 2.811414e-01 |
| ## CABCO01      | -0.05035825 | 3.480693  | -1.5533071 | 1.248491e-01 | 2.811569e-01 |
| ## WDR70        | 0.14327050  | 7.466665  | 1.5532310  | 1.248673e-01 | 2.811674e-01 |
| ## S100P        | -0.51636871 | 12.255429 | -1.5531456 | 1.248877e-01 | 2.811829e-01 |
| ## CTTN         | -0.08228540 | 3.752768  | -1.5527453 | 1.249833e-01 | 2.813678e-01 |
| ## SKIC2        | 0.09613064  | 7.658974  | 1.5526284  | 1.250112e-01 | 2.814002e-01 |
| ## SUGP1        | 0.06762549  | 6.903844  | 1.5524234  | 1.250602e-01 | 2.814802e-01 |
| ## CAMSAP3      | 0.22398364  | 5.900446  | 1.5523123  | 1.250868e-01 | 2.815095e-01 |
| ## FAM186B      | -0.15122160 | 4.733302  | -1.5519863 | 1.251647e-01 | 2.816545e-01 |
| ## HHLA1        | -0.08775766 | 4.903559  | -1.5518492 | 1.251976e-01 | 2.816979e-01 |
| ## IRS1         | -0.23937465 | 7.504845  | -1.5516912 | 1.252354e-01 | 2.817525e-01 |
| ## DGKB         | -0.04797523 | 3.375001  | -1.5512291 | 1.253460e-01 | 2.819710e-01 |
| ## RBFADN       | 0.06680076  | 3.779778  | 1.5511373  | 1.253680e-01 | 2.819900e-01 |
| ## UBE2D3-AS1   | -0.11323504 | 5.069333  | -1.5507543 | 1.254598e-01 | 2.821440e-01 |
| ## JMJD4        | 0.08856894  | 5.478619  | 1.5507384  | 1.254636e-01 | 2.821440e-01 |
| ## RNF144B      | -0.25280261 | 7.717021  | -1.5505304 | 1.255134e-01 | 2.821959e-01 |
| ## NUFIP2       | 0.17717767  | 7.837461  | 1.5504993  | 1.255209e-01 | 2.821959e-01 |
| ## SLC12A2      | -0.36696051 | 8.748134  | -1.5504726 | 1.255273e-01 | 2.821959e-01 |
| ## HLA-DOA      | 0.17511660  | 5.444515  | 1.5503016  | 1.255683e-01 | 2.822576e-01 |
| ## KHNYN        | 0.14448717  | 7.665830  | 1.5497911  | 1.256908e-01 | 2.824936e-01 |
| ## ZDHHC1       | 0.13307946  | 4.928244  | 1.5497509  | 1.257004e-01 | 2.824936e-01 |
| ## ADAM3B       | -0.05925756 | 3.612495  | -1.5495915 | 1.257387e-01 | 2.825491e-01 |
| ## HIGD2A       | -0.06636549 | 7.182952  | -1.5490992 | 1.258570e-01 | 2.827843e-01 |
| ## GLS2         | 0.04017635  | 3.131758  | 1.5490290  | 1.258738e-01 | 2.827917e-01 |
| ## IGHV3-73     | 0.37543659  | 4.245862  | 1.5488525  | 1.259162e-01 | 2.828510e-01 |
| ## CACTIN       | 0.08973220  | 6.346983  | 1.5488061  | 1.259274e-01 | 2.828510e-01 |
| ## ARTN         | 0.15739716  | 4.545964  | 1.5487387  | 1.259436e-01 | 2.828569e-01 |
| ## AZGP1        | -0.69217231 | 7.306372  | -1.5483992 | 1.260252e-01 | 2.830097e-01 |
| ## LRIG2-DT     | -0.04030333 | 3.455233  | -1.5482823 | 1.260534e-01 | 2.830424e-01 |
| ## LOC105374928 | 0.03780867  | 3.392289  | 1.5480312  | 1.261138e-01 | 2.831475e-01 |
| ## CACNB4       | -0.12545121 | 4.215631  | -1.5477020 | 1.261930e-01 | 2.832949e-01 |
| ## LINC02053    | -0.19621865 | 3.710409  | -1.5471551 | 1.263247e-01 | 2.835600e-01 |
| ## ADGRV1       | 0.04268102  | 3.384876  | 1.5467880  | 1.264132e-01 | 2.837281e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## SPRR3        | 0.63448123  | 4.985172  | 1.5466883  | 1.264373e-01 | 2.837476e-01 |
| ## ZP1          | -0.08750028 | 4.733308  | -1.5466390 | 1.264492e-01 | 2.837476e-01 |
| ## COX3         | -0.13102363 | 9.083664  | -1.5464636 | 1.264915e-01 | 2.838120e-01 |
| ## ZNF205       | 0.09118161  | 5.897109  | 1.5463787  | 1.265120e-01 | 2.838225e-01 |
| ## LRIG2        | 0.15099480  | 6.174953  | 1.5463310  | 1.265235e-01 | 2.838225e-01 |
| ## LARGE-AS1    | -0.07379021 | 5.127650  | -1.5460705 | 1.265863e-01 | 2.839330e-01 |
| ## NFAM1        | 0.08006768  | 6.769783  | 1.5458650  | 1.266360e-01 | 2.839872e-01 |
| ## LOC728743    | -0.12812388 | 5.182760  | -1.5457318 | 1.266681e-01 | 2.839872e-01 |
| ## GPX1         | 0.16036145  | 10.611649 | 1.5456132  | 1.266968e-01 | 2.839872e-01 |
| ## LDLRAD3      | 0.23627058  | 6.731572  | 1.5456022  | 1.266994e-01 | 2.839872e-01 |
| ## IFNLR1       | -0.07376117 | 5.809179  | -1.5455404 | 1.267143e-01 | 2.839872e-01 |
| ## RACK1        | -0.07821561 | 12.750268 | -1.5455063 | 1.267226e-01 | 2.839872e-01 |
| ## CHRN1        | 0.11959610  | 4.633757  | 1.5454854  | 1.267276e-01 | 2.839872e-01 |
| ## SLC43A2      | 0.09200778  | 6.450305  | 1.5454720  | 1.267309e-01 | 2.839872e-01 |
| ## THBS1        | 0.25577809  | 5.281804  | 1.5454622  | 1.267333e-01 | 2.839872e-01 |
| ## ESM1         | 0.19992006  | 4.774061  | 1.5451313  | 1.268132e-01 | 2.841358e-01 |
| ## TTTY10       | -0.06782716 | 3.789347  | -1.5445813 | 1.269462e-01 | 2.844033e-01 |
| ## IL13RA2      | 0.34683824  | 4.524342  | 1.5444753  | 1.269719e-01 | 2.844163e-01 |
| ## PCBD2        | 0.13259194  | 5.801741  | 1.5444442  | 1.269794e-01 | 2.844163e-01 |
| ## SFMBT2       | -0.24509055 | 6.705096  | -1.5443094 | 1.270120e-01 | 2.844588e-01 |
| ## MVB12B       | -0.05995824 | 4.616010  | -1.5440983 | 1.270631e-01 | 2.845427e-01 |
| ## CLDND2       | -0.10142062 | 4.257756  | -1.5439965 | 1.270878e-01 | 2.845673e-01 |
| ## MEPCE        | 0.12640218  | 8.205768  | 1.5436820  | 1.271639e-01 | 2.847072e-01 |
| ## STEEP1       | 0.11316067  | 4.558433  | 1.5428847  | 1.273572e-01 | 2.850607e-01 |
| ## CNDP2        | 0.09572537  | 5.867189  | 1.5428707  | 1.273606e-01 | 2.850607e-01 |
| ## ZZZ3         | 0.11177662  | 7.796989  | 1.5428613  | 1.273629e-01 | 2.850607e-01 |
| ## ZNF487       | 0.22444367  | 5.331714  | 1.5426756  | 1.274079e-01 | 2.851309e-01 |
| ## ACAA2        | 0.09909561  | 6.130571  | 1.5422054  | 1.275221e-01 | 2.853556e-01 |
| ## SMYD3        | 0.18538076  | 7.846650  | 1.5420579  | 1.275579e-01 | 2.854051e-01 |
| ## SMAD1        | 0.19653198  | 7.661088  | 1.5419465  | 1.275849e-01 | 2.854062e-01 |
| ## ICE2         | 0.13280589  | 7.232751  | 1.5419430  | 1.275858e-01 | 2.854062e-01 |
| ## CBX3P2       | 0.03760183  | 3.176940  | 1.5417035  | 1.276440e-01 | 2.854838e-01 |
| ## LOC105378231 | -0.05585747 | 3.486861  | -1.5416749 | 1.276509e-01 | 2.854838e-01 |
| ## OR1J4        | -0.06177861 | 4.299182  | -1.5416309 | 1.276616e-01 | 2.854838e-01 |
| ## PCCA         | -0.34094636 | 7.022359  | -1.5414850 | 1.276971e-01 | 2.855324e-01 |
| ## PCIF1        | 0.12611619  | 6.429697  | 1.5413578  | 1.277280e-01 | 2.855709e-01 |
| ## LUC7L3       | -0.13550430 | 9.633276  | -1.5411854 | 1.277699e-01 | 2.856063e-01 |
| ## FOXK1        | 0.21032665  | 7.835322  | 1.5411799  | 1.277712e-01 | 2.856063e-01 |
| ## SPRED2       | -0.19792106 | 8.203308  | -1.5407533 | 1.278750e-01 | 2.858076e-01 |
| ## PTGR3        | 0.14126561  | 7.011587  | 1.5404844  | 1.279405e-01 | 2.859232e-01 |
| ## CTR9         | 0.11762603  | 8.672318  | 1.5403283  | 1.279785e-01 | 2.859775e-01 |
| ## LINC01777    | -0.06382841 | 3.311870  | -1.5401921 | 1.280116e-01 | 2.860208e-01 |
| ## GARIN6       | -0.08922310 | 3.978158  | -1.5399105 | 1.280802e-01 | 2.861434e-01 |
| ## FILNC1       | -0.08070183 | 3.483604  | -1.5392441 | 1.282427e-01 | 2.864756e-01 |
| ## SLC39A11     | -0.29394469 | 7.603564  | -1.5391735 | 1.282599e-01 | 2.864833e-01 |
| ## CXorf58      | 0.05186106  | 3.385390  | 1.5390671  | 1.282858e-01 | 2.865106e-01 |
| ## ACRBP        | -0.13170300 | 5.104740  | -1.5388064 | 1.283495e-01 | 2.866219e-01 |
| ## ZNF384       | 0.08614757  | 8.202026  | 1.5386125  | 1.283968e-01 | 2.866969e-01 |
| ## CCDC174      | 0.08922639  | 5.648000  | 1.5383445  | 1.284622e-01 | 2.867501e-01 |
| ## SQOR         | 0.18263186  | 10.353146 | 1.5383380  | 1.284638e-01 | 2.867501e-01 |
| ## ALDH5A1      | 0.25704782  | 7.451463  | 1.5382877  | 1.284761e-01 | 2.867501e-01 |
| ## EHBP1        | 0.26040886  | 6.767590  | 1.5382718  | 1.284800e-01 | 2.867501e-01 |
| ## CCAR2        | -0.10509696 | 3.740385  | -1.5382329 | 1.284895e-01 | 2.867501e-01 |
| ## FAM230I      | -0.09450911 | 4.041630  | -1.5381716 | 1.285045e-01 | 2.867528e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## IAPP         | -0.05149946 | 3.716938  | -1.5378741 | 1.285772e-01 | 2.868738e-01 |
| ## ELOVL2-AS1   | -0.07905660 | 3.468071  | -1.5378368 | 1.285863e-01 | 2.868738e-01 |
| ## HNF4A        | 0.14605641  | 4.924672  | 1.5376101  | 1.286417e-01 | 2.869667e-01 |
| ## PXT1         | -0.04957781 | 3.535013  | -1.5375413 | 1.286585e-01 | 2.869671e-01 |
| ## LINC01613    | -0.06174744 | 3.534385  | -1.5374968 | 1.286694e-01 | 2.869671e-01 |
| ## SYNPO2L      | -0.06848641 | 3.428164  | -1.5373100 | 1.287151e-01 | 2.870382e-01 |
| ## TESK2        | -0.16108613 | 6.504189  | -1.5371520 | 1.287537e-01 | 2.870891e-01 |
| ## BROX         | 0.12547924  | 9.628769  | 1.5370702  | 1.287737e-01 | 2.870891e-01 |
| ## TSPAN1       | -0.44915976 | 10.075281 | -1.5370396 | 1.287812e-01 | 2.870891e-01 |
| ## CDIP1        | -0.15431999 | 6.309207  | -1.5369461 | 1.288041e-01 | 2.870891e-01 |
| ## CCNYL2       | 0.06116394  | 3.341184  | 1.5368802  | 1.288202e-01 | 2.870891e-01 |
| ## RANBP3       | 0.07286400  | 7.240504  | 1.5368788  | 1.288206e-01 | 2.870891e-01 |
| ## PLA2G1B      | -0.26282735 | 4.087609  | -1.5366139 | 1.288854e-01 | 2.871649e-01 |
| ## TMC06        | 0.15238791  | 5.982881  | 1.5366080  | 1.288869e-01 | 2.871649e-01 |
| ## OTX2-AS1     | -0.04945757 | 3.478863  | -1.5365708 | 1.288960e-01 | 2.871649e-01 |
| ## BUD13        | 0.12383840  | 7.076218  | 1.5362244  | 1.289808e-01 | 2.872967e-01 |
| ## BTBD3        | -0.22497365 | 8.418050  | -1.5362165 | 1.289828e-01 | 2.872967e-01 |
| ## TEX48        | -0.15611088 | 5.931481  | -1.5357954 | 1.290860e-01 | 2.874959e-01 |
| ## SKAP2        | 0.23845572  | 6.531459  | 1.5356290  | 1.291268e-01 | 2.875560e-01 |
| ## PRDX5        | -0.15097194 | 10.398374 | -1.5355555 | 1.291448e-01 | 2.875654e-01 |
| ## ANKMY1       | -0.06789486 | 4.241925  | -1.5350929 | 1.292583e-01 | 2.877873e-01 |
| ## SNORD89      | 0.21666563  | 6.683663  | 1.5348798  | 1.293106e-01 | 2.878730e-01 |
| ## KCNMA1       | -0.05439029 | 3.769847  | -1.5348068 | 1.293285e-01 | 2.878821e-01 |
| ## EOGT         | -0.25034503 | 7.241080  | -1.5344590 | 1.294140e-01 | 2.880219e-01 |
| ## ZSCAN25      | 0.15688128  | 6.372967  | 1.5344384  | 1.294190e-01 | 2.880219e-01 |
| ## SRC          | -0.07639403 | 3.557130  | -1.5343514 | 1.294404e-01 | 2.880388e-01 |
| ## DMRTC2       | 0.05755159  | 3.368218  | 1.5342066  | 1.294760e-01 | 2.880871e-01 |
| ## RPS21        | 0.08245307  | 13.267065 | 1.5337214  | 1.295953e-01 | 2.883062e-01 |
| ## KCNQ2        | -0.16356456 | 4.171623  | -1.5336935 | 1.296021e-01 | 2.883062e-01 |
| ## RBPJ         | -0.16852281 | 8.660794  | -1.5333330 | 1.296908e-01 | 2.884727e-01 |
| ## BCL3         | 0.17533592  | 5.198123  | 1.5332131  | 1.297203e-01 | 2.885075e-01 |
| ## PROP1        | -0.07645254 | 4.888905  | -1.5330125 | 1.297697e-01 | 2.885865e-01 |
| ## LINC02097    | -0.06052825 | 3.766463  | -1.5329183 | 1.297929e-01 | 2.886073e-01 |
| ## MED140S      | 0.09205905  | 4.370449  | 1.5328121  | 1.298190e-01 | 2.886289e-01 |
| ## MAEL         | 0.15527471  | 3.798410  | 1.5327661  | 1.298303e-01 | 2.886289e-01 |
| ## GRK3         | -0.06014320 | 3.579692  | -1.5325741 | 1.298776e-01 | 2.887032e-01 |
| ## CDH8         | -0.06046289 | 3.930291  | -1.5322876 | 1.299482e-01 | 2.888293e-01 |
| ## CTH          | 0.19109531  | 4.649909  | 1.5321675  | 1.299778e-01 | 2.888643e-01 |
| ## ADAM23       | -0.04635912 | 3.325252  | -1.5319221 | 1.300383e-01 | 2.889650e-01 |
| ## LRP5         | 0.19726497  | 6.558904  | 1.5318711  | 1.300509e-01 | 2.889650e-01 |
| ## UTP23        | 0.15297809  | 8.057042  | 1.5317653  | 1.300770e-01 | 2.889922e-01 |
| ## BCL2L10      | -0.06838043 | 5.551055  | -1.5316503 | 1.301054e-01 | 2.890244e-01 |
| ## CER1         | -0.07976612 | 4.108477  | -1.5312725 | 1.301986e-01 | 2.892006e-01 |
| ## SGPP1        | 0.24355094  | 5.945742  | 1.5308230  | 1.303096e-01 | 2.894163e-01 |
| ## SLFNL1-AS1   | -0.07216566 | 3.923608  | -1.5305899 | 1.303672e-01 | 2.895133e-01 |
| ## LOC102724929 | -0.13826347 | 5.650088  | -1.5304022 | 1.304136e-01 | 2.895855e-01 |
| ## IL5          | 0.05880066  | 3.441880  | 1.5300627  | 1.304975e-01 | 2.897409e-01 |
| ## DHX36        | -0.10607716 | 5.645485  | -1.5295211 | 1.306315e-01 | 2.900075e-01 |
| ## YY1          | 0.10971211  | 10.515688 | 1.5293791  | 1.306666e-01 | 2.900546e-01 |
| ## LOC100422526 | 0.05916031  | 3.313373  | 1.5291296  | 1.307284e-01 | 2.901492e-01 |
| ## LOC101928957 | 0.04068316  | 3.162020  | 1.5290885  | 1.307386e-01 | 2.901492e-01 |
| ## HEPACAM      | -0.10034104 | 4.229381  | -1.5290381 | 1.307511e-01 | 2.901492e-01 |
| ## ZNF622       | 0.12873241  | 7.865697  | 1.5288967  | 1.307861e-01 | 2.901690e-01 |
| ## PHKA2        | 0.07385179  | 5.065516  | 1.5288896  | 1.307878e-01 | 2.901690e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ACAA1        | 0.09777803  | 7.946222  | 1.5287813  | 1.308147e-01 | 2.901976e-01 |
| ## IL17A        | -0.06004174 | 3.821979  | -1.5283324 | 1.309260e-01 | 2.904135e-01 |
| ## SPECC1L      | -0.15687245 | 7.198952  | -1.5282596 | 1.309440e-01 | 2.904226e-01 |
| ## ANGPTL4      | 0.20278119  | 5.635989  | 1.5279213  | 1.310279e-01 | 2.905778e-01 |
| ## LTA4H        | 0.14199034  | 9.988856  | 1.5277896  | 1.310606e-01 | 2.906193e-01 |
| ## RGS16        | 0.30978430  | 5.867348  | 1.5275225  | 1.311269e-01 | 2.907353e-01 |
| ## MFSD13A      | 0.15652660  | 5.791104  | 1.5271210  | 1.312266e-01 | 2.909254e-01 |
| ## SLC25A25     | 0.14278341  | 7.134504  | 1.5269102  | 1.312789e-01 | 2.909674e-01 |
| ## AGO4         | -0.05794597 | 3.533360  | -1.5268845 | 1.312853e-01 | 2.909674e-01 |
| ## CCDC191      | -0.12648991 | 5.626017  | -1.5268760 | 1.312874e-01 | 2.909674e-01 |
| ## LOC105375253 | -0.05353083 | 3.591355  | -1.5260897 | 1.314829e-01 | 2.913696e-01 |
| ## TEX37        | -0.07910158 | 4.628665  | -1.5250248 | 1.317480e-01 | 2.918991e-01 |
| ## DTNBP1       | 0.14741512  | 7.568455  | 1.5250174  | 1.317499e-01 | 2.918991e-01 |
| ## ICAM3        | -0.18579779 | 7.904437  | -1.5248937 | 1.317807e-01 | 2.919363e-01 |
| ## OR2H1        | 0.07546740  | 4.377809  | 1.5245103  | 1.318763e-01 | 2.921170e-01 |
| ## CNTR0B       | 0.08302850  | 6.963762  | 1.5236045  | 1.321023e-01 | 2.925865e-01 |
| ## TAS1R1       | -0.05928331 | 3.525822  | -1.5234836 | 1.321325e-01 | 2.926014e-01 |
| ## ZNF250       | 0.12264708  | 5.579439  | 1.5234651  | 1.321371e-01 | 2.926014e-01 |
| ## CGREF1       | -0.17234413 | 5.603580  | -1.5233391 | 1.321686e-01 | 2.926399e-01 |
| ## CGN          | 0.36892734  | 7.822729  | 1.5232009  | 1.322031e-01 | 2.926844e-01 |
| ## CMKLR2-AS    | 0.10158652  | 3.608945  | 1.5230678  | 1.322364e-01 | 2.926844e-01 |
| ## LINC01585    | -0.06415397 | 3.890561  | -1.5230604 | 1.322382e-01 | 2.926844e-01 |
| ## F13B         | -0.05138164 | 3.394347  | -1.5230336 | 1.322449e-01 | 2.926844e-01 |
| ## TMEM151B     | 0.11124198  | 5.044697  | 1.5228332  | 1.322950e-01 | 2.927393e-01 |
| ## LINC02433    | -0.03101807 | 3.183822  | -1.5228219 | 1.322978e-01 | 2.927393e-01 |
| ## APOL6        | 0.19906501  | 7.226547  | 1.5226501  | 1.323408e-01 | 2.928033e-01 |
| ## RGS12        | 0.07769411  | 3.763554  | 1.5225673  | 1.323615e-01 | 2.928180e-01 |
| ## ABHD3        | 0.19467681  | 8.802106  | 1.5219117  | 1.325255e-01 | 2.931497e-01 |
| ## CBX5         | 0.18657906  | 5.654983  | 1.5217789  | 1.325588e-01 | 2.931921e-01 |
| ## GFER         | 0.14841314  | 6.465250  | 1.5211750  | 1.327100e-01 | 2.934955e-01 |
| ## ATP11A-AS1   | 0.06700142  | 3.991955  | 1.5209269  | 1.327722e-01 | 2.936019e-01 |
| ## ZNF814       | 0.09392935  | 4.079760  | 1.5206647  | 1.328380e-01 | 2.937160e-01 |
| ## FAM104B      | -0.09954646 | 6.366679  | -1.5204709 | 1.328866e-01 | 2.937755e-01 |
| ## LINC00922    | -0.08442814 | 4.426717  | -1.5203511 | 1.329166e-01 | 2.937755e-01 |
| ## RANBP17      | 0.13524383  | 5.552735  | 1.5203399  | 1.329194e-01 | 2.937755e-01 |
| ## NME7         | 0.20572011  | 7.391332  | 1.5203326  | 1.329213e-01 | 2.937755e-01 |
| ## SDF2         | 0.12429975  | 7.676847  | 1.5200745  | 1.329860e-01 | 2.938874e-01 |
| ## URGCP        | 0.10455454  | 8.157495  | 1.5191982  | 1.332061e-01 | 2.943375e-01 |
| ## MGARP        | -0.10348176 | 3.862993  | -1.5191122 | 1.332278e-01 | 2.943375e-01 |
| ## BCAR3        | -0.24435441 | 6.940809  | -1.5190950 | 1.332321e-01 | 2.943375e-01 |
| ## LHFPL4       | -0.09340692 | 4.709238  | -1.5177951 | 1.335592e-01 | 2.950288e-01 |
| ## C7orf57      | 0.07097768  | 3.144536  | 1.5176647  | 1.335920e-01 | 2.950700e-01 |
| ## CD38         | 0.35773785  | 6.656567  | 1.5175892  | 1.336110e-01 | 2.950737e-01 |
| ## VPS37A       | 0.17254113  | 7.297439  | 1.5175456  | 1.336220e-01 | 2.950737e-01 |
| ## SYNPR-AS1    | -0.07750840 | 3.780914  | -1.5172983 | 1.336844e-01 | 2.951654e-01 |
| ## TMED4        | 0.08946476  | 4.329727  | 1.5172683  | 1.336919e-01 | 2.951654e-01 |
| ## LINC02225    | -0.03889682 | 3.271502  | -1.5167430 | 1.338244e-01 | 2.954266e-01 |
| ## PEX19        | 0.12565024  | 7.854760  | 1.5164915  | 1.338878e-01 | 2.955353e-01 |
| ## LOC101927609 | 0.16893926  | 5.002917  | 1.5162938  | 1.339377e-01 | 2.956141e-01 |
| ## STOML1       | -0.10383216 | 5.557233  | -1.5160506 | 1.339991e-01 | 2.957179e-01 |
| ## GTF3A        | 0.18396241  | 10.972969 | 1.5159951  | 1.340131e-01 | 2.957179e-01 |
| ## NTAQ1        | 0.16922788  | 7.490633  | 1.5159281  | 1.340301e-01 | 2.957239e-01 |
| ## FGF14-IT1    | -0.07737141 | 3.890883  | -1.5157444 | 1.340765e-01 | 2.957680e-01 |
| ## TMEM79       | 0.11202716  | 5.368798  | 1.5156925  | 1.340896e-01 | 2.957680e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## NR5A1        | -0.07282871 | 4.199662  | -1.5156802 | 1.340927e-01 | 2.957680e-01 |
| ## PCSK1N       | -0.27210239 | 6.028768  | -1.5156125 | 1.341098e-01 | 2.957745e-01 |
| ## HOXD11       | 0.12307305  | 3.957564  | 1.5155545  | 1.341244e-01 | 2.957754e-01 |
| ## DCTN4        | 0.15079630  | 7.304685  | 1.5154213  | 1.341581e-01 | 2.958184e-01 |
| ## DLEU7        | -0.04849576 | 3.546069  | -1.5153489 | 1.341764e-01 | 2.958256e-01 |
| ## LINC00630    | 0.04640316  | 3.403114  | 1.5152521  | 1.342009e-01 | 2.958256e-01 |
| ## NPBWR2       | -0.06363094 | 3.631562  | -1.5152397 | 1.342040e-01 | 2.958256e-01 |
| ## PPDPFL       | -0.05600064 | 3.568154  | -1.5149099 | 1.342874e-01 | 2.959781e-01 |
| ## DNTT         | -0.04845369 | 3.378061  | -1.5145938 | 1.343674e-01 | 2.961230e-01 |
| ## HRC          | -0.06755699 | 4.426584  | -1.5141838 | 1.344712e-01 | 2.963204e-01 |
| ## FADS1        | 0.30926858  | 6.013951  | 1.5140991  | 1.344926e-01 | 2.963363e-01 |
| ## ARRDC2       | -0.14979382 | 7.319293  | -1.5139939 | 1.345193e-01 | 2.963637e-01 |
| ## CLYBL        | -0.22000329 | 6.148470  | -1.5137075 | 1.345918e-01 | 2.964922e-01 |
| ## HMG2         | 0.08865698  | 12.053437 | 1.5136084  | 1.346170e-01 | 2.965161e-01 |
| ## CLSTN2       | -0.08573107 | 3.760700  | -1.5130375 | 1.347617e-01 | 2.968036e-01 |
| ## ZNF365       | -0.06129397 | 3.538359  | -1.5129739 | 1.347778e-01 | 2.968077e-01 |
| ## GRIP1        | -0.06899110 | 3.807816  | -1.5127695 | 1.348297e-01 | 2.968905e-01 |
| ## XIRP2        | -0.05296243 | 3.376957  | -1.5126319 | 1.348646e-01 | 2.969360e-01 |
| ## SMIM30       | -0.12787236 | 7.642508  | -1.5124579 | 1.349088e-01 | 2.970019e-01 |
| ## ERP29        | 0.11782170  | 10.238480 | 1.5122658  | 1.349576e-01 | 2.970779e-01 |
| ## LOC90246     | -0.06067051 | 3.593779  | -1.5119810 | 1.350299e-01 | 2.972057e-01 |
| ## LOC101927410 | -0.06168739 | 4.273433  | -1.5118523 | 1.350626e-01 | 2.972462e-01 |
| ## BRD9         | 0.10211094  | 7.701524  | 1.5116858  | 1.351049e-01 | 2.973026e-01 |
| ## KTN1         | 0.09003705  | 4.415006  | 1.5116392  | 1.351168e-01 | 2.973026e-01 |
| ## CLYBL-AS2    | -0.06940618 | 4.113550  | -1.5113668 | 1.351860e-01 | 2.973989e-01 |
| ## RNF182       | 0.22413843  | 3.985309  | 1.5113546  | 1.351891e-01 | 2.973989e-01 |
| ## PPP4R1       | 0.12354178  | 9.481425  | 1.5112322  | 1.352203e-01 | 2.974360e-01 |
| ## CAMKK2       | -0.07680657 | 4.524925  | -1.5111480 | 1.352417e-01 | 2.974507e-01 |
| ## DNAJC5G      | -0.09070959 | 4.563867  | -1.5110936 | 1.352555e-01 | 2.974507e-01 |
| ## ERVMER61-1   | 0.04595067  | 3.138993  | 1.5110368  | 1.352700e-01 | 2.974511e-01 |
| ## KCNJ9        | -0.10502262 | 4.611614  | -1.5106259 | 1.353745e-01 | 2.976496e-01 |
| ## DNASE2       | 0.11471944  | 8.207832  | 1.5101461  | 1.354967e-01 | 2.978868e-01 |
| ## DDIT3        | 0.15995364  | 8.195981  | 1.5100712  | 1.355158e-01 | 2.978973e-01 |
| ## LINC01792    | -0.04840058 | 3.536378  | -1.5099904 | 1.355364e-01 | 2.979111e-01 |
| ## DHX9-AS1     | 0.04224813  | 4.210814  | 1.5098209  | 1.355796e-01 | 2.979746e-01 |
| ## ZNF43        | -0.16028483 | 6.394979  | -1.5093808 | 1.356918e-01 | 2.981885e-01 |
| ## DDX19B       | -0.12058202 | 5.759420  | -1.5093148 | 1.357086e-01 | 2.981885e-01 |
| ## ZC3H12D      | 0.28186478  | 5.558672  | 1.5092706  | 1.357199e-01 | 2.981885e-01 |
| ## PLEKH02      | -0.15749274 | 7.431455  | -1.5092134 | 1.357345e-01 | 2.981892e-01 |
| ## XIST         | -1.01126783 | 5.244623  | -1.5091088 | 1.357612e-01 | 2.982163e-01 |
| ## ZNF740       | 0.06650837  | 3.847001  | 1.5088193  | 1.358350e-01 | 2.983471e-01 |
| ## TAF1B        | 0.09538199  | 3.494325  | 1.5085820  | 1.358956e-01 | 2.984487e-01 |
| ## ATP5P0       | -0.07501004 | 4.607938  | -1.5080201 | 1.360392e-01 | 2.987324e-01 |
| ## CCDC144BP    | 0.03925930  | 3.396964  | 1.5077988  | 1.360957e-01 | 2.987954e-01 |
| ## SYNE4        | 0.26041402  | 5.097172  | 1.5077956  | 1.360965e-01 | 2.987954e-01 |
| ## TH2LCRR      | 0.06129997  | 3.625430  | 1.5074875  | 1.361753e-01 | 2.989234e-01 |
| ## DGCR11       | 0.07707685  | 5.528597  | 1.5074553  | 1.361835e-01 | 2.989234e-01 |
| ## LOC284933    | -0.15567079 | 5.470501  | -1.5070099 | 1.362975e-01 | 2.991420e-01 |
| ## ADCY10P1     | 0.09052302  | 4.367032  | 1.5067000  | 1.363769e-01 | 2.992846e-01 |
| ## DIXDC1       | -0.07519844 | 4.907802  | -1.5063844 | 1.364577e-01 | 2.994304e-01 |
| ## H1-6         | 0.07466389  | 4.016189  | 1.5061791  | 1.365103e-01 | 2.994924e-01 |
| ## SURF1        | -0.11393570 | 9.519469  | -1.5061305 | 1.365227e-01 | 2.994924e-01 |
| ## SCAPER       | -0.18344106 | 6.241445  | -1.5060889 | 1.365334e-01 | 2.994924e-01 |
| ## TMPRSS6      | -0.08121218 | 5.759635  | -1.5060496 | 1.365435e-01 | 2.994924e-01 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## FAM215A      | -0.10607870 | 4.321860  | -1.5058408 | 1.365970e-01 | 2.995782e-01 |
| ## KDM7A        | -0.21495238 | 8.069969  | -1.5056563 | 1.366443e-01 | 2.996504e-01 |
| ## LINC02802    | -0.12689025 | 6.920430  | -1.5055363 | 1.366751e-01 | 2.996864e-01 |
| ## LINC-PINT    | 0.29190426  | 7.229139  | 1.5054064  | 1.367084e-01 | 2.997279e-01 |
| ## KLK4         | -0.09215947 | 6.464106  | -1.5051706 | 1.367689e-01 | 2.997918e-01 |
| ## IFNA7        | -0.06971514 | 3.799234  | -1.5051273 | 1.367800e-01 | 2.997918e-01 |
| ## ZNF480       | 0.07032987  | 3.775353  | 1.5051245  | 1.367807e-01 | 2.997918e-01 |
| ## GPR62        | -0.09917968 | 4.949180  | -1.5049302 | 1.368306e-01 | 2.998696e-01 |
| ## SEC23B       | 0.18587390  | 7.595648  | 1.5046631  | 1.368992e-01 | 2.999602e-01 |
| ## MINDY3       | -0.13973685 | 5.911169  | -1.5046569 | 1.369008e-01 | 2.999602e-01 |
| ## PKLR         | -0.13332937 | 4.226301  | -1.5045330 | 1.369326e-01 | 2.999984e-01 |
| ## FAM178B      | -0.11405956 | 5.137774  | -1.5041756 | 1.370244e-01 | 3.001680e-01 |
| ## MYL10        | -0.09965383 | 4.823342  | -1.5040694 | 1.370517e-01 | 3.001962e-01 |
| ## LMAN1L       | -0.06891725 | 4.881672  | -1.5036218 | 1.371668e-01 | 3.003973e-01 |
| ## IL1RN        | 0.36956612  | 8.729214  | 1.5036002  | 1.371724e-01 | 3.003973e-01 |
| ## BMP2         | -0.38886279 | 7.326166  | -1.5034110 | 1.372211e-01 | 3.004723e-01 |
| ## NAA38        | 0.12803221  | 8.655321  | 1.5032460  | 1.372635e-01 | 3.005336e-01 |
| ## CCDC163      | 0.10952030  | 5.036495  | 1.5031624  | 1.372850e-01 | 3.005357e-01 |
| ## ADGB-DT      | -0.05312941 | 4.417568  | -1.5031303 | 1.372933e-01 | 3.005357e-01 |
| ## ANKIB1       | 0.13083769  | 8.451018  | 1.5030118  | 1.373238e-01 | 3.005708e-01 |
| ## UMOD         | -0.08463482 | 4.259624  | -1.5029471 | 1.373405e-01 | 3.005757e-01 |
| ## IDO2         | 0.09186950  | 3.849208  | 1.5027778  | 1.373841e-01 | 3.006147e-01 |
| ## CES2         | -0.41765634 | 9.529834  | -1.5026707 | 1.374117e-01 | 3.006147e-01 |
| ## ARG1         | -0.10567660 | 3.829389  | -1.5026263 | 1.374231e-01 | 3.006147e-01 |
| ## MIR9-3HG     | -0.12098423 | 4.397027  | -1.5025854 | 1.374336e-01 | 3.006147e-01 |
| ## PLAAT5       | -0.15127537 | 4.535847  | -1.5025690 | 1.374378e-01 | 3.006147e-01 |
| ## LINC00310    | -0.05225581 | 3.843575  | -1.5025416 | 1.374449e-01 | 3.006147e-01 |
| ## LINC02482    | -0.14970340 | 5.618111  | -1.5021611 | 1.375430e-01 | 3.007419e-01 |
| ## HCCAT5       | -0.07247950 | 4.788639  | -1.5021609 | 1.375430e-01 | 3.007419e-01 |
| ## RGS14        | 0.12507808  | 5.387302  | 1.5020691  | 1.375667e-01 | 3.007419e-01 |
| ## CSN3         | -0.08626811 | 3.985547  | -1.5020468 | 1.375724e-01 | 3.007419e-01 |
| ## LOC105372480 | -0.11979789 | 6.800707  | -1.5020358 | 1.375753e-01 | 3.007419e-01 |
| ## SBSN         | 0.19617968  | 4.346459  | 1.5019300  | 1.376025e-01 | 3.007686e-01 |
| ## FAAP24       | 0.07583127  | 5.564197  | 1.5018621  | 1.376201e-01 | 3.007686e-01 |
| ## ADTRP        | -0.34870568 | 5.634447  | -1.5017798 | 1.376413e-01 | 3.007686e-01 |
| ## ZNF92        | 0.05819932  | 3.696638  | 1.5017354  | 1.376527e-01 | 3.007686e-01 |
| ## GSDME        | 0.37019216  | 7.396720  | 1.5017084  | 1.376597e-01 | 3.007686e-01 |
| ## LOC102546299 | -0.03595793 | 3.290567  | -1.5015878 | 1.376908e-01 | 3.008050e-01 |
| ## LOC101927914 | -0.06031136 | 4.298659  | -1.5014621 | 1.377232e-01 | 3.008443e-01 |
| ## CTBP1-AS     | -0.11433909 | 3.875801  | -1.5011612 | 1.378009e-01 | 3.009823e-01 |
| ## NADSYN1      | 0.06126649  | 3.649820  | 1.5009832  | 1.378469e-01 | 3.010512e-01 |
| ## BLOC1S1      | -0.11344412 | 9.282992  | -1.5005812 | 1.379507e-01 | 3.012463e-01 |
| ## TAS2R19      | 0.04629953  | 3.261786  | 1.5003342  | 1.380145e-01 | 3.013541e-01 |
| ## SEPTIN7P2    | 0.10615624  | 6.003143  | 1.4999958  | 1.381020e-01 | 3.015136e-01 |
| ## BTG2-DT      | 0.05768837  | 4.301211  | 1.4998684  | 1.381349e-01 | 3.015156e-01 |
| ## PITPNM1      | 0.14456212  | 6.900564  | 1.4998410  | 1.381420e-01 | 3.015156e-01 |
| ## LOC93463     | -0.04852983 | 3.223231  | -1.4998242 | 1.381464e-01 | 3.015156e-01 |
| ## SLC35E1      | -0.10799342 | 9.718184  | -1.4994542 | 1.382421e-01 | 3.016904e-01 |
| ## ABCC6P1      | -0.14064775 | 4.236246  | -1.4994027 | 1.382555e-01 | 3.016904e-01 |
| ## FSIP2-AS2    | 0.11072931  | 3.297959  | 1.4991734  | 1.383148e-01 | 3.017771e-01 |
| ## RAB15        | 0.27520221  | 6.923635  | 1.4991372  | 1.383242e-01 | 3.017771e-01 |
| ## LINC02028    | -0.06501248 | 3.889983  | -1.4990643 | 1.383431e-01 | 3.017867e-01 |
| ## SLIRP        | 0.11892675  | 10.165686 | 1.4987976  | 1.384121e-01 | 3.019058e-01 |
| ## GUSBP14      | -0.17839184 | 5.539783  | -1.4981236 | 1.385868e-01 | 3.022076e-01 |

|               |             |          |            |              |              |
|---------------|-------------|----------|------------|--------------|--------------|
| ## SPDYE1     | 0.18755258  | 5.550120 | 1.4981039  | 1.385919e-01 | 3.022076e-01 |
| ## RRAGD      | -0.27124944 | 5.280217 | -1.4980957 | 1.385941e-01 | 3.022076e-01 |
| ## MOSPD3     | 0.10914336  | 7.129287 | 1.4975139  | 1.387450e-01 | 3.025051e-01 |
| ## KCNIP2-AS1 | -0.12603430 | 5.855846 | -1.4971580 | 1.388374e-01 | 3.026749e-01 |
| ## MRPS35     | 0.22199075  | 9.934590 | 1.4968993  | 1.389046e-01 | 3.027873e-01 |
| ## LINC00165  | 0.09043569  | 3.989742 | 1.4968475  | 1.389181e-01 | 3.027873e-01 |
| ## GFPT2      | -0.34360949 | 6.190478 | -1.4963917 | 1.390365e-01 | 3.030137e-01 |
| ## RFXAP      | 0.08485874  | 4.485012 | 1.4962036  | 1.390854e-01 | 3.030886e-01 |
| ## DIPK1A     | 0.10057211  | 3.897147 | 1.4961028  | 1.391116e-01 | 3.031140e-01 |
| ## CAND1      | 0.16990439  | 4.027222 | 1.4958540  | 1.391763e-01 | 3.032233e-01 |
| ## KCNS3      | -0.30951284 | 7.033124 | -1.4956989 | 1.392167e-01 | 3.032795e-01 |
| ## TMED1      | 0.09978721  | 6.878772 | 1.4954809  | 1.392734e-01 | 3.033387e-01 |
| ## AP1S3      | 0.07120219  | 3.567484 | 1.4954338  | 1.392857e-01 | 3.033387e-01 |
| ## CPNE3      | 0.28236465  | 8.527185 | 1.4954267  | 1.392876e-01 | 3.033387e-01 |
| ## TTLL9      | -0.06704675 | 4.352559 | -1.4952546 | 1.393324e-01 | 3.034045e-01 |
| ## GPR26      | -0.08110810 | 3.342022 | -1.4947049 | 1.394756e-01 | 3.036846e-01 |
| ## EPB41      | 0.10991398  | 5.415480 | 1.4945773  | 1.395088e-01 | 3.037253e-01 |
| ## LINC02591  | 0.14121071  | 6.194124 | 1.4944821  | 1.395337e-01 | 3.037475e-01 |
| ## PDC        | 0.14789256  | 3.299430 | 1.4941144  | 1.396295e-01 | 3.039245e-01 |
| ## TAOK2      | 0.09405226  | 4.875973 | 1.4939235  | 1.396793e-01 | 3.040011e-01 |
| ## DTNA       | -0.09754329 | 4.264385 | -1.4937338 | 1.397289e-01 | 3.040771e-01 |
| ## HNRNPC     | 0.09251096  | 3.650705 | 1.4934825  | 1.397945e-01 | 3.041881e-01 |
| ## GDAP1      | 0.12524129  | 4.109754 | 1.4932973  | 1.398428e-01 | 3.042615e-01 |
| ## CXCR6      | 0.22859092  | 6.288843 | 1.4931700  | 1.398761e-01 | 3.042862e-01 |
| ## ABCB4      | -0.06992908 | 3.843243 | -1.4931419 | 1.398834e-01 | 3.042862e-01 |
| ## PPWD1      | -0.13281032 | 8.135873 | -1.4929763 | 1.399267e-01 | 3.043485e-01 |
| ## ZXDC       | 0.12940899  | 6.976328 | 1.4928684  | 1.399549e-01 | 3.043781e-01 |
| ## LINC01087  | 0.05689383  | 3.207828 | 1.4926291  | 1.400174e-01 | 3.044776e-01 |
| ## CDC42EP1   | 0.22947119  | 7.320021 | 1.4925396  | 1.400408e-01 | 3.044776e-01 |
| ## ANXA2P1    | 0.12444259  | 4.894639 | 1.4925112  | 1.400482e-01 | 3.044776e-01 |
| ## ZFP37      | -0.11201563 | 3.959334 | -1.4924696 | 1.400591e-01 | 3.044776e-01 |
| ## PPP1R9A    | -0.34099137 | 5.327003 | -1.4922668 | 1.401122e-01 | 3.045611e-01 |
| ## RALGPS1    | -0.09454885 | 4.052810 | -1.4922082 | 1.401275e-01 | 3.045626e-01 |
| ## CCND1      | 0.32678785  | 7.711260 | 1.4919192  | 1.402031e-01 | 3.046952e-01 |
| ## TRPC5      | -0.05097745 | 3.438484 | -1.4918251 | 1.402277e-01 | 3.047169e-01 |
| ## FA2H       | -0.36589761 | 7.465200 | -1.4915445 | 1.403012e-01 | 3.048447e-01 |
| ## CENPB      | 0.15203613  | 6.985864 | 1.4913288  | 1.403577e-01 | 3.049356e-01 |
| ## ZNF467     | -0.09887560 | 4.702347 | -1.4908134 | 1.404927e-01 | 3.051647e-01 |
| ## TCTN3      | 0.11404114  | 8.366051 | 1.4907616  | 1.405063e-01 | 3.051647e-01 |
| ## CUL1       | 0.12103540  | 8.189883 | 1.4907418  | 1.405115e-01 | 3.051647e-01 |
| ## NIPAL4     | -0.12772241 | 5.187759 | -1.4907027 | 1.405217e-01 | 3.051647e-01 |
| ## RALGDS     | 0.15683221  | 9.027309 | 1.4906322  | 1.405402e-01 | 3.051730e-01 |
| ## KRAS       | 0.21022449  | 3.573640 | 1.4903681  | 1.406095e-01 | 3.052652e-01 |
| ## FAM217B    | 0.21587358  | 6.700782 | 1.4903584  | 1.406120e-01 | 3.052652e-01 |
| ## GSTM1      | -0.23705853 | 7.082324 | -1.4902182 | 1.406488e-01 | 3.053133e-01 |
| ## SCGB1D1    | -0.05004962 | 3.482829 | -1.4900520 | 1.406924e-01 | 3.053533e-01 |
| ## ABHD15     | 0.15142508  | 6.088278 | 1.4900361  | 1.406966e-01 | 3.053533e-01 |
| ## FSHR       | -0.04964260 | 3.817240 | -1.4898412 | 1.407477e-01 | 3.054325e-01 |
| ## HOXA6      | 0.10213126  | 4.548742 | 1.4896291  | 1.408034e-01 | 3.055215e-01 |
| ## TXNDC11    | -0.13994188 | 8.245975 | -1.4890332 | 1.409599e-01 | 3.057850e-01 |
| ## MINDY2     | 0.16578276  | 5.399434 | 1.4890087  | 1.409664e-01 | 3.057850e-01 |
| ## NDUFA2     | -0.06694289 | 4.897599 | -1.4889992 | 1.409689e-01 | 3.057850e-01 |
| ## LINC02314  | -0.05067521 | 3.729051 | -1.4887836 | 1.410255e-01 | 3.058760e-01 |
| ## EFHC1      | -0.18040304 | 7.212355 | -1.4886996 | 1.410476e-01 | 3.058921e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LINC02186    | -0.05632607 | 3.490203  | -1.4885217 | 1.410944e-01 | 3.059592e-01 |
| ## LEMD3        | 0.14191552  | 8.783892  | 1.4884701  | 1.411080e-01 | 3.059592e-01 |
| ## INTS9        | -0.12970192 | 6.950662  | -1.4883862 | 1.411300e-01 | 3.059752e-01 |
| ## POC1B        | 0.18256149  | 7.680128  | 1.4882730  | 1.411598e-01 | 3.060079e-01 |
| ## CAND1.11     | -0.07567182 | 3.859700  | -1.4881811 | 1.411840e-01 | 3.060284e-01 |
| ## KLC3         | -0.10273279 | 7.187824  | -1.4880235 | 1.412255e-01 | 3.060506e-01 |
| ## LOC105375026 | -0.05917953 | 4.609905  | -1.4880023 | 1.412310e-01 | 3.060506e-01 |
| ## HCG4B        | -0.05703588 | 3.746341  | -1.4879748 | 1.412383e-01 | 3.060506e-01 |
| ## LYNX1        | -0.08539525 | 5.262069  | -1.4878265 | 1.412773e-01 | 3.061033e-01 |
| ## DSTNP2       | -0.12644777 | 6.335604  | -1.4876601 | 1.413211e-01 | 3.061664e-01 |
| ## LTB          | -0.08993138 | 4.918500  | -1.4875246 | 1.413568e-01 | 3.062119e-01 |
| ## HSP90AA1     | 0.10942840  | 12.230418 | 1.4871851  | 1.414463e-01 | 3.063738e-01 |
| ## LRFN2        | -0.05217334 | 3.698177  | -1.4863946 | 1.416547e-01 | 3.067377e-01 |
| ## PRSS27       | 0.15326161  | 4.038888  | 1.4863898  | 1.416559e-01 | 3.067377e-01 |
| ## CAPS2        | 0.04048116  | 3.188846  | 1.4863802  | 1.416585e-01 | 3.067377e-01 |
| ## LINC01800    | -0.06588200 | 3.678222  | -1.4862792 | 1.416851e-01 | 3.067635e-01 |
| ## GABRR1       | 0.18051059  | 3.644786  | 1.4860610  | 1.417427e-01 | 3.068562e-01 |
| ## CWC15        | 0.09236570  | 9.773140  | 1.4856839  | 1.418423e-01 | 3.070331e-01 |
| ## ACVR1        | -0.14738749 | 8.611376  | -1.4856400 | 1.418539e-01 | 3.070331e-01 |
| ## ERVK3-1      | 0.15034659  | 7.565824  | 1.4853947  | 1.419187e-01 | 3.071414e-01 |
| ## SPATA3       | -0.09806337 | 5.405018  | -1.4847022 | 1.421017e-01 | 3.075056e-01 |
| ## RAC1         | 0.08568187  | 3.444888  | 1.4845248  | 1.421487e-01 | 3.075506e-01 |
| ## GOLGA8IP     | -0.05368257 | 6.419533  | -1.4845119 | 1.421521e-01 | 3.075506e-01 |
| ## LOC101927089 | -0.07623085 | 3.354974  | -1.4844351 | 1.421724e-01 | 3.075626e-01 |
| ## SLC7A7       | 0.24580356  | 8.456684  | 1.4841200  | 1.422558e-01 | 3.077110e-01 |
| ## TFR2         | 0.10644436  | 4.795532  | 1.4840082  | 1.422854e-01 | 3.077185e-01 |
| ## UBE2D4       | -0.13148624 | 6.839823  | -1.4839953 | 1.422888e-01 | 3.077185e-01 |
| ## NUBP2        | 0.08535456  | 7.461440  | 1.4838668  | 1.423228e-01 | 3.077601e-01 |
| ## RELL1        | -0.06238054 | 4.052852  | -1.4835700 | 1.424014e-01 | 3.078783e-01 |
| ## HID1         | -0.19097533 | 7.207868  | -1.4835488 | 1.424070e-01 | 3.078783e-01 |
| ## LINC01924    | -0.05426848 | 3.886428  | -1.4834219 | 1.424406e-01 | 3.079190e-01 |
| ## GSTCD        | 0.12503514  | 5.307085  | 1.4832324  | 1.424909e-01 | 3.079956e-01 |
| ## LINC00954    | 0.10877003  | 3.570484  | 1.4831321  | 1.425174e-01 | 3.080211e-01 |
| ## LINC01222    | -0.06677054 | 3.988074  | -1.4829627 | 1.425624e-01 | 3.080564e-01 |
| ## NPHP3-AS1    | -0.06455863 | 4.459258  | -1.4829588 | 1.425634e-01 | 3.080564e-01 |
| ## PRAM1        | -0.09568345 | 4.656870  | -1.4825679 | 1.426671e-01 | 3.082485e-01 |
| ## MBLAC1       | -0.11191149 | 5.399753  | -1.4824070 | 1.427097e-01 | 3.083087e-01 |
| ## MARCHF11-DT  | -0.05365217 | 3.669091  | -1.4822701 | 1.427461e-01 | 3.083553e-01 |
| ## TAMALIN-AS1  | -0.06847879 | 4.027534  | -1.4821649 | 1.427740e-01 | 3.083835e-01 |
| ## TNNI1        | -0.11528865 | 4.456378  | -1.4816897 | 1.429002e-01 | 3.086241e-01 |
| ## ZNF524       | -0.08092100 | 6.196664  | -1.4815849 | 1.429280e-01 | 3.086522e-01 |
| ## CYP19A1      | -0.05313602 | 3.224837  | -1.4813215 | 1.429980e-01 | 3.087713e-01 |
| ## DEFB123      | -0.04944206 | 3.929638  | -1.4810370 | 1.430737e-01 | 3.089026e-01 |
| ## TENM4        | -0.18588443 | 5.199828  | -1.4809687 | 1.430918e-01 | 3.089098e-01 |
| ## PEF1         | -0.10277858 | 8.527696  | -1.4802351 | 1.432870e-01 | 3.092991e-01 |
| ## CCNG2        | -0.07871709 | 4.710420  | -1.4798115 | 1.433998e-01 | 3.095105e-01 |
| ## CPLANE2      | -0.07253798 | 5.074697  | -1.4796310 | 1.434479e-01 | 3.095822e-01 |
| ## EFCAB11      | 0.03981517  | 3.296315  | 1.4792094  | 1.435602e-01 | 3.097926e-01 |
| ## HHATL        | -0.08374244 | 4.144374  | -1.4789801 | 1.436214e-01 | 3.098924e-01 |
| ## LOC101928961 | -0.03938476 | 3.222314  | -1.4786377 | 1.437127e-01 | 3.100574e-01 |
| ## P2RX7        | 0.14516572  | 4.485284  | 1.4784529  | 1.437620e-01 | 3.101316e-01 |
| ## C16orf92     | -0.06434732 | 4.753828  | -1.4783236 | 1.437965e-01 | 3.101631e-01 |
| ## ATM          | -0.06226777 | 4.620425  | -1.4782866 | 1.438064e-01 | 3.101631e-01 |
| ## LY6E-DT      | -0.14567849 | 4.840501  | -1.4780144 | 1.438791e-01 | 3.102590e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## IFNA21       | -0.06929729 | 3.900902 | -1.4780085 | 1.438807e-01 | 3.102590e-01 |
| ## RTP4         | 0.26596973  | 7.694999 | 1.4777559  | 1.439481e-01 | 3.103723e-01 |
| ## TRPT1        | 0.10539359  | 7.550578 | 1.4773450  | 1.440579e-01 | 3.105769e-01 |
| ## EXPH5        | 0.29130114  | 5.859559 | 1.4772574  | 1.440814e-01 | 3.105953e-01 |
| ## PRLR         | 0.13470773  | 3.435194 | 1.4770676  | 1.441321e-01 | 3.106725e-01 |
| ## NKAIN4       | 0.12097698  | 4.443564 | 1.4767886  | 1.442067e-01 | 3.108012e-01 |
| ## IGF1R        | 0.24473482  | 6.446304 | 1.4763053  | 1.443361e-01 | 3.110321e-01 |
| ## LCAL1        | 0.37966369  | 4.240945 | 1.4762766  | 1.443438e-01 | 3.110321e-01 |
| ## BPY2         | -0.08624890 | 3.729643 | -1.4754076 | 1.445766e-01 | 3.114857e-01 |
| ## MARCHF3      | -0.28480501 | 6.212586 | -1.4753792 | 1.445842e-01 | 3.114857e-01 |
| ## CASTOR2      | -0.12062825 | 7.009813 | -1.4748958 | 1.447138e-01 | 3.117328e-01 |
| ## LHX2         | 0.04614286  | 3.463655 | 1.4748332  | 1.447306e-01 | 3.117367e-01 |
| ## UBE2L3       | -0.15410401 | 6.663834 | -1.4744648 | 1.448295e-01 | 3.119174e-01 |
| ## LINC02047    | -0.05983457 | 3.438609 | -1.4742396 | 1.448900e-01 | 3.120153e-01 |
| ## ITPR2        | -0.22674506 | 6.673785 | -1.4740884 | 1.449305e-01 | 3.120543e-01 |
| ## ACP3         | 0.20252108  | 4.696987 | 1.4740289  | 1.449465e-01 | 3.120543e-01 |
| ## IBA57-DT     | -0.09227570 | 3.858252 | -1.4740049 | 1.449530e-01 | 3.120543e-01 |
| ## SCCPDH       | 0.18334794  | 8.564624 | 1.4738952  | 1.449825e-01 | 3.120855e-01 |
| ## NR5A2        | 0.22708183  | 3.637888 | 1.4737494  | 1.450216e-01 | 3.121375e-01 |
| ## TBATA        | -0.06924894 | 4.658904 | -1.4735265 | 1.450815e-01 | 3.122342e-01 |
| ## P2RX2        | -0.06642544 | 5.509942 | -1.4733674 | 1.451243e-01 | 3.122940e-01 |
| ## SSTR1        | 0.08737925  | 4.374426 | 1.4731118  | 1.451930e-01 | 3.124024e-01 |
| ## KLHL36       | 0.10726593  | 5.664111 | 1.4730271  | 1.452158e-01 | 3.124024e-01 |
| ## TBCCD1       | 0.14833312  | 6.174984 | 1.4730126  | 1.452197e-01 | 3.124024e-01 |
| ## SYCE1L       | -0.15175549 | 5.324465 | -1.4725866 | 1.453344e-01 | 3.125596e-01 |
| ## RNASE2CP     | -0.07317879 | 4.524455 | -1.4725588 | 1.453418e-01 | 3.125596e-01 |
| ## PPOX         | 0.13198378  | 6.447108 | 1.4724915  | 1.453600e-01 | 3.125596e-01 |
| ## VASP         | 0.20129671  | 8.675625 | 1.4724706  | 1.453656e-01 | 3.125596e-01 |
| ## ZNF567       | 0.21076244  | 6.633029 | 1.4724622  | 1.453678e-01 | 3.125596e-01 |
| ## GLRA2        | -0.16445747 | 4.629823 | -1.4720822 | 1.454702e-01 | 3.127473e-01 |
| ## LINC00895    | -0.07842305 | 3.451162 | -1.4718962 | 1.455203e-01 | 3.128228e-01 |
| ## HAGLROS      | 0.09600320  | 4.245201 | 1.4715385  | 1.456167e-01 | 3.129977e-01 |
| ## DLX2         | 0.09752595  | 3.611715 | 1.4713812  | 1.456591e-01 | 3.130565e-01 |
| ## PGLYRP4      | 0.11320358  | 4.677691 | 1.4708796  | 1.457944e-01 | 3.132555e-01 |
| ## SMARCD1      | 0.11143492  | 8.090101 | 1.4708664  | 1.457980e-01 | 3.132555e-01 |
| ## ECI1         | 0.13204663  | 7.966865 | 1.4708442  | 1.458039e-01 | 3.132555e-01 |
| ## ZNF75A       | -0.22057091 | 6.515904 | -1.4708150 | 1.458118e-01 | 3.132555e-01 |
| ## DEFB118      | -0.08242372 | 5.040961 | -1.4706098 | 1.458672e-01 | 3.133422e-01 |
| ## AHCYL2       | -0.30512608 | 8.002978 | -1.4703330 | 1.459420e-01 | 3.134122e-01 |
| ## PHF13        | 0.12482688  | 7.851702 | 1.4703247  | 1.459442e-01 | 3.134122e-01 |
| ## POM121L8P    | -0.06164781 | 3.859229 | -1.4702905 | 1.459534e-01 | 3.134122e-01 |
| ## LOC105373942 | 0.14121626  | 4.314543 | 1.4702661  | 1.459600e-01 | 3.134122e-01 |
| ## IFNA4        | -0.07881406 | 3.822060 | -1.4702090 | 1.459754e-01 | 3.134130e-01 |
| ## CIBAR1-DT    | -0.06252729 | 4.052166 | -1.4701042 | 1.460037e-01 | 3.134414e-01 |
| ## CRIP2        | -0.18414616 | 7.430503 | -1.4696127 | 1.461366e-01 | 3.136943e-01 |
| ## IFNL2        | -0.10555211 | 4.216978 | -1.4695254 | 1.461602e-01 | 3.137126e-01 |
| ## RFPL3        | -0.07264475 | 4.647302 | -1.4694565 | 1.461788e-01 | 3.137202e-01 |
| ## PLEKHA5      | -0.18056260 | 8.905075 | -1.4692046 | 1.462469e-01 | 3.138209e-01 |
| ## TK2          | 0.10177631  | 6.302566 | 1.4691716  | 1.462558e-01 | 3.138209e-01 |
| ## LINC00470    | 0.06614037  | 4.116629 | 1.4689558  | 1.463142e-01 | 3.139138e-01 |
| ## MALRD1       | -0.41226880 | 4.007090 | -1.4685643 | 1.464202e-01 | 3.141088e-01 |
| ## TEX41        | -0.05650930 | 3.522142 | -1.4684367 | 1.464547e-01 | 3.141506e-01 |
| ## LINC03024    | -0.05402063 | 3.537701 | -1.4680848 | 1.465501e-01 | 3.143226e-01 |
| ## DSC2         | 0.45768269  | 6.424207 | 1.4679084  | 1.465978e-01 | 3.143841e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## SEPTIN7P13   | -0.04498031 | 3.525547  | -1.4678675 | 1.466089e-01 | 3.143841e-01 |
| ## DLL4         | 0.07856221  | 6.777697  | 1.4677262  | 1.466473e-01 | 3.144339e-01 |
| ## PI4KA        | -0.12251661 | 7.550393  | -1.4675476 | 1.466957e-01 | 3.145053e-01 |
| ## TPRXL        | 0.15149680  | 5.358850  | 1.4673748  | 1.467425e-01 | 3.145734e-01 |
| ## BCL9L        | 0.11692776  | 6.575580  | 1.4671167  | 1.468125e-01 | 3.146792e-01 |
| ## A4GNT        | -0.39373064 | 6.014131  | -1.4670623 | 1.468273e-01 | 3.146792e-01 |
| ## SAMD9        | 0.30522269  | 6.977860  | 1.4670258  | 1.468372e-01 | 3.146792e-01 |
| ## B4GALT6      | 0.08671418  | 3.753765  | 1.4668346  | 1.468891e-01 | 3.147580e-01 |
| ## LRIT1        | -0.05897122 | 3.700336  | -1.4665280 | 1.469723e-01 | 3.149039e-01 |
| ## OSTC         | 0.12107815  | 10.118781 | 1.4662942  | 1.470358e-01 | 3.150076e-01 |
| ## PPP5D1P      | -0.05139604 | 3.512360  | -1.4662026 | 1.470607e-01 | 3.150285e-01 |
| ## KCNK5        | -0.30128998 | 6.915211  | -1.4659824 | 1.471205e-01 | 3.151243e-01 |
| ## CHSY3        | 0.14522824  | 5.089641  | 1.4657934  | 1.471719e-01 | 3.151283e-01 |
| ## ORAI3        | -0.14044643 | 7.802736  | -1.4657763 | 1.471765e-01 | 3.151283e-01 |
| ## UNC50        | 0.08564584  | 8.450659  | 1.4657134  | 1.471937e-01 | 3.151283e-01 |
| ## CDIN1        | -0.13031357 | 6.432372  | -1.4656664 | 1.472064e-01 | 3.151283e-01 |
| ## IHH          | -0.11026769 | 6.440009  | -1.4656635 | 1.472072e-01 | 3.151283e-01 |
| ## PTPN4        | 0.15523372  | 6.926986  | 1.4656414  | 1.472132e-01 | 3.151283e-01 |
| ## TRAK1        | 0.22021231  | 6.897044  | 1.4654294  | 1.472709e-01 | 3.152193e-01 |
| ## LINC00184    | -0.10592015 | 3.927585  | -1.4651524 | 1.473462e-01 | 3.153482e-01 |
| ## CYP4X1       | -0.46847225 | 5.982032  | -1.4649917 | 1.473899e-01 | 3.154093e-01 |
| ## CCDC146      | -0.24910770 | 6.142376  | -1.4649313 | 1.474064e-01 | 3.154121e-01 |
| ## PIF1         | 0.06911362  | 3.475302  | 1.4645564  | 1.475084e-01 | 3.155980e-01 |
| ## PEX5         | 0.15191273  | 7.868373  | 1.4643863  | 1.475548e-01 | 3.156647e-01 |
| ## PRLHR        | -0.08854335 | 3.670923  | -1.4642004 | 1.476054e-01 | 3.157157e-01 |
| ## NUDT18       | -0.11572907 | 5.659410  | -1.4641876 | 1.476089e-01 | 3.157157e-01 |
| ## SLC39A8      | 0.09275903  | 4.704395  | 1.4639784  | 1.476659e-01 | 3.158052e-01 |
| ## GDF9         | -0.11771430 | 4.746225  | -1.4637320 | 1.477331e-01 | 3.159164e-01 |
| ## PABIR3       | 0.05545835  | 3.360774  | 1.4636242  | 1.477625e-01 | 3.159185e-01 |
| ## DCAF1        | -0.10824373 | 4.343217  | -1.4635681 | 1.477778e-01 | 3.159185e-01 |
| ## PNOG         | -0.22360969 | 5.423002  | -1.4635613 | 1.477796e-01 | 3.159185e-01 |
| ## CYP2A6       | -0.06210433 | 4.829044  | -1.4632212 | 1.478724e-01 | 3.160844e-01 |
| ## SPAG17       | -0.11259615 | 3.783304  | -1.4631217 | 1.478995e-01 | 3.161100e-01 |
| ## LOC613266    | 0.06238340  | 3.619366  | 1.4629818  | 1.479377e-01 | 3.161592e-01 |
| ## LZTS1-AS1    | -0.05988384 | 4.385444  | -1.4628021 | 1.479868e-01 | 3.162125e-01 |
| ## N4BP2L2      | -0.25790307 | 5.864642  | -1.4627791 | 1.479931e-01 | 3.162125e-01 |
| ## LOC105375547 | -0.04485503 | 3.450328  | -1.4625969 | 1.480428e-01 | 3.162622e-01 |
| ## LOC644135    | -0.03863678 | 3.365812  | -1.4625826 | 1.480467e-01 | 3.162622e-01 |
| ## EHD3         | 0.16480400  | 5.839904  | 1.4623975  | 1.480973e-01 | 3.163378e-01 |
| ## RANGRF       | 0.12735432  | 7.376717  | 1.4622318  | 1.481425e-01 | 3.164020e-01 |
| ## GAB3         | -0.15544105 | 5.998039  | -1.4621373 | 1.481683e-01 | 3.164184e-01 |
| ## PCDHGC3      | -0.05079005 | 4.125405  | -1.4620774 | 1.481847e-01 | 3.164184e-01 |
| ## CFTR         | -0.55863406 | 7.290375  | -1.4620369 | 1.481958e-01 | 3.164184e-01 |
| ## ZNF93        | 0.04193615  | 3.357597  | 1.4619390  | 1.482225e-01 | 3.164402e-01 |
| ## SPATA24      | -0.11739906 | 8.005082  | -1.4618884 | 1.482364e-01 | 3.164402e-01 |
| ## LOC100129098 | -0.06730648 | 4.993882  | -1.4617739 | 1.482677e-01 | 3.164478e-01 |
| ## LINC02211    | -0.04649753 | 3.284769  | -1.4617568 | 1.482724e-01 | 3.164478e-01 |
| ## ANAPC7       | 0.18740565  | 6.365061  | 1.4616549  | 1.483002e-01 | 3.164478e-01 |
| ## ZNF280B      | 0.05362783  | 4.634658  | 1.4616531  | 1.483007e-01 | 3.164478e-01 |
| ## GRTP1        | 0.09230150  | 4.933482  | 1.4615309  | 1.483341e-01 | 3.164678e-01 |
| ## EPAS1        | -0.16375280 | 10.616549 | -1.4615076 | 1.483405e-01 | 3.164678e-01 |
| ## LINC02003    | -0.06134965 | 3.929563  | -1.4613918 | 1.483722e-01 | 3.164814e-01 |
| ## EFHD2        | 0.17849821  | 8.855879  | 1.4613732  | 1.483773e-01 | 3.164814e-01 |
| ## KIAA1522     | 0.21378476  | 8.602015  | 1.4608727  | 1.485142e-01 | 3.167411e-01 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## CLASRP    | -0.10743436 | 7.612436  | -1.4607604 | 1.485450e-01 | 3.167742e-01 |
| ## MRGPRX3   | -0.05953901 | 3.712598  | -1.4606497 | 1.485753e-01 | 3.168064e-01 |
| ## LIN52     | 0.13377952  | 6.469991  | 1.4605832  | 1.485935e-01 | 3.168129e-01 |
| ## ABHD17C   | 0.27953168  | 8.625445  | 1.4599864  | 1.487570e-01 | 3.171290e-01 |
| ## VXN       | -0.04302323 | 3.309986  | -1.4597299 | 1.488273e-01 | 3.172458e-01 |
| ## PPP1R7    | -0.07960379 | 6.469545  | -1.4596754 | 1.488423e-01 | 3.172458e-01 |
| ## CD55      | 0.35742660  | 10.354577 | 1.4594629  | 1.489006e-01 | 3.173376e-01 |
| ## RNF130    | -0.09279863 | 4.204578  | -1.4593425 | 1.489336e-01 | 3.173755e-01 |
| ## PHETA1    | -0.10120740 | 7.182476  | -1.4592557 | 1.489574e-01 | 3.173937e-01 |
| ## TAF15     | 0.16113770  | 7.821862  | 1.4590359  | 1.490177e-01 | 3.174898e-01 |
| ## APOBEC4   | -0.05838544 | 3.606063  | -1.4586844 | 1.491142e-01 | 3.176629e-01 |
| ## PFKFB4    | 0.06903936  | 5.336483  | 1.4585062  | 1.491632e-01 | 3.177185e-01 |
| ## MFSD11    | -0.08575620 | 6.686511  | -1.4584783 | 1.491708e-01 | 3.177185e-01 |
| ## NAPA-AS1  | 0.06085812  | 4.977463  | 1.4582399  | 1.492363e-01 | 3.177849e-01 |
| ## ABCC11    | -0.05924334 | 4.623781  | -1.4582372 | 1.492371e-01 | 3.177849e-01 |
| ## TAS2R13   | -0.04564717 | 3.729497  | -1.4581983 | 1.492478e-01 | 3.177849e-01 |
| ## TRIP6     | 0.22232232  | 8.172955  | 1.4579113  | 1.493267e-01 | 3.179203e-01 |
| ## ITPK1-AS1 | 0.05672492  | 3.293393  | 1.4573344  | 1.494853e-01 | 3.182256e-01 |
| ## SOGA1     | -0.13938724 | 5.316484  | -1.4571064 | 1.495481e-01 | 3.182997e-01 |
| ## ZNF596    | -0.09281697 | 3.795990  | -1.4570577 | 1.495615e-01 | 3.182997e-01 |
| ## PELO      | -0.07498740 | 3.656182  | -1.4570181 | 1.495724e-01 | 3.182997e-01 |
| ## KRTAP8-1  | -0.05745102 | 3.894545  | -1.4569791 | 1.495831e-01 | 3.182997e-01 |
| ## CDADC1    | -0.08990519 | 4.654759  | -1.4569302 | 1.495966e-01 | 3.182997e-01 |
| ## PLAC1     | 0.08085930  | 4.122250  | 1.4565078  | 1.497129e-01 | 3.185147e-01 |
| ## NAT2      | -0.40054100 | 5.523122  | -1.4559566 | 1.498648e-01 | 3.188020e-01 |
| ## MLLT10P1  | -0.06213480 | 3.860955  | -1.4559067 | 1.498786e-01 | 3.188020e-01 |
| ## C6orf47   | 0.06108059  | 6.697656  | 1.4558288  | 1.499001e-01 | 3.188151e-01 |
| ## KIF5B     | 0.11145093  | 11.432915 | 1.4553518  | 1.500316e-01 | 3.190504e-01 |
| ## C1orf127  | -0.09299189 | 6.088099  | -1.4553168 | 1.500413e-01 | 3.190504e-01 |
| ## SEC61A1   | 0.09630226  | 9.537155  | 1.4550910  | 1.501036e-01 | 3.191197e-01 |
| ## HOXB-AS1  | -0.12073165 | 4.347032  | -1.4550876 | 1.501046e-01 | 3.191197e-01 |
| ## APBB1IP   | 0.08041660  | 3.869708  | 1.4549969  | 1.501296e-01 | 3.191403e-01 |
| ## SRGAP2    | 0.21093622  | 5.458677  | 1.4547472  | 1.501985e-01 | 3.192543e-01 |
| ## CST4      | 0.31900172  | 7.352669  | 1.4545965  | 1.502402e-01 | 3.193014e-01 |
| ## FGR       | 0.23357988  | 6.432708  | 1.4545559  | 1.502514e-01 | 3.193014e-01 |
| ## KRT37     | -0.05722827 | 4.003684  | -1.4544648 | 1.502765e-01 | 3.193050e-01 |
| ## FEM1C     | -0.16912755 | 7.387550  | -1.4544387 | 1.502837e-01 | 3.193050e-01 |
| ## RBFOX3    | -0.09623301 | 3.912560  | -1.4540087 | 1.504026e-01 | 3.195250e-01 |
| ## IL5RA     | -0.05371807 | 4.363898  | -1.4538725 | 1.504403e-01 | 3.195724e-01 |
| ## SOST      | 0.16122033  | 3.642374  | 1.4537894  | 1.504632e-01 | 3.195739e-01 |
| ## TEX28     | -0.07523202 | 4.395616  | -1.4537566 | 1.504723e-01 | 3.195739e-01 |
| ## VWA3A     | -0.13455518 | 5.992005  | -1.4536621 | 1.504985e-01 | 3.195739e-01 |
| ## AFF4      | 0.04226654  | 3.193477  | 1.4536479  | 1.505024e-01 | 3.195739e-01 |
| ## TMEM120A  | -0.16218871 | 7.886265  | -1.4534720 | 1.505511e-01 | 3.196447e-01 |
| ## S100A1    | -0.14295511 | 4.742635  | -1.4533893 | 1.505739e-01 | 3.196607e-01 |
| ## PSMD6     | 0.05811961  | 3.653048  | 1.4532530  | 1.506116e-01 | 3.197081e-01 |
| ## HAPLN1    | -0.26491112 | 4.064838  | -1.4530927 | 1.506560e-01 | 3.197697e-01 |
| ## C20orf203 | -0.17746610 | 4.312328  | -1.4528033 | 1.507362e-01 | 3.199072e-01 |
| ## KCTD17    | -0.04940839 | 4.977223  | -1.4527459 | 1.507520e-01 | 3.199084e-01 |
| ## GPR149    | -0.05469497 | 3.473522  | -1.4524560 | 1.508324e-01 | 3.200461e-01 |
| ## INSIG1-DT | 0.06625173  | 5.026849  | 1.4522488  | 1.508898e-01 | 3.201354e-01 |
| ## USP11     | -0.16503352 | 8.437694  | -1.4521895 | 1.509062e-01 | 3.201376e-01 |
| ## FRG2EP    | -0.03506233 | 3.226255  | -1.4521146 | 1.509270e-01 | 3.201490e-01 |
| ## TRIM56    | -0.15261300 | 6.981618  | -1.4520197 | 1.509533e-01 | 3.201722e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LOC101930421 | -0.06070579 | 4.341778  | -1.4519123 | 1.509831e-01 | 3.202028e-01 |
| ## SPAG11A      | -0.08423923 | 4.544302  | -1.4518266 | 1.510068e-01 | 3.202034e-01 |
| ## DTNB         | 0.08084023  | 6.071782  | 1.4518004  | 1.510141e-01 | 3.202034e-01 |
| ## SDC2         | -0.21551789 | 7.365387  | -1.4515590 | 1.510811e-01 | 3.203128e-01 |
| ## OSCAR        | 0.14911421  | 4.178180  | 1.4513579  | 1.511369e-01 | 3.203985e-01 |
| ## CASP4LP      | -0.04572016 | 3.368565  | -1.4509618 | 1.512468e-01 | 3.205989e-01 |
| ## ATP10D       | -0.18042162 | 7.624789  | -1.4509014 | 1.512636e-01 | 3.206019e-01 |
| ## FRMD4A       | -0.09364606 | 4.231537  | -1.4507839 | 1.512962e-01 | 3.206384e-01 |
| ## ERVW-1       | -0.06340919 | 4.131871  | -1.4502145 | 1.514544e-01 | 3.209410e-01 |
| ## NCAPH2       | 0.10324880  | 6.481672  | 1.4500282  | 1.515062e-01 | 3.210176e-01 |
| ## ANO3         | 0.12736804  | 3.522849  | 1.4499736  | 1.515214e-01 | 3.210176e-01 |
| ## SP6          | 0.13758791  | 5.394653  | 1.4499180  | 1.515369e-01 | 3.210177e-01 |
| ## SCGB2A2      | -0.04072100 | 3.286232  | -1.4496774 | 1.516038e-01 | 3.211268e-01 |
| ## BEX1         | -0.57470007 | 5.910564  | -1.4490378 | 1.517818e-01 | 3.214711e-01 |
| ## ANXA3        | 0.30036663  | 9.130878  | 1.4484616  | 1.519423e-01 | 3.217783e-01 |
| ## FGFR4        | 0.06710155  | 4.320961  | 1.4483709  | 1.519676e-01 | 3.217992e-01 |
| ## AOA1         | -0.20112380 | 7.118076  | -1.4481049 | 1.520417e-01 | 3.219234e-01 |
| ## LOC105376139 | -0.06999981 | 3.796957  | -1.4476640 | 1.521647e-01 | 3.221511e-01 |
| ## LCT          | -0.24654932 | 4.392840  | -1.4474949 | 1.522119e-01 | 3.221908e-01 |
| ## LYPLAL1-AS1  | -0.08125317 | 4.224109  | -1.4474532 | 1.522235e-01 | 3.221908e-01 |
| ## RPS2         | 0.07881383  | 13.393679 | 1.4474303  | 1.522299e-01 | 3.221908e-01 |
| ## GABRB2       | 0.12817463  | 3.494098  | 1.4472376  | 1.522837e-01 | 3.222719e-01 |
| ## GPC6         | -0.23717859 | 6.643234  | -1.4471727 | 1.523018e-01 | 3.222775e-01 |
| ## AP5S1        | 0.10630282  | 6.664763  | 1.4470990  | 1.523224e-01 | 3.222883e-01 |
| ## CFAP65       | -0.03984705 | 3.239112  | -1.4468641 | 1.523880e-01 | 3.223944e-01 |
| ## HYLS1        | 0.19899871  | 6.974649  | 1.4461244  | 1.525947e-01 | 3.227989e-01 |
| ## NET1         | -0.19157175 | 9.676621  | -1.4458033 | 1.526845e-01 | 3.229560e-01 |
| ## RPS11P6      | -0.06681751 | 4.342833  | -1.4456865 | 1.527172e-01 | 3.229923e-01 |
| ## LTBR         | 0.05597791  | 3.915385  | 1.4454760  | 1.527761e-01 | 3.230583e-01 |
| ## BMT2         | -0.16019792 | 6.907495  | -1.4454642 | 1.527794e-01 | 3.230583e-01 |
| ## STAM-DT      | 0.04731984  | 3.497283  | 1.4453698  | 1.528058e-01 | 3.230813e-01 |
| ## DNAJB14      | -0.14537420 | 8.142841  | -1.4452905 | 1.528280e-01 | 3.230953e-01 |
| ## TBC1D24      | 0.14161705  | 4.658769  | 1.4452353  | 1.528434e-01 | 3.230953e-01 |
| ## TMEM185A     | 0.12856005  | 6.375916  | 1.4451132  | 1.528776e-01 | 3.231347e-01 |
| ## FAM162A      | -0.11533287 | 10.665965 | -1.4449686 | 1.529181e-01 | 3.231875e-01 |
| ## NEK11        | -0.08195709 | 4.218384  | -1.4447992 | 1.529656e-01 | 3.232550e-01 |
| ## MFN2         | -0.06882403 | 4.745639  | -1.4445200 | 1.530438e-01 | 3.233876e-01 |
| ## PCM1         | -0.12683648 | 9.322493  | -1.4443016 | 1.531050e-01 | 3.234841e-01 |
| ## TCN1         | -0.72825224 | 8.001607  | -1.4440220 | 1.531834e-01 | 3.235918e-01 |
| ## ERICH1       | -0.09000761 | 4.745626  | -1.4439689 | 1.531983e-01 | 3.235918e-01 |
| ## SERPINA1     | 0.53540182  | 9.600007  | 1.4439535  | 1.532026e-01 | 3.235918e-01 |
| ## LNCOC1       | 0.05295422  | 3.714613  | 1.4438338  | 1.532362e-01 | 3.236299e-01 |
| ## LOC105377993 | -0.05633227 | 3.588582  | -1.4435754 | 1.533087e-01 | 3.237502e-01 |
| ## OR51A1P      | -0.07651262 | 4.483031  | -1.4434466 | 1.533448e-01 | 3.237639e-01 |
| ## KRT19        | 0.40554885  | 11.086822 | 1.4434414  | 1.533463e-01 | 3.237639e-01 |
| ## SSBP3        | -0.17150788 | 6.313195  | -1.4432462 | 1.534011e-01 | 3.238468e-01 |
| ## PABPC3       | 0.10973390  | 11.808850 | 1.4431264  | 1.534347e-01 | 3.238849e-01 |
| ## PDE8A        | 0.11538091  | 6.743544  | 1.4426533  | 1.535676e-01 | 3.241326e-01 |
| ## SRRM2        | 0.14508344  | 5.725066  | 1.4425026  | 1.536100e-01 | 3.241838e-01 |
| ## HMG2N2P46    | -0.26576489 | 5.489720  | -1.4424561 | 1.536230e-01 | 3.241838e-01 |
| ## CWC27        | -0.12686801 | 7.686463  | -1.4423692 | 1.536475e-01 | 3.242025e-01 |
| ## EPB41L5      | 0.05450976  | 4.364288  | 1.4422524  | 1.536803e-01 | 3.242390e-01 |
| ## CNNM2        | 0.15417077  | 4.128563  | 1.4421707  | 1.537033e-01 | 3.242545e-01 |
| ## DHRS12       | -0.13865265 | 6.339937  | -1.4418504 | 1.537933e-01 | 3.244117e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LOC101928797 | -0.06409343 | 3.729038  | -1.4415676 | 1.538729e-01 | 3.245467e-01 |
| ## COX7B        | -0.11574567 | 11.609353 | -1.4408426 | 1.540770e-01 | 3.249443e-01 |
| ## PIP4P1       | 0.10847408  | 7.528550  | 1.4405736  | 1.541529e-01 | 3.250338e-01 |
| ## SYTL4        | -0.09331340 | 3.988976  | -1.4405303 | 1.541650e-01 | 3.250338e-01 |
| ## DIO2-AS1     | -0.06879908 | 3.624821  | -1.4405259 | 1.541663e-01 | 3.250338e-01 |
| ## ACVR1B       | 0.21551965  | 6.729122  | 1.4401394  | 1.542752e-01 | 3.252306e-01 |
| ## OR2L1P       | 0.05616296  | 3.470266  | 1.4398266  | 1.543635e-01 | 3.253836e-01 |
| ## HBD          | -0.11553005 | 4.448746  | -1.4394484 | 1.544702e-01 | 3.255756e-01 |
| ## MSN          | -0.19761720 | 10.114901 | -1.4387986 | 1.546537e-01 | 3.259285e-01 |
| ## AMER3        | -0.07631394 | 4.201040  | -1.4387198 | 1.546760e-01 | 3.259285e-01 |
| ## SCAP         | 0.10901791  | 8.034092  | 1.4386893  | 1.546846e-01 | 3.259285e-01 |
| ## LOC101929341 | -0.06367983 | 3.474516  | -1.4385253 | 1.547309e-01 | 3.259932e-01 |
| ## MYO15B       | -0.23391110 | 6.879758  | -1.4384617 | 1.547489e-01 | 3.259981e-01 |
| ## ZNF133       | 0.13889287  | 6.771592  | 1.4380911  | 1.548537e-01 | 3.261858e-01 |
| ## FASLG        | 0.12476503  | 5.071353  | 1.4379101  | 1.549049e-01 | 3.262557e-01 |
| ## RDH16        | -0.10120000 | 4.904207  | -1.4378630 | 1.549182e-01 | 3.262557e-01 |
| ## CPG1         | 0.20360574  | 8.623728  | 1.4377068  | 1.549624e-01 | 3.263158e-01 |
| ## PEX26        | 0.13067505  | 6.185099  | 1.4376213  | 1.549866e-01 | 3.263337e-01 |
| ## SPATA3-AS1   | -0.07204272 | 4.519686  | -1.4375588 | 1.550043e-01 | 3.263380e-01 |
| ## VGF          | -0.11351523 | 5.668001  | -1.4371777 | 1.551122e-01 | 3.265321e-01 |
| ## CALHM3       | -0.09755566 | 4.082259  | -1.4368537 | 1.552039e-01 | 3.266923e-01 |
| ## POLR3A       | 0.06238763  | 3.613775  | 1.4366986  | 1.552479e-01 | 3.267518e-01 |
| ## FAM110D      | -0.08077798 | 4.992980  | -1.4365089 | 1.553016e-01 | 3.268319e-01 |
| ## BNIP3L       | -0.16912176 | 9.421486  | -1.4362417 | 1.553774e-01 | 3.269582e-01 |
| ## HYDIN2       | -0.05173759 | 4.439506  | -1.4358884 | 1.554776e-01 | 3.271361e-01 |
| ## LINC02693    | -0.04620601 | 3.641928  | -1.4355863 | 1.555633e-01 | 3.272834e-01 |
| ## LINC01689    | -0.05685863 | 3.432688  | -1.4354786 | 1.555939e-01 | 3.273146e-01 |
| ## ROBO1        | -0.26425253 | 8.452671  | -1.4353407 | 1.556330e-01 | 3.273570e-01 |
| ## PGBD2        | 0.14119544  | 5.579673  | 1.4352532  | 1.556579e-01 | 3.273570e-01 |
| ## ZNF264       | -0.07263866 | 5.091169  | -1.4352306 | 1.556643e-01 | 3.273570e-01 |
| ## PERP         | 0.04053365  | 3.502620  | 1.4351862  | 1.556769e-01 | 3.273570e-01 |
| ## CA8          | -0.04967272 | 3.541421  | -1.4349760 | 1.557366e-01 | 3.274165e-01 |
| ## RIBC1        | -0.07923094 | 3.910751  | -1.4349758 | 1.557367e-01 | 3.274165e-01 |
| ## LOC145474    | 0.11853642  | 4.411609  | 1.4348368  | 1.557761e-01 | 3.274664e-01 |
| ## LINC01010    | 0.07699476  | 4.687555  | 1.4346806  | 1.558205e-01 | 3.275267e-01 |
| ## GXYLT1       | 0.12185166  | 6.313934  | 1.4344752  | 1.558789e-01 | 3.275971e-01 |
| ## NMRAL2P      | 0.30751364  | 4.283283  | 1.4344520  | 1.558855e-01 | 3.275971e-01 |
| ## IP6K1        | 0.08855400  | 7.166064  | 1.4342819  | 1.559339e-01 | 3.276227e-01 |
| ## FBXO11       | -0.18727218 | 8.184331  | -1.4342355 | 1.559471e-01 | 3.276227e-01 |
| ## WHAMM        | 0.11941606  | 7.048650  | 1.4341966  | 1.559581e-01 | 3.276227e-01 |
| ## CST2         | 0.23364906  | 5.963965  | 1.4341879  | 1.559606e-01 | 3.276227e-01 |
| ## KRT8         | 0.31291468  | 11.501557 | 1.4340630  | 1.559961e-01 | 3.276559e-01 |
| ## LINC00520    | -0.19684602 | 8.071975  | -1.4340017 | 1.560135e-01 | 3.276559e-01 |
| ## NRARP        | 0.21654076  | 8.252792  | 1.4339663  | 1.560236e-01 | 3.276559e-01 |
| ## SLC16A10     | -0.21249917 | 4.540904  | -1.4338590 | 1.560541e-01 | 3.276869e-01 |
| ## PTPRA        | 0.14751011  | 7.731240  | 1.4335384  | 1.561454e-01 | 3.278455e-01 |
| ## BEND7        | -0.06568703 | 3.873129  | -1.4332930 | 1.562152e-01 | 3.279567e-01 |
| ## PTPRS        | 0.04019631  | 3.863389  | 1.4332418  | 1.562298e-01 | 3.279567e-01 |
| ## LOC101927647 | 0.03643736  | 3.429664  | 1.4331478  | 1.562566e-01 | 3.279655e-01 |
| ## ATP1A1       | 0.17073541  | 10.497442 | 1.4331128  | 1.562666e-01 | 3.279655e-01 |
| ## LINC00927    | -0.07651836 | 4.127159  | -1.4330610 | 1.562813e-01 | 3.279655e-01 |
| ## SEPTIN11     | -0.19910933 | 9.230653  | -1.4328452 | 1.563428e-01 | 3.280615e-01 |
| ## SSBP4        | 0.10622486  | 6.941352  | 1.4325440  | 1.564286e-01 | 3.281777e-01 |
| ## LGSN         | -0.26828038 | 3.499853  | -1.4325382 | 1.564303e-01 | 3.281777e-01 |



|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## CHI3L2       | 0.33847453  | 5.544155 | 1.4324850  | 1.564454e-01 | 3.281777e-01 |
| ## CYP11B2      | 0.12954347  | 5.843053 | 1.4323547  | 1.564826e-01 | 3.282226e-01 |
| ## SLC27A4      | 0.15903026  | 7.401983 | 1.4321703  | 1.565352e-01 | 3.282998e-01 |
| ## CTSK         | -0.28085058 | 9.720667 | -1.4319580 | 1.565957e-01 | 3.283937e-01 |
| ## RPS28        | 0.07501624  | 5.916104 | 1.4318186  | 1.566355e-01 | 3.284440e-01 |
| ## RNF2         | 0.06971179  | 5.760794 | 1.4317448  | 1.566565e-01 | 3.284551e-01 |
| ## LINC01808    | -0.03509076 | 3.225049 | -1.4316877 | 1.566728e-01 | 3.284562e-01 |
| ## RCOR2        | 0.08353472  | 6.128559 | 1.4312076  | 1.568099e-01 | 3.286820e-01 |
| ## AQP4         | -0.09407329 | 3.322681 | -1.4311998 | 1.568121e-01 | 3.286820e-01 |
| ## UBE2NL       | 0.06959871  | 9.079042 | 1.4310052  | 1.568677e-01 | 3.286980e-01 |
| ## ATG9B        | -0.11315307 | 3.889084 | -1.4309412 | 1.568860e-01 | 3.286980e-01 |
| ## SLC12A8      | 0.23304297  | 6.615253 | 1.4308994  | 1.568979e-01 | 3.286980e-01 |
| ## LZTS3        | 0.20902946  | 7.930930 | 1.4308979  | 1.568984e-01 | 3.286980e-01 |
| ## SYT1         | 0.13588897  | 3.405349 | 1.4308968  | 1.568987e-01 | 3.286980e-01 |
| ## SERPINA12    | -0.05925167 | 4.065928 | -1.4307958 | 1.569275e-01 | 3.287254e-01 |
| ## TMEM91       | -0.10577666 | 5.509127 | -1.4305527 | 1.569970e-01 | 3.288207e-01 |
| ## RPL15        | -0.12274107 | 8.076582 | -1.4305260 | 1.570046e-01 | 3.288207e-01 |
| ## GLTP         | 0.16462861  | 6.025155 | 1.4303929  | 1.570427e-01 | 3.288674e-01 |
| ## TMPRSS11B    | 0.18189578  | 3.404086 | 1.4302568  | 1.570816e-01 | 3.289157e-01 |
| ## DYRK3-AS1    | 0.04732251  | 3.630827 | 1.4299434  | 1.571712e-01 | 3.290704e-01 |
| ## LOC105373383 | -0.11946880 | 5.126926 | -1.4298737 | 1.571912e-01 | 3.290790e-01 |
| ## C10orf71-AS1 | -0.14121518 | 3.914785 | -1.4296704 | 1.572494e-01 | 3.291677e-01 |
| ## TMC8         | -0.21398216 | 7.100625 | -1.4294197 | 1.573211e-01 | 3.292849e-01 |
| ## IL26         | 0.24221962  | 3.325545 | 1.4290161  | 1.574367e-01 | 3.294937e-01 |
| ## CASZ1        | -0.10689413 | 7.365202 | -1.4288728 | 1.574777e-01 | 3.295464e-01 |
| ## DFFA         | 0.13959887  | 7.366200 | 1.4284300  | 1.576047e-01 | 3.297478e-01 |
| ## LAMA3        | -0.06794696 | 3.926764 | -1.4284266 | 1.576057e-01 | 3.297478e-01 |
| ## GTF3C1       | 0.09991738  | 7.514510 | 1.4281050  | 1.576979e-01 | 3.299031e-01 |
| ## U2AF1L4      | -0.12500042 | 6.312454 | -1.4280511 | 1.577133e-01 | 3.299031e-01 |
| ## RASGRP4      | 0.07655414  | 5.300218 | 1.4280020  | 1.577274e-01 | 3.299031e-01 |
| ## ANGEL1       | 0.09375382  | 6.947381 | 1.4277694  | 1.577941e-01 | 3.300096e-01 |
| ## CRYBA2       | -0.22198442 | 4.305384 | -1.4276962 | 1.578152e-01 | 3.300204e-01 |
| ## LINC02426    | -0.04337232 | 3.517103 | -1.4275768 | 1.578494e-01 | 3.300589e-01 |
| ## TSGA10       | 0.09391558  | 4.312870 | 1.4274585  | 1.578834e-01 | 3.300967e-01 |
| ## CYB5R4       | 0.14922621  | 7.423657 | 1.4272150  | 1.579533e-01 | 3.302098e-01 |
| ## DPYSL4       | -0.06605659 | 4.818970 | -1.4270525 | 1.580000e-01 | 3.302451e-01 |
| ## FCAR         | 0.12424090  | 3.509637 | 1.4270385  | 1.580040e-01 | 3.302451e-01 |
| ## CRABP2       | 0.30885172  | 6.580143 | 1.4269566  | 1.580275e-01 | 3.302451e-01 |
| ## TAS2R16      | 0.04302067  | 3.462092 | 1.4269352  | 1.580337e-01 | 3.302451e-01 |
| ## TSIX         | -0.19663666 | 4.042932 | -1.4267084 | 1.580988e-01 | 3.303482e-01 |
| ## ELF4         | 0.14053998  | 7.141615 | 1.4265865  | 1.581339e-01 | 3.303882e-01 |
| ## DENND4B      | 0.10753639  | 7.889164 | 1.4260249  | 1.582954e-01 | 3.306925e-01 |
| ## CCL1         | -0.07678929 | 4.199831 | -1.4259695 | 1.583113e-01 | 3.306926e-01 |
| ## TMC05A       | -0.04237789 | 3.225713 | -1.4258349 | 1.583500e-01 | 3.307403e-01 |
| ## ZNF570       | 0.06853540  | 3.952559 | 1.4257698  | 1.583688e-01 | 3.307463e-01 |
| ## GSDMD        | 0.12593866  | 7.264776 | 1.4255962  | 1.584187e-01 | 3.308174e-01 |
| ## HJV          | 0.04114490  | 3.557756 | 1.4252029  | 1.585320e-01 | 3.310207e-01 |
| ## ADRA2B       | -0.06896217 | 5.322600 | -1.4249204 | 1.586133e-01 | 3.311574e-01 |
| ## PCDH1        | 0.12287823  | 7.447005 | 1.4246578  | 1.586890e-01 | 3.312822e-01 |
| ## ADRB1        | -0.10222232 | 3.799173 | -1.4245722 | 1.587137e-01 | 3.313005e-01 |
| ## EXTL3-AS1    | -0.06538481 | 4.053200 | -1.4244114 | 1.587600e-01 | 3.313640e-01 |
| ## SPATA8       | -0.07123684 | 4.740949 | -1.4236928 | 1.589673e-01 | 3.317053e-01 |
| ## MIR200CHG    | 0.11399784  | 5.882505 | 1.4236828  | 1.589702e-01 | 3.317053e-01 |
| ## GBA3         | -0.39842129 | 4.693537 | -1.4236790 | 1.589713e-01 | 3.317053e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## PTGDR        | -0.18016412 | 3.998030 | -1.4236161 | 1.589895e-01 | 3.317066e-01 |
| ## LINC01706    | -0.04768849 | 3.524015 | -1.4235664 | 1.590038e-01 | 3.317066e-01 |
| ## DARS1-AS1    | -0.06084375 | 4.130665 | -1.4234730 | 1.590308e-01 | 3.317296e-01 |
| ## TESC         | -0.35712139 | 8.521704 | -1.4233954 | 1.590532e-01 | 3.317431e-01 |
| ## CYP2C19      | -0.17146355 | 4.946670 | -1.4233247 | 1.590736e-01 | 3.317525e-01 |
| ## FBX024       | -0.07947489 | 4.028708 | -1.4232139 | 1.591056e-01 | 3.317612e-01 |
| ## LINC02994    | -0.07352161 | 3.767927 | -1.4231999 | 1.591096e-01 | 3.317612e-01 |
| ## CCDC70       | -0.09789354 | 4.114787 | -1.4230057 | 1.591657e-01 | 3.318449e-01 |
| ## HS6ST3       | -0.05774542 | 3.915959 | -1.4228873 | 1.591999e-01 | 3.318830e-01 |
| ## CCP110       | 0.17051971  | 5.322988 | 1.4227373  | 1.592433e-01 | 3.319152e-01 |
| ## RTF1         | -0.09672470 | 8.228539 | -1.4226284 | 1.592748e-01 | 3.319152e-01 |
| ## CASC17       | -0.05063013 | 3.654377 | -1.4226088 | 1.592804e-01 | 3.319152e-01 |
| ## RPF1         | 0.09157918  | 9.616804 | 1.4225657  | 1.592929e-01 | 3.319152e-01 |
| ## TTC36        | -0.10445602 | 4.958670 | -1.4225156 | 1.593074e-01 | 3.319152e-01 |
| ## PIGR         | 0.48237950  | 7.443897 | 1.4225030  | 1.593110e-01 | 3.319152e-01 |
| ## NUDCD2       | 0.05800834  | 4.752837 | 1.4223670  | 1.593503e-01 | 3.319553e-01 |
| ## ODF1         | -0.13077530 | 4.788440 | -1.4223262 | 1.593621e-01 | 3.319553e-01 |
| ## SPATC1       | -0.07902811 | 4.316248 | -1.4222483 | 1.593846e-01 | 3.319690e-01 |
| ## OR10A3       | 0.05789811  | 3.771654 | 1.4220485  | 1.594424e-01 | 3.320561e-01 |
| ## RAP1A        | -0.06661363 | 4.035841 | -1.4218655 | 1.594954e-01 | 3.321332e-01 |
| ## LINC01094    | 0.23374751  | 4.371937 | 1.4217517  | 1.595283e-01 | 3.321686e-01 |
| ## GATA3        | 0.10420657  | 3.613153 | 1.4212958  | 1.596603e-01 | 3.324101e-01 |
| ## LEF1         | 0.11422012  | 3.976133 | 1.4212345  | 1.596780e-01 | 3.324138e-01 |
| ## ACTRT2       | -0.13504117 | 4.643293 | -1.4210234 | 1.597392e-01 | 3.325079e-01 |
| ## HYAL3        | 0.09203194  | 4.787249 | 1.4208037  | 1.598028e-01 | 3.326071e-01 |
| ## GPHN         | 0.18876032  | 6.146346 | 1.4207183  | 1.598276e-01 | 3.326254e-01 |
| ## SPAG9        | -0.22502857 | 6.144006 | -1.4192218 | 1.602617e-01 | 3.334956e-01 |
| ## LINC00555    | -0.08058830 | 3.835651 | -1.4191666 | 1.602778e-01 | 3.334956e-01 |
| ## LOC105375509 | -0.05312167 | 3.455679 | -1.4187093 | 1.604106e-01 | 3.337388e-01 |
| ## KLHL40       | -0.09917243 | 4.084059 | -1.4184292 | 1.604921e-01 | 3.338748e-01 |
| ## VSIG4        | -0.27443880 | 7.716042 | -1.4182759 | 1.605367e-01 | 3.339342e-01 |
| ## SIX5         | 0.07267040  | 4.753682 | 1.4173317  | 1.608114e-01 | 3.344723e-01 |
| ## LNCAROD      | 0.21730047  | 3.496566 | 1.4167842  | 1.609709e-01 | 3.347703e-01 |
| ## LINC00052    | -0.05756318 | 3.839400 | -1.4166710 | 1.610039e-01 | 3.347703e-01 |
| ## PRAG1        | 0.19263187  | 8.021575 | 1.4166214  | 1.610183e-01 | 3.347703e-01 |
| ## RIMS2        | -0.17669842 | 5.394406 | -1.4166192 | 1.610190e-01 | 3.347703e-01 |
| ## GPR52        | -0.11045848 | 4.539600 | -1.4164293 | 1.610744e-01 | 3.348520e-01 |
| ## TRMT61B      | 0.13603708  | 7.690540 | 1.4160168  | 1.611946e-01 | 3.350363e-01 |
| ## NPRL2        | 0.09387673  | 8.122074 | 1.4159615  | 1.612108e-01 | 3.350363e-01 |
| ## CRTAC1       | -0.06394529 | 3.874319 | -1.4159598 | 1.612113e-01 | 3.350363e-01 |
| ## PBRM1        | 0.08935913  | 8.640650 | 1.4157243  | 1.612800e-01 | 3.350961e-01 |
| ## CD248        | -0.17351295 | 8.269154 | -1.4157142 | 1.612830e-01 | 3.350961e-01 |
| ## TDRG1        | -0.10047723 | 5.293514 | -1.4156914 | 1.612896e-01 | 3.350961e-01 |
| ## USPL1        | 0.07190519  | 4.041934 | 1.4156407  | 1.613044e-01 | 3.350961e-01 |
| ## HADH         | -0.16085022 | 8.453974 | -1.4153860 | 1.613788e-01 | 3.352171e-01 |
| ## SNHG32       | -0.13222106 | 9.813582 | -1.4149775 | 1.614981e-01 | 3.354315e-01 |
| ## LOC105377844 | -0.04598928 | 3.562533 | -1.4145869 | 1.616122e-01 | 3.356351e-01 |
| ## PUS10        | 0.10214968  | 4.850928 | 1.4145212  | 1.616314e-01 | 3.356357e-01 |
| ## DNAJC18      | -0.12212968 | 5.124348 | -1.4144498 | 1.616523e-01 | 3.356357e-01 |
| ## LACTB2       | 0.33032561  | 7.940889 | 1.4144204  | 1.616609e-01 | 3.356357e-01 |
| ## LOC389199    | -0.09040233 | 4.574266 | -1.4141679 | 1.617347e-01 | 3.357555e-01 |
| ## CHML         | 0.04425171  | 3.645972 | 1.4139296  | 1.618044e-01 | 3.358668e-01 |
| ## ENPP4        | 0.28096091  | 7.611994 | 1.4137100  | 1.618687e-01 | 3.359667e-01 |
| ## LRP1B        | -0.09039560 | 3.199001 | -1.4131386 | 1.620360e-01 | 3.362500e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LINC01227    | -0.04227921 | 3.911641  | -1.4131056 | 1.620457e-01 | 3.362500e-01 |
| ## FGF11        | 0.07564379  | 5.092953  | 1.4130783  | 1.620537e-01 | 3.362500e-01 |
| ## LINC02388    | -0.06338624 | 3.677036  | -1.4127224 | 1.621579e-01 | 3.363896e-01 |
| ## SAP30L       | 0.11990350  | 6.552881  | 1.4126815  | 1.621699e-01 | 3.363896e-01 |
| ## CCL8         | 0.40227860  | 6.827747  | 1.4126590  | 1.621765e-01 | 3.363896e-01 |
| ## LOC105369746 | 0.08098950  | 3.738041  | 1.4126072  | 1.621917e-01 | 3.363896e-01 |
| ## SLC38A2      | -0.10969739 | 10.838218 | -1.4125631 | 1.622046e-01 | 3.363896e-01 |
| ## LOC101928306 | -0.06114800 | 4.015786  | -1.4125180 | 1.622178e-01 | 3.363896e-01 |
| ## VSTM2L       | -0.10277790 | 5.484998  | -1.4121897 | 1.623141e-01 | 3.365557e-01 |
| ## ELOA         | 0.05071400  | 4.157222  | 1.4118893  | 1.624022e-01 | 3.367049e-01 |
| ## SMIM4        | 0.10518171  | 6.325932  | 1.4111217  | 1.626276e-01 | 3.370901e-01 |
| ## CAMK1D       | -0.17393332 | 4.942874  | -1.4110944 | 1.626356e-01 | 3.370901e-01 |
| ## DMGDH        | -0.03840085 | 3.650856  | -1.4110701 | 1.626427e-01 | 3.370901e-01 |
| ## NLRP2B       | -0.08315897 | 4.167635  | -1.4110272 | 1.626553e-01 | 3.370901e-01 |
| ## RNPC3        | -0.18831110 | 7.153302  | -1.4109808 | 1.626690e-01 | 3.370901e-01 |
| ## CPA1         | -0.23635812 | 3.496535  | -1.4109102 | 1.626897e-01 | 3.370996e-01 |
| ## LIMK2        | 0.20513037  | 7.738023  | 1.4108121  | 1.627185e-01 | 3.371257e-01 |
| ## KLF3         | 0.20496866  | 7.066838  | 1.4104607  | 1.628218e-01 | 3.373062e-01 |
| ## M1AP         | -0.05039495 | 3.590815  | -1.4100630 | 1.629387e-01 | 3.375148e-01 |
| ## CIRBP-AS1    | 0.07755554  | 5.373605  | 1.4100018  | 1.629568e-01 | 3.375186e-01 |
| ## PLEKHH1      | -0.26960771 | 7.829106  | -1.4097177 | 1.630403e-01 | 3.376293e-01 |
| ## RUFY3        | -0.13105994 | 4.342745  | -1.4097098 | 1.630427e-01 | 3.376293e-01 |
| ## IFNA1        | 0.05058019  | 3.306965  | 1.4095141  | 1.631003e-01 | 3.377151e-01 |
| ## POM121L12    | -0.10848611 | 7.158074  | -1.4092759 | 1.631704e-01 | 3.378267e-01 |
| ## MGST3        | -0.14983470 | 11.450897 | -1.4091267 | 1.632144e-01 | 3.378841e-01 |
| ## FUBP3        | 0.11296744  | 8.246753  | 1.4087040  | 1.633389e-01 | 3.381083e-01 |
| ## NDUFS8       | 0.10604306  | 8.230449  | 1.4085827  | 1.633747e-01 | 3.381487e-01 |
| ## LINC02825    | -0.06385206 | 3.796965  | -1.4078764 | 1.635830e-01 | 3.385462e-01 |
| ## MYH2         | -0.04503939 | 3.580803  | -1.4075560 | 1.636775e-01 | 3.387082e-01 |
| ## TRIM24       | 0.07987302  | 3.828443  | 1.4073310  | 1.637439e-01 | 3.387539e-01 |
| ## MARCHF7      | 0.03818178  | 3.340535  | 1.4073295  | 1.637444e-01 | 3.387539e-01 |
| ## RCC1L        | 0.04568129  | 3.553711  | 1.4073159  | 1.637484e-01 | 3.387539e-01 |
| ## GJB1         | -0.19637621 | 7.087381  | -1.4072331 | 1.637728e-01 | 3.387708e-01 |
| ## SRRM2-AS1    | -0.11239813 | 4.802823  | -1.4068340 | 1.638907e-01 | 3.389810e-01 |
| ## LCT-AS1      | 0.04664469  | 3.787413  | 1.4065554  | 1.639731e-01 | 3.391176e-01 |
| ## LPCAT2       | -0.14958832 | 5.187141  | -1.4063428 | 1.640359e-01 | 3.392139e-01 |
| ## LRRC8A       | 0.12267815  | 9.481999  | 1.4062405  | 1.640662e-01 | 3.392428e-01 |
| ## SLC26A5-AS1  | -0.04498377 | 3.458588  | -1.4061429 | 1.640950e-01 | 3.392434e-01 |
| ## WFDC9        | -0.09181611 | 3.970088  | -1.4061100 | 1.641048e-01 | 3.392434e-01 |
| ## LINC00461    | -0.05204722 | 3.443020  | -1.4060460 | 1.641237e-01 | 3.392434e-01 |
| ## LOC105370109 | 0.12152174  | 8.336641  | 1.4060192  | 1.641316e-01 | 3.392434e-01 |
| ## TES          | 0.15618042  | 8.088057  | 1.4057181  | 1.642207e-01 | 3.393938e-01 |
| ## CXCL5        | 0.21335563  | 3.415244  | 1.4056374  | 1.642446e-01 | 3.394095e-01 |
| ## RFX4         | -0.04382791 | 3.506916  | -1.4053403 | 1.643325e-01 | 3.395366e-01 |
| ## KCNH5        | -0.07932690 | 3.881484  | -1.4053195 | 1.643387e-01 | 3.395366e-01 |
| ## VN1R108P     | 0.03674118  | 3.173372  | 1.4051373  | 1.643927e-01 | 3.396144e-01 |
| ## PISD         | 0.08813607  | 7.799798  | 1.4050534  | 1.644175e-01 | 3.396252e-01 |
| ## CLDND1       | -0.09857346 | 8.554803  | -1.4049979 | 1.644339e-01 | 3.396252e-01 |
| ## TRIM52       | -0.16985666 | 6.095377  | -1.4049544 | 1.644468e-01 | 3.396252e-01 |
| ## GAS5-AS1     | -0.05004183 | 3.923242  | -1.4048297 | 1.644838e-01 | 3.396678e-01 |
| ## SESTD1       | 0.19929895  | 8.388009  | 1.4046330  | 1.645421e-01 | 3.397545e-01 |
| ## PEX14        | -0.06884490 | 4.098676  | -1.4045464 | 1.645677e-01 | 3.397738e-01 |
| ## ZC3H14       | 0.05790973  | 3.906706  | 1.4044040  | 1.646100e-01 | 3.398273e-01 |
| ## ZFHX2        | -0.06524586 | 5.567146  | -1.4042070 | 1.646684e-01 | 3.399142e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LOC105372793 | -0.04219514 | 3.378894  | -1.4041326 | 1.646905e-01 | 3.399261e-01 |
| ## SLC4A1       | -0.05797032 | 3.715383  | -1.4039544 | 1.647433e-01 | 3.400014e-01 |
| ## LOC100240734 | -0.11083213 | 4.505549  | -1.4037493 | 1.648042e-01 | 3.400933e-01 |
| ## TMEM179      | -0.12081009 | 5.094449  | -1.4036258 | 1.648408e-01 | 3.401353e-01 |
| ## ASXL1        | 0.13571234  | 7.353571  | 1.4035492  | 1.648635e-01 | 3.401484e-01 |
| ## MIOX         | 0.06603348  | 4.452074  | 1.4033812  | 1.649134e-01 | 3.402176e-01 |
| ## TNFSF15      | 0.18112210  | 4.381850  | 1.4032988  | 1.649379e-01 | 3.402344e-01 |
| ## SNX16        | 0.20199990  | 4.567348  | 1.4029391  | 1.650447e-01 | 3.404210e-01 |
| ## LOC101929268 | -0.05434785 | 3.557020  | -1.4027297 | 1.651069e-01 | 3.405156e-01 |
| ## OR9A1P       | -0.05365930 | 3.397293  | -1.4026536 | 1.651295e-01 | 3.405273e-01 |
| ## ZDBF2        | -0.12550921 | 4.174734  | -1.4026006 | 1.651453e-01 | 3.405273e-01 |
| ## HCG26        | 0.11136053  | 6.440563  | 1.4024513  | 1.651897e-01 | 3.405851e-01 |
| ## DCTN2        | -0.10687172 | 9.645170  | -1.4022882 | 1.652382e-01 | 3.406514e-01 |
| ## NDE1         | 0.13530207  | 7.392518  | 1.4021795  | 1.652705e-01 | 3.406777e-01 |
| ## RAB4B        | -0.08844458 | 5.542513  | -1.4020692 | 1.653033e-01 | 3.406777e-01 |
| ## LOC100507513 | -0.06790086 | 4.168439  | -1.4020276 | 1.653157e-01 | 3.406777e-01 |
| ## FFAR2        | 0.17826656  | 4.105994  | 1.4020252  | 1.653164e-01 | 3.406777e-01 |
| ## SFTA3        | 0.07745437  | 3.238809  | 1.4017228  | 1.654064e-01 | 3.408022e-01 |
| ## AP4S1        | -0.08416446 | 5.628231  | -1.4017121 | 1.654095e-01 | 3.408022e-01 |
| ## RILPL1       | -0.16970354 | 6.393862  | -1.4013920 | 1.655048e-01 | 3.409330e-01 |
| ## TNFAIP8L1    | -0.11925540 | 9.412473  | -1.4013889 | 1.655057e-01 | 3.409330e-01 |
| ## GPAM         | 0.27357343  | 5.613181  | 1.4011241  | 1.655846e-01 | 3.410428e-01 |
| ## PGK2         | 0.06502709  | 3.926763  | 1.4010999  | 1.655918e-01 | 3.410428e-01 |
| ## LINC00648    | 0.18456429  | 3.577137  | 1.4009034  | 1.656503e-01 | 3.411296e-01 |
| ## SYT11        | -0.19235939 | 4.795355  | -1.4008146 | 1.656768e-01 | 3.411350e-01 |
| ## ZNF586       | -0.05150400 | 3.530448  | -1.4007847 | 1.656857e-01 | 3.411350e-01 |
| ## SIRT1        | -0.12242234 | 7.549040  | -1.4006650 | 1.657214e-01 | 3.411747e-01 |
| ## CCND2        | 0.36152056  | 6.389681  | 1.4004516  | 1.657850e-01 | 3.412718e-01 |
| ## MIR124-1HG   | -0.06932385 | 5.144868  | -1.3999731 | 1.659277e-01 | 3.415319e-01 |
| ## CAPZA1       | 0.08980227  | 11.038204 | 1.3996672  | 1.660189e-01 | 3.416859e-01 |
| ## LINC01133    | -0.06324072 | 3.744189  | -1.3992860 | 1.661327e-01 | 3.418863e-01 |
| ## TRIP4        | 0.10633836  | 8.344723  | 1.3991766  | 1.661654e-01 | 3.418995e-01 |
| ## TAFA1        | -0.19335967 | 3.608993  | -1.3991409 | 1.661760e-01 | 3.418995e-01 |
| ## THORLNC      | -0.08713978 | 4.993440  | -1.3990635 | 1.661992e-01 | 3.418995e-01 |
| ## APAF1        | 0.14632265  | 7.213377  | 1.3990446  | 1.662048e-01 | 3.418995e-01 |
| ## MTCL1        | -0.31413135 | 7.583202  | -1.3989682 | 1.662276e-01 | 3.419127e-01 |
| ## TNC          | -0.41661674 | 9.021582  | -1.3988356 | 1.662673e-01 | 3.419604e-01 |
| ## TFAP4        | 0.09448001  | 5.756103  | 1.3986366  | 1.663267e-01 | 3.420489e-01 |
| ## GPR173       | -0.05758154 | 4.265361  | -1.3984648 | 1.663780e-01 | 3.421207e-01 |
| ## SOX21        | -0.11951581 | 4.310284  | -1.3982299 | 1.664483e-01 | 3.422112e-01 |
| ## DNAAF6       | -0.07460935 | 4.198672  | -1.3981691 | 1.664665e-01 | 3.422112e-01 |
| ## LINC02624    | -0.05077999 | 3.948397  | -1.3981527 | 1.664714e-01 | 3.422112e-01 |
| ## LINC00654    | -0.08508995 | 4.250441  | -1.3979950 | 1.665185e-01 | 3.422744e-01 |
| ## CHID1        | -0.10436375 | 7.646640  | -1.3977591 | 1.665891e-01 | 3.423781e-01 |
| ## KIR3DL1      | 0.05908871  | 4.209122  | 1.3977165  | 1.666019e-01 | 3.423781e-01 |
| ## REC8         | -0.20835842 | 7.462990  | -1.3976183 | 1.666312e-01 | 3.424047e-01 |
| ## LCMT1-AS2    | -0.11800011 | 4.491949  | -1.3974327 | 1.666868e-01 | 3.424850e-01 |
| ## SEC22A       | 0.09287879  | 6.065638  | 1.3973777  | 1.667032e-01 | 3.424850e-01 |
| ## HSPBAP1      | 0.17535522  | 6.963084  | 1.3968529  | 1.668604e-01 | 3.427742e-01 |
| ## MAP1LC3B2    | -0.07859804 | 3.966660  | -1.3966260 | 1.669284e-01 | 3.428571e-01 |
| ## LOC100996671 | -0.06057524 | 3.730266  | -1.3966082 | 1.669337e-01 | 3.428571e-01 |
| ## SUCLG2-DT    | -0.04508311 | 3.666980  | -1.3964698 | 1.669752e-01 | 3.429085e-01 |
| ## SYT17        | -0.17149127 | 6.058457  | -1.3962467 | 1.670421e-01 | 3.430120e-01 |
| ## ADAM3A       | -0.05291314 | 3.495919  | -1.3960612 | 1.670977e-01 | 3.430924e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CDHR3        | -0.09753049 | 3.943547  | -1.3958192 | 1.671703e-01 | 3.432076e-01 |
| ## MRO          | -0.07142569 | 4.170159  | -1.3951681 | 1.673658e-01 | 3.435750e-01 |
| ## ATP5MG       | -0.07631589 | 11.362556 | -1.3949944 | 1.674179e-01 | 3.436482e-01 |
| ## ATXN7        | -0.12501052 | 8.121901  | -1.3948167 | 1.674713e-01 | 3.437238e-01 |
| ## IGFBP7-AS1   | -0.04508840 | 3.484713  | -1.3945834 | 1.675414e-01 | 3.438339e-01 |
| ## ZNF23        | -0.14357264 | 5.599181  | -1.3944969 | 1.675674e-01 | 3.438533e-01 |
| ## LINC00867    | -0.06002490 | 3.587329  | -1.3943545 | 1.676102e-01 | 3.438841e-01 |
| ## TRAV12-2     | -0.05545902 | 3.805493  | -1.3943317 | 1.676171e-01 | 3.438841e-01 |
| ## LOC284912    | -0.06832410 | 4.941629  | -1.3942822 | 1.676319e-01 | 3.438841e-01 |
| ## JMJD8        | -0.08813339 | 7.736517  | -1.3941802 | 1.676626e-01 | 3.439131e-01 |
| ## GNGT1        | 0.08377066  | 3.539475  | 1.3939918  | 1.677192e-01 | 3.439644e-01 |
| ## LINC00608    | -0.04728194 | 3.554330  | -1.3939872 | 1.677206e-01 | 3.439644e-01 |
| ## ACTR8        | 0.08253185  | 5.351864  | 1.3937692  | 1.677862e-01 | 3.440650e-01 |
| ## LINC02757    | -0.04993517 | 3.592057  | -1.3934208 | 1.678911e-01 | 3.442146e-01 |
| ## SLC25A44     | 0.12136016  | 7.081855  | 1.3934170  | 1.678922e-01 | 3.442146e-01 |
| ## SMOX         | 0.12471475  | 5.158167  | 1.3933133  | 1.679234e-01 | 3.442447e-01 |
| ## ATP6V0E2-AS1 | -0.08815321 | 4.419771  | -1.3931563 | 1.679707e-01 | 3.443077e-01 |
| ## TMEM200C     | -0.20739242 | 4.365943  | -1.3930081 | 1.680153e-01 | 3.443653e-01 |
| ## MIGA2        | -0.10522191 | 7.218291  | -1.3925831 | 1.681434e-01 | 3.445938e-01 |
| ## RAP2C-AS1    | -0.06143031 | 3.857713  | -1.3924089 | 1.681959e-01 | 3.446675e-01 |
| ## C12orf43     | 0.11970564  | 5.981360  | 1.3923416  | 1.682161e-01 | 3.446751e-01 |
| ## CUTALP       | 0.18804633  | 5.280462  | 1.3920900  | 1.682920e-01 | 3.447966e-01 |
| ## LINC01148    | -0.04555320 | 3.367074  | -1.3919151 | 1.683448e-01 | 3.448708e-01 |
| ## PPP2CB       | 0.08298007  | 4.182482  | 1.3918145  | 1.683751e-01 | 3.448990e-01 |
| ## ZP4          | -0.06927725 | 4.074519  | -1.3909275 | 1.686429e-01 | 3.454006e-01 |
| ## LINC00626    | -0.06817999 | 3.680716  | -1.3908934 | 1.686532e-01 | 3.454006e-01 |
| ## GADD45B      | -0.25258059 | 8.459205  | -1.3907193 | 1.687057e-01 | 3.454743e-01 |
| ## MCHR2-AS1    | -0.03847024 | 3.174903  | -1.3905592 | 1.687541e-01 | 3.455394e-01 |
| ## SEC14L3      | -0.07297352 | 3.731383  | -1.3903073 | 1.688302e-01 | 3.456613e-01 |
| ## CBY1         | -0.03620565 | 3.597341  | -1.3901842 | 1.688675e-01 | 3.456971e-01 |
| ## FBX04        | 0.04541291  | 3.270951  | 1.3901396  | 1.688810e-01 | 3.456971e-01 |
| ## NMNAT1       | -0.09390325 | 5.230592  | -1.3900239 | 1.689159e-01 | 3.457348e-01 |
| ## APCDD1L      | -0.06503085 | 5.464617  | -1.3898532 | 1.689676e-01 | 3.458065e-01 |
| ## LINC01267    | -0.06292858 | 4.241384  | -1.3897326 | 1.690040e-01 | 3.458471e-01 |
| ## LOC101928708 | -0.07657031 | 3.645391  | -1.3896448 | 1.690306e-01 | 3.458518e-01 |
| ## LRRMT4-AS1   | 0.04996834  | 3.481276  | 1.3896153  | 1.690396e-01 | 3.458518e-01 |
| ## TMPRSS11D    | 0.16521045  | 4.692938  | 1.3894514  | 1.690892e-01 | 3.459193e-01 |
| ## NMNAT3       | 0.18844821  | 6.218310  | 1.3891551  | 1.691788e-01 | 3.460688e-01 |
| ## ABI1         | 0.04930306  | 3.480949  | 1.3890017  | 1.692253e-01 | 3.461161e-01 |
| ## LOC105369974 | -0.04795860 | 3.583217  | -1.3889089 | 1.692534e-01 | 3.461161e-01 |
| ## CAPRIN2      | 0.14646904  | 5.514920  | 1.3888988  | 1.692565e-01 | 3.461161e-01 |
| ## MIR4307HG    | 0.05711661  | 3.595288  | 1.3888591  | 1.692685e-01 | 3.461161e-01 |
| ## LOC100505912 | 0.09561752  | 4.132375  | 1.3887524  | 1.693008e-01 | 3.461483e-01 |
| ## CC2D1A       | 0.09886336  | 4.412449  | 1.3886851  | 1.693212e-01 | 3.461559e-01 |
| ## ZNF713       | 0.09021429  | 3.474107  | 1.3883551  | 1.694212e-01 | 3.463264e-01 |
| ## ERBB3        | -0.05198911 | 4.286311  | -1.3880568 | 1.695116e-01 | 3.464773e-01 |
| ## WFDC6        | -0.06444066 | 4.199857  | -1.3877852 | 1.695940e-01 | 3.466116e-01 |
| ## PGGHG        | 0.26899373  | 7.142380  | 1.3875857  | 1.696545e-01 | 3.467012e-01 |
| ## OR7A5        | -0.05287319 | 4.017820  | -1.3872815 | 1.697468e-01 | 3.468329e-01 |
| ## LIMK1        | -0.07856475 | 4.775041  | -1.3872637 | 1.697523e-01 | 3.468329e-01 |
| ## PRSS12       | -0.24626264 | 4.685367  | -1.3871669 | 1.697816e-01 | 3.468589e-01 |
| ## LCK          | 0.24406214  | 6.453055  | 1.3868237  | 1.698859e-01 | 3.470378e-01 |
| ## CFAP46       | -0.07314787 | 4.734869  | -1.3861989 | 1.700757e-01 | 3.473915e-01 |
| ## CYTH2        | 0.23463946  | 6.983132  | 1.3858349  | 1.701864e-01 | 3.475835e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## RAD21L1      | -0.04055960 | 3.394062  | -1.3855212 | 1.702818e-01 | 3.477443e-01 |
| ## FLG2         | -0.03751358 | 3.375058  | -1.3854395 | 1.703067e-01 | 3.477610e-01 |
| ## PLIN2        | 0.22529416  | 9.030405  | 1.3852162  | 1.703747e-01 | 3.478657e-01 |
| ## GARIN4       | -0.14426758 | 6.603269  | -1.3849131 | 1.704669e-01 | 3.480200e-01 |
| ## CCNO         | 0.19193000  | 5.822917  | 1.3847706  | 1.705104e-01 | 3.480745e-01 |
| ## SP2          | 0.10757580  | 7.380276  | 1.3844979  | 1.705934e-01 | 3.482099e-01 |
| ## GLIS2        | -0.25492257 | 7.671131  | -1.3839837 | 1.707502e-01 | 3.484957e-01 |
| ## TENT5D       | 0.04066896  | 3.389563  | 1.3835675  | 1.708771e-01 | 3.486664e-01 |
| ## CARF         | -0.06305511 | 3.647034  | -1.3835437 | 1.708844e-01 | 3.486664e-01 |
| ## RCAN1        | -0.19998205 | 9.190318  | -1.3834940 | 1.708995e-01 | 3.486664e-01 |
| ## ANKRD26P3    | -0.05244353 | 3.979884  | -1.3834899 | 1.709008e-01 | 3.486664e-01 |
| ## EN2          | 0.08837214  | 3.836154  | 1.3831189  | 1.710140e-01 | 3.488568e-01 |
| ## LOC284600    | -0.07933444 | 5.160249  | -1.3830744 | 1.710276e-01 | 3.488568e-01 |
| ## HSD17B2      | -0.57289490 | 8.074651  | -1.3828479 | 1.710968e-01 | 3.489637e-01 |
| ## ANKRD60      | -0.07116458 | 4.325625  | -1.3824297 | 1.712245e-01 | 3.491900e-01 |
| ## GPS2         | 0.07907362  | 7.996207  | 1.3823177  | 1.712588e-01 | 3.492053e-01 |
| ## BEX5         | -0.47223313 | 6.554580  | -1.3822348 | 1.712841e-01 | 3.492053e-01 |
| ## LINC01096    | -0.14571179 | 3.895776  | -1.3822049 | 1.712932e-01 | 3.492053e-01 |
| ## CD86         | 0.14968943  | 5.756601  | 1.3821858  | 1.712991e-01 | 3.492053e-01 |
| ## ST6GAL2      | -0.04921524 | 3.458865  | -1.3817554 | 1.714307e-01 | 3.494393e-01 |
| ## CCR6         | -0.14816204 | 4.533924  | -1.3815472 | 1.714943e-01 | 3.495349e-01 |
| ## ATP6V0A2     | 0.04871867  | 3.791677  | 1.3812004  | 1.716005e-01 | 3.497170e-01 |
| ## SLC30A6      | 0.05684002  | 4.051136  | 1.3809363  | 1.716813e-01 | 3.498476e-01 |
| ## RAD52        | 0.12056635  | 4.995983  | 1.3806819  | 1.717592e-01 | 3.499721e-01 |
| ## SPART-AS1    | -0.06054275 | 3.593378  | -1.3803833 | 1.718507e-01 | 3.500554e-01 |
| ## HPR          | -0.05158965 | 3.868720  | -1.3803627 | 1.718571e-01 | 3.500554e-01 |
| ## LOC100129603 | -0.10768618 | 4.233250  | -1.3803365 | 1.718651e-01 | 3.500554e-01 |
| ## NPAS2        | 0.13473051  | 6.084564  | 1.3803290  | 1.718674e-01 | 3.500554e-01 |
| ## AP3B1        | 0.10524925  | 6.652251  | 1.3802164  | 1.719019e-01 | 3.500914e-01 |
| ## CA1          | -0.06272499 | 3.593294  | -1.3795508 | 1.721060e-01 | 3.504728e-01 |
| ## AVPR2        | -0.06241516 | 4.245936  | -1.3794422 | 1.721393e-01 | 3.504884e-01 |
| ## AKAP13       | 0.06800701  | 3.931481  | 1.3794162  | 1.721473e-01 | 3.504884e-01 |
| ## ACER1        | -0.09531705 | 4.210571  | -1.3792829 | 1.721882e-01 | 3.505374e-01 |
| ## CDK8         | 0.24496918  | 6.930369  | 1.3788357  | 1.723254e-01 | 3.507814e-01 |
| ## LOC105375602 | -0.04265477 | 4.433635  | -1.3787827 | 1.723417e-01 | 3.507814e-01 |
| ## STMN1        | 0.04572699  | 3.714759  | 1.3786116  | 1.723943e-01 | 3.508540e-01 |
| ## TM7SF2       | 0.15315736  | 6.527930  | 1.3785022  | 1.724279e-01 | 3.508882e-01 |
| ## LDC1P        | -0.07323395 | 4.762466  | -1.3782930 | 1.724922e-01 | 3.509846e-01 |
| ## PCDHB2       | 0.16260837  | 3.991734  | 1.3781778  | 1.725276e-01 | 3.510206e-01 |
| ## SPTSSB       | -0.13622210 | 4.514192  | -1.3781258 | 1.725436e-01 | 3.510206e-01 |
| ## PIN4         | -0.10373620 | 8.969759  | -1.3780182 | 1.725766e-01 | 3.510286e-01 |
| ## ADA2         | -0.25297018 | 8.604720  | -1.3779820 | 1.725877e-01 | 3.510286e-01 |
| ## LINC00328    | 0.09449619  | 3.416351  | 1.3779486  | 1.725980e-01 | 3.510286e-01 |
| ## ALPL         | -0.04421597 | 3.522970  | -1.3777396 | 1.726623e-01 | 3.511250e-01 |
| ## ITGA5        | -0.22898506 | 8.151494  | -1.3775551 | 1.727190e-01 | 3.512061e-01 |
| ## SPINK1       | -0.48505032 | 12.200048 | -1.3771642 | 1.728393e-01 | 3.513908e-01 |
| ## MBTPS1       | -0.10145795 | 8.355904  | -1.3771501 | 1.728436e-01 | 3.513908e-01 |
| ## DYNLT2       | -0.13416141 | 5.567875  | -1.3770607 | 1.728712e-01 | 3.514124e-01 |
| ## CYSLTR1      | -0.04665652 | 3.597155  | -1.3768062 | 1.729495e-01 | 3.514900e-01 |
| ## MYOG         | 0.07270454  | 5.113210  | 1.3767871  | 1.729554e-01 | 3.514900e-01 |
| ## ZNF3         | 0.15534945  | 6.613363  | 1.3767723  | 1.729600e-01 | 3.514900e-01 |
| ## BAZ1B        | 0.12810710  | 7.984218  | 1.3764231  | 1.730675e-01 | 3.516743e-01 |
| ## TKTL1        | 0.57440388  | 4.630077  | 1.3761601  | 1.731485e-01 | 3.518046e-01 |
| ## AFG3L1P      | 0.13508435  | 6.918346  | 1.3757997  | 1.732597e-01 | 3.519960e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ERLIN2       | -0.18394729 | 6.205011  | -1.3753868 | 1.733870e-01 | 3.522198e-01 |
| ## FAM222A      | -0.14251379 | 5.564983  | -1.3753093 | 1.734109e-01 | 3.522198e-01 |
| ## ZBED5-AS1    | -0.16487229 | 7.073028  | -1.3752780 | 1.734206e-01 | 3.522198e-01 |
| ## LVRN         | -0.06267421 | 3.504278  | -1.3751647 | 1.734555e-01 | 3.522565e-01 |
| ## PDE4DIP      | -0.22082003 | 6.330767  | -1.3749510 | 1.735215e-01 | 3.523561e-01 |
| ## LINC02201    | -0.08391333 | 4.668442  | -1.3748471 | 1.735536e-01 | 3.523868e-01 |
| ## OST4         | -0.08973139 | 10.648359 | -1.3747457 | 1.735849e-01 | 3.523951e-01 |
| ## CRNKL1       | 0.14248976  | 7.440563  | 1.3747244  | 1.735915e-01 | 3.523951e-01 |
| ## TXNDC17      | 0.12733992  | 10.462758 | 1.3745868  | 1.736340e-01 | 3.524470e-01 |
| ## CCDC93       | 0.14087049  | 7.444704  | 1.3741505  | 1.737688e-01 | 3.526540e-01 |
| ## AKAP1        | -0.16264367 | 9.513753  | -1.3741470 | 1.737698e-01 | 3.526540e-01 |
| ## C9orf131     | -0.09544703 | 5.398170  | -1.3740337 | 1.738048e-01 | 3.526907e-01 |
| ## OPN5         | -0.06975090 | 3.757513  | -1.3737937 | 1.738790e-01 | 3.528069e-01 |
| ## ASB11        | -0.09736036 | 3.741386  | -1.3735261 | 1.739618e-01 | 3.529404e-01 |
| ## HOXB1        | -0.08654085 | 5.223683  | -1.3733353 | 1.740208e-01 | 3.530258e-01 |
| ## SPRY4-IT1    | -0.11786723 | 3.962748  | -1.3732641 | 1.740429e-01 | 3.530361e-01 |
| ## TRAPPC2L     | 0.08905492  | 9.024998  | 1.3731355  | 1.740827e-01 | 3.530787e-01 |
| ## SMAP1        | -0.16068473 | 9.144414  | -1.3730866 | 1.740978e-01 | 3.530787e-01 |
| ## CNGA1        | -0.11572511 | 4.757018  | -1.3729771 | 1.741317e-01 | 3.531130e-01 |
| ## LOC105375038 | 0.06288313  | 4.282481  | 1.3727711  | 1.741954e-01 | 3.532080e-01 |
| ## PNLIPRP3     | 0.04694232  | 3.394090  | 1.3723081  | 1.743388e-01 | 3.534467e-01 |
| ## LLPH         | 0.06927942  | 4.194384  | 1.3722813  | 1.743471e-01 | 3.534467e-01 |
| ## SENP7        | -0.13700605 | 4.548595  | -1.3721485 | 1.743883e-01 | 3.534957e-01 |
| ## RABEPK       | 0.04762266  | 3.548627  | 1.3717762  | 1.745037e-01 | 3.536952e-01 |
| ## DMAC2L       | -0.06419541 | 6.296348  | -1.3716747 | 1.745352e-01 | 3.537246e-01 |
| ## PAX4         | -0.06869987 | 3.228044  | -1.3707889 | 1.748100e-01 | 3.542471e-01 |
| ## CNKSR2       | -0.04942013 | 3.608724  | -1.3701137 | 1.750197e-01 | 3.546375e-01 |
| ## CHCHD6       | 0.10864075  | 6.409225  | 1.3700033  | 1.750540e-01 | 3.546725e-01 |
| ## CCDC50       | 0.13221010  | 8.895893  | 1.3694222  | 1.752347e-01 | 3.550040e-01 |
| ## KANK1        | 0.19031609  | 4.520031  | 1.3693544  | 1.752557e-01 | 3.550122e-01 |
| ## TXK          | 0.11177099  | 3.571276  | 1.3686420  | 1.754774e-01 | 3.554267e-01 |
| ## SSU72        | 0.11797656  | 9.493645  | 1.3684931  | 1.755238e-01 | 3.554792e-01 |
| ## DRD3         | -0.06069178 | 3.676470  | -1.3684492 | 1.755375e-01 | 3.554792e-01 |
| ## POFUT2       | -0.10173374 | 5.589241  | -1.3681674 | 1.756253e-01 | 3.556141e-01 |
| ## SPATA17      | 0.06187920  | 3.770419  | 1.3681107  | 1.756429e-01 | 3.556141e-01 |
| ## TERF1        | -0.12301738 | 7.806466  | -1.3680635 | 1.756577e-01 | 3.556141e-01 |
| ## RIPPLY2      | -0.07250300 | 4.319961  | -1.3680160 | 1.756724e-01 | 3.556141e-01 |
| ## LINC00311    | -0.06486722 | 3.787174  | -1.3678051 | 1.757382e-01 | 3.557127e-01 |
| ## RB1CC1       | 0.13730883  | 9.374902  | 1.3676499  | 1.757865e-01 | 3.557760e-01 |
| ## ZBED3        | -0.16108861 | 7.238787  | -1.3674791 | 1.758398e-01 | 3.558330e-01 |
| ## ARPP21       | -0.03448804 | 3.197210  | -1.3674499 | 1.758489e-01 | 3.558330e-01 |
| ## DNLZ         | 0.17657390  | 6.413565  | 1.3671395  | 1.759457e-01 | 3.559944e-01 |
| ## FEV          | -0.15228764 | 4.881744  | -1.3669796 | 1.759956e-01 | 3.560407e-01 |
| ## UTS2R        | -0.10105503 | 6.871588  | -1.3669564 | 1.760029e-01 | 3.560407e-01 |
| ## COL6A6       | 0.21231340  | 3.843719  | 1.3666606  | 1.760952e-01 | 3.561929e-01 |
| ## WASHC2C      | 0.10698748  | 9.370461  | 1.3666022  | 1.761134e-01 | 3.561952e-01 |
| ## ZNF628       | 0.12071669  | 5.502553  | 1.3665357  | 1.761342e-01 | 3.562026e-01 |
| ## FCGR1A       | 0.03923602  | 3.479447  | 1.3664283  | 1.761677e-01 | 3.562359e-01 |
| ## TSPAN5       | -0.22353524 | 6.254530  | -1.3650090 | 1.766114e-01 | 3.570983e-01 |
| ## DISP3        | -0.09716564 | 5.872776  | -1.3648405 | 1.766641e-01 | 3.571367e-01 |
| ## SPSB1        | 0.16778255  | 6.274411  | 1.3648386  | 1.766647e-01 | 3.571367e-01 |
| ## SPAG16       | 0.03781733  | 3.362056  | 1.3647503  | 1.766923e-01 | 3.571579e-01 |
| ## DOCK3        | -0.13741919 | 4.215660  | -1.3643364 | 1.768219e-01 | 3.573613e-01 |
| ## ZNF197       | 0.04985614  | 4.272901  | 1.3643194  | 1.768272e-01 | 3.573613e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## NOL3         | -0.16341972 | 6.322333  | -1.3640148 | 1.769227e-01 | 3.574928e-01 |
| ## IFRD2        | 0.11655629  | 8.311554  | 1.3640020  | 1.769267e-01 | 3.574928e-01 |
| ## TMEM147-AS1  | 0.05318433  | 4.622749  | 1.3638850  | 1.769633e-01 | 3.575322e-01 |
| ## MED14        | 0.06551042  | 4.507959  | 1.3637332  | 1.770109e-01 | 3.575794e-01 |
| ## NKAPD1       | 0.11796589  | 6.544892  | 1.3637009  | 1.770210e-01 | 3.575794e-01 |
| ## MPPED1       | -0.08046851 | 5.224032  | -1.3635583 | 1.770657e-01 | 3.576268e-01 |
| ## NEXMIF       | -0.05086576 | 3.777474  | -1.3635165 | 1.770788e-01 | 3.576268e-01 |
| ## ATP5MC2      | -0.10101752 | 4.015014  | -1.3633062 | 1.771448e-01 | 3.577213e-01 |
| ## SEC23IP      | 0.08230251  | 4.344893  | 1.3632576  | 1.771600e-01 | 3.577213e-01 |
| ## SPIDR        | 0.11197002  | 6.699346  | 1.3628950  | 1.772738e-01 | 3.579163e-01 |
| ## DDX59        | -0.07216315 | 8.134174  | -1.3627502 | 1.773192e-01 | 3.579733e-01 |
| ## FGFR10P2     | 0.06484431  | 3.249933  | 1.3625640  | 1.773776e-01 | 3.579938e-01 |
| ## YBX2         | 0.13354195  | 6.228283  | 1.3625583  | 1.773794e-01 | 3.579938e-01 |
| ## IL13RA1      | -0.14620834 | 9.565716  | -1.3625444 | 1.773838e-01 | 3.579938e-01 |
| ## RNASE2       | 0.10169939  | 4.419553  | 1.3624989  | 1.773981e-01 | 3.579938e-01 |
| ## ZCCHC8       | 0.11116754  | 8.945911  | 1.3624130  | 1.774250e-01 | 3.580135e-01 |
| ## TBX21        | 0.12377842  | 4.937931  | 1.3623445  | 1.774465e-01 | 3.580222e-01 |
| ## LINC02260    | -0.06822218 | 4.248665  | -1.3619260 | 1.775780e-01 | 3.582527e-01 |
| ## METTL21C     | 0.03464755  | 3.275416  | 1.3618007  | 1.776174e-01 | 3.582592e-01 |
| ## AKAP4        | 0.05602620  | 4.130196  | 1.3617707  | 1.776268e-01 | 3.582592e-01 |
| ## C11orf58     | 0.02932283  | 3.174137  | 1.3617023  | 1.776483e-01 | 3.582592e-01 |
| ## MSH4         | 0.12303081  | 3.439683  | 1.3616967  | 1.776500e-01 | 3.582592e-01 |
| ## PLA2G4D      | -0.04113188 | 4.087368  | -1.3614252 | 1.777354e-01 | 3.583666e-01 |
| ## UPRT         | -0.15524162 | 6.732941  | -1.3614178 | 1.777377e-01 | 3.583666e-01 |
| ## TEX14        | -0.04628063 | 3.663691  | -1.3612402 | 1.777936e-01 | 3.584445e-01 |
| ## SLC7A14-AS1  | 0.03574533  | 3.359022  | 1.3611425  | 1.778243e-01 | 3.584624e-01 |
| ## POLR2F       | 0.10173145  | 8.232455  | 1.3610484  | 1.778539e-01 | 3.584624e-01 |
| ## CD1E         | -0.07740799 | 5.675698  | -1.3609956 | 1.778705e-01 | 3.584624e-01 |
| ## ADAMTSL5     | 0.08075496  | 5.042442  | 1.3609887  | 1.778727e-01 | 3.584624e-01 |
| ## PLK3         | 0.14786130  | 6.610800  | 1.3609384  | 1.778885e-01 | 3.584624e-01 |
| ## COQ3         | 0.10690387  | 6.894905  | 1.3607264  | 1.779552e-01 | 3.585309e-01 |
| ## TPD52L1      | -0.38426045 | 8.450673  | -1.3606826 | 1.779690e-01 | 3.585309e-01 |
| ## GMNC         | -0.05242902 | 4.145744  | -1.3606661 | 1.779742e-01 | 3.585309e-01 |
| ## ARMC7        | 0.07199102  | 6.783345  | 1.3605805  | 1.780011e-01 | 3.585505e-01 |
| ## EOLA1        | 0.08501349  | 8.263601  | 1.3604851  | 1.780311e-01 | 3.585763e-01 |
| ## CASP8AP2     | 0.06793445  | 3.592154  | 1.3602103  | 1.781177e-01 | 3.587159e-01 |
| ## LOC375196    | -0.06162231 | 3.589632  | -1.3598228 | 1.782397e-01 | 3.588995e-01 |
| ## ROB03        | 0.16587650  | 5.766188  | 1.3598114  | 1.782433e-01 | 3.588995e-01 |
| ## ING2         | 0.13975631  | 7.513129  | 1.3596559  | 1.782923e-01 | 3.589635e-01 |
| ## AMZ2P1       | -0.12652635 | 6.831143  | -1.3594674 | 1.783517e-01 | 3.590484e-01 |
| ## COMP         | -0.34428743 | 5.667607  | -1.3593721 | 1.783818e-01 | 3.590741e-01 |
| ## LOC100289495 | -0.07725600 | 4.711945  | -1.3592002 | 1.784360e-01 | 3.591096e-01 |
| ## MGAT4C       | -0.03035335 | 3.197636  | -1.3591727 | 1.784446e-01 | 3.591096e-01 |
| ## LGALS14      | 0.07103671  | 3.827107  | 1.3590802  | 1.784738e-01 | 3.591096e-01 |
| ## PRUNE1       | 0.11727012  | 8.097807  | 1.3590750  | 1.784755e-01 | 3.591096e-01 |
| ## LINC02493    | -0.05834918 | 3.963791  | -1.3590428 | 1.784856e-01 | 3.591096e-01 |
| ## LOC105371967 | 0.12619787  | 3.612886  | 1.3589667  | 1.785096e-01 | 3.591232e-01 |
| ## ATP6VOD1-DT  | -0.05205174 | 4.098393  | -1.3587267 | 1.785853e-01 | 3.592157e-01 |
| ## ZNF721       | -0.10758175 | 10.551322 | -1.3587116 | 1.785901e-01 | 3.592157e-01 |
| ## DYM          | -0.08183990 | 5.349801  | -1.3585431 | 1.786433e-01 | 3.592879e-01 |
| ## DYNC1I1      | -0.04509673 | 3.483803  | -1.3584471 | 1.786736e-01 | 3.593142e-01 |
| ## CYP4F11      | 0.22339702  | 4.056555  | 1.3583672  | 1.786988e-01 | 3.593302e-01 |
| ## FXR2         | 0.07586696  | 7.005223  | 1.3581165  | 1.787779e-01 | 3.594547e-01 |
| ## ATP6         | 0.05380820  | 14.141606 | 1.3578199  | 1.788716e-01 | 3.596083e-01 |



|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## PLAC4        | -0.10357478 | 5.005778 | -1.3573992 | 1.790046e-01 | 3.598033e-01 |
| ## LINC01998    | -0.05996079 | 3.729075 | -1.3573879 | 1.790082e-01 | 3.598033e-01 |
| ## GPR50        | -0.10809700 | 4.063422 | -1.3573490 | 1.790204e-01 | 3.598033e-01 |
| ## ZHX1         | -0.17801986 | 6.706360 | -1.3571072 | 1.790969e-01 | 3.599040e-01 |
| ## S1PR5        | 0.05810709  | 3.877119 | 1.3570499  | 1.791150e-01 | 3.599040e-01 |
| ## CLEC2L       | 0.10832503  | 4.578174 | 1.3570266  | 1.791224e-01 | 3.599040e-01 |
| ## RAB11FIP4    | -0.03437344 | 3.402859 | -1.3568709 | 1.791716e-01 | 3.599682e-01 |
| ## DNAJC27-AS1  | -0.07162260 | 4.097040 | -1.3567940 | 1.791960e-01 | 3.599823e-01 |
| ## CCDC17       | -0.06110701 | 4.307596 | -1.3567080 | 1.792232e-01 | 3.600022e-01 |
| ## LRCH4        | 0.08368570  | 6.813716 | 1.3566449  | 1.792431e-01 | 3.600076e-01 |
| ## TMC01-AS1    | 0.08152841  | 4.456977 | 1.3563156  | 1.793473e-01 | 3.601001e-01 |
| ## MMAA         | 0.15278558  | 6.644137 | 1.3563146  | 1.793477e-01 | 3.601001e-01 |
| ## NSUN4        | -0.07500872 | 3.556980 | -1.3562956 | 1.793537e-01 | 3.601001e-01 |
| ## ZNF341       | 0.08402099  | 5.106073 | 1.3562426  | 1.793705e-01 | 3.601001e-01 |
| ## ALKBH1       | 0.09678459  | 7.549767 | 1.3562263  | 1.793756e-01 | 3.601001e-01 |
| ## NPFFR1       | -0.06652657 | 5.638488 | -1.3561687 | 1.793939e-01 | 3.601020e-01 |
| ## MMEL1-AS1    | -0.07047972 | 4.548701 | -1.3558026 | 1.795098e-01 | 3.603000e-01 |
| ## ATP11C       | -0.17403922 | 7.416530 | -1.3556122 | 1.795701e-01 | 3.603863e-01 |
| ## KLHL6        | 0.13101778  | 3.916739 | 1.3554123  | 1.796335e-01 | 3.604787e-01 |
| ## PHF20        | 0.14149466  | 5.738407 | 1.3551901  | 1.797039e-01 | 3.605853e-01 |
| ## SNRNP25      | 0.15682886  | 8.460713 | 1.3548816  | 1.798018e-01 | 3.606981e-01 |
| ## MIR3682      | 0.15420292  | 4.965639 | 1.3548717  | 1.798049e-01 | 3.606981e-01 |
| ## LOC101927358 | -0.04733983 | 3.341779 | -1.3548489 | 1.798121e-01 | 3.606981e-01 |
| ## SCUBE3       | -0.05028984 | 4.050302 | -1.3545659 | 1.799019e-01 | 3.608109e-01 |
| ## MRC1         | -0.27335616 | 8.284056 | -1.3545625 | 1.799030e-01 | 3.608109e-01 |
| ## LINC02481    | -0.10479826 | 6.481970 | -1.3540866 | 1.800540e-01 | 3.610362e-01 |
| ## PDIK1L       | 0.13635465  | 6.810139 | 1.3540507  | 1.800654e-01 | 3.610362e-01 |
| ## PTGS2        | 0.31377257  | 5.133883 | 1.3540447  | 1.800673e-01 | 3.610362e-01 |
| ## CEMIP        | 0.15331073  | 5.212063 | 1.3539845  | 1.800864e-01 | 3.610398e-01 |
| ## CCDC68       | -0.25231505 | 7.342258 | -1.3538702 | 1.801227e-01 | 3.610778e-01 |
| ## EPS8L2       | 0.22770391  | 7.817395 | 1.3537648  | 1.801562e-01 | 3.611101e-01 |
| ## EPB41L4B     | -0.32033081 | 9.022420 | -1.3536281 | 1.801996e-01 | 3.611380e-01 |
| ## NEU2         | 0.06835018  | 4.911536 | 1.3535862  | 1.802129e-01 | 3.611380e-01 |
| ## SLC22A5      | -0.16848680 | 6.880576 | -1.3535573 | 1.802222e-01 | 3.611380e-01 |
| ## ZNF846       | -0.04906453 | 3.298726 | -1.3534937 | 1.802423e-01 | 3.611437e-01 |
| ## CASTOR3P     | -0.13096182 | 5.212393 | -1.3533685 | 1.802821e-01 | 3.611887e-01 |
| ## SUN1         | 0.15594526  | 5.722123 | 1.3532049  | 1.803341e-01 | 3.612581e-01 |
| ## ECPAS        | -0.18444113 | 5.016889 | -1.3529248 | 1.804232e-01 | 3.614018e-01 |
| ## OGFRL1       | 0.14490519  | 6.055381 | 1.3527217  | 1.804878e-01 | 3.614964e-01 |
| ## EGOT         | 0.08694450  | 4.468898 | 1.3526394  | 1.805140e-01 | 3.615140e-01 |
| ## CMTM1        | 0.07070578  | 4.300895 | 1.3523096  | 1.806189e-01 | 3.616894e-01 |
| ## PCAT6        | 0.09480108  | 4.545594 | 1.3521656  | 1.806647e-01 | 3.617464e-01 |
| ## WBP4         | 0.18599981  | 6.050499 | 1.3520807  | 1.806918e-01 | 3.617657e-01 |
| ## IGK          | 0.36784090  | 8.073290 | 1.3517167  | 1.808077e-01 | 3.619630e-01 |
| ## GJD3         | -0.09187459 | 4.696612 | -1.3513089 | 1.809376e-01 | 3.621883e-01 |
| ## IQCE         | 0.16336484  | 7.103709 | 1.3510951  | 1.810057e-01 | 3.622583e-01 |
| ## SECTM1       | 0.23213291  | 7.600677 | 1.3510899  | 1.810074e-01 | 3.622583e-01 |
| ## ACTL9        | -0.11927650 | 3.735052 | -1.3510313 | 1.810261e-01 | 3.622609e-01 |
| ## ICA1-AS1     | 0.14626106  | 5.345229 | 1.3507878  | 1.811037e-01 | 3.623815e-01 |
| ## LOC643201    | -0.06591204 | 3.658541 | -1.3506806 | 1.811379e-01 | 3.623951e-01 |
| ## ZNF891       | 0.07829600  | 3.645538 | 1.3506573  | 1.811453e-01 | 3.623951e-01 |
| ## PDE6B-AS1    | 0.05483025  | 4.077666 | 1.3505731  | 1.811722e-01 | 3.624140e-01 |
| ## COL22A1      | 0.28311997  | 4.542152 | 1.3504865  | 1.811998e-01 | 3.624345e-01 |
| ## ZNF549       | -0.04820878 | 3.497085 | -1.3501592 | 1.813043e-01 | 3.625646e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ZNF875       | -0.07264011 | 3.723831  | -1.3501224 | 1.813160e-01 | 3.625646e-01 |
| ## OSBPL1A      | -0.05480686 | 4.114436  | -1.3501189 | 1.813171e-01 | 3.625646e-01 |
| ## LINC00348    | -0.04403971 | 3.301164  | -1.3499499 | 1.813711e-01 | 3.626377e-01 |
| ## SEPHS2       | 0.17068159  | 10.021828 | 1.3498829  | 1.813925e-01 | 3.626457e-01 |
| ## PRODH2       | -0.07849659 | 5.068906  | -1.3496638 | 1.814625e-01 | 3.627217e-01 |
| ## PRX          | -0.08584780 | 6.041937  | -1.3496548 | 1.814653e-01 | 3.627217e-01 |
| ## STYXL2       | 0.53450686  | 4.396541  | 1.3494334  | 1.815361e-01 | 3.627985e-01 |
| ## IMPG2        | -0.06465953 | 4.178317  | -1.3494253 | 1.815386e-01 | 3.627985e-01 |
| ## MAT2B        | -0.09002257 | 10.419263 | -1.3488380 | 1.817264e-01 | 3.631054e-01 |
| ## FURIN        | 0.09061896  | 7.382966  | 1.3488357  | 1.817271e-01 | 3.631054e-01 |
| ## LINC00668    | 0.19419172  | 5.011188  | 1.3487649  | 1.817497e-01 | 3.631159e-01 |
| ## SAMM50       | -0.11454296 | 8.255337  | -1.3487004 | 1.817704e-01 | 3.631222e-01 |
| ## SLC01A2      | -0.04104239 | 3.268162  | -1.3485264 | 1.818260e-01 | 3.631986e-01 |
| ## USO1         | 0.15559073  | 8.425048  | 1.3484458  | 1.818518e-01 | 3.632152e-01 |
| ## RAB6B        | -0.15660202 | 4.614189  | -1.3481896 | 1.819338e-01 | 3.633441e-01 |
| ## SON          | 0.13728481  | 8.114152  | 1.3478116  | 1.820548e-01 | 3.635321e-01 |
| ## CTSL         | 0.23661213  | 9.654185  | 1.3477864  | 1.820628e-01 | 3.635321e-01 |
| ## TMEM198      | -0.16572261 | 6.045082  | -1.3476238 | 1.821149e-01 | 3.636012e-01 |
| ## PRAMEF10     | -0.07384289 | 4.515085  | -1.3474338 | 1.821758e-01 | 3.636879e-01 |
| ## STBD1        | -0.05532041 | 3.717514  | -1.3473792 | 1.821933e-01 | 3.636879e-01 |
| ## AMMECR1L     | 0.09956852  | 8.005879  | 1.3472473  | 1.822355e-01 | 3.637374e-01 |
| ## OR1J2        | -0.06582660 | 4.293194  | -1.3470582 | 1.822961e-01 | 3.638235e-01 |
| ## KHDC1        | -0.10576217 | 4.689113  | -1.3469409 | 1.823337e-01 | 3.638345e-01 |
| ## ZNF629       | 0.08294877  | 7.255281  | 1.3469320  | 1.823366e-01 | 3.638345e-01 |
| ## NDST4        | -0.04479054 | 3.305344  | -1.3467870 | 1.823831e-01 | 3.638805e-01 |
| ## CDAN1        | 0.09321106  | 6.323590  | 1.3467510  | 1.823946e-01 | 3.638805e-01 |
| ## FAR2         | 0.06129325  | 3.558803  | 1.3465190  | 1.824690e-01 | 3.639940e-01 |
| ## TBX18        | -0.03576577 | 3.150762  | -1.3463996 | 1.825073e-01 | 3.640324e-01 |
| ## ACTR3BP2     | -0.07475644 | 4.032346  | -1.3463039 | 1.825380e-01 | 3.640324e-01 |
| ## TMEM245      | 0.20061854  | 7.822457  | 1.3462628  | 1.825512e-01 | 3.640324e-01 |
| ## ZNF843       | -0.07916205 | 5.318695  | -1.3462412 | 1.825581e-01 | 3.640324e-01 |
| ## SPAG1        | 0.30873326  | 6.855413  | 1.3458986  | 1.826680e-01 | 3.641879e-01 |
| ## LINC01419    | 0.03681342  | 3.188213  | 1.3458885  | 1.826713e-01 | 3.641879e-01 |
| ## BABAM2-AS1   | -0.14203407 | 4.658516  | -1.3457812 | 1.827057e-01 | 3.641879e-01 |
| ## KRT17        | 0.39569167  | 5.866817  | 1.3457802  | 1.827061e-01 | 3.641879e-01 |
| ## SEC14L4      | -0.07314144 | 4.461722  | -1.3455095 | 1.827930e-01 | 3.643263e-01 |
| ## NARS1        | 0.10858887  | 10.976353 | 1.3449626  | 1.829687e-01 | 3.646416e-01 |
| ## LINC01169    | -0.05763039 | 3.743436  | -1.3448514 | 1.830044e-01 | 3.646779e-01 |
| ## SPACA4       | 0.06538013  | 5.256104  | 1.3444754  | 1.831253e-01 | 3.648839e-01 |
| ## MLF1         | 0.04937104  | 3.761205  | 1.3440296  | 1.832687e-01 | 3.651267e-01 |
| ## TEL02        | 0.07857702  | 6.533660  | 1.3439876  | 1.832823e-01 | 3.651267e-01 |
| ## PADI2        | 0.03598442  | 3.395515  | 1.3438216  | 1.833357e-01 | 3.651982e-01 |
| ## LOC100131496 | 0.04214896  | 3.692169  | 1.3435307  | 1.834293e-01 | 3.653498e-01 |
| ## NIBAN3       | -0.06682268 | 4.450408  | -1.3434592 | 1.834524e-01 | 3.653607e-01 |
| ## FLRT2-AS1    | -0.03627853 | 3.367475  | -1.3432457 | 1.835211e-01 | 3.654627e-01 |
| ## CCDC88B      | -0.08120878 | 6.991304  | -1.3426468 | 1.837141e-01 | 3.658110e-01 |
| ## GPR150       | -0.09503873 | 4.299942  | -1.3425939 | 1.837312e-01 | 3.658110e-01 |
| ## ENOSF1       | -0.15254105 | 8.939996  | -1.3424278 | 1.837847e-01 | 3.658791e-01 |
| ## TMED7        | -0.14056559 | 8.679966  | -1.3423790 | 1.838005e-01 | 3.658791e-01 |
| ## CYGB         | -0.10943253 | 6.128672  | -1.3423000 | 1.838259e-01 | 3.658948e-01 |
| ## NEDD8        | 0.07211244  | 9.787136  | 1.3421183  | 1.838846e-01 | 3.659469e-01 |
| ## SHROOM2      | 0.18288059  | 4.571137  | 1.3421099  | 1.838873e-01 | 3.659469e-01 |
| ## PRICKLE2-AS3 | -0.04665403 | 3.394654  | -1.3419860 | 1.839272e-01 | 3.659915e-01 |
| ## DUS2         | 0.08050362  | 6.973050  | 1.3417698  | 1.839970e-01 | 3.660954e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## NRG1-IT1     | -0.04067129 | 3.645256  | -1.3414244 | 1.841085e-01 | 3.662642e-01 |
| ## LOC100128079 | -0.04699910 | 3.731626  | -1.3413980 | 1.841170e-01 | 3.662642e-01 |
| ## GPR132       | 0.06768942  | 4.323096  | 1.3411882  | 1.841848e-01 | 3.663434e-01 |
| ## C3AR1        | -0.22046787 | 8.127654  | -1.3411658 | 1.841921e-01 | 3.663434e-01 |
| ## MBTPS2       | -0.04286853 | 3.410853  | -1.3410953 | 1.842148e-01 | 3.663537e-01 |
| ## LOC101927723 | -0.03568750 | 3.258478  | -1.3407066 | 1.843404e-01 | 3.665409e-01 |
| ## LINC02525    | -0.05754796 | 3.456776  | -1.3406951 | 1.843441e-01 | 3.665409e-01 |
| ## LOC101927543 | -0.04728303 | 3.741363  | -1.3404543 | 1.844220e-01 | 3.666262e-01 |
| ## DNTTIP2      | 0.07939632  | 9.158853  | 1.3404533  | 1.844223e-01 | 3.666262e-01 |
| ## SLC1A4       | 0.16807692  | 7.303143  | 1.3403868  | 1.844438e-01 | 3.666340e-01 |
| ## GNE          | 0.30674362  | 7.315483  | 1.3402555  | 1.844863e-01 | 3.666834e-01 |
| ## THOC1        | 0.11705590  | 8.738238  | 1.3399447  | 1.845868e-01 | 3.668224e-01 |
| ## LOC100507389 | -0.04778814 | 3.593182  | -1.3399304 | 1.845914e-01 | 3.668224e-01 |
| ## HLA-DPB1     | -0.22027406 | 11.059381 | -1.3396342 | 1.846873e-01 | 3.669779e-01 |
| ## CLEC12A      | 0.15516587  | 4.018952  | 1.3395525  | 1.847137e-01 | 3.669954e-01 |
| ## A2MP1        | -0.07143739 | 3.931910  | -1.3394477 | 1.847476e-01 | 3.670079e-01 |
| ## CHD1         | 0.16075180  | 8.339052  | 1.3394242  | 1.847553e-01 | 3.670079e-01 |
| ## FRMD7        | 0.03551072  | 3.636494  | 1.3393188  | 1.847894e-01 | 3.670407e-01 |
| ## ALDH16A1     | 0.13790296  | 7.034393  | 1.3390082  | 1.848900e-01 | 3.671127e-01 |
| ## LOC101928817 | -0.04403601 | 4.220332  | -1.3389547 | 1.849073e-01 | 3.671127e-01 |
| ## TAS2R3       | -0.05676100 | 4.275308  | -1.3388228 | 1.849500e-01 | 3.671127e-01 |
| ## LINC01648    | -0.06408558 | 5.173737  | -1.3387341 | 1.849788e-01 | 3.671127e-01 |
| ## MC4R         | -0.06219239 | 4.003856  | -1.3386737 | 1.849984e-01 | 3.671127e-01 |
| ## SH3BGR13     | 0.13540953  | 9.765070  | 1.3386598  | 1.850029e-01 | 3.671127e-01 |
| ## F10          | -0.12721077 | 5.479675  | -1.3386525 | 1.850052e-01 | 3.671127e-01 |
| ## CYLC1        | 0.03882929  | 3.390603  | 1.3386468  | 1.850071e-01 | 3.671127e-01 |
| ## SELENOO      | 0.15798947  | 5.028729  | 1.3386012  | 1.850219e-01 | 3.671127e-01 |
| ## ZMAT4        | -0.05374583 | 4.622273  | -1.3385709 | 1.850317e-01 | 3.671127e-01 |
| ## CD37         | -0.27155059 | 6.627104  | -1.3385539 | 1.850372e-01 | 3.671127e-01 |
| ## IRX3         | -0.25837931 | 5.641698  | -1.3385539 | 1.850372e-01 | 3.671127e-01 |
| ## GCNA         | -0.09536628 | 4.802972  | -1.3382889 | 1.851231e-01 | 3.672481e-01 |
| ## KCNK9        | -0.04816938 | 4.134145  | -1.3380042 | 1.852154e-01 | 3.673963e-01 |
| ## KCNE5        | -0.05189276 | 4.003286  | -1.3376211 | 1.853398e-01 | 3.676079e-01 |
| ## CALHM4       | -0.05371651 | 3.708968  | -1.3373579 | 1.854252e-01 | 3.677423e-01 |
| ## RAD51        | 0.04597286  | 3.556511  | 1.3372452  | 1.854618e-01 | 3.677798e-01 |
| ## FCHSD2       | 0.06590881  | 4.303991  | 1.3367799  | 1.856129e-01 | 3.680445e-01 |
| ## OAZ1         | 0.05288338  | 12.814375 | 1.3366742  | 1.856472e-01 | 3.680775e-01 |
| ## SLC25A18     | -0.07354311 | 3.893364  | -1.3364115 | 1.857326e-01 | 3.682117e-01 |
| ## HSD17B1      | 0.11388701  | 4.119287  | 1.3361923  | 1.858039e-01 | 3.683180e-01 |
| ## ADAMTS9-AS1  | -0.04294297 | 3.282288  | -1.3360476 | 1.858509e-01 | 3.683762e-01 |
| ## MEIKIN       | -0.04062151 | 3.552011  | -1.3356898 | 1.859673e-01 | 3.685157e-01 |
| ## RSPH4A       | 0.03187007  | 3.215997  | 1.3356808  | 1.859703e-01 | 3.685157e-01 |
| ## LOC105374042 | 0.03078222  | 3.031465  | 1.3356680  | 1.859744e-01 | 3.685157e-01 |
| ## RTL9         | -0.04824557 | 3.647392  | -1.3350958 | 1.861607e-01 | 3.688497e-01 |
| ## CCNT2-AS1    | -0.06957957 | 3.946764  | -1.3346201 | 1.863156e-01 | 3.691216e-01 |
| ## STOML3       | -0.04120171 | 3.674655  | -1.3345178 | 1.863490e-01 | 3.691525e-01 |
| ## OCRL         | -0.15179920 | 7.149166  | -1.3341944 | 1.864544e-01 | 3.693262e-01 |
| ## FOXR1        | -0.06761292 | 3.652341  | -1.3341042 | 1.864838e-01 | 3.693493e-01 |
| ## HABP2        | -0.38792235 | 6.535656  | -1.3339001 | 1.865503e-01 | 3.694460e-01 |
| ## TRMT5        | 0.08803535  | 10.787726 | 1.3337417  | 1.866020e-01 | 3.695038e-01 |
| ## ZDHHC7       | -0.15225348 | 9.714112  | -1.3336435 | 1.866340e-01 | 3.695038e-01 |
| ## DGKE         | 0.04506888  | 3.636617  | 1.3335374  | 1.866687e-01 | 3.695038e-01 |
| ## RAB11B       | -0.10274616 | 6.069741  | -1.3335139 | 1.866763e-01 | 3.695038e-01 |
| ## LASP1        | 0.11060613  | 10.610471 | 1.3335112  | 1.866772e-01 | 3.695038e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## KRT81        | 0.24832035  | 6.024685  | 1.3334450  | 1.866988e-01 | 3.695038e-01 |
| ## NLRP6        | -0.08044795 | 3.882492  | -1.3334298 | 1.867038e-01 | 3.695038e-01 |
| ## FKBP7        | -0.07163116 | 3.696363  | -1.3333749 | 1.867217e-01 | 3.695042e-01 |
| ## LINC01927    | -0.06490747 | 4.993867  | -1.3332785 | 1.867531e-01 | 3.695313e-01 |
| ## WNT1         | -0.10915713 | 4.080249  | -1.3329921 | 1.868467e-01 | 3.696688e-01 |
| ## COX19        | 0.10021562  | 6.396283  | 1.3329570  | 1.868581e-01 | 3.696688e-01 |
| ## MUC19        | -0.16444764 | 3.780108  | -1.3328937 | 1.868788e-01 | 3.696746e-01 |
| ## ZNF224       | 0.13661226  | 6.777721  | 1.3315658  | 1.873128e-01 | 3.704980e-01 |
| ## POLR2J2      | 0.07640605  | 6.710326  | 1.3310771  | 1.874728e-01 | 3.707791e-01 |
| ## HMG5         | -0.05479736 | 3.660624  | -1.3309965 | 1.874991e-01 | 3.707960e-01 |
| ## LIG4         | 0.10431545  | 6.658018  | 1.3308542  | 1.875457e-01 | 3.708414e-01 |
| ## WRN          | 0.09305565  | 6.661249  | 1.3308176  | 1.875577e-01 | 3.708414e-01 |
| ## PYDC1        | 0.06477045  | 4.148797  | 1.3304053  | 1.876928e-01 | 3.710732e-01 |
| ## TP53BP1      | 0.05904029  | 3.764542  | 1.3301911  | 1.877629e-01 | 3.711767e-01 |
| ## SOX2-OT      | -0.03332742 | 3.158231  | -1.3300314 | 1.878153e-01 | 3.712450e-01 |
| ## C10orf53     | -0.08439410 | 4.366096  | -1.3299015 | 1.878579e-01 | 3.712804e-01 |
| ## OR5AK4P      | -0.06163180 | 3.824106  | -1.3298603 | 1.878714e-01 | 3.712804e-01 |
| ## EVI5L        | -0.10661374 | 5.778716  | -1.3298136 | 1.878867e-01 | 3.712804e-01 |
| ## C16orf78     | -0.07442704 | 3.831314  | -1.3294884 | 1.879934e-01 | 3.714559e-01 |
| ## NUCB2        | -0.21927477 | 9.069781  | -1.3293121 | 1.880512e-01 | 3.714947e-01 |
| ## LINC01215    | -0.16033590 | 3.656595  | -1.3292727 | 1.880641e-01 | 3.714947e-01 |
| ## MORC2-AS1    | 0.14079925  | 6.682697  | 1.3292654  | 1.880665e-01 | 3.714947e-01 |
| ## XRCC2        | -0.08257704 | 6.345194  | -1.3290143 | 1.881489e-01 | 3.716223e-01 |
| ## CD79B        | -0.10069380 | 4.446653  | -1.3289374 | 1.881742e-01 | 3.716369e-01 |
| ## CACNA1I      | -0.08163092 | 6.024113  | -1.3288240 | 1.882114e-01 | 3.716752e-01 |
| ## CRNN         | 0.26397069  | 4.702994  | 1.3284973  | 1.883187e-01 | 3.718517e-01 |
| ## FUT7         | 0.06732060  | 3.883153  | 1.3278344  | 1.885365e-01 | 3.722466e-01 |
| ## CCDC197      | -0.06377862 | 4.078284  | -1.3275615 | 1.886263e-01 | 3.723885e-01 |
| ## TMEM128      | -0.12030693 | 7.892106  | -1.3274358 | 1.886676e-01 | 3.724348e-01 |
| ## ZNF251       | -0.14611166 | 6.174338  | -1.3273152 | 1.887073e-01 | 3.724778e-01 |
| ## CBARP        | -0.13032311 | 4.528274  | -1.3272138 | 1.887406e-01 | 3.725083e-01 |
| ## LINC01904    | -0.05463558 | 3.979852  | -1.3270830 | 1.887837e-01 | 3.725579e-01 |
| ## LOC100507351 | -0.07471725 | 4.042010  | -1.3269869 | 1.888153e-01 | 3.725851e-01 |
| ## NAB2         | 0.15026569  | 6.390686  | 1.3268405  | 1.888635e-01 | 3.726448e-01 |
| ## VOPP1        | 0.12780385  | 9.579071  | 1.3266508  | 1.889259e-01 | 3.727292e-01 |
| ## PPARA        | 0.11261219  | 5.923825  | 1.3266019  | 1.889421e-01 | 3.727292e-01 |
| ## PGF          | 0.10551490  | 5.622525  | 1.3262423  | 1.890605e-01 | 3.729275e-01 |
| ## ATP8B5P      | -0.03502329 | 3.234986  | -1.3258064 | 1.892042e-01 | 3.731755e-01 |
| ## LMX1A-AS1    | -0.06337311 | 4.300807  | -1.3256806 | 1.892456e-01 | 3.731892e-01 |
| ## RPL39        | -0.03411158 | 13.624430 | -1.3256766 | 1.892469e-01 | 3.731892e-01 |
| ## DNAJC30      | 0.11942598  | 7.443877  | 1.3253374  | 1.893588e-01 | 3.733744e-01 |
| ## SVIL-AS1     | 0.09933170  | 5.878319  | 1.3252335  | 1.893930e-01 | 3.734066e-01 |
| ## NT5DC2       | 0.07744917  | 4.342210  | 1.3247497  | 1.895527e-01 | 3.736578e-01 |
| ## LTK          | -0.13252039 | 5.533424  | -1.3247387 | 1.895563e-01 | 3.736578e-01 |
| ## ATP1A3       | -0.08537741 | 4.168780  | -1.3246558 | 1.895837e-01 | 3.736764e-01 |
| ## CENPC        | -0.10871887 | 6.325262  | -1.3241813 | 1.897404e-01 | 3.739498e-01 |
| ## C17orf78     | -0.30467419 | 3.967137  | -1.3240332 | 1.897893e-01 | 3.740109e-01 |
| ## GOLPH3L      | -0.15194982 | 8.833303  | -1.3238458 | 1.898512e-01 | 3.740975e-01 |
| ## LINC02059    | 0.03543264  | 3.208178  | 1.3235530  | 1.899480e-01 | 3.742528e-01 |
| ## ZNF594-DT    | -0.04614226 | 4.311613  | -1.3232904 | 1.900349e-01 | 3.743885e-01 |
| ## KIF13A       | 0.19909669  | 4.926962  | 1.3229460  | 1.901488e-01 | 3.745775e-01 |
| ## TRMT2A       | 0.06584766  | 6.570502  | 1.3228272  | 1.901881e-01 | 3.746195e-01 |
| ## LCE1E        | -0.09965927 | 5.086944  | -1.3226434 | 1.902489e-01 | 3.747039e-01 |
| ## LINC02899    | -0.08768156 | 3.728075  | -1.3225397 | 1.902833e-01 | 3.747360e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## B4GALNT2     | -0.08562962 | 3.971151  | -1.3223776 | 1.903369e-01 | 3.747765e-01 |
| ## ZNF646       | 0.07045285  | 6.332796  | 1.3223688  | 1.903398e-01 | 3.747765e-01 |
| ## TMM222       | -0.08947665 | 7.649168  | -1.3220362 | 1.904500e-01 | 3.749580e-01 |
| ## DMBT1        | 0.76199710  | 9.502023  | 1.3218770  | 1.905027e-01 | 3.750264e-01 |
| ## EOLA2        | 0.08899353  | 8.236970  | 1.3217052  | 1.905597e-01 | 3.750704e-01 |
| ## SWI5         | 0.14239871  | 7.013600  | 1.3216780  | 1.905687e-01 | 3.750704e-01 |
| ## L3MBTL1      | 0.13468424  | 4.545232  | 1.3216465  | 1.905791e-01 | 3.750704e-01 |
| ## IVNS1ABP     | 0.16952043  | 8.699011  | 1.3214600  | 1.906409e-01 | 3.751551e-01 |
| ## EBLN2        | 0.10969011  | 6.766298  | 1.3213849  | 1.906659e-01 | 3.751551e-01 |
| ## HLA-DOB      | -0.07058708 | 4.619174  | -1.3213535 | 1.906762e-01 | 3.751551e-01 |
| ## KCNQ1        | -0.23033114 | 8.045232  | -1.3211184 | 1.907542e-01 | 3.752731e-01 |
| ## PTPN11       | -0.05050060 | 3.764868  | -1.3210431 | 1.907792e-01 | 3.752867e-01 |
| ## CCDC154      | -0.09067442 | 5.598191  | -1.3208260 | 1.908512e-01 | 3.753710e-01 |
| ## A1BG         | -0.06229626 | 4.679183  | -1.3207741 | 1.908684e-01 | 3.753710e-01 |
| ## LIN7B        | -0.10142862 | 5.273683  | -1.3207510 | 1.908761e-01 | 3.753710e-01 |
| ## STRC         | -0.06138864 | 4.902119  | -1.3206164 | 1.909208e-01 | 3.754061e-01 |
| ## PWWP2B       | 0.12829180  | 7.010298  | 1.3205885  | 1.909300e-01 | 3.754061e-01 |
| ## BLOC1S6      | 0.14596279  | 8.559537  | 1.3204589  | 1.909730e-01 | 3.754354e-01 |
| ## PRKG2        | -0.06073242 | 3.768801  | -1.3203997 | 1.909927e-01 | 3.754354e-01 |
| ## PSORS1C1     | 0.11772527  | 4.258623  | 1.3203808  | 1.909989e-01 | 3.754354e-01 |
| ## ZNF563       | -0.04970462 | 3.915156  | -1.3200291 | 1.911157e-01 | 3.755735e-01 |
| ## NANOS2       | 0.05723535  | 3.865471  | 1.3199953  | 1.911270e-01 | 3.755735e-01 |
| ## DDX41        | 0.09303297  | 8.327445  | 1.3199822  | 1.911313e-01 | 3.755735e-01 |
| ## TP53TG3HP    | -0.04256471 | 4.668401  | -1.3199272 | 1.911496e-01 | 3.755735e-01 |
| ## PELP1        | 0.10065310  | 6.999357  | 1.3198976  | 1.911594e-01 | 3.755735e-01 |
| ## TRAM2-AS1    | -0.13305562 | 5.966979  | -1.3198329 | 1.911809e-01 | 3.755803e-01 |
| ## NAXD         | -0.12288801 | 9.276225  | -1.3197662 | 1.912031e-01 | 3.755885e-01 |
| ## ATP5F1B      | 0.10951513  | 11.245290 | 1.3195858  | 1.912630e-01 | 3.756581e-01 |
| ## LINC02754    | -0.27943828 | 7.571059  | -1.3195153 | 1.912865e-01 | 3.756581e-01 |
| ## LINC01016    | -0.07424411 | 4.844978  | -1.3193771 | 1.913324e-01 | 3.756581e-01 |
| ## RAD23B       | 0.22186334  | 10.227746 | 1.3193408  | 1.913445e-01 | 3.756581e-01 |
| ## MRPL10       | 0.09968423  | 8.330085  | 1.3193366  | 1.913458e-01 | 3.756581e-01 |
| ## EPHA6        | -0.03417332 | 3.250275  | -1.3193314 | 1.913476e-01 | 3.756581e-01 |
| ## ROMO1        | 0.10903748  | 8.782592  | 1.3192795  | 1.913648e-01 | 3.756581e-01 |
| ## IFI27        | 0.27640762  | 11.146074 | 1.3189135  | 1.914865e-01 | 3.758616e-01 |
| ## DYSF         | 0.13736092  | 7.552385  | 1.3188272  | 1.915153e-01 | 3.758825e-01 |
| ## GRIK1-AS1    | 0.05875954  | 4.200489  | 1.3184930  | 1.916265e-01 | 3.760604e-01 |
| ## CMTM3        | -0.11943890 | 4.630819  | -1.3184463 | 1.916420e-01 | 3.760604e-01 |
| ## CCDC62       | -0.04808677 | 4.396070  | -1.3181113 | 1.917535e-01 | 3.762061e-01 |
| ## MELTF        | 0.06252186  | 4.924382  | 1.3180310  | 1.917802e-01 | 3.762061e-01 |
| ## CATSPERB     | 0.06690519  | 3.625459  | 1.3179723  | 1.917998e-01 | 3.762061e-01 |
| ## LINC01697    | -0.05367015 | 3.693320  | -1.3179582 | 1.918045e-01 | 3.762061e-01 |
| ## C5orf24      | 0.15361088  | 4.694380  | 1.3179520  | 1.918066e-01 | 3.762061e-01 |
| ## GCSAM        | -0.05722660 | 3.687936  | -1.3176034 | 1.919227e-01 | 3.763984e-01 |
| ## LOC105370549 | -0.04714255 | 3.415114  | -1.3174731 | 1.919661e-01 | 3.764426e-01 |
| ## LINC01425    | -0.05132163 | 4.569052  | -1.3174272 | 1.919814e-01 | 3.764426e-01 |
| ## ISM1         | -0.10261407 | 3.721201  | -1.3173709 | 1.920002e-01 | 3.764440e-01 |
| ## OR7E12P      | 0.12898059  | 5.895302  | 1.3171042  | 1.920891e-01 | 3.765828e-01 |
| ## VPS11        | -0.06333333 | 7.276629  | -1.3169490 | 1.921408e-01 | 3.766488e-01 |
| ## LOC285847    | -0.07209543 | 5.256390  | -1.3167519 | 1.922066e-01 | 3.766974e-01 |
| ## DGCR2        | 0.08454603  | 6.174207  | 1.3167157  | 1.922186e-01 | 3.766974e-01 |
| ## LINC00396    | -0.05354802 | 3.783469  | -1.3167047 | 1.922223e-01 | 3.766974e-01 |
| ## TCF7         | -0.09466203 | 4.930950  | -1.3166577 | 1.922380e-01 | 3.766974e-01 |
| ## GPRC5D       | -0.07771112 | 4.504307  | -1.3163162 | 1.923519e-01 | 3.768500e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## BLID         | -0.04877745 | 3.647822  | -1.3163159 | 1.923520e-01 | 3.768500e-01 |
| ## USP48        | 0.12874181  | 6.036849  | 1.3161339  | 1.924128e-01 | 3.769336e-01 |
| ## CHST7        | -0.13598795 | 5.192566  | -1.3159876 | 1.924616e-01 | 3.769885e-01 |
| ## MAC01        | 0.09382079  | 6.940504  | 1.3159415  | 1.924770e-01 | 3.769885e-01 |
| ## SYT2         | -0.08674634 | 5.704657  | -1.3156373 | 1.925786e-01 | 3.771520e-01 |
| ## ZDHC12       | 0.12161220  | 7.133868  | 1.3150897  | 1.927616e-01 | 3.774748e-01 |
| ## ITPKA        | -0.19057040 | 6.195690  | -1.3149720 | 1.928009e-01 | 3.775164e-01 |
| ## LINC01905    | -0.05231553 | 4.070043  | -1.3148790 | 1.928320e-01 | 3.775418e-01 |
| ## NSUN7        | 0.03955130  | 3.469120  | 1.3148169  | 1.928528e-01 | 3.775470e-01 |
| ## B2M          | -0.04327328 | 13.431862 | -1.3145651 | 1.929370e-01 | 3.776763e-01 |
| ## SLC30A8      | -0.05776578 | 3.990871  | -1.3144423 | 1.929781e-01 | 3.777187e-01 |
| ## NFKB1        | 0.11125996  | 8.173784  | 1.3143920  | 1.929949e-01 | 3.777187e-01 |
| ## FDFT1        | 0.21736328  | 10.517377 | 1.3142891  | 1.930294e-01 | 3.777505e-01 |
| ## IL22         | 0.04965199  | 4.124214  | 1.3141320  | 1.930819e-01 | 3.778179e-01 |
| ## TBC1D19      | -0.15927165 | 5.238079  | -1.3137475 | 1.932107e-01 | 3.780137e-01 |
| ## RETNLB       | -0.24069029 | 4.845247  | -1.3136486 | 1.932438e-01 | 3.780137e-01 |
| ## ACADVL       | -0.14361888 | 10.447621 | -1.3136484 | 1.932438e-01 | 3.780137e-01 |
| ## QARS1        | 0.09320367  | 10.624769 | 1.3135352  | 1.932818e-01 | 3.780137e-01 |
| ## MBTD1        | 0.05883798  | 4.040033  | 1.3135320  | 1.932828e-01 | 3.780137e-01 |
| ## MRPL23       | -0.06269458 | 4.434592  | -1.3135078 | 1.932909e-01 | 3.780137e-01 |
| ## ZNF45        | 0.12229080  | 5.121014  | 1.3133296  | 1.933506e-01 | 3.780762e-01 |
| ## ABHD2        | 0.20435837  | 7.650238  | 1.3132876  | 1.933647e-01 | 3.780762e-01 |
| ## FSIP1        | -0.04446565 | 3.526007  | -1.3132500 | 1.933773e-01 | 3.780762e-01 |
| ## LINC01114    | -0.06992265 | 4.270245  | -1.3131931 | 1.933964e-01 | 3.780779e-01 |
| ## H2AC18       | 0.09707295  | 4.430436  | 1.3129656  | 1.934726e-01 | 3.781502e-01 |
| ## PCGEM1       | -0.04433386 | 4.064592  | -1.3129625 | 1.934737e-01 | 3.781502e-01 |
| ## DUSP1        | -0.20967214 | 11.499290 | -1.3129202 | 1.934878e-01 | 3.781502e-01 |
| ## OR2A4        | 0.10406660  | 4.220471  | 1.3128042  | 1.935267e-01 | 3.781907e-01 |
| ## BPIFA3       | -0.07050685 | 4.778658  | -1.3126859 | 1.935664e-01 | 3.782177e-01 |
| ## KCNG2        | 0.09030284  | 4.345912  | 1.3126548  | 1.935768e-01 | 3.782177e-01 |
| ## TRPC4        | -0.09275173 | 3.419740  | -1.3123133 | 1.936914e-01 | 3.784060e-01 |
| ## BPHL         | 0.12012269  | 6.490856  | 1.3121569  | 1.937438e-01 | 3.784551e-01 |
| ## TSPAN6       | 0.29447650  | 8.431118  | 1.3121300  | 1.937529e-01 | 3.784551e-01 |
| ## COX7A2L      | 0.09156871  | 9.627124  | 1.3117998  | 1.938637e-01 | 3.786351e-01 |
| ## CLCF1        | 0.11596118  | 6.491167  | 1.3117471  | 1.938814e-01 | 3.786351e-01 |
| ## PLD6         | 0.13887807  | 5.734344  | 1.3111320  | 1.940880e-01 | 3.790030e-01 |
| ## LOC101930028 | -0.03122703 | 3.301479  | -1.3109684 | 1.941430e-01 | 3.790748e-01 |
| ## PRR9         | 0.18450331  | 3.769732  | 1.3108020  | 1.941989e-01 | 3.791485e-01 |
| ## LINC00163    | -0.04835310 | 4.286617  | -1.3106702 | 1.942432e-01 | 3.791994e-01 |
| ## CEACAM8      | 0.05973267  | 3.324718  | 1.3105780  | 1.942742e-01 | 3.792244e-01 |
| ## ALK          | -0.05415974 | 3.968028  | -1.3104421 | 1.943199e-01 | 3.792780e-01 |
| ## DCST1        | -0.09277321 | 4.756189  | -1.3101400 | 1.944215e-01 | 3.794408e-01 |
| ## IL6R         | -0.21778804 | 5.388377  | -1.3100310 | 1.944582e-01 | 3.794768e-01 |
| ## TMEM207      | -0.05585453 | 3.874075  | -1.3098920 | 1.945050e-01 | 3.795326e-01 |
| ## BPIFB2       | -0.05654318 | 4.889265  | -1.3097554 | 1.945509e-01 | 3.795867e-01 |
| ## PLCZ1        | -0.05023833 | 3.587195  | -1.3095092 | 1.946338e-01 | 3.797128e-01 |
| ## KRI1         | 0.08154285  | 6.889972  | 1.3093505  | 1.946873e-01 | 3.797815e-01 |
| ## SERPIND1     | 0.12628765  | 3.671801  | 1.3091773  | 1.947456e-01 | 3.798597e-01 |
| ## LINC00638    | -0.06531310 | 5.038448  | -1.3091216 | 1.947644e-01 | 3.798608e-01 |
| ## OR5L2        | -0.08121188 | 4.471087  | -1.3085485 | 1.949575e-01 | 3.801275e-01 |
| ## ZNF296       | 0.10559813  | 5.020227  | 1.3085399  | 1.949604e-01 | 3.801275e-01 |
| ## ASCL5        | 0.06457704  | 3.921828  | 1.3085135  | 1.949693e-01 | 3.801275e-01 |
| ## HLA-F-AS1    | 0.03896374  | 3.211377  | 1.3084490  | 1.949910e-01 | 3.801275e-01 |
| ## GPBP1L1      | 0.18337940  | 7.464091  | 1.3084450  | 1.949924e-01 | 3.801275e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## VPS29        | 0.07153647  | 5.706742  | 1.3081282  | 1.950992e-01 | 3.803002e-01 |
| ## LOC105372485 | 0.09178890  | 5.444497  | 1.3079448  | 1.951611e-01 | 3.803851e-01 |
| ## LINC00463    | -0.05888665 | 4.309381  | -1.3077790 | 1.952171e-01 | 3.804586e-01 |
| ## TEDDM1       | -0.04070478 | 3.445360  | -1.3074176 | 1.953390e-01 | 3.806607e-01 |
| ## ACSF2        | -0.18752165 | 7.256828  | -1.3072368 | 1.954001e-01 | 3.807440e-01 |
| ## OBSCN        | 0.05109161  | 4.151050  | 1.3071706  | 1.954225e-01 | 3.807512e-01 |
| ## SIPA1        | 0.10155229  | 6.249410  | 1.3071176  | 1.954403e-01 | 3.807512e-01 |
| ## HIGD1B       | -0.11076269 | 5.496013  | -1.3069560 | 1.954949e-01 | 3.808219e-01 |
| ## CHN2         | -0.15985746 | 4.882755  | -1.3067928 | 1.955501e-01 | 3.808937e-01 |
| ## HES1         | -0.06702981 | 3.808936  | -1.3066756 | 1.955897e-01 | 3.809352e-01 |
| ## SLC28A1      | -0.07918190 | 5.438101  | -1.3065648 | 1.956271e-01 | 3.809725e-01 |
| ## EDNRA        | -0.32529453 | 6.855733  | -1.3065098 | 1.956457e-01 | 3.809731e-01 |
| ## MCHR1        | -0.07516899 | 3.948188  | -1.3064544 | 1.956645e-01 | 3.809740e-01 |
| ## KLF17        | -0.05494523 | 4.195276  | -1.3062971 | 1.957176e-01 | 3.810419e-01 |
| ## MTHFD2L      | 0.08101864  | 3.969699  | 1.3061119  | 1.957803e-01 | 3.811282e-01 |
| ## LINC01547    | -0.05578826 | 5.853703  | -1.3059835 | 1.958237e-01 | 3.811771e-01 |
| ## ZNF500       | -0.09119481 | 5.818029  | -1.3059130 | 1.958475e-01 | 3.811855e-01 |
| ## FMNL3        | -0.14707211 | 4.910167  | -1.3058626 | 1.958646e-01 | 3.811855e-01 |
| ## WDR3         | 0.04800318  | 3.414568  | 1.3057775  | 1.958934e-01 | 3.812059e-01 |
| ## MGST1        | 0.39371471  | 8.360205  | 1.3053967  | 1.960223e-01 | 3.814210e-01 |
| ## SPAG8        | -0.10035706 | 4.627994  | -1.3052343 | 1.960772e-01 | 3.814510e-01 |
| ## DDX52        | 0.05814696  | 3.555066  | 1.3051980  | 1.960895e-01 | 3.814510e-01 |
| ## ITPRIP       | 0.15515549  | 6.894336  | 1.3051889  | 1.960926e-01 | 3.814510e-01 |
| ## CDKN2B-AS1   | -0.04209474 | 3.466760  | -1.3051031 | 1.961217e-01 | 3.814718e-01 |
| ## GCNT4        | -0.06627645 | 3.737726  | -1.3050277 | 1.961472e-01 | 3.814859e-01 |
| ## PDE6C        | -0.02972051 | 3.104308  | -1.3048661 | 1.962019e-01 | 3.815567e-01 |
| ## BTBD7        | -0.11043838 | 7.174832  | -1.3043992 | 1.963601e-01 | 3.817828e-01 |
| ## RAB7B        | -0.08695112 | 5.707580  | -1.3043677 | 1.963708e-01 | 3.817828e-01 |
| ## LNX2         | 0.20186525  | 8.587494  | 1.3043607  | 1.963732e-01 | 3.817828e-01 |
| ## OSTM1        | -0.16236502 | 7.434893  | -1.3040810 | 1.964680e-01 | 3.818927e-01 |
| ## SART1        | 0.08926071  | 7.486751  | 1.3040460  | 1.964799e-01 | 3.818927e-01 |
| ## IGFBPL1      | 0.24175225  | 4.714133  | 1.3040317  | 1.964847e-01 | 3.818927e-01 |
| ## DSC3         | 0.16159474  | 3.620098  | 1.3039477  | 1.965132e-01 | 3.819124e-01 |
| ## NAA60        | -0.10494719 | 6.989791  | -1.3036500 | 1.966142e-01 | 3.820730e-01 |
| ## VGLL1        | 0.17995305  | 4.851456  | 1.3035178  | 1.966590e-01 | 3.821245e-01 |
| ## PI4K2B       | 0.14943480  | 7.810878  | 1.3033409  | 1.967191e-01 | 3.822055e-01 |
| ## ZNF507       | -0.06042372 | 3.978697  | -1.3030722 | 1.968103e-01 | 3.823271e-01 |
| ## SMURF1       | 0.15384913  | 7.794206  | 1.3029688  | 1.968454e-01 | 3.823271e-01 |
| ## ZNF432       | 0.16909730  | 7.273600  | 1.3029145  | 1.968638e-01 | 3.823271e-01 |
| ## DCUN1D1      | 0.11226141  | 8.280970  | 1.3028805  | 1.968754e-01 | 3.823271e-01 |
| ## MIR4296      | 0.07531288  | 4.270264  | 1.3028766  | 1.968767e-01 | 3.823271e-01 |
| ## BACH1        | 0.14290342  | 7.709801  | 1.3028320  | 1.968919e-01 | 3.823271e-01 |
| ## MAGED1       | -0.19250258 | 10.526545 | -1.3025862 | 1.969753e-01 | 3.824536e-01 |
| ## ZNF708       | -0.09742924 | 4.207573  | -1.3024484 | 1.970222e-01 | 3.824809e-01 |
| ## ZNF17        | 0.04048362  | 3.597045  | 1.3024367  | 1.970262e-01 | 3.824809e-01 |
| ## LINC02909    | -0.03638958 | 3.336770  | -1.3022477 | 1.970904e-01 | 3.825700e-01 |
| ## ARID1B       | -0.09443838 | 7.799797  | -1.3019487 | 1.971921e-01 | 3.827316e-01 |
| ## COX18        | -0.11092100 | 8.242705  | -1.3018285 | 1.972329e-01 | 3.827331e-01 |
| ## RSU1         | 0.04492351  | 3.825306  | 1.3018196  | 1.972360e-01 | 3.827331e-01 |
| ## MRTFA        | -0.16033754 | 5.911291  | -1.3017843 | 1.972479e-01 | 3.827331e-01 |
| ## PLEKHA3      | -0.10662751 | 8.109111  | -1.3014466 | 1.973628e-01 | 3.829203e-01 |
| ## FRY-AS1      | -0.02922614 | 3.197525  | -1.3009814 | 1.975212e-01 | 3.831918e-01 |
| ## FGF20        | 0.20599732  | 4.002777  | 1.3005364  | 1.976727e-01 | 3.834500e-01 |
| ## SUPT6H       | 0.06788861  | 3.495719  | 1.3003258  | 1.977444e-01 | 3.835534e-01 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## KAT6A      | -0.05544971 | 3.901022  | -1.3002412 | 1.977733e-01 | 3.835737e-01 |
| ## FMN2       | -0.10736073 | 3.480406  | -1.3000634 | 1.978339e-01 | 3.836555e-01 |
| ## PNPLA5     | -0.06625847 | 4.733216  | -1.2992197 | 1.981216e-01 | 3.841776e-01 |
| ## TPO        | -0.09315437 | 4.113624  | -1.2990269 | 1.981874e-01 | 3.842652e-01 |
| ## DYRK1B     | 0.08940849  | 4.893126  | 1.2989773  | 1.982043e-01 | 3.842652e-01 |
| ## SLIT1      | 0.07055122  | 4.214094  | 1.2989253  | 1.982221e-01 | 3.842652e-01 |
| ## HPS1       | -0.07125711 | 7.039378  | -1.2988162 | 1.982593e-01 | 3.843016e-01 |
| ## S100A5     | 0.06336223  | 4.469061  | 1.2983122  | 1.984314e-01 | 3.845994e-01 |
| ## CIC        | -0.08693707 | 7.102534  | -1.2981700 | 1.984800e-01 | 3.846472e-01 |
| ## CALB2      | 0.18774403  | 4.952077  | 1.2981319  | 1.984930e-01 | 3.846472e-01 |
| ## AMOTL2     | -0.19421225 | 7.994126  | -1.2980705 | 1.985140e-01 | 3.846521e-01 |
| ## ZC2HC1B    | -0.08511958 | 3.673038  | -1.2979928 | 1.985406e-01 | 3.846677e-01 |
| ## MUC12-AS1  | -0.09470482 | 6.150250  | -1.2978678 | 1.985833e-01 | 3.847147e-01 |
| ## CHD1L      | 0.11950217  | 7.948704  | 1.2977030  | 1.986396e-01 | 3.847880e-01 |
| ## SPOCK3     | -0.05883824 | 3.302972  | -1.2976482 | 1.986583e-01 | 3.847885e-01 |
| ## RPL35A     | -0.08235969 | 12.440909 | -1.2975665 | 1.986863e-01 | 3.848068e-01 |
| ## NAPEPLD    | -0.24151084 | 7.438996  | -1.2969079 | 1.989116e-01 | 3.852074e-01 |
| ## CSMD2-AS1  | -0.09312395 | 5.062060  | -1.2967517 | 1.989651e-01 | 3.852751e-01 |
| ## TMEM132D   | -0.07343984 | 3.785617  | -1.2964413 | 1.990713e-01 | 3.854450e-01 |
| ## SPATA2L    | 0.11700508  | 7.479111  | 1.2962649  | 1.991317e-01 | 3.855046e-01 |
| ## DEUP1      | 0.03148530  | 3.247708  | 1.2961928  | 1.991564e-01 | 3.855046e-01 |
| ## UPF2       | 0.11623065  | 8.044303  | 1.2961893  | 1.991576e-01 | 3.855046e-01 |
| ## SNHG27     | -0.07796534 | 3.636315  | -1.2960512 | 1.992050e-01 | 3.855604e-01 |
| ## KCNAB1     | -0.05703685 | 3.977491  | -1.2959823 | 1.992286e-01 | 3.855702e-01 |
| ## SLC39A12   | -0.03832774 | 3.330117  | -1.2958078 | 1.992883e-01 | 3.856501e-01 |
| ## GALNT9     | -0.07555415 | 5.812449  | -1.2956993 | 1.993255e-01 | 3.856862e-01 |
| ## SPRY4      | 0.25265571  | 7.607042  | 1.2956397  | 1.993460e-01 | 3.856899e-01 |
| ## BCL11A     | 0.23354108  | 5.769161  | 1.2949186  | 1.995933e-01 | 3.860602e-01 |
| ## CYB561D1   | -0.09535332 | 7.402900  | -1.2948999 | 1.995997e-01 | 3.860602e-01 |
| ## VASH1-AS1  | -0.05568072 | 5.234778  | -1.2948895 | 1.996032e-01 | 3.860602e-01 |
| ## ORM1       | -0.56339929 | 5.499511  | -1.2948654 | 1.996115e-01 | 3.860602e-01 |
| ## KRT14      | 0.35333051  | 4.189332  | 1.2947794  | 1.996410e-01 | 3.860815e-01 |
| ## ZNF37A     | 0.06967933  | 3.768146  | 1.2947128  | 1.996639e-01 | 3.860898e-01 |
| ## UCP3       | -0.06517088 | 4.100391  | -1.2946014 | 1.997021e-01 | 3.861279e-01 |
| ## SLC9A3-AS1 | 0.28184892  | 5.938190  | 1.2945333  | 1.997255e-01 | 3.861372e-01 |
| ## RAB1F      | 0.08998323  | 6.602835  | 1.2942817  | 1.998119e-01 | 3.862683e-01 |
| ## NRXN1      | 0.02747186  | 3.119533  | 1.2942139  | 1.998352e-01 | 3.862775e-01 |
| ## ATG16L2    | -0.11764347 | 5.924184  | -1.2940032 | 1.999075e-01 | 3.863539e-01 |
| ## USP46      | 0.17068257  | 5.895649  | 1.2939908  | 1.999118e-01 | 3.863539e-01 |
| ## DIS3       | 0.12257358  | 6.215624  | 1.2937983  | 1.999779e-01 | 3.864459e-01 |
| ## ITGB2      | 0.25968454  | 7.928473  | 1.2932896  | 2.001528e-01 | 3.867317e-01 |
| ## RUNX1T1    | -0.03676155 | 3.398840  | -1.2932598 | 2.001630e-01 | 3.867317e-01 |
| ## WWTR1-AS1  | -0.07178401 | 4.267228  | -1.2930738 | 2.002270e-01 | 3.868192e-01 |
| ## NFE2L1     | 0.09946194  | 9.290619  | 1.2930202  | 2.002454e-01 | 3.868192e-01 |
| ## SMIM1      | 0.07813259  | 5.336826  | 1.2929314  | 2.002760e-01 | 3.868423e-01 |
| ## SNHG29     | -0.14297055 | 8.726652  | -1.2926908 | 2.003587e-01 | 3.869444e-01 |
| ## EP400      | -0.11894903 | 7.575202  | -1.2926697 | 2.003660e-01 | 3.869444e-01 |
| ## IFT80      | -0.16014235 | 7.966585  | -1.2925250 | 2.004158e-01 | 3.870047e-01 |
| ## VAMP7      | 0.09600926  | 9.007006  | 1.2922222  | 2.005200e-01 | 3.871700e-01 |
| ## SLC44A2    | -0.15538363 | 7.836332  | -1.2921445 | 2.005468e-01 | 3.871858e-01 |
| ## LPAR5      | -0.18569789 | 6.786504  | -1.2919629 | 2.006093e-01 | 3.872706e-01 |
| ## PSD4       | 0.12249402  | 6.787330  | 1.2918050  | 2.006637e-01 | 3.873150e-01 |
| ## ZNF28      | 0.03835310  | 3.411766  | 1.2917882  | 2.006695e-01 | 3.873150e-01 |
| ## CLIP1      | 0.22450024  | 6.106095  | 1.2915427  | 2.007541e-01 | 3.874424e-01 |



|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## FBN1       | -0.26557494 | 7.877346  | -1.2914006 | 2.008030e-01 | 3.874868e-01 |
| ## NR2E1      | -0.05598394 | 3.546379  | -1.2913678 | 2.008144e-01 | 3.874868e-01 |
| ## SUN5       | 0.05741741  | 4.802230  | 1.2910795  | 2.009137e-01 | 3.876334e-01 |
| ## TFDP3      | -0.07534796 | 4.307832  | -1.2910395 | 2.009275e-01 | 3.876334e-01 |
| ## ACP5       | 0.26949346  | 8.154152  | 1.2907413  | 2.010304e-01 | 3.877959e-01 |
| ## HBE1       | -0.09436277 | 4.929852  | -1.2906400 | 2.010653e-01 | 3.878273e-01 |
| ## SLC22A24   | -0.05974292 | 3.844133  | -1.2904466 | 2.011320e-01 | 3.879201e-01 |
| ## FLJ12825   | -0.04390202 | 3.903223  | -1.2899516 | 2.013029e-01 | 3.882137e-01 |
| ## GRIN3B     | -0.06828301 | 4.999822  | -1.2898316 | 2.013444e-01 | 3.882283e-01 |
| ## TRAPPC6B   | -0.11904075 | 7.301546  | -1.2898218 | 2.013477e-01 | 3.882283e-01 |
| ## PCP2       | -0.09461605 | 4.179506  | -1.2897206 | 2.013827e-01 | 3.882597e-01 |
| ## FMO3       | -0.25300845 | 6.012750  | -1.2896488 | 2.014075e-01 | 3.882716e-01 |
| ## C8G        | 0.22002696  | 4.344051  | 1.2895914  | 2.014273e-01 | 3.882738e-01 |
| ## ARHGAP19   | 0.10469693  | 6.716617  | 1.2895359  | 2.014465e-01 | 3.882749e-01 |
| ## SLC25A15   | 0.19419747  | 7.582905  | 1.2893272  | 2.015186e-01 | 3.883779e-01 |
| ## GSG1       | -0.06254027 | 3.737175  | -1.2892379 | 2.015495e-01 | 3.884014e-01 |
| ## NLN        | 0.03252375  | 3.263103  | 1.2891238  | 2.015889e-01 | 3.884415e-01 |
| ## FZD6       | 0.20202530  | 7.870927  | 1.2890202  | 2.016247e-01 | 3.884667e-01 |
| ## SNORA17B   | -0.06497248 | 5.528391  | -1.2889780 | 2.016393e-01 | 3.884667e-01 |
| ## TEC        | 0.06885327  | 4.697789  | 1.2889150  | 2.016611e-01 | 3.884727e-01 |
| ## LCP1       | 0.23745513  | 8.496614  | 1.2885289  | 2.017946e-01 | 3.886941e-01 |
| ## ZSCAN22    | -0.07821312 | 4.984444  | -1.2883537 | 2.018552e-01 | 3.887415e-01 |
| ## IQCC       | 0.08918595  | 5.480582  | 1.2883498  | 2.018566e-01 | 3.887415e-01 |
| ## CYB561D2   | 0.12234620  | 7.407624  | 1.2878282  | 2.020371e-01 | 3.890531e-01 |
| ## MYH13      | -0.11253609 | 4.322905  | -1.2877170 | 2.020756e-01 | 3.890913e-01 |
| ## TMEM120B   | -0.08510566 | 5.248593  | -1.2876116 | 2.021121e-01 | 3.891256e-01 |
| ## MFAP2      | 0.30340164  | 7.784655  | 1.2874109  | 2.021816e-01 | 3.892235e-01 |
| ## FOXG1      | 0.11600273  | 3.657660  | 1.2871861  | 2.022595e-01 | 3.893374e-01 |
| ## PIK3R5     | 0.07531359  | 5.144365  | 1.2867789  | 2.024007e-01 | 3.895377e-01 |
| ## ZNF704     | -0.03952406 | 3.548350  | -1.2867712 | 2.024033e-01 | 3.895377e-01 |
| ## CCN1       | -0.26818926 | 10.271119 | -1.2867223 | 2.024203e-01 | 3.895377e-01 |
| ## PCNT       | 0.09567846  | 7.473753  | 1.2866701  | 2.024384e-01 | 3.895377e-01 |
| ## NAT1       | -0.21904043 | 8.042940  | -1.2864939 | 2.024995e-01 | 3.896193e-01 |
| ## CSGALNACT1 | -0.13132097 | 4.807484  | -1.2863870 | 2.025366e-01 | 3.896546e-01 |
| ## PEX3       | -0.08465180 | 5.114624  | -1.2862505 | 2.025839e-01 | 3.897097e-01 |
| ## NRP1       | 0.05652086  | 3.812731  | 1.2860411  | 2.026566e-01 | 3.898135e-01 |
| ## CNNM3      | 0.11450488  | 7.661202  | 1.2858823  | 2.027117e-01 | 3.898834e-01 |
| ## MIR5188    | 0.03920612  | 3.432093  | 1.2858211  | 2.027329e-01 | 3.898883e-01 |
| ## RPL13AP17  | -0.05586097 | 5.988401  | -1.2855790 | 2.028170e-01 | 3.900140e-01 |
| ## CLTB       | -0.17372420 | 8.295959  | -1.2854579 | 2.028590e-01 | 3.900588e-01 |
| ## NEGR1-IT1  | -0.09376281 | 3.812828  | -1.2852249 | 2.029400e-01 | 3.901784e-01 |
| ## ART5       | -0.07179171 | 5.584340  | -1.2849979 | 2.030189e-01 | 3.902924e-01 |
| ## ISX        | 0.25958622  | 4.088374  | 1.2849464  | 2.030367e-01 | 3.902924e-01 |
| ## MEGF11     | -0.04646212 | 3.348325  | -1.2848758 | 2.030613e-01 | 3.903035e-01 |
| ## CLCA4      | 0.28244962  | 3.521663  | 1.2847779  | 2.030953e-01 | 3.903086e-01 |
| ## CORO2B     | -0.07489451 | 3.924000  | -1.2847359 | 2.031099e-01 | 3.903086e-01 |
| ## NYX        | -0.04635460 | 4.075984  | -1.2847063 | 2.031202e-01 | 3.903086e-01 |
| ## CES5A      | -0.04399595 | 3.714881  | -1.2846176 | 2.031510e-01 | 3.903319e-01 |
| ## SLC39A9    | 0.05653605  | 4.248033  | 1.2845597  | 2.031712e-01 | 3.903345e-01 |
| ## LINC00550  | -0.03661166 | 3.213148  | -1.2844683 | 2.032029e-01 | 3.903552e-01 |
| ## PRPH       | -0.12062151 | 6.263873  | -1.2844210 | 2.032194e-01 | 3.903552e-01 |
| ## SNHG20     | 0.08963317  | 4.570509  | 1.2843006  | 2.032612e-01 | 3.903996e-01 |
| ## FAR2P2     | 0.45521708  | 5.429517  | 1.2840827  | 2.033370e-01 | 3.904950e-01 |
| ## MAS1L      | 0.04586048  | 3.867261  | 1.2840500  | 2.033484e-01 | 3.904950e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## SUCLA2-AS1   | -0.04095718 | 3.677773  | -1.2839017 | 2.034000e-01 | 3.905581e-01 |
| ## CLTRN        | -0.16072288 | 3.627513  | -1.2837221 | 2.034625e-01 | 3.906420e-01 |
| ## PORCN        | 0.11153586  | 5.865292  | 1.2835725  | 2.035146e-01 | 3.907060e-01 |
| ## RSPH1        | 0.23678431  | 6.190325  | 1.2834264  | 2.035655e-01 | 3.907676e-01 |
| ## MICA-AS1     | -0.14035696 | 6.169272  | -1.2833581 | 2.035892e-01 | 3.907772e-01 |
| ## UBD2         | -0.13734270 | 7.867964  | -1.2831390 | 2.036655e-01 | 3.908877e-01 |
| ## RNF123       | 0.10174456  | 6.549670  | 1.2830252  | 2.037052e-01 | 3.909278e-01 |
| ## FAR1         | 0.24258344  | 6.179873  | 1.2826231  | 2.038453e-01 | 3.911606e-01 |
| ## MYH4         | 0.12271091  | 3.611792  | 1.2823736  | 2.039323e-01 | 3.912914e-01 |
| ## ZNF609       | 0.08129142  | 5.493577  | 1.2822967  | 2.039591e-01 | 3.913068e-01 |
| ## EYS          | 0.03782147  | 3.134256  | 1.2822099  | 2.039893e-01 | 3.913100e-01 |
| ## LINC02551    | -0.03374135 | 3.094279  | -1.2821842 | 2.039983e-01 | 3.913100e-01 |
| ## SHC4         | -0.08362656 | 3.870030  | -1.2816880 | 2.041714e-01 | 3.915997e-01 |
| ## SLC2A8       | 0.08711368  | 6.667347  | 1.2816434  | 2.041870e-01 | 3.915997e-01 |
| ## LINC01101    | -0.10201111 | 4.955514  | -1.2815443 | 2.042216e-01 | 3.916171e-01 |
| ## MIR3150BHG   | -0.09062738 | 5.083034  | -1.2815097 | 2.042336e-01 | 3.916171e-01 |
| ## BTN3A3       | 0.20289653  | 7.859770  | 1.2814507  | 2.042542e-01 | 3.916205e-01 |
| ## CST9L        | -0.06354735 | 3.636420  | -1.2810959 | 2.043781e-01 | 3.918219e-01 |
| ## KHDRBS1      | 0.05899378  | 10.453406 | 1.2806435  | 2.045361e-01 | 3.920887e-01 |
| ## IFT81        | 0.11534812  | 7.332143  | 1.2805890  | 2.045552e-01 | 3.920892e-01 |
| ## PILRA        | 0.13396481  | 4.724423  | 1.2804749  | 2.045950e-01 | 3.921042e-01 |
| ## CD40LG       | -0.05812548 | 5.294828  | -1.2804351 | 2.046090e-01 | 3.921042e-01 |
| ## FBXL16       | 0.23214293  | 6.474985  | 1.2803902  | 2.046246e-01 | 3.921042e-01 |
| ## VEZT         | 0.09174192  | 4.603915  | 1.2803332  | 2.046446e-01 | 3.921042e-01 |
| ## COX6B2       | -0.11371783 | 5.545106  | -1.2802973 | 2.046571e-01 | 3.921042e-01 |
| ## ITGA3        | 0.19620792  | 6.619665  | 1.2801702  | 2.047016e-01 | 3.921532e-01 |
| ## DSCR8        | 0.44335079  | 4.702436  | 1.2800408  | 2.047468e-01 | 3.922038e-01 |
| ## CADM4        | -0.07268998 | 4.536742  | -1.2798716 | 2.048060e-01 | 3.922591e-01 |
| ## UBAC1        | 0.11226047  | 7.903060  | 1.2798264  | 2.048218e-01 | 3.922591e-01 |
| ## DERL3        | -0.18370736 | 6.022441  | -1.2797632 | 2.048439e-01 | 3.922591e-01 |
| ## ZNF526       | 0.07925425  | 5.140053  | 1.2797428  | 2.048510e-01 | 3.922591e-01 |
| ## DERL1        | 0.12984456  | 8.440055  | 1.2796072  | 2.048985e-01 | 3.923139e-01 |
| ## CHCHD3       | 0.12268804  | 8.304491  | 1.2792123  | 2.050367e-01 | 3.925424e-01 |
| ## ST8SIA5      | -0.05808354 | 4.241968  | -1.2791481 | 2.050591e-01 | 3.925493e-01 |
| ## LOC105375483 | -0.03315128 | 3.349396  | -1.2790282 | 2.051011e-01 | 3.925543e-01 |
| ## CDPF1        | -0.08445402 | 5.622377  | -1.2789600 | 2.051250e-01 | 3.925543e-01 |
| ## TNK1         | -0.07590095 | 6.593673  | -1.2789485 | 2.051290e-01 | 3.925543e-01 |
| ## RBMY3AP      | 0.04576628  | 3.834536  | 1.2788894  | 2.051497e-01 | 3.925543e-01 |
| ## GTPBP10      | 0.04790085  | 3.540868  | 1.2788714  | 2.051560e-01 | 3.925543e-01 |
| ## TPT1-AS1     | -0.06863472 | 4.521010  | -1.2783511 | 2.053383e-01 | 3.928411e-01 |
| ## POU2F3       | -0.11820814 | 3.584396  | -1.2783020 | 2.053555e-01 | 3.928411e-01 |
| ## TNNC1        | 0.25299319  | 4.888530  | 1.2782822  | 2.053625e-01 | 3.928411e-01 |
| ## ETS2         | -0.20549189 | 9.681702  | -1.2782058 | 2.053892e-01 | 3.928561e-01 |
| ## IP011        | -0.04157695 | 3.839478  | -1.2780516 | 2.054433e-01 | 3.929235e-01 |
| ## SCGB3A2      | 0.09815425  | 4.033422  | 1.2779103  | 2.054928e-01 | 3.929821e-01 |
| ## LOC100127938 | -0.09961283 | 4.138750  | -1.2778563 | 2.055118e-01 | 3.929823e-01 |
| ## LINC02901    | 0.08062675  | 4.237162  | 1.2777787  | 2.055390e-01 | 3.929982e-01 |
| ## GARIN5A      | 0.13164348  | 5.169600  | 1.2775327  | 2.056252e-01 | 3.931160e-01 |
| ## LGR4         | -0.25065901 | 7.923368  | -1.2774954 | 2.056383e-01 | 3.931160e-01 |
| ## CHMP6        | 0.09160154  | 6.662552  | 1.2772345  | 2.057299e-01 | 3.932549e-01 |
| ## UFL1         | -0.13536216 | 8.486069  | -1.2768801 | 2.058543e-01 | 3.934566e-01 |
| ## SHANK1       | -0.06007716 | 4.847177  | -1.2767653 | 2.058946e-01 | 3.934975e-01 |
| ## LRP5L        | 0.08766378  | 5.782856  | 1.2766717  | 2.059275e-01 | 3.934993e-01 |
| ## CAMSAP1      | 0.13273293  | 6.216013  | 1.2766550  | 2.059333e-01 | 3.934993e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## DIRAS2       | -0.04278399 | 3.202532  | -1.2765761 | 2.059610e-01 | 3.935161e-01 |
| ## CHRNA2       | -0.07087941 | 5.894736  | -1.2762616 | 2.060715e-01 | 3.936797e-01 |
| ## ZNF486       | -0.04411882 | 4.218908  | -1.2762079 | 2.060904e-01 | 3.936797e-01 |
| ## OMG          | -0.06143263 | 4.152439  | -1.2761710 | 2.061033e-01 | 3.936797e-01 |
| ## STK26        | 0.20074134  | 8.232573  | 1.2760097  | 2.061600e-01 | 3.937518e-01 |
| ## GGTLCL1      | -0.15142864 | 6.177716  | -1.2756438 | 2.062887e-01 | 3.939614e-01 |
| ## HADHA        | 0.18498931  | 8.895025  | 1.2754296  | 2.063640e-01 | 3.940691e-01 |
| ## PPRC1        | 0.17031737  | 8.120335  | 1.2753152  | 2.064042e-01 | 3.941098e-01 |
| ## TMEM250      | 0.10154382  | 7.430295  | 1.2751679  | 2.064561e-01 | 3.941726e-01 |
| ## LINC00658    | -0.05919137 | 3.951618  | -1.2743708 | 2.067366e-01 | 3.946722e-01 |
| ## REEP3        | -0.13291444 | 8.459916  | -1.2740759 | 2.068405e-01 | 3.948343e-01 |
| ## LINGO1-AS2   | -0.06612062 | 4.648201  | -1.2739696 | 2.068780e-01 | 3.948512e-01 |
| ## CTXN3        | -0.03906350 | 3.365579  | -1.2739431 | 2.068873e-01 | 3.948512e-01 |
| ## CYB5R3       | 0.20643647  | 8.266730  | 1.2736920  | 2.069758e-01 | 3.949648e-01 |
| ## PHLDB2       | 0.02866721  | 3.109237  | 1.2736224  | 2.070004e-01 | 3.949648e-01 |
| ## LOC105370890 | 0.07872615  | 5.212831  | 1.2735610  | 2.070220e-01 | 3.949648e-01 |
| ## CNDP1        | -0.15819467 | 3.939049  | -1.2735590 | 2.070227e-01 | 3.949648e-01 |
| ## PDCD7        | -0.06091716 | 5.523969  | -1.2734791 | 2.070509e-01 | 3.949824e-01 |
| ## APLP2        | -0.13531389 | 10.334167 | -1.2732321 | 2.071380e-01 | 3.951123e-01 |
| ## ZNF174       | 0.07881576  | 5.566469  | 1.2726660  | 2.073377e-01 | 3.954446e-01 |
| ## COX20        | -0.14272081 | 8.789393  | -1.2726308 | 2.073501e-01 | 3.954446e-01 |
| ## ZNF503-AS1   | -0.15086616 | 5.256540  | -1.2725012 | 2.073959e-01 | 3.954956e-01 |
| ## ULBP1        | 0.03549096  | 4.262474  | 1.2723507  | 2.074490e-01 | 3.955354e-01 |
| ## PRMT6        | 0.18883031  | 6.250598  | 1.2723345  | 2.074547e-01 | 3.955354e-01 |
| ## TRAV8-6      | -0.06677182 | 4.210790  | -1.2718524 | 2.076250e-01 | 3.958238e-01 |
| ## BSND         | -0.08011984 | 3.906053  | -1.2713836 | 2.077907e-01 | 3.961035e-01 |
| ## MPP2         | -0.07823539 | 4.613851  | -1.2711954 | 2.078573e-01 | 3.961941e-01 |
| ## LINC00513    | 0.03293611  | 3.311585  | 1.2710588  | 2.079056e-01 | 3.962499e-01 |
| ## MROH1        | 0.06215608  | 3.629100  | 1.2709242  | 2.079532e-01 | 3.962971e-01 |
| ## SCARB2       | 0.24067728  | 8.502080  | 1.2708811  | 2.079684e-01 | 3.962971e-01 |
| ## IGHE         | -0.09717841 | 4.700436  | -1.2708100 | 2.079936e-01 | 3.963088e-01 |
| ## BLTP3A       | 0.05788927  | 3.882772  | 1.2706428  | 2.080527e-01 | 3.963593e-01 |
| ## LDB1         | 0.07355382  | 6.823357  | 1.2706275  | 2.080582e-01 | 3.963593e-01 |
| ## HPRT1        | 0.02789758  | 3.086661  | 1.2705342  | 2.080912e-01 | 3.963674e-01 |
| ## KCTD18       | -0.05664876 | 5.686579  | -1.2704671 | 2.081149e-01 | 3.963674e-01 |
| ## NYAP1        | -0.05637094 | 4.080961  | -1.2704541 | 2.081195e-01 | 3.963674e-01 |
| ## JADE2        | 0.13394382  | 5.079752  | 1.2702421  | 2.081946e-01 | 3.964740e-01 |
| ## NCK2         | 0.14521864  | 8.859586  | 1.2701049  | 2.082432e-01 | 3.965303e-01 |
| ## LINC00870    | -0.04287401 | 4.051208  | -1.2699991 | 2.082806e-01 | 3.965654e-01 |
| ## SETMAR       | -0.06220492 | 4.398870  | -1.2697819 | 2.083576e-01 | 3.966756e-01 |
| ## C19orf18     | -0.10584623 | 4.198676  | -1.2696248 | 2.084132e-01 | 3.967453e-01 |
| ## CYP7A1       | -0.02815683 | 3.242675  | -1.2695651 | 2.084344e-01 | 3.967493e-01 |
| ## LCP2         | 0.26822377  | 7.249458  | 1.2694751  | 2.084662e-01 | 3.967548e-01 |
| ## PXDNL        | 0.02895679  | 3.192127  | 1.2694494  | 2.084754e-01 | 3.967548e-01 |
| ## STARD8       | -0.07956269 | 5.805493  | -1.2693346 | 2.085160e-01 | 3.967960e-01 |
| ## CERS6        | 0.14820566  | 9.810782  | 1.2691717  | 2.085738e-01 | 3.968696e-01 |
| ## PRRX2-AS1    | -0.06367790 | 4.981161  | -1.2689510 | 2.086520e-01 | 3.969822e-01 |
| ## SHTN1        | 0.18297856  | 7.993867  | 1.2686716  | 2.087512e-01 | 3.971345e-01 |
| ## SEBOX        | -0.07129945 | 5.362182  | -1.2683968 | 2.088486e-01 | 3.972836e-01 |
| ## SLC27A3      | -0.19412446 | 7.440555  | -1.2680180 | 2.089831e-01 | 3.974867e-01 |
| ## SELENOK      | -0.09431982 | 9.938017  | -1.2679140 | 2.090200e-01 | 3.974867e-01 |
| ## SLC35A1      | -0.13747281 | 9.034789  | -1.2678938 | 2.090272e-01 | 3.974867e-01 |
| ## C7orf33      | -0.06463449 | 3.866956  | -1.2678810 | 2.090318e-01 | 3.974867e-01 |
| ## TCFL5        | 0.25140608  | 7.096339  | 1.2677887  | 2.090645e-01 | 3.975128e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## PLAC8L1      | 0.06574382  | 4.306522 | 1.2676563  | 2.091116e-01 | 3.975320e-01 |
| ## Clorf216     | -0.15671798 | 6.720348 | -1.2676527 | 2.091128e-01 | 3.975320e-01 |
| ## LINC00853    | -0.08162802 | 3.830549 | -1.2675383 | 2.091534e-01 | 3.975514e-01 |
| ## UTP3         | 0.08769731  | 8.263213 | 1.2675164  | 2.091612e-01 | 3.975514e-01 |
| ## PAPOLA-DT    | 0.05183379  | 4.159256 | 1.2672409  | 2.092591e-01 | 3.977012e-01 |
| ## CAPSL        | -0.05288433 | 3.600240 | -1.2671204 | 2.093020e-01 | 3.977463e-01 |
| ## DUSP18       | 0.05723542  | 6.610953 | 1.2670201  | 2.093376e-01 | 3.977778e-01 |
| ## VPS33B       | 0.08758039  | 6.621802 | 1.2667500  | 2.094336e-01 | 3.978972e-01 |
| ## IGSF5        | 0.05258753  | 3.721423 | 1.2667009  | 2.094511e-01 | 3.978972e-01 |
| ## HSD17B11     | -0.19404300 | 9.509802 | -1.2666821 | 2.094578e-01 | 3.978972e-01 |
| ## TEX46        | -0.05099297 | 3.376447 | -1.2664803 | 2.095295e-01 | 3.979712e-01 |
| ## STAT5A       | -0.13641395 | 6.777502 | -1.2664427 | 2.095429e-01 | 3.979712e-01 |
| ## TREM2        | -0.20080656 | 7.095088 | -1.2664114 | 2.095541e-01 | 3.979712e-01 |
| ## TGFB3        | -0.06034108 | 4.001770 | -1.2663489 | 2.095763e-01 | 3.979771e-01 |
| ## KAZN         | -0.18910440 | 7.748301 | -1.2661505 | 2.096469e-01 | 3.980749e-01 |
| ## KCNJ5-AS1    | 0.09525350  | 4.082254 | 1.2660702  | 2.096755e-01 | 3.980928e-01 |
| ## TMEM234      | 0.09525999  | 6.357488 | 1.2658963  | 2.097374e-01 | 3.981740e-01 |
| ## STAC3        | 0.06571824  | 5.359565 | 1.2658132  | 2.097670e-01 | 3.981939e-01 |
| ## PTPRN2-AS1   | -0.08836342 | 4.844966 | -1.2656398 | 2.098287e-01 | 3.982413e-01 |
| ## EPHB1        | 0.13364486  | 4.985730 | 1.2656356  | 2.098302e-01 | 3.982413e-01 |
| ## LOC100506489 | 0.03993450  | 3.445285 | 1.2655672  | 2.098546e-01 | 3.982513e-01 |
| ## SLC35C1      | 0.10178687  | 6.639264 | 1.2654154  | 2.099086e-01 | 3.982956e-01 |
| ## EHD1         | 0.07670833  | 8.134627 | 1.2653942  | 2.099162e-01 | 3.982956e-01 |
| ## CLDN16       | -0.08586847 | 4.464071 | -1.2648745 | 2.101013e-01 | 3.986106e-01 |
| ## LOC100130964 | -0.03108781 | 3.267483 | -1.2648035 | 2.101267e-01 | 3.986223e-01 |
| ## LINC00313    | -0.06654137 | 3.924589 | -1.2646947 | 2.101655e-01 | 3.986596e-01 |
| ## SVIL         | -0.19496091 | 5.174646 | -1.2645908 | 2.102025e-01 | 3.986847e-01 |
| ## OR10H1       | -0.08102232 | 5.173408 | -1.2645502 | 2.102170e-01 | 3.986847e-01 |
| ## AGPAT4-IT1   | -0.09691649 | 5.480102 | -1.2639669 | 2.104250e-01 | 3.990430e-01 |
| ## ELAVL4       | -0.04361908 | 4.090225 | -1.2637491 | 2.105028e-01 | 3.991490e-01 |
| ## HTR3A        | 0.16859908  | 4.506056 | 1.2637028  | 2.105193e-01 | 3.991490e-01 |
| ## AMDHD2       | 0.11144042  | 5.888950 | 1.2635617  | 2.105697e-01 | 3.991629e-01 |
| ## BBS4         | -0.11235019 | 6.463089 | -1.2635011 | 2.105913e-01 | 3.991629e-01 |
| ## CPNE7        | 0.09547504  | 6.318785 | 1.2634832  | 2.105977e-01 | 3.991629e-01 |
| ## NCS1         | -0.12585995 | 4.813382 | -1.2634675 | 2.106033e-01 | 3.991629e-01 |
| ## STAG3L4      | -0.10379052 | 4.520020 | -1.2632958 | 2.106646e-01 | 3.992213e-01 |
| ## LBX1         | -0.06908263 | 3.884884 | -1.2632739 | 2.106724e-01 | 3.992213e-01 |
| ## ZBTB44-DT    | -0.05679474 | 3.755280 | -1.2626608 | 2.108915e-01 | 3.996000e-01 |
| ## GANC         | 0.05217516  | 4.505257 | 1.2625839  | 2.109190e-01 | 3.996157e-01 |
| ## NUDT5        | 0.16371058  | 7.158629 | 1.2624856  | 2.109541e-01 | 3.996460e-01 |
| ## MOGAT2       | -0.07366056 | 4.688513 | -1.2623665 | 2.109967e-01 | 3.996903e-01 |
| ## STK40        | -0.09850729 | 7.410206 | -1.2620846 | 2.110975e-01 | 3.998449e-01 |
| ## SULT1A2      | -0.17239215 | 7.865614 | -1.2617770 | 2.112076e-01 | 3.999888e-01 |
| ## MOB2         | -0.09784830 | 7.293906 | -1.2617531 | 2.112161e-01 | 3.999888e-01 |
| ## MSL3         | 0.11102843  | 7.628772 | 1.2617076  | 2.112324e-01 | 3.999888e-01 |
| ## SCML1        | -0.04908312 | 3.657095 | -1.2616575 | 2.112503e-01 | 3.999888e-01 |
| ## PALLD        | -0.06150985 | 3.592603 | -1.2610259 | 2.114765e-01 | 4.003706e-01 |
| ## LINC00488    | -0.03369901 | 3.420947 | -1.2609868 | 2.114904e-01 | 4.003706e-01 |
| ## LINC01676    | -0.05538196 | 4.268462 | -1.2609124 | 2.115171e-01 | 4.003744e-01 |
| ## LOC780529    | -0.05729920 | 3.888559 | -1.2608739 | 2.115309e-01 | 4.003744e-01 |
| ## OR1A1        | -0.05313481 | 3.744800 | -1.2606801 | 2.116003e-01 | 4.003898e-01 |
| ## NFE4         | 0.05325841  | 3.641873 | 1.2606533  | 2.116099e-01 | 4.003898e-01 |
| ## AGER         | -0.08749083 | 4.315017 | -1.2606478 | 2.116119e-01 | 4.003898e-01 |
| ## DTX3         | -0.07111580 | 5.109521 | -1.2606365 | 2.116159e-01 | 4.003898e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## RARB-AS1     | -0.04780503 | 4.371585  | -1.2603462 | 2.117200e-01 | 4.005503e-01 |
| ## ARL4A        | 0.17256669  | 8.767893  | 1.2601739  | 2.117818e-01 | 4.006308e-01 |
| ## PIEZO2       | -0.05332504 | 4.609070  | -1.2600069 | 2.118416e-01 | 4.006457e-01 |
| ## CIZ1         | 0.12489225  | 8.704796  | 1.2599937  | 2.118464e-01 | 4.006457e-01 |
| ## HES6         | 0.22941325  | 6.987688  | 1.2599909  | 2.118474e-01 | 4.006457e-01 |
| ## PPP1R3B      | -0.04359026 | 3.944033  | -1.2597707 | 2.119264e-01 | 4.007587e-01 |
| ## FPR3         | 0.26589355  | 6.141937  | 1.2595211  | 2.120159e-01 | 4.008916e-01 |
| ## ZNF316       | 0.07227802  | 6.668494  | 1.2592139  | 2.121262e-01 | 4.010637e-01 |
| ## FRAT2        | 0.16148213  | 7.620805  | 1.2590910  | 2.121703e-01 | 4.011107e-01 |
| ## LINC02610    | -0.07431095 | 4.676380  | -1.2588780 | 2.122468e-01 | 4.012188e-01 |
| ## ITGA6        | 0.17551928  | 9.663952  | 1.2587329  | 2.122989e-01 | 4.012809e-01 |
| ## SLITRK1      | -0.04798511 | 3.482487  | -1.2583756 | 2.124272e-01 | 4.014871e-01 |
| ## MATK         | -0.08135260 | 5.784227  | -1.2582240 | 2.124817e-01 | 4.015536e-01 |
| ## GLI3         | -0.03988967 | 3.582168  | -1.2577435 | 2.126545e-01 | 4.018437e-01 |
| ## GH1          | -0.05275676 | 4.422071  | -1.2576553 | 2.126862e-01 | 4.018671e-01 |
| ## HAX1         | 0.09391864  | 9.605882  | 1.2574764  | 2.127505e-01 | 4.019025e-01 |
| ## HACD1        | 0.09689357  | 5.023891  | 1.2574513  | 2.127596e-01 | 4.019025e-01 |
| ## CDK2AP1      | 0.10025139  | 10.840686 | 1.2574423  | 2.127628e-01 | 4.019025e-01 |
| ## TTTY14       | -0.27470625 | 4.647557  | -1.2573175 | 2.128077e-01 | 4.019509e-01 |
| ## PRKCE        | -0.06519951 | 4.500443  | -1.2571559 | 2.128659e-01 | 4.020242e-01 |
| ## TMEM144      | 0.04500305  | 3.427859  | 1.2569414  | 2.129431e-01 | 4.021335e-01 |
| ## IMPACT       | -0.18975976 | 5.944595  | -1.2567459 | 2.130135e-01 | 4.022300e-01 |
| ## LOC84214     | 0.04812145  | 3.672112  | 1.2566787  | 2.130377e-01 | 4.022392e-01 |
| ## LTB4R2       | 0.09341127  | 5.072402  | 1.2565712  | 2.130764e-01 | 4.022759e-01 |
| ## TUBA1B       | 0.03255900  | 3.392486  | 1.2564010  | 2.131377e-01 | 4.023410e-01 |
| ## PTH2         | -0.06975761 | 6.376562  | -1.2563652 | 2.131506e-01 | 4.023410e-01 |
| ## SULT1A1      | -0.21603347 | 8.707645  | -1.2563145 | 2.131688e-01 | 4.023410e-01 |
| ## ZPR1         | -0.04171866 | 3.593782  | -1.2562421 | 2.131949e-01 | 4.023538e-01 |
| ## CACNA1A      | -0.11158531 | 3.844108  | -1.2560741 | 2.132555e-01 | 4.023980e-01 |
| ## LINC01566    | -0.06871912 | 4.853611  | -1.2560698 | 2.132570e-01 | 4.023980e-01 |
| ## CHCHD4       | 0.09805924  | 7.485418  | 1.2560056  | 2.132802e-01 | 4.024052e-01 |
| ## LINC00923    | -0.04011600 | 3.624112  | -1.2559134 | 2.133134e-01 | 4.024314e-01 |
| ## LOC105376944 | -0.06572300 | 3.707831  | -1.2557832 | 2.133603e-01 | 4.024835e-01 |
| ## NCOA1        | 0.11483077  | 6.518762  | 1.2554115  | 2.134944e-01 | 4.026999e-01 |
| ## LOC390705    | -0.09199271 | 5.535802  | -1.2552151 | 2.135652e-01 | 4.027970e-01 |
| ## C11orf87     | 0.02473690  | 3.185480  | 1.2550968  | 2.136079e-01 | 4.028411e-01 |
| ## NAA15        | 0.17839659  | 3.969095  | 1.2549727  | 2.136527e-01 | 4.028890e-01 |
| ## DPM3         | 0.15459710  | 7.971062  | 1.2547380  | 2.137374e-01 | 4.030119e-01 |
| ## SLC4A7       | 0.04393179  | 3.396951  | 1.2546352  | 2.137745e-01 | 4.030119e-01 |
| ## SLC44A1      | -0.13108414 | 6.261309  | -1.2546313 | 2.137759e-01 | 4.030119e-01 |
| ## HRH1         | 0.20198117  | 5.675968  | 1.2544697  | 2.138343e-01 | 4.030854e-01 |
| ## LZTFL1       | -0.16435242 | 7.200119  | -1.2543312 | 2.138843e-01 | 4.031307e-01 |
| ## CPXM2        | -0.05973728 | 4.500449  | -1.2542959 | 2.138970e-01 | 4.031307e-01 |
| ## INO80C       | -0.07745404 | 4.503502  | -1.2540450 | 2.139877e-01 | 4.032619e-01 |
| ## RALGAPA2     | 0.20346742  | 8.404092  | 1.2539961  | 2.140053e-01 | 4.032619e-01 |
| ## LINC00475    | -0.08242261 | 3.956169  | -1.2539277 | 2.140301e-01 | 4.032720e-01 |
| ## ANKRD40CL    | -0.38232752 | 5.208100  | -1.2538238 | 2.140676e-01 | 4.032916e-01 |
| ## IL12A        | 0.08551693  | 3.684134  | 1.2537916  | 2.140792e-01 | 4.032916e-01 |
| ## CPEB1-AS1    | 0.02888394  | 3.318007  | 1.2536957  | 2.141139e-01 | 4.033204e-01 |
| ## SMURF2       | 0.16125903  | 8.584846  | 1.2533793  | 2.142282e-01 | 4.034994e-01 |
| ## LOC101928565 | -0.04216217 | 3.851745  | -1.2530804 | 2.143364e-01 | 4.036665e-01 |
| ## MFSD9        | 0.16641622  | 5.574975  | 1.2528629  | 2.144150e-01 | 4.037781e-01 |
| ## CEP19        | 0.10559843  | 5.373825  | 1.2527325  | 2.144622e-01 | 4.038305e-01 |
| ## LOC286359    | -0.05015113 | 3.517658  | -1.2526722 | 2.144841e-01 | 4.038351e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## DBH-AS1      | 0.08400746  | 5.383702  | 1.2520813  | 2.146980e-01 | 4.041869e-01 |
| ## LINC01622    | -0.08538782 | 3.940430  | -1.2520489 | 2.147097e-01 | 4.041869e-01 |
| ## SCAF1        | 0.07924429  | 5.129766  | 1.2515821  | 2.148788e-01 | 4.044600e-01 |
| ## LINC00907    | -0.04265335 | 3.500632  | -1.2515413 | 2.148936e-01 | 4.044600e-01 |
| ## CEP95        | 0.06884398  | 4.951068  | 1.2514391  | 2.149307e-01 | 4.044931e-01 |
| ## TRPC3        | -0.05794693 | 3.782183  | -1.2513562 | 2.149607e-01 | 4.045131e-01 |
| ## ZBTB49       | 0.06689005  | 5.574195  | 1.2510696  | 2.150646e-01 | 4.046721e-01 |
| ## MRFAP1L1     | -0.09206940 | 9.137191  | -1.2509740 | 2.150993e-01 | 4.047007e-01 |
| ## PIM1         | -0.11492553 | 7.456973  | -1.2508978 | 2.151269e-01 | 4.047161e-01 |
| ## MUL1         | 0.08157091  | 7.309555  | 1.2508261  | 2.151530e-01 | 4.047286e-01 |
| ## THAP5        | -0.17147409 | 6.941918  | -1.2507222 | 2.151906e-01 | 4.047629e-01 |
| ## TFPI         | 0.24614037  | 6.375293  | 1.2506573  | 2.152142e-01 | 4.047639e-01 |
| ## MAGEB3       | 0.04005110  | 3.470119  | 1.2505427  | 2.152558e-01 | 4.047639e-01 |
| ## HOXD13       | 0.10404555  | 3.575360  | 1.2505394  | 2.152570e-01 | 4.047639e-01 |
| ## KLK13        | 0.18985279  | 4.522114  | 1.2504780  | 2.152793e-01 | 4.047639e-01 |
| ## PRAP1        | -0.39923466 | 6.593595  | -1.2504529 | 2.152883e-01 | 4.047639e-01 |
| ## GSEC         | 0.10046406  | 4.282801  | 1.2503732  | 2.153173e-01 | 4.047817e-01 |
| ## YWHAEP7      | -0.06727220 | 5.222326  | -1.2502616 | 2.153578e-01 | 4.048213e-01 |
| ## CLDN10-AS1   | -0.03320837 | 3.255918  | -1.2501772 | 2.153884e-01 | 4.048424e-01 |
| ## LINC02465    | -0.03166122 | 3.105151  | -1.2500004 | 2.154526e-01 | 4.049265e-01 |
| ## LOC340184    | 0.08978300  | 3.399414  | 1.2498740  | 2.154985e-01 | 4.049429e-01 |
| ## LOC105378604 | 0.15273417  | 5.104563  | 1.2498692  | 2.155003e-01 | 4.049429e-01 |
| ## HAMP         | -0.15755596 | 5.876125  | -1.2496473 | 2.155808e-01 | 4.050578e-01 |
| ## CD63-AS1     | 0.07388822  | 5.931726  | 1.2495914  | 2.156012e-01 | 4.050594e-01 |
| ## ADGRE2       | 0.23506965  | 5.391923  | 1.2494006  | 2.156705e-01 | 4.051531e-01 |
| ## RPL28        | 0.06103722  | 13.342153 | 1.2490993  | 2.157800e-01 | 4.053037e-01 |
| ## FZD4-DT      | 0.05916887  | 4.553356  | 1.2490729  | 2.157896e-01 | 4.053037e-01 |
| ## CALCA        | -0.05958550 | 4.452585  | -1.2489828 | 2.158223e-01 | 4.053287e-01 |
| ## VWA8-AS1     | 0.03574261  | 3.186496  | 1.2488769  | 2.158608e-01 | 4.053644e-01 |
| ## CDKL2        | -0.07020851 | 4.162580  | -1.2485424 | 2.159825e-01 | 4.055563e-01 |
| ## RETREG1-AS1  | -0.04158165 | 3.308545  | -1.2483933 | 2.160367e-01 | 4.055827e-01 |
| ## TDP2         | 0.13057249  | 9.758754  | 1.2483571  | 2.160499e-01 | 4.055827e-01 |
| ## HDAC11       | -0.07200664 | 6.371108  | -1.2483047 | 2.160690e-01 | 4.055827e-01 |
| ## SLC8A2       | -0.08438579 | 4.540701  | -1.2482897 | 2.160745e-01 | 4.055827e-01 |
| ## PIGQ         | -0.06154804 | 5.792478  | -1.2482015 | 2.161066e-01 | 4.055912e-01 |
| ## ZNF614       | -0.06376092 | 3.836486  | -1.2481298 | 2.161326e-01 | 4.055912e-01 |
| ## POLN         | -0.06704146 | 5.177568  | -1.2480842 | 2.161492e-01 | 4.055912e-01 |
| ## LINGO2       | -0.06950072 | 3.958950  | -1.2480311 | 2.161686e-01 | 4.055912e-01 |
| ## KCTD2        | -0.08769159 | 6.908541  | -1.2480097 | 2.161763e-01 | 4.055912e-01 |
| ## SCAMP5       | -0.14584990 | 6.171262  | -1.2478294 | 2.162420e-01 | 4.056777e-01 |
| ## DCST2        | -0.08351016 | 3.918780  | -1.2475373 | 2.163483e-01 | 4.058407e-01 |
| ## COL11A2      | 0.16381741  | 5.196589  | 1.2474577  | 2.163773e-01 | 4.058586e-01 |
| ## HUS1B        | 0.07025423  | 4.544185  | 1.2472508  | 2.164527e-01 | 4.059541e-01 |
| ## BBS5         | 0.06653800  | 3.773362  | 1.2472024  | 2.164704e-01 | 4.059541e-01 |
| ## SOAT1        | 0.24179736  | 7.245319  | 1.2471574  | 2.164868e-01 | 4.059541e-01 |
| ## SERPINA5     | 0.19864646  | 6.194368  | 1.2470112  | 2.165400e-01 | 4.059663e-01 |
| ## LINC02078    | -0.05537663 | 4.424171  | -1.2469964 | 2.165454e-01 | 4.059663e-01 |
| ## TTC34        | -0.05610792 | 4.036853  | -1.2469790 | 2.165518e-01 | 4.059663e-01 |
| ## DCD          | -0.07743076 | 4.159294  | -1.2468574 | 2.165961e-01 | 4.060089e-01 |
| ## PDE6A        | -0.08125649 | 4.225488  | -1.2468098 | 2.166135e-01 | 4.060089e-01 |
| ## DUSP15       | 0.07036424  | 5.424335  | 1.2466510  | 2.166713e-01 | 4.060808e-01 |
| ## RHBDD3       | 0.09345666  | 6.186546  | 1.2465175  | 2.167200e-01 | 4.061355e-01 |
| ## SLC9A3       | 0.07394684  | 4.185032  | 1.2463721  | 2.167731e-01 | 4.061783e-01 |
| ## IQCD         | 0.07706265  | 4.363721  | 1.2463111  | 2.167953e-01 | 4.061783e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ERCC1        | -0.08317529 | 7.364950  | -1.2462537 | 2.168163e-01 | 4.061783e-01 |
| ## EYA4         | 0.03787726  | 3.396707  | 1.2462339  | 2.168235e-01 | 4.061783e-01 |
| ## KASH5        | -0.07378831 | 3.986718  | -1.2461875 | 2.168404e-01 | 4.061783e-01 |
| ## AQP7         | -0.10272318 | 5.642460  | -1.2459822 | 2.169153e-01 | 4.062821e-01 |
| ## CIPC         | -0.12515255 | 7.006518  | -1.2458245 | 2.169729e-01 | 4.063533e-01 |
| ## BPIFA1       | -0.14601315 | 4.827407  | -1.2456236 | 2.170462e-01 | 4.064207e-01 |
| ## EXOC3L2      | -0.07595050 | 7.323553  | -1.2456190 | 2.170479e-01 | 4.064207e-01 |
| ## LINC00260    | -0.12371803 | 4.973048  | -1.2455466 | 2.170743e-01 | 4.064337e-01 |
| ## LGI3         | -0.07342078 | 5.877197  | -1.2454558 | 2.171075e-01 | 4.064592e-01 |
| ## KIF21B       | 0.13062716  | 5.514351  | 1.2451804  | 2.172080e-01 | 4.065500e-01 |
| ## CEPT1        | -0.12314885 | 5.591582  | -1.2450626 | 2.172511e-01 | 4.065500e-01 |
| ## HGD          | -0.30094612 | 7.130378  | -1.2450396 | 2.172595e-01 | 4.065500e-01 |
| ## WFDC3        | 0.08526730  | 5.088450  | 1.2450384  | 2.172599e-01 | 4.065500e-01 |
| ## EIF3J        | 0.12559903  | 7.107878  | 1.2450150  | 2.172685e-01 | 4.065500e-01 |
| ## AKR1E2       | 0.08711032  | 3.874302  | 1.2450024  | 2.172731e-01 | 4.065500e-01 |
| ## MAP4K3-DT    | -0.13262633 | 4.319795  | -1.2448497 | 2.173289e-01 | 4.066178e-01 |
| ## WFS1         | -0.14936811 | 6.531402  | -1.2445853 | 2.174255e-01 | 4.067352e-01 |
| ## ASPDH        | 0.06445547  | 6.282692  | 1.2445712  | 2.174306e-01 | 4.067352e-01 |
| ## SLC25A42     | 0.06302740  | 3.723078  | 1.2442438  | 2.175504e-01 | 4.069225e-01 |
| ## ADIPOR2      | -0.14135449 | 8.867152  | -1.2441094 | 2.175995e-01 | 4.069779e-01 |
| ## BMAL2-AS1    | -0.05912771 | 3.230725  | -1.2439397 | 2.176616e-01 | 4.070575e-01 |
| ## NRDE2        | 0.04334800  | 3.614960  | 1.2436109  | 2.177819e-01 | 4.072459e-01 |
| ## GPR171       | 0.26356321  | 5.681066  | 1.2435383  | 2.178085e-01 | 4.072590e-01 |
| ## LCE2B        | -0.05321256 | 3.788859  | -1.2431674 | 2.179443e-01 | 4.074763e-01 |
| ## CCL28        | 0.35447983  | 5.194328  | 1.2430826  | 2.179753e-01 | 4.074880e-01 |
| ## ZFYVE21      | -0.14806864 | 6.383077  | -1.2430436 | 2.179896e-01 | 4.074880e-01 |
| ## DNAJC28      | -0.05145376 | 3.638583  | -1.2428727 | 2.180522e-01 | 4.075684e-01 |
| ## CNPY2        | 0.04058119  | 3.843030  | 1.2426849  | 2.181210e-01 | 4.076604e-01 |
| ## RPS13        | -0.04994452 | 13.072608 | -1.2425130 | 2.181840e-01 | 4.077415e-01 |
| ## ATG4D        | 0.10104410  | 6.565021  | 1.2424565  | 2.182047e-01 | 4.077436e-01 |
| ## NXPH2        | -0.05179497 | 4.000383  | -1.2421584 | 2.183140e-01 | 4.079112e-01 |
| ## SIPA1L3      | 0.16590087  | 6.550104  | 1.2420475  | 2.183547e-01 | 4.079506e-01 |
| ## LZTS2        | -0.11335346 | 6.835313  | -1.2419328 | 2.183967e-01 | 4.079926e-01 |
| ## PF4V1        | 0.06593997  | 3.177011  | 1.2418026  | 2.184445e-01 | 4.080452e-01 |
| ## CR1          | -0.08896965 | 4.182174  | -1.2416965 | 2.184834e-01 | 4.080813e-01 |
| ## CSF1         | -0.06570537 | 4.602585  | -1.2414920 | 2.185584e-01 | 4.081848e-01 |
| ## CTBP2        | 0.12524598  | 10.179287 | 1.2414090  | 2.185889e-01 | 4.082051e-01 |
| ## POU3F3       | -0.08713361 | 4.224522  | -1.2412612 | 2.186431e-01 | 4.082698e-01 |
| ## S100A7A      | 0.15110923  | 4.292039  | 1.2411861  | 2.186707e-01 | 4.082847e-01 |
| ## ZNF335       | 0.07856025  | 7.435007  | 1.2408774  | 2.187840e-01 | 4.084596e-01 |
| ## C11orf24     | -0.09383945 | 7.473223  | -1.2407241 | 2.188403e-01 | 4.085281e-01 |
| ## BMAL1        | -0.12161178 | 7.070584  | -1.2406408 | 2.188709e-01 | 4.085375e-01 |
| ## SGPP2        | 0.33201218  | 8.496029  | 1.2406037  | 2.188846e-01 | 4.085375e-01 |
| ## PIP5K1B      | -0.28147362 | 8.690916  | -1.2405415 | 2.189074e-01 | 4.085435e-01 |
| ## LDLRAD4      | -0.04807640 | 4.117349  | -1.2399874 | 2.191111e-01 | 4.088833e-01 |
| ## SPAM1        | -0.04895111 | 3.828572  | -1.2399392 | 2.191288e-01 | 4.088833e-01 |
| ## HECTD2       | -0.03716592 | 3.364514  | -1.2396263 | 2.192438e-01 | 4.090614e-01 |
| ## SIRPB1       | 0.07654410  | 3.644315  | 1.2394389  | 2.193128e-01 | 4.091533e-01 |
| ## TMEM115      | 0.08568947  | 6.550612  | 1.2393382  | 2.193498e-01 | 4.091858e-01 |
| ## TOR2A        | 0.11271121  | 6.690106  | 1.2391111  | 2.194334e-01 | 4.093050e-01 |
| ## LINC00276    | -0.04440761 | 3.462748  | -1.2389920 | 2.194772e-01 | 4.093500e-01 |
| ## LOC100422781 | -0.08151836 | 5.242487  | -1.2388752 | 2.195202e-01 | 4.093936e-01 |
| ## PGBD5        | -0.05009990 | 3.841430  | -1.2386834 | 2.195908e-01 | 4.094886e-01 |
| ## PNLIPRP1     | -0.12428839 | 4.433107  | -1.2385203 | 2.196509e-01 | 4.095640e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## ADAMTS15     | -0.07696398 | 4.734000 | -1.2380911 | 2.198090e-01 | 4.097857e-01 |
| ## CTCFL        | 0.20189060  | 3.656588 | 1.2380906  | 2.198092e-01 | 4.097857e-01 |
| ## SSPOP        | -0.07999193 | 5.897244 | -1.2378483 | 2.198985e-01 | 4.099155e-01 |
| ## LOC400622    | -0.05761461 | 3.894199 | -1.2376759 | 2.199621e-01 | 4.099973e-01 |
| ## THEG         | -0.09256504 | 4.786909 | -1.2374038 | 2.200624e-01 | 4.101382e-01 |
| ## TMEM68       | 0.14891294  | 5.677945 | 1.2373640  | 2.200771e-01 | 4.101382e-01 |
| ## RPL13P5      | 0.12783632  | 6.199659 | 1.2371074  | 2.201717e-01 | 4.102779e-01 |
| ## CFHR4        | -0.05638406 | 3.965396 | -1.2367493 | 2.203039e-01 | 4.104513e-01 |
| ## HYAL2        | 0.07996816  | 7.801168 | 1.2367484  | 2.203042e-01 | 4.104513e-01 |
| ## TMEM161B-DT  | -0.12376098 | 4.228234 | -1.2365252 | 2.203866e-01 | 4.105446e-01 |
| ## LINC00824    | -0.05888974 | 3.824404 | -1.2365039 | 2.203944e-01 | 4.105446e-01 |
| ## MACF1        | -0.09353415 | 6.784459 | -1.2364351 | 2.204198e-01 | 4.105446e-01 |
| ## OSBPL9       | -0.09276042 | 9.518817 | -1.2363991 | 2.204331e-01 | 4.105446e-01 |
| ## FAM221B      | -0.09357950 | 4.089639 | -1.2361846 | 2.205123e-01 | 4.106554e-01 |
| ## CRHR2        | -0.07447605 | 4.259503 | -1.2361193 | 2.205365e-01 | 4.106636e-01 |
| ## PPP4R4       | -0.03915379 | 3.585272 | -1.2359691 | 2.205920e-01 | 4.107242e-01 |
| ## PCDHGA11     | -0.10748129 | 4.580490 | -1.2359246 | 2.206084e-01 | 4.107242e-01 |
| ## ARL6         | 0.09294919  | 3.907291 | 1.2357273  | 2.206813e-01 | 4.108231e-01 |
| ## ZNRF3        | 0.21091484  | 7.351205 | 1.2352197  | 2.208689e-01 | 4.110837e-01 |
| ## NEDD4L       | 0.24803684  | 8.218529 | 1.2352019  | 2.208755e-01 | 4.110837e-01 |
| ## SPIRE2       | 0.04410643  | 3.379067 | 1.2351379  | 2.208992e-01 | 4.110837e-01 |
| ## EPHB2        | 0.17001938  | 7.067175 | 1.2351265  | 2.209034e-01 | 4.110837e-01 |
| ## LOC101928068 | -0.04799752 | 3.530389 | -1.2350795 | 2.209208e-01 | 4.110837e-01 |
| ## CFAP73       | 0.12000501  | 4.974063 | 1.2350284  | 2.209397e-01 | 4.110837e-01 |
| ## HAUS2        | -0.07496548 | 9.231626 | -1.2345606 | 2.211128e-01 | 4.113690e-01 |
| ## CXCR2        | 0.28242174  | 5.741012 | 1.2340124  | 2.213157e-01 | 4.117097e-01 |
| ## WNK4         | -0.17585208 | 4.371793 | -1.2338831 | 2.213636e-01 | 4.117468e-01 |
| ## IGHG         | -0.43528463 | 5.733011 | -1.2338519 | 2.213752e-01 | 4.117468e-01 |
| ## PALM3        | -0.23809049 | 6.141825 | -1.2337282 | 2.214210e-01 | 4.117743e-01 |
| ## HECW1        | -0.05327854 | 3.911739 | -1.2336183 | 2.214617e-01 | 4.117743e-01 |
| ## PRAF2        | -0.12558502 | 7.100153 | -1.2335734 | 2.214783e-01 | 4.117743e-01 |
| ## LINC01019    | -0.03887513 | 4.031832 | -1.2335591 | 2.214837e-01 | 4.117743e-01 |
| ## MUC3B        | 0.20600606  | 6.291628 | 1.2335451  | 2.214888e-01 | 4.117743e-01 |
| ## PSMD9        | 0.09501968  | 8.557041 | 1.2334675  | 2.215176e-01 | 4.117910e-01 |
| ## DPP10        | -0.19946438 | 3.407627 | -1.2333265 | 2.215699e-01 | 4.118513e-01 |
| ## POU1F1       | -0.03199795 | 3.104435 | -1.2331672 | 2.216289e-01 | 4.119244e-01 |
| ## TPM1         | 0.04246206  | 3.746967 | 1.2329814  | 2.216978e-01 | 4.120118e-01 |
| ## FITM1        | -0.05379705 | 5.438589 | -1.2329336 | 2.217155e-01 | 4.120118e-01 |
| ## PDGFA        | 0.19244723  | 7.742106 | 1.2327050  | 2.218003e-01 | 4.120943e-01 |
| ## C9           | -0.04121173 | 3.262861 | -1.2326833 | 2.218084e-01 | 4.120943e-01 |
| ## DTD1-AS1     | -0.06901067 | 3.968912 | -1.2326537 | 2.218193e-01 | 4.120943e-01 |
| ## ADH6         | -0.20016339 | 4.003148 | -1.2325665 | 2.218517e-01 | 4.121091e-01 |
| ## DDX11L2      | -0.07562845 | 5.076323 | -1.2325257 | 2.218668e-01 | 4.121091e-01 |
| ## PTEN         | 0.10619119  | 8.826284 | 1.2324300  | 2.219023e-01 | 4.121383e-01 |
| ## WWP1         | -0.13915150 | 7.021690 | -1.2323726 | 2.219236e-01 | 4.121410e-01 |
| ## ZNF823       | 0.15533449  | 6.619990 | 1.2322198  | 2.219803e-01 | 4.122096e-01 |
| ## RHOD         | 0.22289882  | 6.205358 | 1.2321193  | 2.220176e-01 | 4.122421e-01 |
| ## ALG9         | -0.10976663 | 7.354613 | -1.2318988 | 2.220995e-01 | 4.123216e-01 |
| ## ARHGAP30     | -0.20859605 | 7.427502 | -1.2318973 | 2.221001e-01 | 4.123216e-01 |
| ## LOC105372762 | -0.03838287 | 3.295657 | -1.2316624 | 2.221873e-01 | 4.124468e-01 |
| ## RALGPS2      | -0.17577550 | 6.220599 | -1.2315371 | 2.222338e-01 | 4.124964e-01 |
| ## FAM169A-AS1  | -0.08006012 | 3.927617 | -1.2312985 | 2.223225e-01 | 4.125047e-01 |
| ## LINC00537    | -0.10432676 | 6.326643 | -1.2312783 | 2.223300e-01 | 4.125047e-01 |
| ## TNMD         | -0.07648006 | 3.597563 | -1.2312551 | 2.223386e-01 | 4.125047e-01 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LIG3         | -0.11411591 | 6.762814  | -1.2312134 | 2.223541e-01 | 4.125047e-01 |
| ## PCDHGA8      | -0.06624841 | 5.071409  | -1.2312104 | 2.223552e-01 | 4.125047e-01 |
| ## ULK1         | -0.10981354 | 7.336070  | -1.2312051 | 2.223572e-01 | 4.125047e-01 |
| ## NUDT6        | 0.13017500  | 5.196880  | 1.2309424  | 2.224548e-01 | 4.126491e-01 |
| ## ACTR10       | -0.09492986 | 9.749009  | -1.2308052 | 2.225058e-01 | 4.126837e-01 |
| ## TMEM132E     | -0.05034649 | 4.430835  | -1.2307856 | 2.225131e-01 | 4.126837e-01 |
| ## SPATC1L      | 0.16174748  | 5.589255  | 1.2303419  | 2.226781e-01 | 4.129530e-01 |
| ## XPC          | -0.07694910 | 8.065652  | -1.2301454 | 2.227512e-01 | 4.130518e-01 |
| ## IFT140       | -0.08985322 | 5.251173  | -1.2299255 | 2.228330e-01 | 4.130623e-01 |
| ## PURB         | 0.10809426  | 8.692595  | 1.2298769  | 2.228512e-01 | 4.130623e-01 |
| ## BIRC6        | 0.11138797  | 8.932105  | 1.2298193  | 2.228726e-01 | 4.130623e-01 |
| ## ZNF581       | 0.11003953  | 7.221479  | 1.2297753  | 2.228890e-01 | 4.130623e-01 |
| ## HARBI1       | 0.07904599  | 5.073879  | 1.2297686  | 2.228915e-01 | 4.130623e-01 |
| ## LINC00308    | -0.06271440 | 4.209150  | -1.2297643 | 2.228931e-01 | 4.130623e-01 |
| ## LINC02995    | -0.03493044 | 3.329865  | -1.2297572 | 2.228957e-01 | 4.130623e-01 |
| ## LINC00525    | 0.09551700  | 3.653342  | 1.2295264  | 2.229816e-01 | 4.131847e-01 |
| ## NATD1        | -0.07695442 | 5.260850  | -1.2290918 | 2.231435e-01 | 4.134479e-01 |
| ## LOC101928092 | -0.16738038 | 5.360827  | -1.2290317 | 2.231659e-01 | 4.134526e-01 |
| ## TMEM52       | 0.16064881  | 4.405080  | 1.2285709  | 2.233376e-01 | 4.137339e-01 |
| ## PACS1        | -0.05472614 | 4.480060  | -1.2283294 | 2.234277e-01 | 4.138639e-01 |
| ## PRDM10-DT    | -0.04408872 | 3.644591  | -1.2281590 | 2.234912e-01 | 4.139087e-01 |
| ## FST          | -0.22987946 | 6.537290  | -1.2281580 | 2.234916e-01 | 4.139087e-01 |
| ## GPR135       | -0.08004579 | 4.143677  | -1.2279234 | 2.235791e-01 | 4.140340e-01 |
| ## LINC00317    | -0.05489851 | 4.353815  | -1.2277988 | 2.236256e-01 | 4.140833e-01 |
| ## CACNG5       | -0.07711773 | 4.656665  | -1.2277216 | 2.236545e-01 | 4.140998e-01 |
| ## LCMT2        | -0.12552601 | 6.789833  | -1.2276068 | 2.236973e-01 | 4.141423e-01 |
| ## FAM131B-AS2  | 0.06435378  | 4.796949  | 1.2274586  | 2.237526e-01 | 4.142079e-01 |
| ## FKBP14       | 0.15057257  | 6.629132  | 1.2272159  | 2.238432e-01 | 4.142853e-01 |
| ## PVALB        | -0.05236191 | 3.756462  | -1.2271915 | 2.238523e-01 | 4.142853e-01 |
| ## ITFG2        | -0.09250549 | 6.298892  | -1.2271868 | 2.238541e-01 | 4.142853e-01 |
| ## ACVR2A       | -0.12984693 | 7.169542  | -1.2270832 | 2.238928e-01 | 4.143185e-01 |
| ## DICER1       | 0.22103531  | 7.889300  | 1.2269788  | 2.239318e-01 | 4.143185e-01 |
| ## MGC70870     | 0.09037792  | 5.009310  | 1.2268952  | 2.239630e-01 | 4.143185e-01 |
| ## WDR93        | -0.07536108 | 4.185597  | -1.2268733 | 2.239712e-01 | 4.143185e-01 |
| ## GTSF1L       | -0.12623082 | 5.189045  | -1.2268492 | 2.239802e-01 | 4.143185e-01 |
| ## GIMAP4       | -0.19921036 | 7.614604  | -1.2268190 | 2.239915e-01 | 4.143185e-01 |
| ## H2BC21       | 0.31170750  | 6.867568  | 1.2262177  | 2.242162e-01 | 4.146975e-01 |
| ## UFSP1        | 0.09986603  | 5.144132  | 1.2259914  | 2.243008e-01 | 4.146976e-01 |
| ## RABL3        | -0.11772923 | 6.596142  | -1.2259763 | 2.243065e-01 | 4.146976e-01 |
| ## HRG          | -0.04506068 | 3.971718  | -1.2259687 | 2.243093e-01 | 4.146976e-01 |
| ## LINC02029    | -0.05598999 | 4.010148  | -1.2259613 | 2.243121e-01 | 4.146976e-01 |
| ## ZDHHC4       | 0.11746567  | 7.975663  | 1.2259511  | 2.243159e-01 | 4.146976e-01 |
| ## LINC00347    | -0.04218431 | 4.362257  | -1.2258199 | 2.243650e-01 | 4.147443e-01 |
| ## FCN3         | 0.09356152  | 4.499572  | 1.2257771  | 2.243810e-01 | 4.147443e-01 |
| ## CELSR1       | -0.05117904 | 4.115901  | -1.2256417 | 2.244316e-01 | 4.148011e-01 |
| ## TSSK4        | -0.05286197 | 4.011343  | -1.2253281 | 2.245490e-01 | 4.149812e-01 |
| ## ZNF207       | 0.11706085  | 8.733584  | 1.2249918  | 2.246749e-01 | 4.151770e-01 |
| ## EVI5         | -0.10632472 | 5.184300  | -1.2248733 | 2.247193e-01 | 4.152222e-01 |
| ## P2RY12       | -0.10132424 | 3.707055  | -1.2247198 | 2.247768e-01 | 4.152833e-01 |
| ## VDAC2        | 0.08458102  | 10.878911 | 1.2246785  | 2.247922e-01 | 4.152833e-01 |
| ## SIGLEC16     | 0.05561192  | 4.120024  | 1.2246122  | 2.248171e-01 | 4.152923e-01 |
| ## NFIA-AS2     | -0.11100167 | 3.944424  | -1.2244442 | 2.248800e-01 | 4.153717e-01 |
| ## NTRK1        | -0.07891386 | 3.868733  | -1.2241522 | 2.249894e-01 | 4.155370e-01 |
| ## LOC105375527 | -0.04451201 | 3.545324  | -1.2240319 | 2.250345e-01 | 4.155834e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## B3GNTL1      | 0.11531119  | 5.719474  | 1.2239577  | 2.250624e-01 | 4.155980e-01 |
| ## HCK          | 0.21615450  | 7.510032  | 1.2238117  | 2.251171e-01 | 4.156622e-01 |
| ## ZNF213-AS1   | -0.05553744 | 3.685108  | -1.2237177 | 2.251523e-01 | 4.156631e-01 |
| ## OR52A1       | -0.05698186 | 4.428981  | -1.2237039 | 2.251575e-01 | 4.156631e-01 |
| ## ATRAID       | -0.07040546 | 10.006461 | -1.2236094 | 2.251929e-01 | 4.156917e-01 |
| ## GAS2L2       | -0.07357938 | 6.027643  | -1.2233185 | 2.253021e-01 | 4.158522e-01 |
| ## CRADD        | -0.09213421 | 7.014411  | -1.2232374 | 2.253325e-01 | 4.158522e-01 |
| ## PCBP1        | 0.07595693  | 10.113042 | 1.2232179  | 2.253398e-01 | 4.158522e-01 |
| ## CSN1S2AP     | -0.03974947 | 3.454890  | -1.2227829 | 2.255031e-01 | 4.161167e-01 |
| ## NT5C         | 0.08173100  | 5.698667  | 1.2225487  | 2.255911e-01 | 4.162421e-01 |
| ## PLK5         | -0.05789358 | 4.952611  | -1.2220741 | 2.257693e-01 | 4.165341e-01 |
| ## KY           | -0.03815163 | 3.806847  | -1.2218503 | 2.258535e-01 | 4.166524e-01 |
| ## RER1         | 0.12094364  | 9.916607  | 1.2217632  | 2.258862e-01 | 4.166759e-01 |
| ## MPO          | 0.05611212  | 3.833144  | 1.2213703  | 2.260339e-01 | 4.168817e-01 |
| ## TOP1P2       | -0.04772031 | 3.526147  | -1.2213599 | 2.260378e-01 | 4.168817e-01 |
| ## NPW          | -0.21395031 | 3.986575  | -1.2213016 | 2.260597e-01 | 4.168850e-01 |
| ## KCNJ14       | 0.05230302  | 4.436862  | 1.2212390  | 2.260833e-01 | 4.168850e-01 |
| ## LILRP2       | -0.09584101 | 3.831692  | -1.2211955 | 2.260997e-01 | 4.168850e-01 |
| ## TIAM1-AS1    | 0.08266625  | 3.917607  | 1.2209944  | 2.261753e-01 | 4.169876e-01 |
| ## KIRREL3-AS3  | 0.04623535  | 3.853796  | 1.2208925  | 2.262137e-01 | 4.170214e-01 |
| ## ZFAND2A      | 0.14791456  | 7.948099  | 1.2208105  | 2.262445e-01 | 4.170414e-01 |
| ## UGT2B4       | 0.02679796  | 3.084550  | 1.2207198  | 2.262786e-01 | 4.170673e-01 |
| ## RASAL3       | -0.11931812 | 6.988729  | -1.2205277 | 2.263510e-01 | 4.171637e-01 |
| ## ZDHHC22      | -0.06301122 | 5.792784  | -1.2203925 | 2.264019e-01 | 4.172206e-01 |
| ## LINC01193    | -0.06892941 | 4.259765  | -1.2203096 | 2.264331e-01 | 4.172412e-01 |
| ## ATP1A4       | -0.03856052 | 3.872412  | -1.2201652 | 2.264875e-01 | 4.173044e-01 |
| ## SPTBN5       | 0.10484210  | 5.238525  | 1.2198440  | 2.266085e-01 | 4.174905e-01 |
| ## MITF         | -0.03281138 | 3.261318  | -1.2197604 | 2.266400e-01 | 4.175116e-01 |
| ## PDE7A        | -0.13664661 | 5.542945  | -1.2195682 | 2.267124e-01 | 4.176081e-01 |
| ## LOC731157    | -0.03406836 | 3.544732  | -1.2194524 | 2.267561e-01 | 4.176515e-01 |
| ## DPY19L2P3    | -0.03653852 | 3.485308  | -1.2192902 | 2.268172e-01 | 4.177272e-01 |
| ## LOC105377663 | 0.04664089  | 3.670790  | 1.2190553  | 2.269058e-01 | 4.178534e-01 |
| ## SDR39U1      | -0.10208361 | 8.079986  | -1.2189516 | 2.269449e-01 | 4.178688e-01 |
| ## DDX59-AS1    | 0.03317326  | 3.585064  | 1.2188891  | 2.269685e-01 | 4.178688e-01 |
| ## RGS13        | -0.02849335 | 3.084278  | -1.2188735 | 2.269743e-01 | 4.178688e-01 |
| ## VENTX        | -0.06725061 | 4.932445  | -1.2183754 | 2.271623e-01 | 4.181779e-01 |
| ## PMPCB        | -0.05217095 | 3.729485  | -1.2180631 | 2.272802e-01 | 4.183334e-01 |
| ## RFX1         | 0.04636166  | 4.047947  | 1.2180452  | 2.272870e-01 | 4.183334e-01 |
| ## KRT72        | -0.04368751 | 4.827313  | -1.2179363 | 2.273281e-01 | 4.183721e-01 |
| ## LOC100286922 | -0.04910157 | 3.639164  | -1.2177463 | 2.273999e-01 | 4.184355e-01 |
| ## SEMA3B       | -0.07491019 | 4.177964  | -1.2177147 | 2.274118e-01 | 4.184355e-01 |
| ## GCC2-AS1     | 0.06778755  | 4.812813  | 1.2176855  | 2.274228e-01 | 4.184355e-01 |
| ## RRN3P1       | -0.15237663 | 4.847759  | -1.2175622 | 2.274694e-01 | 4.184842e-01 |
| ## CFAP299      | -0.03460227 | 3.341215  | -1.2174920 | 2.274959e-01 | 4.184961e-01 |
| ## ABHD1        | -0.06847407 | 3.886380  | -1.2173098 | 2.275648e-01 | 4.185308e-01 |
| ## WNT10B       | -0.07570832 | 6.090240  | -1.2172927 | 2.275712e-01 | 4.185308e-01 |
| ## SDCBP        | -0.07962848 | 11.397759 | -1.2172824 | 2.275751e-01 | 4.185308e-01 |
| ## GZMM         | -0.10224278 | 5.143486  | -1.2172184 | 2.275993e-01 | 4.185384e-01 |
| ## CCDC198      | -0.05691965 | 4.378759  | -1.2170985 | 2.276447e-01 | 4.185847e-01 |
| ## ADGB         | -0.03241993 | 3.386671  | -1.2168845 | 2.277256e-01 | 4.186965e-01 |
| ## SLC6A18      | -0.05806221 | 5.085545  | -1.2167452 | 2.277782e-01 | 4.187503e-01 |
| ## ARHGEF7      | 0.10107545  | 3.760125  | 1.2167008  | 2.277950e-01 | 4.187503e-01 |
| ## CGNL1        | -0.06236004 | 4.074556  | -1.2165433 | 2.278546e-01 | 4.188229e-01 |
| ## LINC00703    | -0.04112911 | 3.639672  | -1.2156831 | 2.281802e-01 | 4.193843e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## L1CAM        | 0.30423806  | 4.809818  | 1.2155515  | 2.282300e-01 | 4.194389e-01 |
| ## PLLP         | -0.35886979 | 8.220512  | -1.2148947 | 2.284789e-01 | 4.198592e-01 |
| ## CCDC153      | -0.06692197 | 4.001898  | -1.2143904 | 2.286701e-01 | 4.201735e-01 |
| ## CWC22        | 0.10163708  | 7.587953  | 1.2142349  | 2.287291e-01 | 4.202448e-01 |
| ## SETD9        | 0.21806179  | 5.825846  | 1.2139514  | 2.288366e-01 | 4.203920e-01 |
| ## LOC102723924 | -0.04583244 | 3.597163  | -1.2139174 | 2.288496e-01 | 4.203920e-01 |
| ## ZSCAN9       | 0.10816980  | 6.028334  | 1.2138487  | 2.288756e-01 | 4.204027e-01 |
| ## IL6          | 0.37738033  | 6.998868  | 1.2137830  | 2.289006e-01 | 4.204115e-01 |
| ## ING1         | 0.09383726  | 7.810833  | 1.2132541  | 2.291014e-01 | 4.207432e-01 |
| ## CDH18        | -0.05982204 | 4.212716  | -1.2131479 | 2.291417e-01 | 4.207802e-01 |
| ## ERCC8        | 0.03466585  | 3.436470  | 1.2126586  | 2.293276e-01 | 4.210844e-01 |
| ## CLTA         | 0.15325184  | 5.141845  | 1.2122426  | 2.294858e-01 | 4.213376e-01 |
| ## SLC17A6      | -0.04719052 | 3.420606  | -1.2119737 | 2.295880e-01 | 4.214882e-01 |
| ## LINC02504    | -0.09102413 | 4.399202  | -1.2119087 | 2.296128e-01 | 4.214965e-01 |
| ## SFI1         | -0.07462597 | 6.824082  | -1.2114391 | 2.297914e-01 | 4.217873e-01 |
| ## SLC43A1      | -0.17500995 | 7.262500  | -1.2110230 | 2.299499e-01 | 4.220195e-01 |
| ## PIH1D2       | 0.04323689  | 3.758179  | 1.2109828  | 2.299652e-01 | 4.220195e-01 |
| ## CPPED1       | 0.11925429  | 4.584175  | 1.2109472  | 2.299787e-01 | 4.220195e-01 |
| ## MAGED2       | -0.17726898 | 8.546650  | -1.2108336 | 2.300220e-01 | 4.220617e-01 |
| ## RAB11FIP1    | 0.24321728  | 9.379355  | 1.2107495  | 2.300541e-01 | 4.220833e-01 |
| ## ERVK13-1     | -0.08943803 | 5.344199  | -1.2106511 | 2.300915e-01 | 4.220881e-01 |
| ## MRPS9        | 0.13501664  | 7.913480  | 1.2105725  | 2.301215e-01 | 4.220881e-01 |
| ## SFT2D3       | 0.08504358  | 7.439248  | 1.2105477  | 2.301309e-01 | 4.220881e-01 |
| ## IRS4         | -0.22127759 | 3.760065  | -1.2105290 | 2.301381e-01 | 4.220881e-01 |
| ## WWP1-AS1     | 0.11397464  | 4.039617  | 1.2104767  | 2.301580e-01 | 4.220881e-01 |
| ## TMEM135      | -0.03359843 | 3.240023  | -1.2100266 | 2.303296e-01 | 4.223655e-01 |
| ## TSC22D3      | -0.17058096 | 7.458385  | -1.2099041 | 2.303763e-01 | 4.224140e-01 |
| ## SLC24A3-AS1  | -0.07476591 | 4.038835  | -1.2097373 | 2.304399e-01 | 4.224934e-01 |
| ## TEX35        | -0.06270417 | 4.448114  | -1.2093057 | 2.306046e-01 | 4.227581e-01 |
| ## USP14        | 0.13079408  | 8.278187  | 1.2091253  | 2.306734e-01 | 4.228470e-01 |
| ## BHLHA15      | -0.24825837 | 6.270521  | -1.2089264 | 2.307493e-01 | 4.229100e-01 |
| ## TCAF1        | -0.06952758 | 7.418499  | -1.2088931 | 2.307620e-01 | 4.229100e-01 |
| ## MKNK2        | -0.12552801 | 10.316482 | -1.2088758 | 2.307686e-01 | 4.229100e-01 |
| ## SNX32        | -0.06490484 | 3.870083  | -1.2087670 | 2.308102e-01 | 4.229195e-01 |
| ## SUZ12        | -0.05102110 | 3.659400  | -1.2087559 | 2.308144e-01 | 4.229195e-01 |
| ## HMGCLL1      | -0.11182766 | 4.133526  | -1.2086785 | 2.308440e-01 | 4.229302e-01 |
| ## AP2B1        | 0.12541078  | 8.929149  | 1.2086342  | 2.308609e-01 | 4.229302e-01 |
| ## RNF215       | -0.07060446 | 4.991742  | -1.2085560 | 2.308907e-01 | 4.229476e-01 |
| ## DCAF16       | 0.17544922  | 5.316871  | 1.2082886  | 2.309929e-01 | 4.230976e-01 |
| ## PLAAT4       | 0.29071065  | 9.317553  | 1.2077331  | 2.312052e-01 | 4.234233e-01 |
| ## PRLH         | -0.09316009 | 5.272831  | -1.2077170 | 2.312114e-01 | 4.234233e-01 |
| ## TSNARE1      | -0.10460047 | 4.434875  | -1.2076396 | 2.312410e-01 | 4.234402e-01 |
| ## DBIL5P2      | -0.08399674 | 4.044827  | -1.2075398 | 2.312791e-01 | 4.234729e-01 |
| ## RAB8A        | 0.09874256  | 9.657984  | 1.2072927  | 2.313736e-01 | 4.235734e-01 |
| ## ASZ1         | -0.04163447 | 3.236947  | -1.2072899 | 2.313747e-01 | 4.235734e-01 |
| ## NARF         | 0.08514674  | 8.390599  | 1.2070699  | 2.314589e-01 | 4.236902e-01 |
| ## DLEU2        | 0.17890272  | 6.597601  | 1.2068710  | 2.315350e-01 | 4.237923e-01 |
| ## KRTAP9-9     | -0.03063804 | 3.163503  | -1.2066359 | 2.316250e-01 | 4.239198e-01 |
| ## IL10RB-DT    | -0.06447512 | 4.051070  | -1.2063748 | 2.317250e-01 | 4.240655e-01 |
| ## GASK1B       | 0.19431365  | 6.047854  | 1.2062254  | 2.317822e-01 | 4.241229e-01 |
| ## LOC105373618 | -0.05945114 | 4.798301  | -1.2061865 | 2.317971e-01 | 4.241229e-01 |
| ## H2BW2        | -0.08526010 | 4.206270  | -1.2059803 | 2.318761e-01 | 4.242301e-01 |
| ## SIN3B        | -0.11292628 | 6.574632  | -1.2057493 | 2.319646e-01 | 4.243548e-01 |
| ## ZNF235       | -0.05441863 | 4.281576  | -1.2056793 | 2.319914e-01 | 4.243666e-01 |

|    |              |             |           |            |              |              |
|----|--------------|-------------|-----------|------------|--------------|--------------|
| ## | PLAG1        | 0.16339506  | 4.453672  | 1.2055914  | 2.320251e-01 | 4.243910e-01 |
| ## | TMEM176A     | 0.23010408  | 9.671147  | 1.2050782  | 2.322219e-01 | 4.247136e-01 |
| ## | PCDHAC1      | -0.04300004 | 4.263463  | -1.2049492 | 2.322714e-01 | 4.247668e-01 |
| ## | PARP4        | 0.12976531  | 9.856191  | 1.2048612  | 2.323051e-01 | 4.247912e-01 |
| ## | FAM81B       | -0.10006002 | 3.420267  | -1.2048021 | 2.323278e-01 | 4.247954e-01 |
| ## | LINC00526    | -0.12381810 | 5.881855  | -1.2046173 | 2.323987e-01 | 4.248877e-01 |
| ## | FSCN2        | 0.06183511  | 3.920462  | 1.2044892  | 2.324479e-01 | 4.249403e-01 |
| ## | ZNF572       | 0.08185717  | 4.149062  | 1.2043665  | 2.324950e-01 | 4.249891e-01 |
| ## | SPPL2C       | -0.09607873 | 4.429390  | -1.2042058 | 2.325567e-01 | 4.250645e-01 |
| ## | PPIL2        | -0.05722805 | 6.934455  | -1.2039611 | 2.326506e-01 | 4.251538e-01 |
| ## | TCEA1        | 0.06659025  | 5.612634  | 1.2039370  | 2.326599e-01 | 4.251538e-01 |
| ## | CYP4F30P     | 0.03217122  | 3.262610  | 1.2039191  | 2.326668e-01 | 4.251538e-01 |
| ## | LINC00324    | -0.11623553 | 5.667683  | -1.2035530 | 2.328074e-01 | 4.253649e-01 |
| ## | LAIR1        | 0.11007563  | 6.247111  | 1.2035020  | 2.328270e-01 | 4.253649e-01 |
| ## | LOC101928012 | 0.03137827  | 3.271923  | 1.2034588  | 2.328436e-01 | 4.253649e-01 |
| ## | HSPB9        | -0.09780093 | 4.301240  | -1.2031846 | 2.329490e-01 | 4.254970e-01 |
| ## | PCOLCE-AS1   | -0.07179806 | 5.761001  | -1.2031234 | 2.329725e-01 | 4.254970e-01 |
| ## | ATP5MK       | -0.07054573 | 12.024821 | -1.2030910 | 2.329850e-01 | 4.254970e-01 |
| ## | LINC00471    | -0.03048873 | 3.297399  | -1.2030381 | 2.330053e-01 | 4.254970e-01 |
| ## | ARRB2        | 0.10935702  | 7.075313  | 1.2030050  | 2.330180e-01 | 4.254970e-01 |
| ## | FAS-AS1      | 0.03689678  | 3.437399  | 1.2027937  | 2.330993e-01 | 4.255926e-01 |
| ## | ALDH3B1      | -0.05545123 | 5.999977  | -1.2027626 | 2.331113e-01 | 4.255926e-01 |
| ## | MYCBPAP      | -0.03994303 | 3.500378  | -1.2024662 | 2.332253e-01 | 4.257634e-01 |
| ## | NRG3         | -0.05078018 | 3.554380  | -1.2023994 | 2.332510e-01 | 4.257730e-01 |
| ## | CD7          | 0.12083957  | 6.409070  | 1.2022934  | 2.332918e-01 | 4.258101e-01 |
| ## | ADGRF1       | 0.07323025  | 4.173318  | 1.2021628  | 2.333420e-01 | 4.258646e-01 |
| ## | TMEM273      | -0.03612886 | 3.656039  | -1.2019309 | 2.334313e-01 | 4.259901e-01 |
| ## | MAP4K5       | -0.13011552 | 7.507326  | -1.2017389 | 2.335052e-01 | 4.260877e-01 |
| ## | SPATA21      | -0.09793065 | 5.538474  | -1.2015212 | 2.335891e-01 | 4.262033e-01 |
| ## | PADI4        | -0.03148363 | 3.278321  | -1.2012471 | 2.336947e-01 | 4.263587e-01 |
| ## | LINC02092    | -0.05387654 | 4.611407  | -1.2009262 | 2.338183e-01 | 4.265469e-01 |
| ## | CHCHD5       | -0.04967686 | 4.160773  | -1.2007396 | 2.338903e-01 | 4.266408e-01 |
| ## | CAMKMT       | 0.04782466  | 3.439074  | 1.2004572  | 2.339992e-01 | 4.268020e-01 |
| ## | SORCS3       | -0.03232079 | 3.365734  | -1.2003308 | 2.340479e-01 | 4.268536e-01 |
| ## | RDH11        | 0.07732441  | 4.222621  | 1.2000433  | 2.341588e-01 | 4.270185e-01 |
| ## | NDUFS7       | -0.12214096 | 8.463171  | -1.1999578 | 2.341918e-01 | 4.270412e-01 |
| ## | CCR1         | 0.23528177  | 7.034562  | 1.1997599  | 2.342682e-01 | 4.271431e-01 |
| ## | ZNF7         | 0.04528418  | 3.465493  | 1.1997045  | 2.342896e-01 | 4.271447e-01 |
| ## | OR2H2        | -0.10235663 | 4.337508  | -1.1994860 | 2.343740e-01 | 4.272611e-01 |
| ## | LOC338694    | -0.04828504 | 3.771859  | -1.1993509 | 2.344261e-01 | 4.273187e-01 |
| ## | PLEKHJ1      | -0.10344153 | 8.038214  | -1.1991502 | 2.345036e-01 | 4.273555e-01 |
| ## | ROPN1L       | -0.04865317 | 3.862622  | -1.1991255 | 2.345132e-01 | 4.273555e-01 |
| ## | HEXD         | -0.07970030 | 7.276228  | -1.1990933 | 2.345256e-01 | 4.273555e-01 |
| ## | NHS          | -0.25784015 | 6.633057  | -1.1990862 | 2.345284e-01 | 4.273555e-01 |
| ## | EN1          | -0.04448635 | 3.467027  | -1.1990256 | 2.345518e-01 | 4.273592e-01 |
| ## | TSPYL6       | -0.03880724 | 3.406302  | -1.1989386 | 2.345854e-01 | 4.273592e-01 |
| ## | CATSPER3     | -0.06255024 | 4.094127  | -1.1989215 | 2.345920e-01 | 4.273592e-01 |
| ## | SNED1        | -0.05957170 | 4.642438  | -1.1987265 | 2.346673e-01 | 4.274218e-01 |
| ## | LOC100132356 | -0.06919934 | 3.909819  | -1.1987264 | 2.346674e-01 | 4.274218e-01 |
| ## | C2CD4A       | 0.33627387  | 6.272909  | 1.1985833  | 2.347227e-01 | 4.274851e-01 |
| ## | JAK1         | 0.14160957  | 8.769819  | 1.1984422  | 2.347772e-01 | 4.275471e-01 |
| ## | SMIM15       | -0.09288569 | 9.987344  | -1.1979950 | 2.349502e-01 | 4.278130e-01 |
| ## | HDAC5        | -0.13170232 | 6.601633  | -1.1979584 | 2.349643e-01 | 4.278130e-01 |
| ## | H6PD         | 0.04506260  | 4.125028  | 1.1978993  | 2.349872e-01 | 4.278172e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LINC00887    | 0.03550391  | 3.370402  | 1.1976265  | 2.350927e-01 | 4.279719e-01 |
| ## IGHG1        | 0.30747634  | 7.240242  | 1.1973773  | 2.351892e-01 | 4.281101e-01 |
| ## MCM9         | 0.04592203  | 3.327911  | 1.1971127  | 2.352916e-01 | 4.282366e-01 |
| ## LOC100506929 | -0.04560695 | 3.860463  | -1.1970916 | 2.352998e-01 | 4.282366e-01 |
| ## SCIRT        | 0.05255076  | 4.000283  | 1.1969028  | 2.353729e-01 | 4.283322e-01 |
| ## EPIC1        | 0.06064699  | 4.698882  | 1.1968256  | 2.354028e-01 | 4.283492e-01 |
| ## CCDC13       | -0.15935163 | 5.537992  | -1.1965410 | 2.355131e-01 | 4.285123e-01 |
| ## OR10H2       | -0.04668134 | 3.627381  | -1.1963029 | 2.356053e-01 | 4.286428e-01 |
| ## IRAK1BP1     | -0.12598198 | 3.884258  | -1.1961262 | 2.356738e-01 | 4.287299e-01 |
| ## NCOA2        | 0.18820423  | 5.944507  | 1.1960429  | 2.357061e-01 | 4.287513e-01 |
| ## FAM205A      | -0.04461192 | 4.136041  | -1.1959768 | 2.357318e-01 | 4.287604e-01 |
| ## ATP6V0E2     | -0.19210575 | 6.644104  | -1.1957018 | 2.358384e-01 | 4.289169e-01 |
| ## PAN3         | 0.16341397  | 9.721838  | 1.1955993  | 2.358781e-01 | 4.289517e-01 |
| ## DNAI3        | -0.04051912 | 3.539282  | -1.1954930 | 2.359194e-01 | 4.289893e-01 |
| ## WWC1         | -0.07923088 | 4.551183  | -1.1953667 | 2.359684e-01 | 4.290410e-01 |
| ## USP31        | 0.12260410  | 4.851554  | 1.1952853  | 2.360000e-01 | 4.290609e-01 |
| ## LOC100288590 | -0.02797446 | 3.251412  | -1.1951864 | 2.360384e-01 | 4.290659e-01 |
| ## PARD6A       | 0.07327627  | 6.626623  | 1.1951397  | 2.360565e-01 | 4.290659e-01 |
| ## WWC3         | -0.18273566 | 7.375844  | -1.1951189 | 2.360646e-01 | 4.290659e-01 |
| ## IPO5P1       | 0.05112337  | 3.973640  | 1.1950476  | 2.360922e-01 | 4.290788e-01 |
| ## LTA          | -0.05355433 | 4.372969  | -1.1949578 | 2.361271e-01 | 4.291047e-01 |
| ## GVINP1       | 0.10523880  | 3.619295  | 1.1946098  | 2.362622e-01 | 4.293128e-01 |
| ## OSBPL11      | 0.11898516  | 7.259783  | 1.1944670  | 2.363177e-01 | 4.293761e-01 |
| ## RGS7BP       | -0.14537224 | 3.487058  | -1.1943794 | 2.363517e-01 | 4.294005e-01 |
| ## NELL1        | -0.07031200 | 3.652685  | -1.1942158 | 2.364153e-01 | 4.294784e-01 |
| ## BBOX1-AS1    | 0.26581170  | 5.273785  | 1.1939755  | 2.365086e-01 | 4.296106e-01 |
| ## SNF8         | 0.07295423  | 8.708479  | 1.1936081  | 2.366515e-01 | 4.297990e-01 |
| ## MTCP1        | 0.06665441  | 4.261530  | 1.1936026  | 2.366536e-01 | 4.297990e-01 |
| ## C20orf144    | -0.06611472 | 3.880949  | -1.1933290 | 2.367600e-01 | 4.299547e-01 |
| ## TNNC2        | -0.09336550 | 5.094598  | -1.1932375 | 2.367956e-01 | 4.299818e-01 |
| ## VPS45        | -0.07610624 | 4.910137  | -1.1928945 | 2.369291e-01 | 4.301867e-01 |
| ## VCP1P1       | 0.07725810  | 4.565616  | 1.1928291  | 2.369545e-01 | 4.301953e-01 |
| ## LINC00905    | -0.08377244 | 4.479164  | -1.1927635 | 2.369801e-01 | 4.302042e-01 |
| ## NMT2         | -0.15884567 | 5.859223  | -1.1926541 | 2.370226e-01 | 4.302440e-01 |
| ## ANXA1        | 0.23344125  | 10.377318 | 1.1925961  | 2.370452e-01 | 4.302475e-01 |
| ## LINC00462    | -0.06102446 | 3.772803  | -1.1920693 | 2.372503e-01 | 4.305823e-01 |
| ## BATF3        | 0.09747763  | 6.685093  | 1.1920149  | 2.372715e-01 | 4.305832e-01 |
| ## CD40         | 0.19889373  | 6.909991  | 1.1918921  | 2.373194e-01 | 4.306325e-01 |
| ## MOB3B        | -0.09165169 | 5.478683  | -1.1916746 | 2.374041e-01 | 4.306929e-01 |
| ## HS6ST2       | 0.06871306  | 3.316740  | 1.1916713  | 2.374054e-01 | 4.306929e-01 |
| ## MAP3K7CL     | 0.10923734  | 4.612952  | 1.1916475  | 2.374147e-01 | 4.306929e-01 |
| ## PNN          | 0.14841272  | 5.731514  | 1.1914998  | 2.374723e-01 | 4.307598e-01 |
| ## ZNF839       | -0.05246013 | 4.330897  | -1.1912650 | 2.375638e-01 | 4.308445e-01 |
| ## MAGT1        | 0.15389171  | 7.303550  | 1.1912373  | 2.375746e-01 | 4.308445e-01 |
| ## LOC105370832 | -0.03552421 | 3.321218  | -1.1912208 | 2.375810e-01 | 4.308445e-01 |
| ## GFRA4        | -0.08823149 | 4.486255  | -1.1911403 | 2.376124e-01 | 4.308639e-01 |
| ## CEP104       | 0.10476870  | 7.166326  | 1.1909880  | 2.376718e-01 | 4.309341e-01 |
| ## RAB21        | 0.11600894  | 8.492821  | 1.1907351  | 2.377705e-01 | 4.310644e-01 |
| ## BPIFB1       | -0.68697726 | 9.003462  | -1.1906977 | 2.377851e-01 | 4.310644e-01 |
| ## ZFP69        | -0.07894438 | 4.173082  | -1.1902905 | 2.379440e-01 | 4.313149e-01 |
| ## TRAF7        | 0.07914551  | 7.250207  | 1.1900632  | 2.380327e-01 | 4.314382e-01 |
| ## LINC00623    | -0.13958503 | 9.171507  | -1.1898989 | 2.380969e-01 | 4.314887e-01 |
| ## SETDB2       | 0.12376562  | 3.860812  | 1.1898747  | 2.381063e-01 | 4.314887e-01 |
| ## ZER1         | 0.06565374  | 5.294259  | 1.1898327  | 2.381227e-01 | 4.314887e-01 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## FAM47E     | -0.03165367 | 3.481142  | -1.1897624 | 2.381502e-01 | 4.315009e-01 |
| ## CYB561A3   | 0.08460244  | 7.498283  | 1.1896281  | 2.382026e-01 | 4.315584e-01 |
| ## C10orf126  | -0.02913563 | 3.128266  | -1.1895569 | 2.382305e-01 | 4.315713e-01 |
| ## ZNF703     | -0.25207577 | 8.688860  | -1.1893354 | 2.383170e-01 | 4.316851e-01 |
| ## ESRRB      | -0.04287817 | 3.444594  | -1.1892900 | 2.383348e-01 | 4.316851e-01 |
| ## ATP2B4     | 0.11817617  | 4.802940  | 1.1888943  | 2.384894e-01 | 4.319238e-01 |
| ## FAM20B     | 0.14425828  | 7.964753  | 1.1888467  | 2.385080e-01 | 4.319238e-01 |
| ## GJD4       | -0.10342338 | 4.652399  | -1.1886529 | 2.385838e-01 | 4.320235e-01 |
| ## FOXN3-AS1  | -0.07723434 | 4.787489  | -1.1885415 | 2.386274e-01 | 4.320648e-01 |
| ## PLAAT2     | -0.04945904 | 4.809615  | -1.1883904 | 2.386865e-01 | 4.321343e-01 |
| ## TTTY7      | -0.06834359 | 4.013272  | -1.1882605 | 2.387374e-01 | 4.321887e-01 |
| ## SLC6A2     | -0.05100001 | 3.723708  | -1.1880436 | 2.388223e-01 | 4.322756e-01 |
| ## LYRM4-AS1  | 0.06713703  | 4.585022  | 1.1880318  | 2.388269e-01 | 4.322756e-01 |
| ## LINC01360  | 0.03017134  | 3.140658  | 1.1878796  | 2.388865e-01 | 4.323459e-01 |
| ## KCNK4      | -0.08114367 | 4.153266  | -1.1877175 | 2.389499e-01 | 4.324231e-01 |
| ## PCP4L1     | -0.05855431 | 3.941406  | -1.1875242 | 2.390256e-01 | 4.325225e-01 |
| ## LINC00454  | -0.04373501 | 4.434194  | -1.1874701 | 2.390468e-01 | 4.325233e-01 |
| ## ZNF503-AS2 | 0.06450890  | 5.059459  | 1.1874115  | 2.390698e-01 | 4.325273e-01 |
| ## LINC00486  | 0.03902103  | 3.846798  | 1.1870664  | 2.392050e-01 | 4.327284e-01 |
| ## RFTN2      | -0.06288150 | 5.555513  | -1.1870216 | 2.392225e-01 | 4.327284e-01 |
| ## PCCA-DT    | 0.11456674  | 5.572128  | 1.1868247  | 2.392997e-01 | 4.328220e-01 |
| ## CASP6      | 0.15125943  | 8.229791  | 1.1867368  | 2.393341e-01 | 4.328220e-01 |
| ## NDUFA13    | -0.09139257 | 10.578000 | -1.1867305 | 2.393366e-01 | 4.328220e-01 |
| ## MRS2       | 0.09939557  | 7.065826  | 1.1866114  | 2.393833e-01 | 4.328689e-01 |
| ## LOC729291  | -0.06442602 | 3.599696  | -1.1864737 | 2.394373e-01 | 4.329288e-01 |
| ## GARIN1A    | 0.07675286  | 4.701950  | 1.1860966  | 2.395852e-01 | 4.331318e-01 |
| ## MYLK-AS1   | -0.05828810 | 5.186497  | -1.1859913 | 2.396265e-01 | 4.331318e-01 |
| ## AKR1C6P    | -0.05714444 | 5.667148  | -1.1859521 | 2.396419e-01 | 4.331318e-01 |
| ## CTNNA2     | 0.06878535  | 3.747808  | 1.1859441  | 2.396450e-01 | 4.331318e-01 |
| ## HERPUD2    | -0.11170754 | 8.996688  | -1.1859224 | 2.396535e-01 | 4.331318e-01 |
| ## CLUAP1     | 0.11607080  | 6.944661  | 1.1856891  | 2.397451e-01 | 4.332405e-01 |
| ## ZNF137P    | 0.17915866  | 5.268988  | 1.1856632  | 2.397552e-01 | 4.332405e-01 |
| ## ZNF416     | -0.09987147 | 5.232286  | -1.1852505 | 2.399173e-01 | 4.334956e-01 |
| ## VN1R3      | -0.03433774 | 3.413898  | -1.1850968 | 2.399776e-01 | 4.335671e-01 |
| ## H1-10-AS1  | -0.04795581 | 4.363586  | -1.1845995 | 2.401730e-01 | 4.338824e-01 |
| ## IRX2       | -0.05449026 | 4.645677  | -1.1844007 | 2.402512e-01 | 4.339859e-01 |
| ## TTN        | -0.10160585 | 3.913477  | -1.1842528 | 2.403093e-01 | 4.340533e-01 |
| ## PI15       | -0.05779759 | 4.290221  | -1.1841637 | 2.403443e-01 | 4.340789e-01 |
| ## RCN3       | 0.12838223  | 6.640235  | 1.1840986  | 2.403699e-01 | 4.340875e-01 |
| ## ZNF30      | -0.12003595 | 5.419426  | -1.1835690 | 2.405782e-01 | 4.344261e-01 |
| ## LRRC3C     | -0.05351704 | 3.653795  | -1.1832848 | 2.406901e-01 | 4.345832e-01 |
| ## CD74       | -0.12181843 | 5.118944  | -1.1832321 | 2.407108e-01 | 4.345832e-01 |
| ## MAGEL2     | -0.10683448 | 4.030122  | -1.1831888 | 2.407279e-01 | 4.345832e-01 |
| ## STEAP1     | 0.28796542  | 8.919961  | 1.1830060  | 2.407998e-01 | 4.346317e-01 |
| ## SLC5A11    | 0.12446472  | 4.924946  | 1.1829840  | 2.408085e-01 | 4.346317e-01 |
| ## SUSD3      | -0.11517874 | 5.337242  | -1.1829614 | 2.408174e-01 | 4.346317e-01 |
| ## DIAPH2-AS1 | 0.09880608  | 3.806095  | 1.1828149  | 2.408751e-01 | 4.346892e-01 |
| ## MRPS33     | 0.10704937  | 9.212884  | 1.1827741  | 2.408911e-01 | 4.346892e-01 |
| ## MAP4       | 0.16699602  | 5.935126  | 1.1826656  | 2.409339e-01 | 4.346892e-01 |
| ## TNFSF10    | 0.24201951  | 8.255718  | 1.1826258  | 2.409495e-01 | 4.346892e-01 |
| ## ZNF529-AS1 | -0.04992078 | 3.456280  | -1.1826155 | 2.409536e-01 | 4.346892e-01 |
| ## EDC4       | 0.08153742  | 6.965666  | 1.1825362  | 2.409848e-01 | 4.347079e-01 |
| ## TENM3      | -0.04397497 | 3.644834  | -1.1824773 | 2.410081e-01 | 4.347122e-01 |
| ## RLN2       | 0.08120499  | 3.930529  | 1.1823668  | 2.410516e-01 | 4.347511e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## DEFB119      | -0.05694574 | 3.569810  | -1.1823165 | 2.410714e-01 | 4.347511e-01 |
| ## LEP          | -0.07834724 | 3.888397  | -1.1820997 | 2.411569e-01 | 4.348675e-01 |
| ## RORB         | -0.03830281 | 3.790949  | -1.1817399 | 2.412987e-01 | 4.350857e-01 |
| ## LINC02450    | 0.04477945  | 4.863037  | 1.1813375  | 2.414574e-01 | 4.353341e-01 |
| ## TMUB1        | 0.08959367  | 6.572211  | 1.1809194  | 2.416224e-01 | 4.355670e-01 |
| ## CRY1         | -0.09753523 | 8.415850  | -1.1809041 | 2.416284e-01 | 4.355670e-01 |
| ## AVEN         | 0.11670056  | 6.980416  | 1.1807641  | 2.416837e-01 | 4.356290e-01 |
| ## MTA1         | 0.10731789  | 5.655543  | 1.1806538  | 2.417272e-01 | 4.356656e-01 |
| ## LINC02850    | -0.02735035 | 3.257901  | -1.1805781 | 2.417571e-01 | 4.356656e-01 |
| ## NUS1         | 0.11562480  | 8.225489  | 1.1805118  | 2.417833e-01 | 4.356656e-01 |
| ## DLX4         | 0.08958920  | 4.435252  | 1.1805006  | 2.417877e-01 | 4.356656e-01 |
| ## TAS2R14      | 0.04248386  | 3.816518  | 1.1803933  | 2.418301e-01 | 4.356849e-01 |
| ## ARHGEF38     | -0.04260870 | 4.053154  | -1.1803675 | 2.418403e-01 | 4.356849e-01 |
| ## CCDC96       | 0.06916470  | 4.096187  | 1.1802819  | 2.418741e-01 | 4.357081e-01 |
| ## CMTM6        | 0.02930359  | 3.104327  | 1.1801291  | 2.419344e-01 | 4.357516e-01 |
| ## KIR3DL2      | 0.07803308  | 4.553801  | 1.1800854  | 2.419517e-01 | 4.357516e-01 |
| ## PALD1        | -0.21936011 | 6.170938  | -1.1800236 | 2.419762e-01 | 4.357516e-01 |
| ## ZNF785       | 0.10712462  | 3.963132  | 1.1799643  | 2.419996e-01 | 4.357516e-01 |
| ## SAX02        | -0.04598806 | 3.267124  | -1.1799561 | 2.420028e-01 | 4.357516e-01 |
| ## LOC105378568 | -0.06500787 | 6.226203  | -1.1798210 | 2.420562e-01 | 4.358100e-01 |
| ## SH2D4A       | -0.13532830 | 6.958102  | -1.1795220 | 2.421744e-01 | 4.359851e-01 |
| ## MDN1         | 0.12419337  | 4.979032  | 1.1794217  | 2.422140e-01 | 4.359990e-01 |
| ## CYP2W1       | 0.12833443  | 5.995340  | 1.1793965  | 2.422240e-01 | 4.359990e-01 |
| ## PPP6C        | 0.08062732  | 9.560881  | 1.1792724  | 2.422731e-01 | 4.360028e-01 |
| ## NPSA         | -0.04266165 | 3.557145  | -1.1792702 | 2.422739e-01 | 4.360028e-01 |
| ## MED12L       | -0.05322983 | 3.986195  | -1.1792324 | 2.422889e-01 | 4.360028e-01 |
| ## LINC03018    | -0.05115468 | 3.942938  | -1.1789963 | 2.423823e-01 | 4.361331e-01 |
| ## C17orf67     | -0.07607356 | 5.831793  | -1.1788658 | 2.424339e-01 | 4.361883e-01 |
| ## UGT1A6       | 0.30905680  | 4.523687  | 1.1787244  | 2.424898e-01 | 4.362513e-01 |
| ## LRRFIP1      | 0.12383572  | 8.594962  | 1.1784064  | 2.426157e-01 | 4.364400e-01 |
| ## NUDT16L2P    | 0.13886626  | 6.022505  | 1.1782220  | 2.426887e-01 | 4.365085e-01 |
| ## HSPB1        | -0.20399700 | 11.293064 | -1.1781757 | 2.427070e-01 | 4.365085e-01 |
| ## C1orf116     | -0.35541010 | 8.091779  | -1.1781514 | 2.427167e-01 | 4.365085e-01 |
| ## CEND1        | -0.05476306 | 6.273930  | -1.1776973 | 2.428966e-01 | 4.367943e-01 |
| ## LYG2         | 0.04648577  | 3.967985  | 1.1775410  | 2.429585e-01 | 4.368679e-01 |
| ## SEC24B       | -0.07973834 | 9.212474  | -1.1774723 | 2.429857e-01 | 4.368792e-01 |
| ## KCNK10       | -0.04344206 | 3.425412  | -1.1773854 | 2.430201e-01 | 4.369033e-01 |
| ## ATP6V0A1     | 0.11926295  | 5.906867  | 1.1772437  | 2.430763e-01 | 4.369666e-01 |
| ## LINC00518    | 0.02965959  | 3.209936  | 1.1771185  | 2.431259e-01 | 4.370181e-01 |
| ## SNCG         | -0.08101818 | 4.591657  | -1.1769124 | 2.432077e-01 | 4.371048e-01 |
| ## OTOP2        | 0.07050617  | 4.695332  | 1.1768910  | 2.432161e-01 | 4.371048e-01 |
| ## SPI1         | 0.10291216  | 5.456840  | 1.1765724  | 2.433425e-01 | 4.372243e-01 |
| ## ARFIP2       | 0.11907334  | 8.495521  | 1.1765672  | 2.433446e-01 | 4.372243e-01 |
| ## ARL10        | -0.04783056 | 4.934740  | -1.1765645 | 2.433456e-01 | 4.372243e-01 |
| ## WNT6         | 0.05036333  | 4.279752  | 1.1763578  | 2.434277e-01 | 4.373339e-01 |
| ## RANBP6       | -0.11395136 | 7.498269  | -1.1761898 | 2.434943e-01 | 4.374160e-01 |
| ## CYFIP1       | -0.08036456 | 10.428055 | -1.1760061 | 2.435672e-01 | 4.375015e-01 |
| ## RPIA         | 0.13703264  | 8.372799  | 1.1759451  | 2.435915e-01 | 4.375015e-01 |
| ## PRDX2        | 0.07357133  | 4.729621  | 1.1759111  | 2.436050e-01 | 4.375015e-01 |
| ## NKPD1        | -0.08832057 | 5.065223  | -1.1758393 | 2.436335e-01 | 4.375150e-01 |
| ## KCNH3        | -0.08033119 | 5.565653  | -1.1756361 | 2.437142e-01 | 4.376221e-01 |
| ## OR10D1P      | -0.05943016 | 4.058202  | -1.1753375 | 2.438328e-01 | 4.377224e-01 |
| ## TSPAN31      | -0.16340979 | 7.690460  | -1.1753084 | 2.438443e-01 | 4.377224e-01 |
| ## PPHLN1       | 0.07345999  | 4.385127  | 1.1752901  | 2.438516e-01 | 4.377224e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## SCAMP2       | 0.09014198  | 8.442215 | 1.1752838  | 2.438541e-01 | 4.377224e-01 |
| ## NR1H2        | 0.10451368  | 6.783174 | 1.1751031  | 2.439259e-01 | 4.378136e-01 |
| ## LOC101928554 | -0.04151256 | 3.650688 | -1.1748476 | 2.440274e-01 | 4.378730e-01 |
| ## GNRHR        | 0.02703423  | 3.195156 | 1.1748418  | 2.440298e-01 | 4.378730e-01 |
| ## LOC102723665 | 0.07232084  | 4.485560 | 1.1748143  | 2.440407e-01 | 4.378730e-01 |
| ## LOC101928014 | -0.05449332 | 4.378431 | -1.1748008 | 2.440461e-01 | 4.378730e-01 |
| ## NEB          | 0.34018349  | 4.881282 | 1.1747295  | 2.440744e-01 | 4.378730e-01 |
| ## CRCT1        | 0.20420204  | 4.004526 | 1.1747024  | 2.440852e-01 | 4.378730e-01 |
| ## BCL2         | -0.06334535 | 4.011216 | -1.1745278 | 2.441546e-01 | 4.379153e-01 |
| ## CSRNP1       | -0.15329689 | 6.774887 | -1.1744746 | 2.441757e-01 | 4.379153e-01 |
| ## RAB40B       | 0.22849367  | 8.683959 | 1.1744108  | 2.442011e-01 | 4.379153e-01 |
| ## CLCA3P       | -0.03052550 | 3.079676 | -1.1743406 | 2.442291e-01 | 4.379153e-01 |
| ## LINC02287    | -0.09802470 | 4.591529 | -1.1742564 | 2.442625e-01 | 4.379153e-01 |
| ## TDRKH        | 0.05430063  | 3.854522 | 1.1742139  | 2.442794e-01 | 4.379153e-01 |
| ## PXYP1        | -0.19871590 | 7.571431 | -1.1741952 | 2.442869e-01 | 4.379153e-01 |
| ## USH1C        | 0.22136222  | 7.561234 | 1.1741844  | 2.442912e-01 | 4.379153e-01 |
| ## CENPT        | 0.12219262  | 5.889114 | 1.1741592  | 2.443012e-01 | 4.379153e-01 |
| ## DYDC2        | 0.03157578  | 3.772029 | 1.1741143  | 2.443191e-01 | 4.379153e-01 |
| ## RUNDC3A      | -0.13908628 | 4.140678 | -1.1740444 | 2.443469e-01 | 4.379229e-01 |
| ## RDH10        | 0.16459690  | 5.774142 | 1.1739857  | 2.443702e-01 | 4.379229e-01 |
| ## KDM3B        | -0.11268801 | 8.770684 | -1.1739451 | 2.443864e-01 | 4.379229e-01 |
| ## IQCF1        | 0.06334358  | 4.484524 | 1.1738390  | 2.444286e-01 | 4.379592e-01 |
| ## RPL10        | -0.04879389 | 5.195922 | -1.1737886 | 2.444487e-01 | 4.379592e-01 |
| ## FGF16        | -0.07181490 | 4.103690 | -1.1735121 | 2.445588e-01 | 4.381187e-01 |
| ## ARHGAP8      | 0.16184352  | 5.482010 | 1.1733735  | 2.446139e-01 | 4.381477e-01 |
| ## USP6NL-AS1   | -0.08107415 | 4.318497 | -1.1733657 | 2.446170e-01 | 4.381477e-01 |
| ## COL2A1       | -0.19178296 | 3.998572 | -1.1733056 | 2.446409e-01 | 4.381528e-01 |
| ## SSX3         | 0.11780363  | 4.054984 | 1.1732406  | 2.446668e-01 | 4.381615e-01 |
| ## TMEM275      | -0.06027531 | 4.780536 | -1.1727467 | 2.448636e-01 | 4.384577e-01 |
| ## HOTAIRM1     | -0.23955400 | 6.710843 | -1.1727146 | 2.448764e-01 | 4.384577e-01 |
| ## PITX3        | -0.08049994 | 5.868520 | -1.1726669 | 2.448954e-01 | 4.384577e-01 |
| ## GPR153       | -0.13757167 | 6.629393 | -1.1726076 | 2.449190e-01 | 4.384624e-01 |
| ## CXXC5        | -0.19608104 | 8.265497 | -1.1725149 | 2.449560e-01 | 4.384908e-01 |
| ## PUS3         | 0.07492580  | 7.110984 | 1.1722433  | 2.450643e-01 | 4.386469e-01 |
| ## HMG20A       | -0.10684275 | 7.786193 | -1.1721199 | 2.451135e-01 | 4.386665e-01 |
| ## DYNC2LI1     | 0.05261312  | 3.397370 | 1.1721103  | 2.451173e-01 | 4.386665e-01 |
| ## GPR108       | -0.08920193 | 8.075666 | -1.1719889 | 2.451657e-01 | 4.387154e-01 |
| ## ZNF621       | 0.09435455  | 7.020752 | 1.1717144  | 2.452752e-01 | 4.388393e-01 |
| ## COL6A1       | -0.20889901 | 7.653063 | -1.1717097 | 2.452771e-01 | 4.388393e-01 |
| ## ZNF440       | 0.05400998  | 3.874521 | 1.1716456  | 2.453027e-01 | 4.388473e-01 |
| ## C19orf47     | -0.06426962 | 4.941359 | -1.1714755 | 2.453706e-01 | 4.389311e-01 |
| ## SLC25A24     | -0.04367041 | 4.217955 | -1.1713312 | 2.454281e-01 | 4.389964e-01 |
| ## CENPV        | 0.22123464  | 8.182972 | 1.1710853  | 2.455263e-01 | 4.390798e-01 |
| ## LARP7        | -0.08370279 | 8.405824 | -1.1710799 | 2.455285e-01 | 4.390798e-01 |
| ## KLF11        | 0.08435616  | 4.091796 | 1.1710559  | 2.455380e-01 | 4.390798e-01 |
| ## LINC00862    | 0.03833593  | 3.471345 | 1.1709060  | 2.455979e-01 | 4.391174e-01 |
| ## NOVA2        | -0.06590230 | 3.914542 | -1.1708976 | 2.456013e-01 | 4.391174e-01 |
| ## MYBL1        | -0.26326277 | 4.960495 | -1.1705390 | 2.457445e-01 | 4.393358e-01 |
| ## FGFBP3       | -0.05921924 | 3.812254 | -1.1700487 | 2.459404e-01 | 4.396483e-01 |
| ## HYAL4        | -0.06459311 | 4.503780 | -1.1697482 | 2.460606e-01 | 4.398253e-01 |
| ## MASP1        | -0.04337562 | 3.693677 | -1.1696447 | 2.461020e-01 | 4.398616e-01 |
| ## ATG14        | -0.13354225 | 7.219041 | -1.1692241 | 2.462702e-01 | 4.401245e-01 |
| ## ADRA1A       | -0.03799573 | 3.575013 | -1.1688177 | 2.464329e-01 | 4.403774e-01 |
| ## RNASE3       | -0.05804304 | 5.226804 | -1.1686577 | 2.464969e-01 | 4.404541e-01 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LINC01362    | -0.04146701 | 3.601171  | -1.1685524 | 2.465391e-01 | 4.404916e-01 |
| ## ANKRD36BP2   | -0.25890848 | 7.115542  | -1.1674746 | 2.469710e-01 | 4.411982e-01 |
| ## KCNIP2       | -0.09438983 | 3.785108  | -1.1674598 | 2.469769e-01 | 4.411982e-01 |
| ## KRTAP13-1    | -0.07021301 | 4.216902  | -1.1673476 | 2.470219e-01 | 4.412406e-01 |
| ## SLITRK4      | -0.03963259 | 3.617391  | -1.1670319 | 2.471485e-01 | 4.414289e-01 |
| ## EPG5         | 0.10824687  | 5.351786  | 1.1669015  | 2.472008e-01 | 4.414846e-01 |
| ## LINC01013    | -0.03305639 | 3.580392  | -1.1667182 | 2.472744e-01 | 4.415780e-01 |
| ## WDR31        | 0.04626584  | 3.937934  | 1.1663779  | 2.474109e-01 | 4.417840e-01 |
| ## LOC105373714 | -0.05231712 | 3.909635  | -1.1660248 | 2.475527e-01 | 4.419804e-01 |
| ## MAGI3        | -0.07489721 | 4.259842  | -1.1659983 | 2.475634e-01 | 4.419804e-01 |
| ## GUCA2B       | -0.14864751 | 4.371692  | -1.1658503 | 2.476228e-01 | 4.420487e-01 |
| ## DGKK         | -0.06364854 | 4.607264  | -1.1657832 | 2.476498e-01 | 4.420589e-01 |
| ## ZNF599       | -0.08523460 | 3.901992  | -1.1655620 | 2.477386e-01 | 4.421334e-01 |
| ## ANP32B       | 0.09219693  | 10.633138 | 1.1655044  | 2.477618e-01 | 4.421334e-01 |
| ## TMEM150A     | -0.08522640 | 5.808694  | -1.1654842 | 2.477699e-01 | 4.421334e-01 |
| ## WFDC13       | 0.05501682  | 3.557293  | 1.1654680  | 2.477764e-01 | 4.421334e-01 |
| ## TMEM176B     | 0.20574391  | 10.121004 | 1.1653390  | 2.478283e-01 | 4.421880e-01 |
| ## RBM17        | 0.05268008  | 5.385328  | 1.1650291  | 2.479529e-01 | 4.423724e-01 |
| ## ACSM2A       | 0.03585752  | 3.311312  | 1.1647352  | 2.480711e-01 | 4.424227e-01 |
| ## SERPINB8     | -0.08699352 | 4.805399  | -1.1646961 | 2.480868e-01 | 4.424227e-01 |
| ## LINC01875    | -0.06656700 | 5.853588  | -1.1646539 | 2.481037e-01 | 4.424227e-01 |
| ## ANKRD13C     | 0.11129614  | 6.319921  | 1.1646361  | 2.481109e-01 | 4.424227e-01 |
| ## ADAD1        | -0.05966296 | 3.896923  | -1.1646128 | 2.481203e-01 | 4.424227e-01 |
| ## HEATR5A      | 0.12334278  | 7.597206  | 1.1646083  | 2.481221e-01 | 4.424227e-01 |
| ## ZFYVE26      | 0.12598694  | 7.015439  | 1.1645892  | 2.481298e-01 | 4.424227e-01 |
| ## CTRL         | 0.07328288  | 4.596777  | 1.1644172  | 2.481990e-01 | 4.424890e-01 |
| ## UNC5C        | -0.02733971 | 3.259247  | -1.1643475 | 2.482270e-01 | 4.424890e-01 |
| ## PRL          | -0.05601572 | 4.155274  | -1.1643383 | 2.482307e-01 | 4.424890e-01 |
| ## EML2-AS1     | -0.07552394 | 4.463550  | -1.1640684 | 2.483393e-01 | 4.426065e-01 |
| ## ZNF576       | 0.11430156  | 6.631452  | 1.1640103  | 2.483627e-01 | 4.426065e-01 |
| ## LINC00652    | -0.05787599 | 5.272144  | -1.1639801 | 2.483749e-01 | 4.426065e-01 |
| ## LINGO1-AS1   | -0.05555247 | 4.216827  | -1.1639632 | 2.483817e-01 | 4.426065e-01 |
| ## TRIM16       | 0.20299922  | 7.680795  | 1.1638918  | 2.484104e-01 | 4.426199e-01 |
| ## MYRF         | -0.24666273 | 8.407097  | -1.1635521 | 2.485472e-01 | 4.428258e-01 |
| ## ZSCAN2       | 0.05772220  | 5.032313  | 1.1634780  | 2.485771e-01 | 4.428410e-01 |
| ## TLR9         | -0.07212837 | 5.171682  | -1.1632540 | 2.486673e-01 | 4.429587e-01 |
| ## OSBPL5       | -0.12216076 | 6.204534  | -1.1632085 | 2.486856e-01 | 4.429587e-01 |
| ## TSSK3        | -0.06920698 | 6.537777  | -1.1629723 | 2.487808e-01 | 4.430903e-01 |
| ## RBMXL2       | -0.05108615 | 3.660059  | -1.1628978 | 2.488109e-01 | 4.431059e-01 |
| ## EIF3J-DT     | -0.11313078 | 5.413354  | -1.1626650 | 2.489047e-01 | 4.432351e-01 |
| ## HABP4        | -0.07833544 | 6.554849  | -1.1622971 | 2.490531e-01 | 4.434044e-01 |
| ## LOC100507443 | -0.04585875 | 3.833681  | -1.1622733 | 2.490627e-01 | 4.434044e-01 |
| ## NDUFA12      | 0.08125337  | 10.730945 | 1.1622710  | 2.490636e-01 | 4.434044e-01 |
| ## GPD1         | 0.10976422  | 3.912143  | 1.1621504  | 2.491122e-01 | 4.434530e-01 |
| ## EGLN2        | 0.06239810  | 4.196536  | 1.1620121  | 2.491680e-01 | 4.434989e-01 |
| ## ZNF625       | -0.04504402 | 4.031960  | -1.1619809 | 2.491806e-01 | 4.434989e-01 |
| ## KIRREL2      | -0.09497662 | 4.557385  | -1.1618052 | 2.492515e-01 | 4.435872e-01 |
| ## LOC100129935 | -0.05055877 | 4.066862  | -1.1616853 | 2.492999e-01 | 4.436025e-01 |
| ## LINC02997    | -0.07063616 | 4.349226  | -1.1616784 | 2.493027e-01 | 4.436025e-01 |
| ## RTN4         | 0.16052654  | 6.329074  | 1.1611137  | 2.495307e-01 | 4.439020e-01 |
| ## LEF1-AS1     | -0.03424364 | 3.605356  | -1.1611074 | 2.495333e-01 | 4.439020e-01 |
| ## GPR45        | 0.04849089  | 4.695056  | 1.1610663  | 2.495499e-01 | 4.439020e-01 |
| ## ALOX15       | 0.04284534  | 3.513423  | 1.1610504  | 2.495563e-01 | 4.439020e-01 |
| ## BIN2         | -0.14765400 | 6.767869  | -1.1609164 | 2.496104e-01 | 4.439514e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## TNFSF4       | 0.28699765  | 5.132283  | 1.1608294  | 2.496456e-01 | 4.439514e-01 |
| ## SLC6A13      | -0.06946849 | 5.001089  | -1.1608233 | 2.496480e-01 | 4.439514e-01 |
| ## CLIC3        | 0.24418566  | 6.100970  | 1.1604729  | 2.497897e-01 | 4.441653e-01 |
| ## MCFD2        | 0.04685835  | 3.602127  | 1.1602220  | 2.498911e-01 | 4.442350e-01 |
| ## HOXC-AS3     | 0.04471901  | 4.165602  | 1.1602209  | 2.498915e-01 | 4.442350e-01 |
| ## VAPA         | 0.07349744  | 11.019708 | 1.1602177  | 2.498928e-01 | 4.442350e-01 |
| ## SCN9A        | 0.07042438  | 3.414885  | 1.1601082  | 2.499371e-01 | 4.442757e-01 |
| ## FBXO27       | -0.07633112 | 4.322086  | -1.1599460 | 2.500027e-01 | 4.443292e-01 |
| ## GRIK2        | -0.02677597 | 3.127970  | -1.1599282 | 2.500099e-01 | 4.443292e-01 |
| ## ACOT12       | -0.03084171 | 3.289588  | -1.1596620 | 2.501176e-01 | 4.444739e-01 |
| ## CCDC122      | 0.08598305  | 3.561403  | 1.1596018  | 2.501419e-01 | 4.444739e-01 |
| ## KRT35        | -0.05185926 | 3.511744  | -1.1595372 | 2.501681e-01 | 4.444739e-01 |
| ## GABBR2       | -0.14661880 | 3.586808  | -1.1595160 | 2.501766e-01 | 4.444739e-01 |
| ## ZFAND5       | 0.09087091  | 10.561937 | 1.1591149  | 2.503390e-01 | 4.447244e-01 |
| ## TMEM109      | -0.10217435 | 8.277663  | -1.1589782 | 2.503944e-01 | 4.447848e-01 |
| ## ZBTB32       | 0.05593133  | 5.248825  | 1.1588842  | 2.504324e-01 | 4.448144e-01 |
| ## EEA1         | -0.11967075 | 4.125379  | -1.1586505 | 2.505271e-01 | 4.449446e-01 |
| ## ANKRD17      | 0.08499764  | 8.071793  | 1.1585750  | 2.505576e-01 | 4.449524e-01 |
| ## NAT16        | -0.08248658 | 5.346885  | -1.1585342 | 2.505742e-01 | 4.449524e-01 |
| ## OR1C1        | -0.06230920 | 4.026845  | -1.1581153 | 2.507439e-01 | 4.452159e-01 |
| ## GNA14        | -0.20228068 | 5.118416  | -1.1580313 | 2.507779e-01 | 4.452383e-01 |
| ## ORAI2        | -0.09368268 | 8.222471  | -1.1578020 | 2.508709e-01 | 4.453276e-01 |
| ## CYP1A2       | -0.08885873 | 5.235100  | -1.1577629 | 2.508868e-01 | 4.453276e-01 |
| ## SACM1L       | -0.08989555 | 9.259351  | -1.1577490 | 2.508924e-01 | 4.453276e-01 |
| ## R3HDM2       | -0.08505887 | 8.442648  | -1.1569573 | 2.512136e-01 | 4.458597e-01 |
| ## SCN1A-AS1    | 0.04100535  | 3.775724  | 1.1568834  | 2.512436e-01 | 4.458749e-01 |
| ## KRT76        | -0.06639671 | 4.483468  | -1.1566496 | 2.513385e-01 | 4.459259e-01 |
| ## RBM3         | -0.11309170 | 9.163430  | -1.1566252 | 2.513484e-01 | 4.459259e-01 |
| ## IGHMBP2      | -0.05422944 | 5.901917  | -1.1565655 | 2.513726e-01 | 4.459259e-01 |
| ## LINC00382    | -0.03294266 | 3.739468  | -1.1565126 | 2.513941e-01 | 4.459259e-01 |
| ## CDH5         | -0.15931785 | 6.839577  | -1.1564791 | 2.514077e-01 | 4.459259e-01 |
| ## ACHE         | 0.13475721  | 4.814020  | 1.1564783  | 2.514080e-01 | 4.459259e-01 |
| ## LRRTM1       | -0.09304435 | 4.108007  | -1.1563941 | 2.514422e-01 | 4.459259e-01 |
| ## C20orf141    | -0.06456472 | 5.871192  | -1.1563907 | 2.514436e-01 | 4.459259e-01 |
| ## DDAH2        | 0.13353792  | 8.317229  | 1.1562686  | 2.514932e-01 | 4.459633e-01 |
| ## ASB14        | -0.06222238 | 4.130623  | -1.1561928 | 2.515240e-01 | 4.459633e-01 |
| ## NRP2         | -0.12668806 | 4.985491  | -1.1560973 | 2.515628e-01 | 4.459633e-01 |
| ## LOC729815    | 0.04536397  | 5.176818  | 1.1560853  | 2.515676e-01 | 4.459633e-01 |
| ## EPN1         | 0.08376451  | 6.829220  | 1.1560644  | 2.515761e-01 | 4.459633e-01 |
| ## MYCBP2       | 0.11150420  | 7.826317  | 1.1560224  | 2.515932e-01 | 4.459633e-01 |
| ## ZNF491       | -0.04979595 | 4.091506  | -1.1558623 | 2.516583e-01 | 4.460328e-01 |
| ## YJU2B        | -0.07000541 | 7.190666  | -1.1558205 | 2.516752e-01 | 4.460328e-01 |
| ## LOC105372766 | -0.04721651 | 5.016033  | -1.1557134 | 2.517187e-01 | 4.460719e-01 |
| ## CCNA1        | -0.09913810 | 3.495368  | -1.1554334 | 2.518326e-01 | 4.462357e-01 |
| ## CNIH1        | 0.08948433  | 10.146309 | 1.1553063  | 2.518842e-01 | 4.462892e-01 |
| ## DNAJB12      | 0.05373823  | 5.690952  | 1.1551986  | 2.519281e-01 | 4.463289e-01 |
| ## PTS          | 0.09041631  | 8.994038  | 1.1549183  | 2.520420e-01 | 4.464929e-01 |
| ## IL2          | -0.03143632 | 3.302135  | -1.1546341 | 2.521577e-01 | 4.466597e-01 |
| ## ELOC         | 0.11193595  | 6.412385  | 1.1545599  | 2.521879e-01 | 4.466753e-01 |
| ## PRDM5        | -0.05557952 | 4.153557  | -1.1543117 | 2.522889e-01 | 4.468113e-01 |
| ## TUBE1        | -0.15389785 | 6.810953  | -1.1542149 | 2.523283e-01 | 4.468113e-01 |
| ## DDX10        | -0.03955700 | 3.526791  | -1.1542130 | 2.523291e-01 | 4.468113e-01 |
| ## RLN1         | -0.05476867 | 4.255902  | -1.1540877 | 2.523801e-01 | 4.468637e-01 |
| ## TBC1D9B      | -0.07368635 | 7.473400  | -1.1539350 | 2.524423e-01 | 4.469002e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## RGS18        | -0.17410983 | 5.315299  | -1.1539178 | 2.524493e-01 | 4.469002e-01 |
| ## LELP1        | -0.05287646 | 4.417863  | -1.1538423 | 2.524801e-01 | 4.469002e-01 |
| ## APTR         | 0.17078451  | 6.470975  | 1.1536908  | 2.525418e-01 | 4.469002e-01 |
| ## MS4A5        | 0.04373619  | 4.149418  | 1.1536627  | 2.525532e-01 | 4.469002e-01 |
| ## NOL4L        | -0.07383961 | 4.267818  | -1.1536533 | 2.525570e-01 | 4.469002e-01 |
| ## SDCBPP2      | 0.10338477  | 5.006775  | 1.1536252  | 2.525685e-01 | 4.469002e-01 |
| ## CEP170       | 0.16938858  | 8.459496  | 1.1536155  | 2.525724e-01 | 4.469002e-01 |
| ## NUDT14       | -0.06199118 | 4.012947  | -1.1532110 | 2.527373e-01 | 4.470847e-01 |
| ## LRRC1        | 0.11611670  | 6.368324  | 1.1532020  | 2.527409e-01 | 4.470847e-01 |
| ## GDF11        | 0.05383810  | 5.926047  | 1.1531018  | 2.527818e-01 | 4.470847e-01 |
| ## FOXA1        | -0.21406781 | 5.916368  | -1.1530658 | 2.527965e-01 | 4.470847e-01 |
| ## TTC12        | -0.06420901 | 5.281313  | -1.1529815 | 2.528308e-01 | 4.470847e-01 |
| ## KLF5         | 0.27343019  | 9.199075  | 1.1529757  | 2.528332e-01 | 4.470847e-01 |
| ## HAGLR        | 0.15630315  | 4.910787  | 1.1529690  | 2.528359e-01 | 4.470847e-01 |
| ## C16orf46     | -0.04792078 | 4.373537  | -1.1529382 | 2.528485e-01 | 4.470847e-01 |
| ## SP140L       | 0.04453545  | 3.783997  | 1.1527604  | 2.529210e-01 | 4.471331e-01 |
| ## LINC02961    | 0.04638738  | 3.732147  | 1.1527603  | 2.529210e-01 | 4.471331e-01 |
| ## IMPDH2       | 0.11247913  | 10.130918 | 1.1527131  | 2.529403e-01 | 4.471331e-01 |
| ## ERLEC1       | -0.09454680 | 9.943237  | -1.1526013 | 2.529859e-01 | 4.471758e-01 |
| ## UBA2         | 0.11281530  | 9.683118  | 1.1521512  | 2.531695e-01 | 4.474624e-01 |
| ## APPL2        | 0.13915212  | 7.706325  | 1.1520705  | 2.532025e-01 | 4.474693e-01 |
| ## FLACC1       | -0.03710875 | 3.775254  | -1.1520363 | 2.532164e-01 | 4.474693e-01 |
| ## PTPN23       | 0.05920399  | 4.204655  | 1.1519272  | 2.532609e-01 | 4.475100e-01 |
| ## INSM2        | -0.04490068 | 4.752485  | -1.1518640 | 2.532867e-01 | 4.475176e-01 |
| ## WDR91        | -0.09592489 | 6.649121  | -1.1516422 | 2.533773e-01 | 4.475824e-01 |
| ## LOC100133920 | -0.03810529 | 3.478648  | -1.1515956 | 2.533963e-01 | 4.475824e-01 |
| ## ERV9-1       | 0.11928482  | 5.160077  | 1.1515697  | 2.534069e-01 | 4.475824e-01 |
| ## PTOV1-AS2    | 0.05546750  | 6.104246  | 1.1515637  | 2.534093e-01 | 4.475824e-01 |
| ## NAT8L        | -0.05909711 | 5.751037  | -1.1509676 | 2.536529e-01 | 4.479745e-01 |
| ## LOC574538    | -0.04093353 | 3.571526  | -1.1506859 | 2.537680e-01 | 4.480994e-01 |
| ## GPT          | -0.08606615 | 5.541834  | -1.1506467 | 2.537840e-01 | 4.480994e-01 |
| ## UNC5A        | 0.12219316  | 3.815535  | 1.1505879  | 2.538081e-01 | 4.480994e-01 |
| ## LOC283788    | 0.03483532  | 3.284582  | 1.1505791  | 2.538117e-01 | 4.480994e-01 |
| ## HNRNPUL2     | 0.09061898  | 6.721199  | 1.1504817  | 2.538515e-01 | 4.480994e-01 |
| ## AGR2         | -0.30007101 | 12.901832 | -1.1504787 | 2.538527e-01 | 4.480994e-01 |
| ## HCN4         | 0.04076686  | 3.884197  | 1.1504146  | 2.538789e-01 | 4.481077e-01 |
| ## C8orf17      | -0.06490296 | 3.966979  | -1.1496706 | 2.541833e-01 | 4.486069e-01 |
| ## ZNF324       | -0.09853742 | 6.387741  | -1.1495784 | 2.542210e-01 | 4.486354e-01 |
| ## AFF3         | -0.03137466 | 3.415065  | -1.1491990 | 2.543763e-01 | 4.488715e-01 |
| ## DKKL1        | 0.06217532  | 5.604232  | 1.1489372  | 2.544836e-01 | 4.489460e-01 |
| ## ZNF143       | -0.04957512 | 4.152118  | -1.1489197 | 2.544907e-01 | 4.489460e-01 |
| ## ARHGAP28     | -0.05669353 | 3.775395  | -1.1488886 | 2.545035e-01 | 4.489460e-01 |
| ## ITPRID2      | -0.12875057 | 9.278873  | -1.1488854 | 2.545048e-01 | 4.489460e-01 |
| ## SPATA9       | -0.03929201 | 3.564739  | -1.1485606 | 2.546378e-01 | 4.490704e-01 |
| ## ASH2L        | -0.09173168 | 9.050808  | -1.1485589 | 2.546385e-01 | 4.490704e-01 |
| ## ABCB6        | 0.08463616  | 4.783679  | 1.1485553  | 2.546400e-01 | 4.490704e-01 |
| ## PIKFYVE      | 0.06569893  | 4.247973  | 1.1483215  | 2.547358e-01 | 4.491089e-01 |
| ## LINC00659    | 0.04424033  | 3.944377  | 1.1483141  | 2.547389e-01 | 4.491089e-01 |
| ## CYSLTR2      | 0.04067673  | 4.348359  | 1.1483120  | 2.547397e-01 | 4.491089e-01 |
| ## LINC00280    | -0.05368126 | 3.825944  | -1.1482917 | 2.547481e-01 | 4.491089e-01 |
| ## SYT9         | -0.10576562 | 4.039663  | -1.1481454 | 2.548080e-01 | 4.491765e-01 |
| ## CEP295       | 0.06730975  | 5.132836  | 1.1480400  | 2.548512e-01 | 4.492147e-01 |
| ## PRRC2A       | 0.08867787  | 7.570448  | 1.1479410  | 2.548918e-01 | 4.492482e-01 |
| ## PPP2R1B      | 0.13170084  | 7.926927  | 1.1475724  | 2.550430e-01 | 4.494766e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## ELF2         | -0.11843897 | 7.839363  | -1.1474810 | 2.550805e-01 | 4.495047e-01 |
| ## STAG3        | 0.10157235  | 5.579897  | 1.1472089  | 2.551922e-01 | 4.496634e-01 |
| ## LOC729683    | -0.06232935 | 5.538045  | -1.1466422 | 2.554248e-01 | 4.500352e-01 |
| ## MNT          | 0.09044445  | 7.894493  | 1.1465239  | 2.554734e-01 | 4.500602e-01 |
| ## SOGA3        | -0.07077825 | 4.236842  | -1.1464677 | 2.554965e-01 | 4.500602e-01 |
| ## LOC100130331 | -0.04188151 | 3.835012  | -1.1464498 | 2.555038e-01 | 4.500602e-01 |
| ## CYP2A7P1     | -0.05064133 | 4.617160  | -1.1462965 | 2.555668e-01 | 4.501331e-01 |
| ## CINP         | 0.07914808  | 4.048431  | 1.1461486  | 2.556276e-01 | 4.502020e-01 |
| ## LOC101928335 | -0.03727979 | 3.461937  | -1.1459710 | 2.557006e-01 | 4.502317e-01 |
| ## CD300C       | 0.07201196  | 4.930687  | 1.1458958  | 2.557315e-01 | 4.502317e-01 |
| ## CELF2-AS1    | 0.04732658  | 3.974256  | 1.1458899  | 2.557339e-01 | 4.502317e-01 |
| ## TAPT1        | 0.05229415  | 3.387599  | 1.1458716  | 2.557414e-01 | 4.502317e-01 |
| ## LINC00921    | -0.05546823 | 3.911905  | -1.1458446 | 2.557525e-01 | 4.502317e-01 |
| ## HDGFL2       | 0.05689466  | 7.084923  | 1.1456217  | 2.558442e-01 | 4.503549e-01 |
| ## CLEC3A       | -0.03889665 | 3.958637  | -1.1452681 | 2.559896e-01 | 4.505728e-01 |
| ## SCGN         | -0.28474329 | 5.264176  | -1.1451748 | 2.560280e-01 | 4.506023e-01 |
| ## MED18        | 0.06694996  | 3.670672  | 1.1446790  | 2.562320e-01 | 4.509233e-01 |
| ## BGLT3        | 0.06816310  | 4.745816  | 1.1445753  | 2.562747e-01 | 4.509602e-01 |
| ## FRMD1        | -0.05898497 | 6.206558  | -1.1444942 | 2.563080e-01 | 4.509648e-01 |
| ## GET1         | -0.10272855 | 8.732689  | -1.1444638 | 2.563206e-01 | 4.509648e-01 |
| ## ABL1         | -0.11573734 | 8.326067  | -1.1443883 | 2.563517e-01 | 4.509814e-01 |
| ## SERPINF2     | 0.06168916  | 5.195648  | 1.1442019  | 2.564284e-01 | 4.510783e-01 |
| ## MLX          | -0.06923307 | 4.983928  | -1.1440008 | 2.565112e-01 | 4.511719e-01 |
| ## EMC4         | 0.07866795  | 9.913922  | 1.1439676  | 2.565249e-01 | 4.511719e-01 |
| ## PAQR5        | 0.06699125  | 3.677206  | 1.1438690  | 2.565655e-01 | 4.512052e-01 |
| ## PLPPR1       | -0.03279266 | 3.288225  | -1.1436653 | 2.566495e-01 | 4.513147e-01 |
| ## PHF8         | 0.09256039  | 6.414540  | 1.1435413  | 2.567006e-01 | 4.513302e-01 |
| ## SELENON      | 0.10175649  | 7.299938  | 1.1435387  | 2.567016e-01 | 4.513302e-01 |
| ## GTSF1        | 0.32918172  | 4.898067  | 1.1430307  | 2.569111e-01 | 4.516469e-01 |
| ## CFAP157      | -0.05383247 | 4.234059  | -1.1429965 | 2.569252e-01 | 4.516469e-01 |
| ## LRR1Q1       | 0.03687481  | 3.576986  | 1.1426436  | 2.570707e-01 | 4.518647e-01 |
| ## SNORA74A     | -0.03599160 | 3.498481  | -1.1422526 | 2.572321e-01 | 4.521101e-01 |
| ## OR2I1P       | 0.04680929  | 3.940494  | 1.1421943  | 2.572561e-01 | 4.521142e-01 |
| ## CIAO3        | 0.06721179  | 6.758409  | 1.1420611  | 2.573111e-01 | 4.521727e-01 |
| ## ARMCX6       | -0.16116114 | 9.284543  | -1.1419287 | 2.573657e-01 | 4.522306e-01 |
| ## B4GALT7      | 0.08910712  | 6.344946  | 1.1414992  | 2.575431e-01 | 4.524667e-01 |
| ## C3orf36      | -0.04691666 | 4.569874  | -1.1414980 | 2.575436e-01 | 4.524667e-01 |
| ## ZC2HC1A      | 0.03500611  | 3.298136  | 1.1414313  | 2.575712e-01 | 4.524766e-01 |
| ## ACADS        | -0.08849865 | 6.838469  | -1.1412889 | 2.576300e-01 | 4.524766e-01 |
| ## TMC5         | 0.27777642  | 9.744328  | 1.1412751  | 2.576357e-01 | 4.524766e-01 |
| ## PPP2R5A      | 0.07290528  | 4.329101  | 1.1412741  | 2.576361e-01 | 4.524766e-01 |
| ## CRABP1       | -0.03962356 | 3.595587  | -1.1411824 | 2.576740e-01 | 4.525050e-01 |
| ## RBAKDN       | 0.07892549  | 5.584931  | 1.1410006  | 2.577492e-01 | 4.525987e-01 |
| ## CDK20        | -0.07320814 | 6.252472  | -1.1406851 | 2.578796e-01 | 4.527600e-01 |
| ## TRGV5        | 0.05599042  | 4.552991  | 1.1406733  | 2.578845e-01 | 4.527600e-01 |
| ## ZNF555       | 0.08059568  | 5.450604  | 1.1404421  | 2.579801e-01 | 4.528897e-01 |
| ## TFAP2B       | -0.07264277 | 3.549724  | -1.1401985 | 2.580809e-01 | 4.530284e-01 |
| ## ZNF284       | -0.08776721 | 5.867301  | -1.1397409 | 2.582702e-01 | 4.533225e-01 |
| ## ASB12        | -0.10825396 | 5.854743  | -1.1395756 | 2.583386e-01 | 4.533837e-01 |
| ## WDR86-AS1    | -0.04512474 | 3.685852  | -1.1395516 | 2.583486e-01 | 4.533837e-01 |
| ## UBOX5        | -0.07650812 | 7.001397  | -1.1394331 | 2.583977e-01 | 4.534316e-01 |
| ## TBKBP1       | -0.05713972 | 5.562566  | -1.1392218 | 2.584851e-01 | 4.535233e-01 |
| ## DTHD1        | -0.03595710 | 3.335945  | -1.1392016 | 2.584935e-01 | 4.535233e-01 |
| ## TIMM8B       | 0.07308697  | 10.418511 | 1.1388950  | 2.586205e-01 | 4.536709e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## PWP2         | -0.05898612 | 5.494877 | -1.1388934 | 2.586212e-01 | 4.536709e-01 |
| ## RAB32        | -0.14804748 | 7.831500 | -1.1373943 | 2.592428e-01 | 4.547210e-01 |
| ## COL8A2       | -0.25787882 | 5.808830 | -1.1373445 | 2.592635e-01 | 4.547210e-01 |
| ## MCCC2        | 0.02908714  | 3.427673 | 1.1371718  | 2.593351e-01 | 4.548084e-01 |
| ## PHOSPHO2     | 0.15817705  | 6.918977 | 1.1367686  | 2.595026e-01 | 4.550637e-01 |
| ## UBAP1        | 0.08059036  | 7.432083 | 1.1365148  | 2.596080e-01 | 4.552102e-01 |
| ## ZNHIT1       | 0.09536542  | 9.382785 | 1.1363256  | 2.596866e-01 | 4.552968e-01 |
| ## TRNAU1AP     | 0.07910636  | 6.682083 | 1.1362907  | 2.597011e-01 | 4.552968e-01 |
| ## ITGB1BP1     | -0.12336410 | 8.340343 | -1.1360644 | 2.597951e-01 | 4.554233e-01 |
| ## ZNF492       | -0.04817556 | 3.323030 | -1.1357851 | 2.599112e-01 | 4.554937e-01 |
| ## INHBA-AS1    | -0.06378939 | 4.060524 | -1.1357574 | 2.599228e-01 | 4.554937e-01 |
| ## NUDT3        | -0.04652736 | 4.010274 | -1.1357401 | 2.599299e-01 | 4.554937e-01 |
| ## PPIG         | 0.13607215  | 8.631111 | 1.1356587  | 2.599638e-01 | 4.554937e-01 |
| ## LINC01986    | -0.02870631 | 3.428612 | -1.1356231 | 2.599786e-01 | 4.554937e-01 |
| ## ZNF232-AS1   | -0.03287993 | 3.442806 | -1.1356139 | 2.599824e-01 | 4.554937e-01 |
| ## SPTY2D10S    | 0.03551802  | 3.569298 | 1.1355996  | 2.599884e-01 | 4.554937e-01 |
| ## ODAD2        | 0.04142814  | 4.487623 | 1.1354792  | 2.600385e-01 | 4.555431e-01 |
| ## GLYR1        | -0.09844845 | 7.888452 | -1.1352206 | 2.601461e-01 | 4.556933e-01 |
| ## ANXA2P3      | 0.07615581  | 6.446440 | 1.1351407  | 2.601793e-01 | 4.557095e-01 |
| ## AGAP9        | -0.07862268 | 4.919197 | -1.1350806 | 2.602043e-01 | 4.557095e-01 |
| ## LOC414300    | -0.03470139 | 3.264739 | -1.1350405 | 2.602210e-01 | 4.557095e-01 |
| ## CSN1S1       | -0.09562543 | 3.615437 | -1.1349363 | 2.602643e-01 | 4.557471e-01 |
| ## NTSR1        | 0.15048036  | 4.970694 | 1.1347129  | 2.603573e-01 | 4.558152e-01 |
| ## ANKRD1       | 0.12107917  | 3.600102 | 1.1346871  | 2.603681e-01 | 4.558152e-01 |
| ## ZBTB34       | 0.12651708  | 6.468381 | 1.1346736  | 2.603737e-01 | 4.558152e-01 |
| ## BNIP2        | 0.09610348  | 7.950841 | 1.1346325  | 2.603908e-01 | 4.558152e-01 |
| ## REG3A        | -0.76951790 | 8.316838 | -1.1345465 | 2.604266e-01 | 4.558395e-01 |
| ## PRKCQ-AS1    | -0.07887866 | 3.555273 | -1.1341548 | 2.605897e-01 | 4.560867e-01 |
| ## TRAV26-2     | 0.08308825  | 4.187810 | 1.1335483  | 2.608425e-01 | 4.564907e-01 |
| ## FBX016       | 0.12723637  | 4.828236 | 1.1331070  | 2.610264e-01 | 4.567743e-01 |
| ## ALAS2        | 0.05430775  | 5.144531 | 1.1326783  | 2.612053e-01 | 4.570175e-01 |
| ## TEX56P       | -0.04485420 | 3.502302 | -1.1326686 | 2.612093e-01 | 4.570175e-01 |
| ## MGAT4D       | -0.03231535 | 3.264662 | -1.1325458 | 2.612606e-01 | 4.570688e-01 |
| ## SLC25A26     | -0.08866509 | 7.386406 | -1.1324766 | 2.612894e-01 | 4.570809e-01 |
| ## GZMH         | 0.27661248  | 5.917032 | 1.1320336  | 2.614743e-01 | 4.573659e-01 |
| ## CDKN1C       | -0.17817713 | 5.834880 | -1.1313599 | 2.617557e-01 | 4.578197e-01 |
| ## FAM153A      | -0.05389517 | 5.558916 | -1.1311636 | 2.618378e-01 | 4.579248e-01 |
| ## HOXB5        | 0.13097816  | 5.587001 | 1.1309546  | 2.619251e-01 | 4.580390e-01 |
| ## PREB         | -0.08298375 | 8.162303 | -1.1304852 | 2.621214e-01 | 4.583438e-01 |
| ## TMEM39A      | 0.10821450  | 7.214205 | 1.1302762  | 2.622089e-01 | 4.583948e-01 |
| ## FMO5         | -0.13179670 | 4.281370 | -1.1302624 | 2.622146e-01 | 4.583948e-01 |
| ## MLST8        | 0.09348004  | 6.944964 | 1.1302576  | 2.622166e-01 | 4.583948e-01 |
| ## BTNL2        | -0.07482974 | 4.627827 | -1.1301436 | 2.622643e-01 | 4.584397e-01 |
| ## TMEM132C     | -0.15869294 | 5.590035 | -1.1297668 | 2.624220e-01 | 4.586407e-01 |
| ## SUSD6        | -0.11753654 | 9.230120 | -1.1297636 | 2.624234e-01 | 4.586407e-01 |
| ## CTSW         | 0.13925314  | 6.014784 | 1.1296308  | 2.624790e-01 | 4.586574e-01 |
| ## TXNRD3       | 0.10539862  | 5.596986 | 1.1296055  | 2.624895e-01 | 4.586574e-01 |
| ## NGF          | -0.05491103 | 5.729808 | -1.1295004 | 2.625336e-01 | 4.586574e-01 |
| ## NOA1         | 0.09718908  | 8.390021 | 1.1294854  | 2.625399e-01 | 4.586574e-01 |
| ## LOC105378589 | -0.04622805 | 4.135490 | -1.1294539 | 2.625531e-01 | 4.586574e-01 |
| ## ADARB2       | -0.06498319 | 3.957322 | -1.1294252 | 2.625651e-01 | 4.586574e-01 |
| ## LOC105378419 | -0.04500697 | 4.132668 | -1.1292368 | 2.626439e-01 | 4.587567e-01 |
| ## SAMMSON      | -0.02511337 | 3.347442 | -1.1290717 | 2.627131e-01 | 4.588391e-01 |
| ## TMEM262      | -0.06957597 | 4.780876 | -1.1289338 | 2.627709e-01 | 4.589015e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## GTPBP8       | 0.09586396  | 7.815270 | 1.1285523  | 2.629308e-01 | 4.591422e-01 |
| ## LINC00934    | -0.04672815 | 3.749374 | -1.1283834 | 2.630016e-01 | 4.592273e-01 |
| ## SKIC8        | -0.08978766 | 6.475902 | -1.1275757 | 2.633404e-01 | 4.597410e-01 |
| ## CCDC162P     | -0.04060716 | 3.486341 | -1.1275310 | 2.633591e-01 | 4.597410e-01 |
| ## APLNR        | -0.16889399 | 7.457486 | -1.1275242 | 2.633620e-01 | 4.597410e-01 |
| ## ZNF585B      | -0.15314473 | 5.665583 | -1.1274331 | 2.634002e-01 | 4.597413e-01 |
| ## GJC2         | -0.06311733 | 5.685448 | -1.1274185 | 2.634064e-01 | 4.597413e-01 |
| ## NUPR1        | -0.24393680 | 8.521061 | -1.1273470 | 2.634364e-01 | 4.597427e-01 |
| ## TCHH         | 0.04391512  | 3.524654 | 1.1273115  | 2.634513e-01 | 4.597427e-01 |
| ## LINC00543    | 0.14379162  | 4.235225 | 1.1268765  | 2.636339e-01 | 4.600221e-01 |
| ## DDR1-DT      | -0.04514292 | 3.611909 | -1.1268249 | 2.636556e-01 | 4.600221e-01 |
| ## FABP3        | -0.12070433 | 5.245702 | -1.1266456 | 2.637309e-01 | 4.601150e-01 |
| ## DEGS1        | 0.12473749  | 8.807951 | 1.1265517  | 2.637703e-01 | 4.601452e-01 |
| ## CD52         | -0.23782647 | 8.660310 | -1.1260916 | 2.639637e-01 | 4.604152e-01 |
| ## DOCK2        | -0.06294076 | 3.826729 | -1.1260781 | 2.639693e-01 | 4.604152e-01 |
| ## SYT13        | 0.11433156  | 5.213828 | 1.1258513  | 2.640647e-01 | 4.605430e-01 |
| ## XIRP1        | 0.08088771  | 5.302250 | 1.1257587  | 2.641036e-01 | 4.605723e-01 |
| ## HAC11        | -0.11245499 | 7.642582 | -1.1256741 | 2.641392e-01 | 4.605958e-01 |
| ## OTOS         | 0.05345364  | 3.915005 | 1.1254199  | 2.642462e-01 | 4.607437e-01 |
| ## MTLN         | 0.09306942  | 7.360210 | 1.1253350  | 2.642819e-01 | 4.607674e-01 |
| ## EPHA1-AS1    | -0.04216304 | 3.410406 | -1.1248927 | 2.644680e-01 | 4.610533e-01 |
| ## IGSF1        | -0.04553735 | 4.236087 | -1.1245221 | 2.646240e-01 | 4.612675e-01 |
| ## VSTM1        | -0.04553783 | 3.548906 | -1.1244956 | 2.646352e-01 | 4.612675e-01 |
| ## SDHD         | -0.10955324 | 9.829967 | -1.1244066 | 2.646726e-01 | 4.612754e-01 |
| ## C10orf62     | -0.04833891 | 4.991371 | -1.1243796 | 2.646840e-01 | 4.612754e-01 |
| ## DSE          | -0.03379936 | 3.350171 | -1.1243174 | 2.647102e-01 | 4.612824e-01 |
| ## ACTL8        | 0.15945125  | 5.787820 | 1.1240353  | 2.648290e-01 | 4.614509e-01 |
| ## C3orf80      | -0.17052346 | 4.308933 | -1.1238133 | 2.649226e-01 | 4.615753e-01 |
| ## BISPR        | 0.11798354  | 6.607292 | 1.1235519  | 2.650328e-01 | 4.617286e-01 |
| ## SPATA7       | -0.12064072 | 6.637384 | -1.1233372 | 2.651232e-01 | 4.617826e-01 |
| ## PCOLCE       | -0.24365957 | 8.823075 | -1.1233295 | 2.651265e-01 | 4.617826e-01 |
| ## TRAV12-3     | 0.05603055  | 3.476126 | 1.1233206  | 2.651303e-01 | 4.617826e-01 |
| ## CDH16        | 0.17065175  | 4.489373 | 1.1230283  | 2.652535e-01 | 4.619081e-01 |
| ## LINC01206    | -0.03328324 | 3.458443 | -1.1229654 | 2.652801e-01 | 4.619081e-01 |
| ## ATP7A        | -0.18506122 | 6.874209 | -1.1229501 | 2.652865e-01 | 4.619081e-01 |
| ## CEACAM21     | -0.06751062 | 4.620106 | -1.1229198 | 2.652993e-01 | 4.619081e-01 |
| ## LOC105379178 | -0.04291162 | 4.189122 | -1.1228806 | 2.653158e-01 | 4.619081e-01 |
| ## BCAS3        | -0.08527965 | 6.257459 | -1.1228342 | 2.653354e-01 | 4.619081e-01 |
| ## FZR1         | 0.06697737  | 4.745412 | 1.1226400  | 2.654173e-01 | 4.620121e-01 |
| ## NAAA         | 0.14176611  | 6.937411 | 1.1225868  | 2.654398e-01 | 4.620126e-01 |
| ## SMAD6        | 0.12911212  | 6.868395 | 1.1221940  | 2.656056e-01 | 4.622625e-01 |
| ## LOC100130691 | -0.04385645 | 4.206604 | -1.1221161 | 2.656385e-01 | 4.622811e-01 |
| ## SYNDIG1L     | 0.04630807  | 4.678968 | 1.1219395  | 2.657131e-01 | 4.623723e-01 |
| ## SNN          | -0.11797153 | 7.435726 | -1.1218297 | 2.657594e-01 | 4.624143e-01 |
| ## SREK1        | 0.04146610  | 3.694158 | 1.1217170  | 2.658070e-01 | 4.624585e-01 |
| ## CRP          | 0.16686531  | 4.245618 | 1.1214840  | 2.659055e-01 | 4.625911e-01 |
| ## NEUROG2      | -0.11191792 | 3.736414 | -1.1213853 | 2.659471e-01 | 4.626250e-01 |
| ## LRRC73       | 0.11310423  | 4.768531 | 1.1212555  | 2.660020e-01 | 4.626507e-01 |
| ## GUCY1B2      | -0.14995990 | 4.197632 | -1.1212452 | 2.660064e-01 | 4.626507e-01 |
| ## TEAD3        | -0.13205377 | 6.583246 | -1.1209458 | 2.661329e-01 | 4.628124e-01 |
| ## ZNF181       | 0.04280029  | 4.182026 | 1.1209201  | 2.661438e-01 | 4.628124e-01 |
| ## VPS28        | -0.09541764 | 9.468679 | -1.1207647 | 2.662095e-01 | 4.628880e-01 |
| ## ZNF587B      | 0.13722575  | 6.882105 | 1.1206996  | 2.662370e-01 | 4.628972e-01 |
| ## HSD17B3      | 0.12341518  | 4.666394 | 1.1205804  | 2.662874e-01 | 4.629462e-01 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## SFTPD      | -0.05849417 | 3.962833  | -1.1199506 | 2.665539e-01 | 4.633707e-01 |
| ## TRMT12     | -0.09882457 | 7.308062  | -1.1198964 | 2.665768e-01 | 4.633720e-01 |
| ## ZNF580     | -0.10535561 | 6.968663  | -1.1197487 | 2.666394e-01 | 4.634282e-01 |
| ## RNF175     | -0.08849361 | 4.232075  | -1.1197149 | 2.666537e-01 | 4.634282e-01 |
| ## ATP2C2     | -0.33497016 | 7.057524  | -1.1195314 | 2.667313e-01 | 4.635245e-01 |
| ## EDDM13     | -0.06225021 | 4.985157  | -1.1190636 | 2.669295e-01 | 4.637598e-01 |
| ## TACSTD2    | -0.08060169 | 4.985871  | -1.1189593 | 2.669737e-01 | 4.637598e-01 |
| ## RHEX       | 0.14417247  | 4.578899  | 1.1189465  | 2.669791e-01 | 4.637598e-01 |
| ## GPC1-AS1   | 0.07677521  | 3.701909  | 1.1188872  | 2.670043e-01 | 4.637598e-01 |
| ## EFL1       | 0.07686628  | 7.645768  | 1.1188682  | 2.670123e-01 | 4.637598e-01 |
| ## SART3      | -0.04521262 | 3.495706  | -1.1188678 | 2.670124e-01 | 4.637598e-01 |
| ## MEP1A      | -0.49223562 | 6.072721  | -1.1188437 | 2.670227e-01 | 4.637598e-01 |
| ## CCM2       | 0.07553159  | 7.684869  | 1.1186824  | 2.670910e-01 | 4.638398e-01 |
| ## CDH23      | -0.05708206 | 3.971807  | -1.1183719 | 2.672226e-01 | 4.640297e-01 |
| ## LINC01588  | -0.08069275 | 4.880140  | -1.1182176 | 2.672881e-01 | 4.641046e-01 |
| ## FOXN3      | -0.08908658 | 6.068823  | -1.1177384 | 2.674913e-01 | 4.644188e-01 |
| ## DNAJC7     | 0.14748424  | 6.844555  | 1.1176794  | 2.675164e-01 | 4.644236e-01 |
| ## BNC1       | 0.06353219  | 3.184287  | 1.1175892  | 2.675546e-01 | 4.644513e-01 |
| ## TMIE       | -0.04954197 | 4.489633  | -1.1172553 | 2.676964e-01 | 4.645907e-01 |
| ## MIR570HG   | -0.20108214 | 6.863954  | -1.1172430 | 2.677016e-01 | 4.645907e-01 |
| ## TIMM17B    | -0.04640087 | 4.512311  | -1.1172423 | 2.677019e-01 | 4.645907e-01 |
| ## SLC17A7    | -0.07595245 | 5.618190  | -1.1170880 | 2.677674e-01 | 4.646657e-01 |
| ## CDX1       | 0.25587398  | 7.127837  | 1.1170015  | 2.678041e-01 | 4.646907e-01 |
| ## POMT1      | -0.10515687 | 6.295440  | -1.1168829 | 2.678545e-01 | 4.647020e-01 |
| ## SMC01      | -0.05320621 | 3.916120  | -1.1168810 | 2.678553e-01 | 4.647020e-01 |
| ## FZD7       | -0.23050783 | 6.656566  | -1.1162728 | 2.681137e-01 | 4.651116e-01 |
| ## TUB        | -0.05011278 | 4.509002  | -1.1161248 | 2.681766e-01 | 4.651773e-01 |
| ## SLC45A4    | -0.12827827 | 7.745269  | -1.1160785 | 2.681963e-01 | 4.651773e-01 |
| ## RNH1       | 0.05359760  | 4.548570  | 1.1160257  | 2.682187e-01 | 4.651775e-01 |
| ## DHRS1      | -0.11572003 | 8.343963  | -1.1153168 | 2.685202e-01 | 4.656616e-01 |
| ## ARFGEF1-DT | -0.02921210 | 3.410723  | -1.1152504 | 2.685484e-01 | 4.656718e-01 |
| ## NEO1       | 0.17026974  | 6.906200  | 1.1150522  | 2.686328e-01 | 4.657600e-01 |
| ## VNN1       | 0.37370785  | 6.484646  | 1.1150257  | 2.686441e-01 | 4.657600e-01 |
| ## LIPC-AS1   | -0.03900887 | 3.636188  | -1.1149471 | 2.686775e-01 | 4.657629e-01 |
| ## MBD3L1     | -0.04075596 | 3.504599  | -1.1149167 | 2.686904e-01 | 4.657629e-01 |
| ## CCDC190    | -0.22487426 | 3.718212  | -1.1147740 | 2.687511e-01 | 4.658294e-01 |
| ## FBX015     | -0.06136675 | 4.236693  | -1.1146166 | 2.688182e-01 | 4.659067e-01 |
| ## ARHGAP9    | -0.16415477 | 7.210205  | -1.1144723 | 2.688796e-01 | 4.659637e-01 |
| ## PCDH10     | -0.03773093 | 3.916534  | -1.1144343 | 2.688958e-01 | 4.659637e-01 |
| ## FAM50B     | -0.03760116 | 3.553158  | -1.1142342 | 2.689810e-01 | 4.659879e-01 |
| ## CXorf65    | -0.09576382 | 4.387794  | -1.1141966 | 2.689970e-01 | 4.659879e-01 |
| ## GRIK4      | -0.05656913 | 4.103678  | -1.1141871 | 2.690011e-01 | 4.659879e-01 |
| ## WDR72      | 0.05718615  | 3.807672  | 1.1141827  | 2.690029e-01 | 4.659879e-01 |
| ## ZCCHC14    | -0.11270337 | 7.919964  | -1.1141389 | 2.690216e-01 | 4.659879e-01 |
| ## MAGEE2     | -0.03179940 | 3.416389  | -1.1139101 | 2.691191e-01 | 4.661180e-01 |
| ## GDAP1L1    | 0.04561641  | 4.311361  | 1.1137614  | 2.691825e-01 | 4.661889e-01 |
| ## GPR82      | -0.06680389 | 4.028508  | -1.1135369 | 2.692782e-01 | 4.663159e-01 |
| ## LINC01551  | -0.05848791 | 4.341786  | -1.1134702 | 2.693066e-01 | 4.663178e-01 |
| ## S100A4     | 0.22603852  | 10.642073 | 1.1133368  | 2.693635e-01 | 4.663178e-01 |
| ## VPS26C     | -0.08406497 | 7.885363  | -1.1133213 | 2.693700e-01 | 4.663178e-01 |
| ## KLHDC8A    | -0.09024554 | 4.228566  | -1.1133092 | 2.693752e-01 | 4.663178e-01 |
| ## UBE2W      | 0.04299622  | 3.432421  | 1.1132716  | 2.693912e-01 | 4.663178e-01 |
| ## UBE2F      | 0.09235492  | 8.310248  | 1.1131516  | 2.694424e-01 | 4.663677e-01 |
| ## TRIM22     | -0.20937379 | 9.678536  | -1.1129110 | 2.695450e-01 | 4.665064e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CDC16        | 0.10500194  | 8.005883  | 1.1123682  | 2.697766e-01 | 4.668685e-01 |
| ## SHH          | -0.05221396 | 4.079089  | -1.1120972 | 2.698923e-01 | 4.670299e-01 |
| ## NHSL2        | -0.05101536 | 4.116334  | -1.1119014 | 2.699759e-01 | 4.671121e-01 |
| ## NGB          | -0.07054199 | 5.201905  | -1.1118542 | 2.699961e-01 | 4.671121e-01 |
| ## RNF181       | 0.07414059  | 10.009873 | 1.1118284  | 2.700071e-01 | 4.671121e-01 |
| ## KRTAP1-1     | 0.03654500  | 3.816837  | 1.1117218  | 2.700527e-01 | 4.671421e-01 |
| ## TPK1         | 0.22243036  | 6.725957  | 1.1116828  | 2.700693e-01 | 4.671421e-01 |
| ## TRIM61       | -0.07458262 | 4.289518  | -1.1112318 | 2.702620e-01 | 4.674198e-01 |
| ## ACKR3        | -0.16113143 | 7.915876  | -1.1112019 | 2.702748e-01 | 4.674198e-01 |
| ## SP110        | 0.12727107  | 8.152362  | 1.1110980  | 2.703192e-01 | 4.674578e-01 |
| ## RAB13        | -0.08540071 | 10.783573 | -1.1102193 | 2.706950e-01 | 4.680687e-01 |
| ## CST6         | 0.16789441  | 4.695022  | 1.1100823  | 2.707536e-01 | 4.681312e-01 |
| ## SUOX         | 0.09203345  | 5.172133  | 1.1099932  | 2.707917e-01 | 4.681583e-01 |
| ## EHD2         | -0.06253314 | 6.288077  | -1.1098442 | 2.708555e-01 | 4.682219e-01 |
| ## LOC145845    | -0.04682518 | 3.943645  | -1.1098022 | 2.708734e-01 | 4.682219e-01 |
| ## CEACAM19     | -0.07026034 | 5.924248  | -1.1096882 | 2.709222e-01 | 4.682385e-01 |
| ## FOSL2        | 0.12170612  | 6.172314  | 1.1096671  | 2.709313e-01 | 4.682385e-01 |
| ## CNOT2        | 0.11511649  | 8.720471  | 1.1096222  | 2.709505e-01 | 4.682385e-01 |
| ## KIRREL1      | -0.05164580 | 4.533199  | -1.1094739 | 2.710140e-01 | 4.683093e-01 |
| ## COL9A2       | 0.20074146  | 5.839664  | 1.1093495  | 2.710673e-01 | 4.683625e-01 |
| ## IGFL1        | 0.12812947  | 4.334998  | 1.1090886  | 2.711790e-01 | 4.685167e-01 |
| ## FREM2        | -0.24221503 | 3.985519  | -1.1090193 | 2.712087e-01 | 4.685291e-01 |
| ## CMTM7        | 0.10751428  | 6.738526  | 1.1088595  | 2.712772e-01 | 4.685792e-01 |
| ## IL18         | 0.23380616  | 6.670052  | 1.1088466  | 2.712827e-01 | 4.685792e-01 |
| ## RPUSD3       | -0.06954494 | 7.101582  | -1.1085947 | 2.713906e-01 | 4.686869e-01 |
| ## PPP1R3B-DT   | 0.13039051  | 4.686141  | 1.1085593  | 2.714058e-01 | 4.686869e-01 |
| ## JARID2-AS1   | -0.06019649 | 4.196349  | -1.1085436 | 2.714125e-01 | 4.686869e-01 |
| ## C12orf54     | -0.06501996 | 4.152351  | -1.1084775 | 2.714409e-01 | 4.686969e-01 |
| ## SLC4A2       | 0.12302414  | 7.627353  | 1.1080437  | 2.716269e-01 | 4.689468e-01 |
| ## CLSTN1       | 0.11381562  | 9.167371  | 1.1080349  | 2.716306e-01 | 4.689468e-01 |
| ## RPS6         | -0.06789668 | 12.947948 | -1.1078398 | 2.717143e-01 | 4.690266e-01 |
| ## ABCF2        | 0.09459913  | 5.939334  | 1.1077908  | 2.717354e-01 | 4.690266e-01 |
| ## CFAP100      | 0.04205077  | 4.964298  | 1.1077697  | 2.717444e-01 | 4.690266e-01 |
| ## LOC105378948 | 0.10812329  | 6.217318  | 1.1076512  | 2.717953e-01 | 4.690656e-01 |
| ## H4C4         | 0.05028571  | 3.730069  | 1.1076119  | 2.718121e-01 | 4.690656e-01 |
| ## KRTAP4-1     | 0.13646871  | 3.777950  | 1.1074054  | 2.719007e-01 | 4.691707e-01 |
| ## ATN1         | -0.08243679 | 5.826388  | -1.1073651 | 2.719180e-01 | 4.691707e-01 |
| ## PDCL2        | 0.04577418  | 3.233313  | 1.1071225  | 2.720222e-01 | 4.692422e-01 |
| ## MIR124-2HG   | -0.05401147 | 3.733468  | -1.1071121 | 2.720266e-01 | 4.692422e-01 |
| ## BAGE         | 0.03092903  | 3.730470  | 1.1071110  | 2.720271e-01 | 4.692422e-01 |
| ## LOC100288570 | -0.08480427 | 4.715199  | -1.1069918 | 2.720783e-01 | 4.692839e-01 |
| ## DPP8         | 0.10621833  | 8.701247  | 1.1069498  | 2.720963e-01 | 4.692839e-01 |
| ## LGMN         | -0.13963983 | 9.937529  | -1.1067491 | 2.721825e-01 | 4.693936e-01 |
| ## CLN6         | -0.06872940 | 3.712900  | -1.1066915 | 2.722072e-01 | 4.693974e-01 |
| ## NIPSNAP2     | 0.11842759  | 9.619918  | 1.1063456  | 2.723558e-01 | 4.696148e-01 |
| ## GALT         | 0.09421263  | 7.256988  | 1.1062034  | 2.724169e-01 | 4.696743e-01 |
| ## C16orf86     | -0.05876657 | 5.879319  | -1.1061604 | 2.724354e-01 | 4.696743e-01 |
| ## GRIPAP1      | 0.09917618  | 7.363045  | 1.1056884  | 2.726383e-01 | 4.699851e-01 |
| ## HPCAL1       | 0.15272604  | 7.258812  | 1.1056095  | 2.726722e-01 | 4.699915e-01 |
| ## TIMD4        | -0.05216152 | 3.782471  | -1.1055748 | 2.726872e-01 | 4.699915e-01 |
| ## NALCN-AS1    | -0.08805953 | 4.446432  | -1.1053433 | 2.727867e-01 | 4.701018e-01 |
| ## PICART1      | -0.06452733 | 3.860153  | -1.1053210 | 2.727963e-01 | 4.701018e-01 |
| ## GPR27        | -0.06808442 | 5.194062  | -1.1051481 | 2.728707e-01 | 4.701911e-01 |
| ## KRT7         | 0.42471523  | 7.564951  | 1.1049457  | 2.729578e-01 | 4.702642e-01 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## RGP4-AS1     | -0.03882462 | 3.401900  | -1.1049445 | 2.729583e-01 | 4.702642e-01 |
| ## ZNF76        | -0.06944348 | 7.117849  | -1.1048721 | 2.729895e-01 | 4.702790e-01 |
| ## RPL34-DT     | -0.03494218 | 3.396567  | -1.1047482 | 2.730428e-01 | 4.703320e-01 |
| ## LPAL2        | -0.04214689 | 3.737355  | -1.1046189 | 2.730985e-01 | 4.703890e-01 |
| ## LOC101929662 | -0.04021601 | 3.557427  | -1.1045088 | 2.731459e-01 | 4.704317e-01 |
| ## VHL          | 0.10823645  | 5.160222  | 1.1040662  | 2.733365e-01 | 4.707210e-01 |
| ## DLEU7-AS1    | 0.05945799  | 3.939042  | 1.1039636  | 2.733806e-01 | 4.707582e-01 |
| ## SNPH         | -0.10497662 | 6.492004  | -1.1035866 | 2.735431e-01 | 4.709990e-01 |
| ## QDPR         | -0.12334890 | 8.436331  | -1.1033783 | 2.736329e-01 | 4.711146e-01 |
| ## ATP6V0E1     | -0.07852828 | 11.308847 | -1.1031973 | 2.737109e-01 | 4.711959e-01 |
| ## LINC01864    | -0.03622648 | 3.615275  | -1.1031638 | 2.737254e-01 | 4.711959e-01 |
| ## FLOT2        | 0.08269663  | 7.730214  | 1.1028391  | 2.738654e-01 | 4.713980e-01 |
| ## STRAP        | 0.13878020  | 5.400664  | 1.1025651  | 2.739836e-01 | 4.715625e-01 |
| ## Clorf115     | -0.27920153 | 6.942914  | -1.1025063 | 2.740090e-01 | 4.715672e-01 |
| ## PIK3R3       | 0.14193362  | 7.260308  | 1.1022724  | 2.741099e-01 | 4.716847e-01 |
| ## MINDY2-DT    | 0.04036099  | 4.064013  | 1.1022431  | 2.741226e-01 | 4.716847e-01 |
| ## CAPG         | 0.17313481  | 9.061830  | 1.1021839  | 2.741481e-01 | 4.716897e-01 |
| ## ZNF70        | 0.04174425  | 5.374928  | 1.1019970  | 2.742288e-01 | 4.717895e-01 |
| ## KRTAP10-11   | -0.05406750 | 5.187858  | -1.1019438 | 2.742518e-01 | 4.717901e-01 |
| ## SPATA31E1    | -0.07908768 | 4.049120  | -1.1018452 | 2.742943e-01 | 4.718243e-01 |
| ## LINC00906    | 0.03349924  | 3.899184  | 1.1011948  | 2.745753e-01 | 4.722205e-01 |
| ## ARFGAP1      | 0.08734334  | 7.773998  | 1.1011666  | 2.745875e-01 | 4.722205e-01 |
| ## LIN37        | -0.10552027 | 6.455968  | -1.1011056 | 2.746138e-01 | 4.722205e-01 |
| ## SCT          | 0.09415051  | 4.897031  | 1.1011021  | 2.746154e-01 | 4.722205e-01 |
| ## EID3         | -0.09529219 | 3.974368  | -1.1008236 | 2.747357e-01 | 4.723043e-01 |
| ## LINP1        | 0.07717409  | 4.564379  | 1.1008037  | 2.747443e-01 | 4.723043e-01 |
| ## MLXIPL       | 0.11957896  | 6.086099  | 1.1007809  | 2.747542e-01 | 4.723043e-01 |
| ## BCLAF3       | 0.12066066  | 5.339140  | 1.1007794  | 2.747548e-01 | 4.723043e-01 |
| ## BRD7P3       | -0.03397211 | 3.439489  | -1.1003149 | 2.749557e-01 | 4.726106e-01 |
| ## SERPINB13    | 0.12433346  | 3.190811  | 1.1002385  | 2.749888e-01 | 4.726284e-01 |
| ## HAP1         | -0.05112088 | 5.596538  | -1.1001374 | 2.750325e-01 | 4.726645e-01 |
| ## ZNF214       | 0.04279996  | 3.366581  | 1.0998870  | 2.751408e-01 | 4.728117e-01 |
| ## PPT2         | -0.06709158 | 7.417027  | -1.0998291 | 2.751659e-01 | 4.728158e-01 |
| ## SLC18B1      | 0.12619989  | 8.322721  | 1.0995560  | 2.752841e-01 | 4.729798e-01 |
| ## LBP          | -0.08226146 | 5.097012  | -1.0993285 | 2.753826e-01 | 4.731101e-01 |
| ## CNFN         | 0.17665827  | 5.022729  | 1.0992180  | 2.754304e-01 | 4.731532e-01 |
| ## SEMA7A       | 0.04758341  | 5.093800  | 1.0990650  | 2.754967e-01 | 4.732197e-01 |
| ## PSG4         | 0.07550415  | 4.175249  | 1.0990237  | 2.755146e-01 | 4.732197e-01 |
| ## ZNF578       | 0.08676436  | 3.618924  | 1.0989603  | 2.755420e-01 | 4.732278e-01 |
| ## OPTC         | -0.06231499 | 5.169149  | -1.0988396 | 2.755943e-01 | 4.732786e-01 |
| ## TOMM20       | 0.09934343  | 10.654056 | 1.0986691  | 2.756682e-01 | 4.733664e-01 |
| ## LOC101929552 | -0.10155819 | 4.267780  | -1.0985742 | 2.757093e-01 | 4.733681e-01 |
| ## IAH1         | 0.10071126  | 9.073871  | 1.0985352  | 2.757262e-01 | 4.733681e-01 |
| ## IRAK4        | -0.07822625 | 6.995650  | -1.0985094 | 2.757374e-01 | 4.733681e-01 |
| ## MIR23AHG     | 0.16012795  | 8.608418  | 1.0983920  | 2.757883e-01 | 4.734165e-01 |
| ## PDLIM1       | -0.11915387 | 11.002738 | -1.0978289 | 2.760324e-01 | 4.737865e-01 |
| ## ZRANB2       | 0.10275077  | 8.494203  | 1.0977680  | 2.760588e-01 | 4.737865e-01 |
| ## PLEKHG5      | 0.06495886  | 6.216820  | 1.0977375  | 2.760721e-01 | 4.737865e-01 |
| ## LINC02673    | -0.04414928 | 4.726906  | -1.0974952 | 2.761772e-01 | 4.739278e-01 |
| ## MELTF-AS1    | 0.04601713  | 4.635275  | 1.0969231  | 2.764255e-01 | 4.743148e-01 |
| ## SPATA46      | -0.06780943 | 4.770223  | -1.0967533 | 2.764992e-01 | 4.744022e-01 |
| ## PITPNM2      | 0.04311307  | 3.955827  | 1.0966759  | 2.765328e-01 | 4.744208e-01 |
| ## NPC2         | -0.11772851 | 10.962712 | -1.0964581 | 2.766274e-01 | 4.745440e-01 |
| ## TAFAZZIN     | 0.07151924  | 6.727382  | 1.0960074  | 2.768232e-01 | 4.748407e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## FAM224A      | 0.03261258  | 3.470259  | 1.0958589  | 2.768878e-01 | 4.749124e-01 |
| ## LOC102724638 | -0.08117711 | 6.152596  | -1.0956577 | 2.769752e-01 | 4.750232e-01 |
| ## STX18        | 0.09144614  | 8.304891  | 1.0954240  | 2.770768e-01 | 4.751584e-01 |
| ## IL2RB        | 0.17977172  | 7.412353  | 1.0952696  | 2.771440e-01 | 4.752344e-01 |
| ## ANKRD46      | -0.14762568 | 7.781507  | -1.0951458 | 2.771978e-01 | 4.752876e-01 |
| ## TJP2         | 0.11802402  | 10.306168 | 1.0950851  | 2.772242e-01 | 4.752937e-01 |
| ## THPO         | 0.02552619  | 3.391636  | 1.0946854  | 2.773982e-01 | 4.755528e-01 |
| ## LOC101928251 | -0.05720527 | 4.059167  | -1.0945981 | 2.774361e-01 | 4.755787e-01 |
| ## REL          | -0.08868061 | 4.168055  | -1.0944341 | 2.775076e-01 | 4.756080e-01 |
| ## ALDH3B2      | 0.06487853  | 3.612360  | 1.0943850  | 2.775289e-01 | 4.756080e-01 |
| ## RTP5         | -0.08692243 | 5.140131  | -1.0943668 | 2.775369e-01 | 4.756080e-01 |
| ## RGS20        | 0.05874681  | 4.707735  | 1.0943490  | 2.775446e-01 | 4.756080e-01 |
| ## VAV3         | 0.28540314  | 5.210569  | 1.0942286  | 2.775970e-01 | 4.756559e-01 |
| ## LOC102723493 | -0.08451772 | 3.837308  | -1.0941619 | 2.776260e-01 | 4.756559e-01 |
| ## RPL30        | -0.05212381 | 13.264375 | -1.0941274 | 2.776411e-01 | 4.756559e-01 |
| ## LOC101929774 | 0.03784346  | 3.441674  | 1.0940693  | 2.776664e-01 | 4.756602e-01 |
| ## HINT2        | 0.10735999  | 8.707111  | 1.0940137  | 2.776906e-01 | 4.756625e-01 |
| ## TEPSIN       | 0.09943074  | 6.239220  | 1.0937980  | 2.777846e-01 | 4.757843e-01 |
| ## MYBPH        | 0.04419540  | 4.334952  | 1.0936825  | 2.778349e-01 | 4.758314e-01 |
| ## SLC25A28     | 0.04254606  | 3.641611  | 1.0933914  | 2.779617e-01 | 4.760095e-01 |
| ## PRSS33       | -0.22662906 | 5.702528  | -1.0931629 | 2.780613e-01 | 4.761409e-01 |
| ## CXCR4        | -0.23524992 | 9.005554  | -1.0930107 | 2.781277e-01 | 4.762153e-01 |
| ## FBXW9        | 0.08396571  | 6.017161  | 1.0928388  | 2.782026e-01 | 4.763045e-01 |
| ## APOA5        | -0.06082138 | 6.440403  | -1.0926698 | 2.782763e-01 | 4.763310e-01 |
| ## OR7E156P     | 0.06644482  | 5.842593  | 1.0926535  | 2.782835e-01 | 4.763310e-01 |
| ## COX2         | 0.03523537  | 14.042060 | 1.0926460  | 2.782867e-01 | 4.763310e-01 |
| ## IFI27L1      | -0.07544525 | 6.801869  | -1.0925432 | 2.783315e-01 | 4.763685e-01 |
| ## COL13A1      | 0.06283591  | 6.088536  | 1.0924615  | 2.783672e-01 | 4.763817e-01 |
| ## VCAN         | -0.25793725 | 8.143518  | -1.0924207 | 2.783850e-01 | 4.763817e-01 |
| ## TRIM2        | -0.17267431 | 6.855324  | -1.0923188 | 2.784294e-01 | 4.764186e-01 |
| ## DIO3OS       | -0.06613117 | 4.353246  | -1.0921519 | 2.785023e-01 | 4.765041e-01 |
| ## AGK          | 0.03094816  | 3.185623  | 1.0919627  | 2.785849e-01 | 4.766062e-01 |
| ## LOC100506446 | 0.04401815  | 3.996553  | 1.0915881  | 2.787484e-01 | 4.768468e-01 |
| ## NDUF7        | -0.08185436 | 8.716324  | -1.0915166 | 2.787796e-01 | 4.768611e-01 |
| ## PRR36        | -0.09160114 | 5.066757  | -1.0912149 | 2.789114e-01 | 4.770124e-01 |
| ## DAB2IP       | 0.10713910  | 7.294266  | 1.0912007  | 2.789176e-01 | 4.770124e-01 |
| ## TOX2         | 0.17628790  | 4.726175  | 1.0911568  | 2.789368e-01 | 4.770124e-01 |
| ## ERVH48-1     | -0.05813208 | 3.993271  | -1.0909904 | 2.790095e-01 | 4.770611e-01 |
| ## LINC01304    | -0.04479804 | 4.187395  | -1.0909868 | 2.790111e-01 | 4.770611e-01 |
| ## WDR36        | -0.12207319 | 7.407698  | -1.0909061 | 2.790463e-01 | 4.770822e-01 |
| ## ZDHHC14      | 0.04681492  | 3.492096  | 1.0907417  | 2.791182e-01 | 4.771659e-01 |
| ## NQO2-AS1     | -0.06561280 | 3.847727  | -1.0906156 | 2.791733e-01 | 4.772209e-01 |
| ## ADGRF2       | -0.03115131 | 3.476968  | -1.0905056 | 2.792214e-01 | 4.772583e-01 |
| ## ZSCAN16-AS1  | -0.03218096 | 3.299861  | -1.0904608 | 2.792410e-01 | 4.772583e-01 |
| ## FZD3         | 0.16503088  | 4.552076  | 1.0898033  | 2.795286e-01 | 4.776769e-01 |
| ## CCDC140      | -0.08251319 | 4.080726  | -1.0897705 | 2.795429e-01 | 4.776769e-01 |
| ## YWHAH-AS1    | 0.04186082  | 4.140307  | 1.0897024  | 2.795727e-01 | 4.776769e-01 |
| ## FKSG49       | 0.10640658  | 9.027792  | 1.0896910  | 2.795777e-01 | 4.776769e-01 |
| ## SMIM20       | -0.11017908 | 7.970375  | -1.0895931 | 2.796205e-01 | 4.777109e-01 |
| ## ATG4B        | -0.05796947 | 6.074189  | -1.0887140 | 2.800055e-01 | 4.783293e-01 |
| ## NDRG4        | 0.08406101  | 5.146365  | 1.0886418  | 2.800371e-01 | 4.783440e-01 |
| ## CARMIL3      | -0.06663023 | 6.155616  | -1.0885590 | 2.800733e-01 | 4.783564e-01 |
| ## FBXW7        | -0.07880676 | 6.891530  | -1.0885078 | 2.800958e-01 | 4.783564e-01 |
| ## LOC102724323 | -0.06902785 | 4.246615  | -1.0884680 | 2.801132e-01 | 4.783564e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## MGA          | -0.03945505 | 3.307154  | -1.0883408 | 2.801689e-01 | 4.784123e-01 |
| ## CA10         | 0.02565660  | 3.386785  | 1.0878842  | 2.803691e-01 | 4.787046e-01 |
| ## C9orf85      | -0.05686280 | 5.193939  | -1.0878455 | 2.803861e-01 | 4.787046e-01 |
| ## CHST4        | 0.18893673  | 4.402045  | 1.0877598  | 2.804236e-01 | 4.787294e-01 |
| ## SHOX         | -0.04170639 | 3.773504  | -1.0876247 | 2.804829e-01 | 4.787461e-01 |
| ## MFAP1        | 0.06912197  | 8.650426  | 1.0876238  | 2.804833e-01 | 4.787461e-01 |
| ## TATDN1       | 0.12088003  | 8.385144  | 1.0875803  | 2.805024e-01 | 4.787461e-01 |
| ## LRP10        | -0.09199584 | 10.016712 | -1.0873558 | 2.806008e-01 | 4.788749e-01 |
| ## TP53I13      | 0.08354641  | 6.831176  | 1.0870665  | 2.807278e-01 | 4.790523e-01 |
| ## NANOS3       | -0.05457080 | 5.391853  | -1.0869498 | 2.807790e-01 | 4.791004e-01 |
| ## GRIN1        | -0.08086748 | 4.247866  | -1.0868717 | 2.808133e-01 | 4.791197e-01 |
| ## G2E3-AS1     | 0.04166853  | 4.012267  | 1.0868126  | 2.808392e-01 | 4.791247e-01 |
| ## NADK2-AS1    | -0.03427929 | 3.565448  | -1.0866986 | 2.808893e-01 | 4.791708e-01 |
| ## LOC101927164 | -0.05581220 | 5.025478  | -1.0865046 | 2.809744e-01 | 4.792769e-01 |
| ## SSH3         | 0.08993762  | 7.142936  | 1.0863925  | 2.810237e-01 | 4.793128e-01 |
| ## ERVFH21-1    | -0.03988184 | 3.569538  | -1.0863517 | 2.810416e-01 | 4.793128e-01 |
| ## LRRC38       | -0.03376343 | 3.268877  | -1.0862612 | 2.810813e-01 | 4.793413e-01 |
| ## FAM181A-AS1  | 0.03388836  | 3.686759  | 1.0860905  | 2.811563e-01 | 4.794300e-01 |
| ## ARPC3        | 0.06892209  | 10.730690 | 1.0859335  | 2.812253e-01 | 4.795084e-01 |
| ## RASSF4       | 0.10851839  | 6.055053  | 1.0858159  | 2.812770e-01 | 4.795572e-01 |
| ## PAQR7        | -0.08511327 | 5.480451  | -1.0856808 | 2.813363e-01 | 4.796191e-01 |
| ## SLC06A1      | -0.06292302 | 3.619823  | -1.0856131 | 2.813661e-01 | 4.796277e-01 |
| ## MATN3        | -0.08542716 | 3.342102  | -1.0855646 | 2.813874e-01 | 4.796277e-01 |
| ## RUSC2        | -0.07957486 | 6.632298  | -1.0854343 | 2.814446e-01 | 4.796860e-01 |
| ## PER3P1       | -0.03560227 | 3.603595  | -1.0853452 | 2.814839e-01 | 4.797135e-01 |
| ## MAILR        | -0.04964638 | 3.985366  | -1.0852271 | 2.815357e-01 | 4.797627e-01 |
| ## DCTN6        | -0.08615371 | 9.444239  | -1.0850797 | 2.816006e-01 | 4.798339e-01 |
| ## TRAV12-1     | -0.08652433 | 4.061845  | -1.0850121 | 2.816303e-01 | 4.798454e-01 |
| ## EMID1        | -0.04659774 | 3.937969  | -1.0847287 | 2.817550e-01 | 4.800184e-01 |
| ## LOC101928052 | -0.02945501 | 3.247974  | -1.0846120 | 2.818063e-01 | 4.800666e-01 |
| ## PADI3        | -0.06635484 | 4.481884  | -1.0841524 | 2.820086e-01 | 4.803575e-01 |
| ## HTATSF1P2    | 0.11752685  | 3.561521  | 1.0841193  | 2.820232e-01 | 4.803575e-01 |
| ## MEX3D        | 0.05666797  | 6.021026  | 1.0839936  | 2.820785e-01 | 4.803775e-01 |
| ## SMARCD2      | 0.09938335  | 7.934243  | 1.0839878  | 2.820811e-01 | 4.803775e-01 |
| ## TTR          | -0.20503015 | 5.792614  | -1.0838620 | 2.821365e-01 | 4.804325e-01 |
| ## PMCHL2       | -0.04331839 | 3.678475  | -1.0837478 | 2.821867e-01 | 4.804733e-01 |
| ## LINC00888    | 0.15654608  | 5.497286  | 1.0835891  | 2.822566e-01 | 4.804733e-01 |
| ## PLA2G2E      | -0.05700354 | 4.687718  | -1.0835847 | 2.822586e-01 | 4.804733e-01 |
| ## PIGK         | -0.02471185 | 3.204686  | -1.0835700 | 2.822651e-01 | 4.804733e-01 |
| ## AREL1        | -0.05345062 | 4.386433  | -1.0835456 | 2.822758e-01 | 4.804733e-01 |
| ## PIAS4        | 0.06851789  | 6.013667  | 1.0834604  | 2.823133e-01 | 4.804980e-01 |
| ## DHX40        | 0.10611144  | 8.474653  | 1.0833154  | 2.823772e-01 | 4.805541e-01 |
| ## MYO5A        | 0.14971129  | 5.713459  | 1.0832408  | 2.824101e-01 | 4.805541e-01 |
| ## LINC01085    | -0.03414262 | 3.314165  | -1.0830992 | 2.824725e-01 | 4.805541e-01 |
| ## CAMK4        | -0.04544027 | 3.632231  | -1.0830886 | 2.824772e-01 | 4.805541e-01 |
| ## DHRS7C       | -0.07762390 | 4.257810  | -1.0830763 | 2.824826e-01 | 4.805541e-01 |
| ## ZBTB7B       | 0.06187460  | 5.293036  | 1.0830394  | 2.824989e-01 | 4.805541e-01 |
| ## GPR182       | -0.03632236 | 3.853958  | -1.0830189 | 2.825079e-01 | 4.805541e-01 |
| ## AQP2         | -0.09997366 | 5.438879  | -1.0825762 | 2.827030e-01 | 4.808230e-01 |
| ## KRTAP19-1    | -0.03089071 | 3.250632  | -1.0825556 | 2.827121e-01 | 4.808230e-01 |
| ## KMT2D        | -0.07010566 | 3.814888  | -1.0823891 | 2.827856e-01 | 4.808754e-01 |
| ## SH3D19       | 0.13735297  | 5.215421  | 1.0823811  | 2.827891e-01 | 4.808754e-01 |
| ## SLC35D2      | 0.12282484  | 7.630531  | 1.0821330  | 2.828985e-01 | 4.810222e-01 |
| ## LINC01788    | -0.03286138 | 3.457109  | -1.0820118 | 2.829520e-01 | 4.810390e-01 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## FABP6     | -0.04554666 | 3.858774  | -1.0820059 | 2.829546e-01 | 4.810390e-01 |
| ## WDCP      | 0.08065644  | 5.368673  | 1.0819034  | 2.829998e-01 | 4.810535e-01 |
| ## PDZD3     | -0.09409555 | 5.253169  | -1.0818818 | 2.830094e-01 | 4.810535e-01 |
| ## HPN       | -0.14545859 | 5.295196  | -1.0816006 | 2.831335e-01 | 4.811901e-01 |
| ## TBC1D1    | -0.05457173 | 4.009406  | -1.0815951 | 2.831359e-01 | 4.811901e-01 |
| ## KLHL32    | -0.07973666 | 3.198007  | -1.0814759 | 2.831885e-01 | 4.812402e-01 |
| ## BNIP3     | -0.18970268 | 6.086573  | -1.0812645 | 2.832819e-01 | 4.813331e-01 |
| ## GALNT1    | 0.14698108  | 9.331795  | 1.0812474  | 2.832894e-01 | 4.813331e-01 |
| ## AGBL2     | 0.05691371  | 3.866802  | 1.0810062  | 2.833959e-01 | 4.814748e-01 |
| ## NSF       | 0.04336583  | 3.598705  | 1.0805706  | 2.835884e-01 | 4.817625e-01 |
| ## PLEKHG7   | -0.03711607 | 3.434143  | -1.0803408 | 2.836900e-01 | 4.818904e-01 |
| ## LINC01619 | -0.05051492 | 3.735480  | -1.0802956 | 2.837100e-01 | 4.818904e-01 |
| ## COA5      | -0.11989265 | 7.276731  | -1.0802228 | 2.837421e-01 | 4.819057e-01 |
| ## RAPGEFL1  | -0.20792420 | 6.436779  | -1.0799150 | 2.838782e-01 | 4.820975e-01 |
| ## USP34     | -0.09083319 | 9.180188  | -1.0797911 | 2.839330e-01 | 4.821513e-01 |
| ## CDH4      | -0.07489731 | 4.289154  | -1.0796498 | 2.839956e-01 | 4.821882e-01 |
| ## PTPN9     | 0.06935877  | 7.273123  | 1.0796374  | 2.840010e-01 | 4.821882e-01 |
| ## ZNF561    | 0.10491839  | 5.527031  | 1.0794217  | 2.840964e-01 | 4.823108e-01 |
| ## GRM8-AS1  | -0.03697465 | 3.839101  | -1.0791494 | 2.842169e-01 | 4.824761e-01 |
| ## AGBL5     | 0.09509013  | 6.579084  | 1.0790432  | 2.842640e-01 | 4.825166e-01 |
| ## GAREM2    | -0.07129241 | 5.851886  | -1.0789825 | 2.842908e-01 | 4.825228e-01 |
| ## WIPF2     | -0.11734883 | 8.036492  | -1.0788633 | 2.843436e-01 | 4.825731e-01 |
| ## GYG1      | -0.12581356 | 8.972756  | -1.0785608 | 2.844776e-01 | 4.827611e-01 |
| ## HMG20B    | 0.13438937  | 6.639986  | 1.0785061  | 2.845018e-01 | 4.827628e-01 |
| ## CDC37L1   | -0.10531212 | 6.791320  | -1.0784397 | 2.845312e-01 | 4.827734e-01 |
| ## GJA1      | -0.18485708 | 10.221576 | -1.0781553 | 2.846572e-01 | 4.829478e-01 |
| ## ZBPB2     | 0.03253496  | 3.481575  | 1.0780775  | 2.846917e-01 | 4.829669e-01 |
| ## PPP1R3D   | 0.13021108  | 6.868576  | 1.0775231  | 2.849374e-01 | 4.833444e-01 |
| ## MYOD1     | 0.04507253  | 5.165050  | 1.0773748  | 2.850031e-01 | 4.834166e-01 |
| ## SERPINC1  | -0.03908109 | 3.563869  | -1.0772396 | 2.850631e-01 | 4.834789e-01 |
| ## SLC26A6   | 0.14596983  | 6.483161  | 1.0771075  | 2.851217e-01 | 4.834935e-01 |
| ## LRRC37B   | 0.09796777  | 7.153834  | 1.0770602  | 2.851427e-01 | 4.834935e-01 |
| ## RBM10     | 0.09197075  | 7.852140  | 1.0770545  | 2.851452e-01 | 4.834935e-01 |
| ## ZNF783    | 0.07658462  | 7.240469  | 1.0769711  | 2.851822e-01 | 4.834935e-01 |
| ## PDGFRB    | -0.16332777 | 8.504362  | -1.0769585 | 2.851878e-01 | 4.834935e-01 |
| ## CLMAT3    | -0.04396587 | 4.014551  | -1.0768082 | 2.852545e-01 | 4.835566e-01 |
| ## PHF2      | -0.05878634 | 4.212973  | -1.0767699 | 2.852715e-01 | 4.835566e-01 |
| ## NUTM1     | -0.06152775 | 5.302236  | -1.0766019 | 2.853460e-01 | 4.836436e-01 |
| ## ATRX      | -0.14185497 | 8.174461  | -1.0761504 | 2.855465e-01 | 4.839154e-01 |
| ## D2HGDH    | -0.09689834 | 7.025791  | -1.0761344 | 2.855536e-01 | 4.839154e-01 |
| ## KLRK1-AS1 | 0.12751584  | 4.603193  | 1.0760836  | 2.855761e-01 | 4.839154e-01 |
| ## TMEM229B  | -0.04335309 | 3.787552  | -1.0758181 | 2.856940e-01 | 4.840741e-01 |
| ## EPHX3     | 0.15919960  | 5.104492  | 1.0757373  | 2.857299e-01 | 4.840741e-01 |
| ## STK32C    | 0.10054485  | 5.510506  | 1.0757158  | 2.857395e-01 | 4.840741e-01 |
| ## SNAPC5    | 0.07878442  | 7.564855  | 1.0756223  | 2.857810e-01 | 4.841051e-01 |
| ## SPRY3     | -0.04153862 | 3.969370  | -1.0754575 | 2.858543e-01 | 4.841898e-01 |
| ## ERVK3-2   | -0.05007659 | 3.568953  | -1.0750073 | 2.860543e-01 | 4.844597e-01 |
| ## MYF6      | -0.06397436 | 4.361521  | -1.0749942 | 2.860601e-01 | 4.844597e-01 |
| ## ASF1A     | -0.10899842 | 7.632804  | -1.0745852 | 2.862421e-01 | 4.847283e-01 |
| ## GSTT1     | 0.46970091  | 7.190053  | 1.0744403  | 2.863065e-01 | 4.847981e-01 |
| ## ATXN3     | 0.12765400  | 6.349125  | 1.0743620  | 2.863413e-01 | 4.848176e-01 |
| ## PIGV      | -0.10869581 | 7.135707  | -1.0741827 | 2.864211e-01 | 4.849133e-01 |
| ## PPP2R5B   | 0.06846924  | 7.380732  | 1.0740336  | 2.864875e-01 | 4.849793e-01 |
| ## SOCS3     | 0.16125825  | 7.028695  | 1.0739904  | 2.865067e-01 | 4.849793e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## VN1R5        | -0.04738732 | 3.703833  | -1.0730092 | 2.869436e-01 | 4.856591e-01 |
| ## MIR3681HG    | -0.03930276 | 3.734103  | -1.0729447 | 2.869723e-01 | 4.856591e-01 |
| ## PAQR8        | -0.19205908 | 8.622021  | -1.0729130 | 2.869865e-01 | 4.856591e-01 |
| ## CELF5        | -0.05120663 | 3.785569  | -1.0728754 | 2.870032e-01 | 4.856591e-01 |
| ## GPR180       | 0.04261757  | 3.813214  | 1.0728267  | 2.870249e-01 | 4.856591e-01 |
| ## AKR1D1       | 0.02634763  | 3.266318  | 1.0727166  | 2.870740e-01 | 4.856759e-01 |
| ## FAR2P1       | 0.15915030  | 4.050891  | 1.0726998  | 2.870815e-01 | 4.856759e-01 |
| ## LINC00692    | -0.02735693 | 3.240585  | -1.0722925 | 2.872630e-01 | 4.859436e-01 |
| ## FAM90A1      | 0.08280747  | 4.454554  | 1.0721257  | 2.873374e-01 | 4.860299e-01 |
| ## ZIC4         | -0.04171878 | 3.899393  | -1.0719113 | 2.874330e-01 | 4.861522e-01 |
| ## CRISP3       | 0.37620945  | 3.828971  | 1.0717218  | 2.875176e-01 | 4.862557e-01 |
| ## LINC02579    | 0.04247729  | 4.601735  | 1.0716409  | 2.875537e-01 | 4.862772e-01 |
| ## C11orf42     | -0.07141716 | 4.403360  | -1.0713554 | 2.876810e-01 | 4.864531e-01 |
| ## LINC01127    | -0.08095329 | 3.913807  | -1.0710392 | 2.878222e-01 | 4.866294e-01 |
| ## KCTD19       | -0.06793410 | 5.137079  | -1.0709424 | 2.878654e-01 | 4.866294e-01 |
| ## BEST3        | -0.03304670 | 3.364583  | -1.0709422 | 2.878655e-01 | 4.866294e-01 |
| ## PPP3CC       | 0.12787967  | 6.156626  | 1.0709126  | 2.878787e-01 | 4.866294e-01 |
| ## C1QTNF1-AS1  | 0.06262957  | 4.282559  | 1.0708389  | 2.879117e-01 | 4.866455e-01 |
| ## SLC22A9      | -0.04319707 | 4.215501  | -1.0706905 | 2.879779e-01 | 4.867180e-01 |
| ## NIPAL3       | 0.04681234  | 3.953700  | 1.0706157  | 2.880113e-01 | 4.867280e-01 |
| ## LRTOMT       | 0.02958072  | 3.496621  | 1.0705726  | 2.880306e-01 | 4.867280e-01 |
| ## BCL6B        | -0.05577699 | 5.357034  | -1.0704952 | 2.880652e-01 | 4.867469e-01 |
| ## ZNF135       | -0.07134092 | 5.547498  | -1.0703928 | 2.881109e-01 | 4.867847e-01 |
| ## SOCS6        | 0.15633632  | 6.409577  | 1.0703057  | 2.881498e-01 | 4.868110e-01 |
| ## IFI44        | 0.22737468  | 6.530699  | 1.0702187  | 2.881887e-01 | 4.868371e-01 |
| ## SAMD8        | -0.09795845 | 6.982705  | -1.0701073 | 2.882385e-01 | 4.868818e-01 |
| ## SLC17A3      | -0.04878968 | 3.782947  | -1.0698893 | 2.883359e-01 | 4.869985e-01 |
| ## RFC1         | -0.09911669 | 7.290847  | -1.0698481 | 2.883544e-01 | 4.869985e-01 |
| ## CFAP119      | 0.07414793  | 5.354468  | 1.0694139  | 2.885485e-01 | 4.872868e-01 |
| ## KRT33A       | 0.07903675  | 4.642277  | 1.0692776  | 2.886095e-01 | 4.873361e-01 |
| ## AKAP8L       | 0.07026964  | 6.482778  | 1.0692440  | 2.886245e-01 | 4.873361e-01 |
| ## EIF3K        | -0.07876118 | 10.781847 | -1.0691214 | 2.886793e-01 | 4.873506e-01 |
| ## MAP1LC3A     | -0.11553579 | 7.608739  | -1.0691202 | 2.886799e-01 | 4.873506e-01 |
| ## ZNF83        | -0.18946815 | 7.702725  | -1.0689769 | 2.887440e-01 | 4.873782e-01 |
| ## SERP2        | -0.04332847 | 5.305636  | -1.0689408 | 2.887601e-01 | 4.873782e-01 |
| ## ACSM2B       | -0.04278990 | 3.445275  | -1.0689267 | 2.887665e-01 | 4.873782e-01 |
| ## LOC105378011 | 0.03058054  | 3.560507  | 1.0685478  | 2.889360e-01 | 4.876127e-01 |
| ## MYL1         | -0.03410647 | 3.719667  | -1.0684512 | 2.889793e-01 | 4.876127e-01 |
| ## ARHGEF10     | -0.10130410 | 5.718694  | -1.0684468 | 2.889812e-01 | 4.876127e-01 |
| ## TRIM72       | 0.07650617  | 4.536205  | 1.0684019  | 2.890013e-01 | 4.876127e-01 |
| ## EIF1         | -0.08210197 | 11.586164 | -1.0683548 | 2.890225e-01 | 4.876127e-01 |
| ## GIGYF1       | 0.06648259  | 7.096323  | 1.0682376  | 2.890749e-01 | 4.876617e-01 |
| ## FKSG29       | 0.03356808  | 3.686989  | 1.0681303  | 2.891230e-01 | 4.877033e-01 |
| ## MTNR1B       | -0.04505659 | 4.829860  | -1.0675493 | 2.893833e-01 | 4.881028e-01 |
| ## SREK1IP1     | 0.09820014  | 7.313718  | 1.0674493  | 2.894280e-01 | 4.881388e-01 |
| ## IRX5         | -0.18127981 | 4.892067  | -1.0673763 | 2.894608e-01 | 4.881545e-01 |
| ## MORN1        | -0.04358817 | 3.940563  | -1.0673197 | 2.894862e-01 | 4.881577e-01 |
| ## RXFP2        | -0.02505254 | 3.445109  | -1.0672242 | 2.895290e-01 | 4.881776e-01 |
| ## RBSN         | 0.05981299  | 4.405047  | 1.0671888  | 2.895448e-01 | 4.881776e-01 |
| ## PANK3        | 0.12118375  | 5.839326  | 1.0670320  | 2.896151e-01 | 4.882259e-01 |
| ## RPS6KA1      | 0.13036737  | 7.213074  | 1.0670204  | 2.896203e-01 | 4.882259e-01 |
| ## STC1         | 0.21987256  | 6.641546  | 1.0669184  | 2.896661e-01 | 4.882635e-01 |
| ## BRK1         | -0.09306268 | 5.090151  | -1.0667039 | 2.897623e-01 | 4.883860e-01 |
| ## ACAD8        | -0.10556857 | 6.980743  | -1.0665399 | 2.898358e-01 | 4.884432e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## LINC02116    | -0.02956954 | 3.560456 | -1.0665238 | 2.898431e-01 | 4.884432e-01 |
| ## C6orf120     | 0.11358790  | 7.237884 | 1.0659399  | 2.901051e-01 | 4.888391e-01 |
| ## TGFBR2       | 0.17033372  | 5.512189 | 1.0658512  | 2.901449e-01 | 4.888391e-01 |
| ## SPATA13      | 0.12871569  | 6.791277 | 1.0658378  | 2.901510e-01 | 4.888391e-01 |
| ## CFHR5        | 0.02989710  | 3.196934 | 1.0657346  | 2.901973e-01 | 4.888391e-01 |
| ## TMEM168      | -0.11912075 | 8.696817 | -1.0656980 | 2.902137e-01 | 4.888391e-01 |
| ## ZFTA         | 0.17787783  | 7.156352 | 1.0656865  | 2.902189e-01 | 4.888391e-01 |
| ## DMRT1        | -0.03376964 | 3.518600 | -1.0653845 | 2.903545e-01 | 4.890272e-01 |
| ## LPAR3        | -0.08642063 | 4.744162 | -1.0653333 | 2.903775e-01 | 4.890272e-01 |
| ## EXT2         | 0.08822378  | 8.482128 | 1.0651598  | 2.904555e-01 | 4.891189e-01 |
| ## EPHB3        | 0.21004300  | 6.714803 | 1.0649047  | 2.905701e-01 | 4.892723e-01 |
| ## TMC2         | -0.05989151 | 5.384162 | -1.0645566 | 2.907265e-01 | 4.894513e-01 |
| ## HEPH         | -0.05135276 | 3.824323 | -1.0644993 | 2.907523e-01 | 4.894513e-01 |
| ## SCPEP1       | 0.05080195  | 4.797715 | 1.0644596  | 2.907701e-01 | 4.894513e-01 |
| ## DLG4         | -0.06355768 | 4.428350 | -1.0644273 | 2.907847e-01 | 4.894513e-01 |
| ## LINC02992    | -0.04593076 | 4.427595 | -1.0644069 | 2.907938e-01 | 4.894513e-01 |
| ## PUM3         | -0.04908349 | 4.043214 | -1.0639968 | 2.909782e-01 | 4.897221e-01 |
| ## TPH1         | -0.12858783 | 3.719819 | -1.0636240 | 2.911460e-01 | 4.899648e-01 |
| ## SOX5         | -0.03606134 | 3.418947 | -1.0633668 | 2.912618e-01 | 4.901200e-01 |
| ## RGL3         | -0.03362025 | 3.317325 | -1.0629428 | 2.914527e-01 | 4.904016e-01 |
| ## OR10H3       | -0.03637691 | 3.847991 | -1.0628286 | 2.915041e-01 | 4.904075e-01 |
| ## LINC00208    | -0.04966295 | 4.048744 | -1.0627805 | 2.915257e-01 | 4.904075e-01 |
| ## KLHDC7A      | -0.06521481 | 4.481939 | -1.0627781 | 2.915268e-01 | 4.904075e-01 |
| ## CD6          | -0.05308943 | 4.167026 | -1.0627151 | 2.915552e-01 | 4.904157e-01 |
| ## INSIG2       | 0.11104716  | 8.060814 | 1.0623766  | 2.917077e-01 | 4.906325e-01 |
| ## TMEM123-DT   | 0.04399230  | 4.617082 | 1.0621669  | 2.918022e-01 | 4.907518e-01 |
| ## PHF19        | 0.11996105  | 6.466692 | 1.0615017  | 2.921021e-01 | 4.912063e-01 |
| ## PTPN22       | 0.20702243  | 5.671445 | 1.0614630  | 2.921196e-01 | 4.912063e-01 |
| ## SLC26A7      | 0.02733198  | 3.162230 | 1.0612295  | 2.922249e-01 | 4.913134e-01 |
| ## TMEM252      | -0.06663416 | 4.372835 | -1.0611762 | 2.922490e-01 | 4.913134e-01 |
| ## LOC101928933 | 0.04210116  | 3.521704 | 1.0611352  | 2.922675e-01 | 4.913134e-01 |
| ## PARD6G-AS1   | -0.05153267 | 4.965520 | -1.0611126 | 2.922777e-01 | 4.913134e-01 |
| ## LINC00656    | -0.05815946 | 3.943376 | -1.0610428 | 2.923092e-01 | 4.913267e-01 |
| ## TSNAX        | 0.09331375  | 8.640092 | 1.0608982  | 2.923744e-01 | 4.913967e-01 |
| ## MYBPC3       | -0.06809485 | 6.488561 | -1.0608422 | 2.923997e-01 | 4.913995e-01 |
| ## PCED1B-AS1   | 0.04721493  | 3.769613 | 1.0607849  | 2.924255e-01 | 4.914033e-01 |
| ## ZNF620       | -0.02432707 | 3.131363 | -1.0605851 | 2.925157e-01 | 4.915151e-01 |
| ## FNDC3A       | -0.10476999 | 9.053529 | -1.0604874 | 2.925598e-01 | 4.915496e-01 |
| ## SPOCK2       | 0.05733279  | 5.417750 | 1.0603595  | 2.926176e-01 | 4.916070e-01 |
| ## ALX3         | -0.06061217 | 5.372974 | -1.0600615 | 2.927522e-01 | 4.917934e-01 |
| ## MYOZ3        | -0.07407636 | 3.940515 | -1.0599624 | 2.927970e-01 | 4.918290e-01 |
| ## MIA          | 0.32654416  | 7.367663 | 1.0598051  | 2.928680e-01 | 4.918721e-01 |
| ## CARMIL2      | -0.06629090 | 4.689542 | -1.0598009 | 2.928699e-01 | 4.918721e-01 |
| ## HDAC7        | 0.08706027  | 7.198653 | 1.0597277  | 2.929030e-01 | 4.918881e-01 |
| ## NPRL3        | 0.08404232  | 5.775697 | 1.0593645  | 2.930671e-01 | 4.921240e-01 |
| ## HMX1         | 0.05657531  | 6.005739 | 1.0592931  | 2.930994e-01 | 4.921380e-01 |
| ## DCAF4L1      | 0.02709123  | 3.310848 | 1.0591922  | 2.931450e-01 | 4.921380e-01 |
| ## SMIM10L1     | 0.10797227  | 8.851632 | 1.0591691  | 2.931555e-01 | 4.921380e-01 |
| ## SERTAD4      | -0.14625279 | 4.568771 | -1.0590813 | 2.931952e-01 | 4.921380e-01 |
| ## LINC02011    | -0.02352501 | 3.316973 | -1.0590591 | 2.932052e-01 | 4.921380e-01 |
| ## KRT10        | -0.10693215 | 8.910269 | -1.0590325 | 2.932173e-01 | 4.921380e-01 |
| ## KRTAP3-1     | -0.06813071 | 6.031232 | -1.0587741 | 2.933341e-01 | 4.922945e-01 |
| ## LINC01533    | 0.05348857  | 4.441715 | 1.0586392  | 2.933951e-01 | 4.923572e-01 |
| ## PET100       | -0.08220991 | 9.246747 | -1.0584926 | 2.934615e-01 | 4.924288e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## TMPRSS11E    | 0.16963076  | 4.087535  | 1.0584249  | 2.934921e-01 | 4.924374e-01 |
| ## IGSF9        | -0.16215293 | 5.233380  | -1.0583768 | 2.935139e-01 | 4.924374e-01 |
| ## PTPRF        | 0.14876124  | 8.587334  | 1.0577116  | 2.938150e-01 | 4.929028e-01 |
| ## FCAMR        | 0.08486088  | 3.861340  | 1.0574661  | 2.939262e-01 | 4.930497e-01 |
| ## LINC01537    | -0.02740683 | 3.204631  | -1.0572981 | 2.940023e-01 | 4.931144e-01 |
| ## LOC101928697 | 0.04194372  | 3.417575  | 1.0572763  | 2.940121e-01 | 4.931144e-01 |
| ## PARM1-AS1    | 0.04399394  | 4.116476  | 1.0571357  | 2.940758e-01 | 4.931816e-01 |
| ## SETD4        | 0.10019592  | 6.835878  | 1.0569718  | 2.941501e-01 | 4.932664e-01 |
| ## LINC02861    | -0.03703770 | 3.107123  | -1.0567806 | 2.942368e-01 | 4.933719e-01 |
| ## GNAS-AS1     | 0.04812584  | 3.539963  | 1.0562915  | 2.944585e-01 | 4.937041e-01 |
| ## CAB39        | -0.08179460 | 9.794030  | -1.0560679 | 2.945599e-01 | 4.938343e-01 |
| ## ACSBG2       | -0.04471366 | 4.123877  | -1.0559839 | 2.945980e-01 | 4.938584e-01 |
| ## PCDH11X      | 0.03105506  | 3.518258  | 1.0556909  | 2.947310e-01 | 4.939850e-01 |
| ## BRPF1        | 0.06281900  | 6.591909  | 1.0556886  | 2.947320e-01 | 4.939850e-01 |
| ## APOL1        | 0.19070308  | 8.634404  | 1.0556493  | 2.947499e-01 | 4.939850e-01 |
| ## BRWD1        | -0.08496953 | 5.330045  | -1.0555747 | 2.947837e-01 | 4.939850e-01 |
| ## SSR4         | -0.10843795 | 11.539799 | -1.0555562 | 2.947921e-01 | 4.939850e-01 |
| ## TBC1D32      | 0.05464902  | 3.588675  | 1.0555024  | 2.948165e-01 | 4.939861e-01 |
| ## ATXN7L3B     | 0.18500900  | 6.294317  | 1.0554197  | 2.948541e-01 | 4.940093e-01 |
| ## TRIM55       | -0.03209467 | 3.518119  | -1.0551607 | 2.949717e-01 | 4.941664e-01 |
| ## LCA5L        | -0.05844145 | 4.427172  | -1.0550792 | 2.950087e-01 | 4.941664e-01 |
| ## CYP2J2       | 0.25315491  | 6.105842  | 1.0550457  | 2.950239e-01 | 4.941664e-01 |
| ## ACTN4        | 0.11267061  | 9.341105  | 1.0549861  | 2.950509e-01 | 4.941664e-01 |
| ## ADAMTSL4     | 0.05286117  | 4.692345  | 1.0549123  | 2.950845e-01 | 4.941664e-01 |
| ## PRTG         | 0.04281186  | 3.981601  | 1.0548640  | 2.951064e-01 | 4.941664e-01 |
| ## LBH          | -0.14822709 | 7.955582  | -1.0547632 | 2.951522e-01 | 4.941664e-01 |
| ## TAF8         | -0.05972748 | 4.127783  | -1.0547512 | 2.951577e-01 | 4.941664e-01 |
| ## IER3IP1      | 0.13729854  | 6.152014  | 1.0547428  | 2.951615e-01 | 4.941664e-01 |
| ## RAB36        | 0.09198385  | 5.956570  | 1.0546522  | 2.952026e-01 | 4.941957e-01 |
| ## FCN1         | -0.04076245 | 3.388743  | -1.0544254 | 2.953057e-01 | 4.943215e-01 |
| ## LINC01560    | 0.08264408  | 4.249112  | 1.0543114  | 2.953575e-01 | 4.943215e-01 |
| ## LOC105377938 | -0.06469116 | 3.648300  | -1.0542922 | 2.953662e-01 | 4.943215e-01 |
| ## DEFB108B     | -0.04614143 | 3.464867  | -1.0542778 | 2.953728e-01 | 4.943215e-01 |
| ## LOC105378635 | -0.02626733 | 3.433546  | -1.0542047 | 2.954060e-01 | 4.943374e-01 |
| ## EAF2         | -0.02267861 | 3.114728  | -1.0540312 | 2.954848e-01 | 4.944296e-01 |
| ## WNT9B        | -0.05790074 | 4.143256  | -1.0538207 | 2.955805e-01 | 4.945105e-01 |
| ## LOC101929255 | 0.02929442  | 3.363570  | 1.0538204  | 2.955807e-01 | 4.945105e-01 |
| ## ZNF672       | 0.07763593  | 7.310283  | 1.0536699  | 2.956491e-01 | 4.945853e-01 |
| ## POU2F2-AS1   | -0.03559600 | 4.071862  | -1.0536144 | 2.956743e-01 | 4.945877e-01 |
| ## BAHD1        | -0.06097519 | 6.490069  | -1.0534785 | 2.957362e-01 | 4.946514e-01 |
| ## C7orf31      | -0.15706006 | 5.627990  | -1.0533861 | 2.957782e-01 | 4.946766e-01 |
| ## OR7D2        | 0.15348746  | 3.432069  | 1.0533409  | 2.957988e-01 | 4.946766e-01 |
| ## LINC01539    | -0.04722886 | 4.362176  | -1.0532220 | 2.958529e-01 | 4.947274e-01 |
| ## SLC29A3      | 0.08827689  | 7.225644  | 1.0527893  | 2.960497e-01 | 4.950169e-01 |
| ## LOC101928373 | -0.03152469 | 3.430720  | -1.0526606 | 2.961083e-01 | 4.950751e-01 |
| ## PTPRR        | 0.17413687  | 3.904359  | 1.0524313  | 2.962128e-01 | 4.952099e-01 |
| ## ERV3-2       | 0.11912962  | 4.412519  | 1.0522249  | 2.963067e-01 | 4.953273e-01 |
| ## PLEKHF1      | 0.13474708  | 6.969454  | 1.0519084  | 2.964509e-01 | 4.955147e-01 |
| ## LINC00963    | -0.06873133 | 4.646889  | -1.0518742 | 2.964665e-01 | 4.955147e-01 |
| ## STK39        | -0.13084924 | 9.004658  | -1.0516533 | 2.965672e-01 | 4.956156e-01 |
| ## ZP2          | -0.04359972 | 4.222542  | -1.0516374 | 2.965744e-01 | 4.956156e-01 |
| ## LINC03020    | -0.03346084 | 3.549382  | -1.0513643 | 2.966989e-01 | 4.957838e-01 |
| ## ZBTB11-AS1   | 0.07127237  | 4.514287  | 1.0511907  | 2.967780e-01 | 4.958763e-01 |
| ## OR7E14P      | 0.25260850  | 5.601815  | 1.0510081  | 2.968613e-01 | 4.959756e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## HDAC3        | -0.06714134 | 7.868752  | -1.0508619 | 2.969280e-01 | 4.960472e-01 |
| ## FBP1         | -0.23805487 | 8.572143  | -1.0507131 | 2.969959e-01 | 4.961208e-01 |
| ## LINC02544    | -0.05362484 | 3.874813  | -1.0505604 | 2.970655e-01 | 4.961974e-01 |
| ## CLN8-AS1     | -0.03706027 | 3.508187  | -1.0500164 | 2.973138e-01 | 4.965631e-01 |
| ## DOC2A        | 0.06272108  | 4.503825  | 1.0499761  | 2.973322e-01 | 4.965631e-01 |
| ## PRSS35       | -0.08468033 | 3.638137  | -1.0497772 | 2.974230e-01 | 4.966750e-01 |
| ## C5orf58      | -0.06474529 | 4.248953  | -1.0496216 | 2.974940e-01 | 4.967537e-01 |
| ## ZFAND6       | -0.07239737 | 9.287750  | -1.0495368 | 2.975328e-01 | 4.967786e-01 |
| ## VPS35        | 0.04887325  | 3.658143  | 1.0494312  | 2.975810e-01 | 4.968151e-01 |
| ## CCDC26       | -0.03291947 | 3.244204  | -1.0493399 | 2.976227e-01 | 4.968151e-01 |
| ## TMEM190      | -0.06179173 | 4.792154  | -1.0493109 | 2.976360e-01 | 4.968151e-01 |
| ## UQCR10       | -0.08954238 | 11.081102 | -1.0491626 | 2.977038e-01 | 4.968151e-01 |
| ## METAP2       | -0.03023610 | 3.042203  | -1.0490856 | 2.977389e-01 | 4.968151e-01 |
| ## KKR6         | -0.06587131 | 4.364727  | -1.0490647 | 2.977485e-01 | 4.968151e-01 |
| ## HCN1         | 0.12162055  | 3.306500  | 1.0490103  | 2.977734e-01 | 4.968151e-01 |
| ## CCDC71       | 0.05203209  | 5.553457  | 1.0490029  | 2.977767e-01 | 4.968151e-01 |
| ## ZBTB45       | 0.05905573  | 6.709317  | 1.0489926  | 2.977814e-01 | 4.968151e-01 |
| ## ANKRD30A     | -0.03271964 | 3.553333  | -1.0489668 | 2.977932e-01 | 4.968151e-01 |
| ## NCF4         | -0.13307309 | 6.586574  | -1.0484478 | 2.980305e-01 | 4.971711e-01 |
| ## GPT2         | 0.19885566  | 6.500591  | 1.0481387  | 2.981718e-01 | 4.973670e-01 |
| ## SQSTM1       | 0.10452337  | 10.238069 | 1.0479642  | 2.982516e-01 | 4.974603e-01 |
| ## PRKD3        | 0.05040431  | 3.429383  | 1.0478628  | 2.982980e-01 | 4.974860e-01 |
| ## PCDHB3       | -0.06519327 | 6.057647  | -1.0478262 | 2.983148e-01 | 4.974860e-01 |
| ## TTLL3        | -0.04343716 | 4.820701  | -1.0477399 | 2.983543e-01 | 4.975048e-01 |
| ## PLGLB2       | 0.05159514  | 3.725853  | 1.0476664  | 2.983879e-01 | 4.975048e-01 |
| ## GPX4         | 0.08938728  | 10.697907 | 1.0476449  | 2.983978e-01 | 4.975048e-01 |
| ## TTLL11       | -0.04150148 | 3.950102  | -1.0470566 | 2.986671e-01 | 4.978643e-01 |
| ## ATP8B1-AS1   | -0.08865598 | 6.023098  | -1.0470418 | 2.986739e-01 | 4.978643e-01 |
| ## C11orf68     | -0.06978626 | 7.332776  | -1.0470172 | 2.986851e-01 | 4.978643e-01 |
| ## GLUD2        | 0.03759346  | 3.361821  | 1.0468064  | 2.987817e-01 | 4.979605e-01 |
| ## DEF6         | 0.08801123  | 6.462329  | 1.0466655  | 2.988462e-01 | 4.979605e-01 |
| ## CASR         | -0.05841603 | 4.677125  | -1.0466618 | 2.988479e-01 | 4.979605e-01 |
| ## PRG2         | 0.06643385  | 4.581793  | 1.0466288  | 2.988630e-01 | 4.979605e-01 |
| ## IQSEC3       | -0.07037902 | 3.977626  | -1.0465899 | 2.988809e-01 | 4.979605e-01 |
| ## ZMYM2        | 0.12797285  | 8.175661  | 1.0465780  | 2.988863e-01 | 4.979605e-01 |
| ## PBX3-DT      | -0.03421384 | 3.338124  | -1.0461346 | 2.990895e-01 | 4.982592e-01 |
| ## LINC00556    | -0.03439964 | 3.413482  | -1.0457934 | 2.992459e-01 | 4.984691e-01 |
| ## MT2A         | -0.19465993 | 11.094792 | -1.0457554 | 2.992634e-01 | 4.984691e-01 |
| ## DDX60L       | 0.06389098  | 3.989652  | 1.0455372  | 2.993634e-01 | 4.985959e-01 |
| ## TRAV16       | -0.03711336 | 3.769164  | -1.0453548 | 2.994471e-01 | 4.986574e-01 |
| ## LINC01843    | 0.07963022  | 4.679939  | 1.0453522  | 2.994483e-01 | 4.986574e-01 |
| ## ERCC5        | -0.08203512 | 8.075952  | -1.0452281 | 2.995052e-01 | 4.987124e-01 |
| ## FLJ45513     | -0.06265517 | 4.770002  | -1.0449426 | 2.996362e-01 | 4.988906e-01 |
| ## LOC105369890 | -0.04443245 | 3.479255  | -1.0446992 | 2.997480e-01 | 4.990367e-01 |
| ## LINC02123    | -0.03577857 | 3.806048  | -1.0446217 | 2.997835e-01 | 4.990448e-01 |
| ## ASMT         | -0.04380505 | 4.253320  | -1.0445842 | 2.998007e-01 | 4.990448e-01 |
| ## LOC105372217 | -0.06557435 | 3.739006  | -1.0440277 | 3.000563e-01 | 4.994083e-01 |
| ## CCDC158      | 0.02779510  | 3.386997  | 1.0439536  | 3.000904e-01 | 4.994083e-01 |
| ## NDUFS5       | -0.06709817 | 11.041208 | -1.0439521 | 3.000910e-01 | 4.994083e-01 |
| ## GRAMD4       | -0.07654391 | 4.690401  | -1.0438377 | 3.001436e-01 | 4.994558e-01 |
| ## RIT2         | -0.03221606 | 3.435476  | -1.0435711 | 3.002661e-01 | 4.996198e-01 |
| ## MBD6         | 0.13114639  | 6.472651  | 1.0434449  | 3.003241e-01 | 4.996596e-01 |
| ## FKBP5        | 0.20448064  | 5.758584  | 1.0434147  | 3.003380e-01 | 4.996596e-01 |
| ## FAIM         | 0.14799658  | 6.717539  | 1.0432712  | 3.004040e-01 | 4.997294e-01 |



|                      |             |          |            |              |              |
|----------------------|-------------|----------|------------|--------------|--------------|
| ## LOC105373170      | -0.03685980 | 3.351201 | -1.0431834 | 3.004443e-01 | 4.997566e-01 |
| ## SNAP29            | 0.10222616  | 7.601135 | 1.0430952  | 3.004849e-01 | 4.997842e-01 |
| ## MC3R              | -0.05372977 | 4.213603 | -1.0429033 | 3.005731e-01 | 4.998910e-01 |
| ## CAMK2D            | -0.13368255 | 7.426270 | -1.0427152 | 3.006597e-01 | 4.999950e-01 |
| ## ROM1              | -0.05446295 | 5.462757 | -1.0420047 | 3.009866e-01 | 5.004988e-01 |
| ## WDR64             | -0.03961221 | 3.865100 | -1.0417857 | 3.010875e-01 | 5.005591e-01 |
| ## NKG7              | 0.25582464  | 6.638730 | 1.0417665  | 3.010963e-01 | 5.005591e-01 |
| ## HDGFL1            | -0.05490724 | 6.380079 | -1.0417571 | 3.011006e-01 | 5.005591e-01 |
| ## LOC101928371      | -0.06983158 | 4.464653 | -1.0417170 | 3.011191e-01 | 5.005591e-01 |
| ## IL10RB            | -0.11836554 | 7.834216 | -1.0416500 | 3.011499e-01 | 5.005704e-01 |
| ## LINC02415         | -0.04354803 | 4.010124 | -1.0415190 | 3.012103e-01 | 5.006307e-01 |
| ## ADO               | 0.08788548  | 7.135730 | 1.0412516  | 3.013335e-01 | 5.007955e-01 |
| ## PRKG1-AS1         | -0.03539596 | 3.507501 | -1.0409817 | 3.014578e-01 | 5.009622e-01 |
| ## MYBPC2            | -0.06951262 | 4.017083 | -1.0407855 | 3.015482e-01 | 5.010725e-01 |
| ## MORF4L2-AS1       | -0.04577540 | 4.826057 | -1.0406427 | 3.016141e-01 | 5.011419e-01 |
| ## NHLRC4            | -0.05500532 | 6.618112 | -1.0405905 | 3.016381e-01 | 5.011419e-01 |
| ## PC                | -0.10503953 | 5.616100 | -1.0401832 | 3.018260e-01 | 5.014140e-01 |
| ## NXNL1             | -0.07598995 | 6.001449 | -1.0401257 | 3.018525e-01 | 5.014180e-01 |
| ## TRH               | -0.04653640 | 4.497151 | -1.0396137 | 3.020887e-01 | 5.017212e-01 |
| ## TSGA10IP          | 0.05171694  | 4.928311 | 1.0395990  | 3.020955e-01 | 5.017212e-01 |
| ## CLPTM1            | 0.05649509  | 7.697543 | 1.0395235  | 3.021303e-01 | 5.017212e-01 |
| ## CAPN14            | 0.18963866  | 3.368779 | 1.0395213  | 3.021314e-01 | 5.017212e-01 |
| ## TPTE2P6           | -0.04065490 | 3.410674 | -1.0394023 | 3.021863e-01 | 5.017723e-01 |
| ## PRSS2             | -0.38136971 | 8.006730 | -1.0391230 | 3.023152e-01 | 5.018838e-01 |
| ## LINC01541         | -0.02562674 | 3.109092 | -1.0390771 | 3.023364e-01 | 5.018838e-01 |
| ## DAO               | -0.06505440 | 4.568060 | -1.0390603 | 3.023442e-01 | 5.018838e-01 |
| ## PIK3CA-DT         | 0.02572787  | 3.236157 | 1.0390481  | 3.023498e-01 | 5.018838e-01 |
| ## SLC30A10          | -0.12969831 | 3.583782 | -1.0389072 | 3.024149e-01 | 5.019518e-01 |
| ## LLOXNC01-250H12.3 | -0.05812188 | 5.001155 | -1.0388536 | 3.024397e-01 | 5.019529e-01 |
| ## RNF216            | -0.04084776 | 3.684948 | -1.0387714 | 3.024776e-01 | 5.019759e-01 |
| ## SLC24A1           | 0.10380925  | 6.136411 | 1.0386069  | 3.025536e-01 | 5.020620e-01 |
| ## KLF1              | -0.06765817 | 4.119597 | -1.0383944 | 3.026517e-01 | 5.021849e-01 |
| ## ENPP5             | 0.28914612  | 4.465390 | 1.0381776  | 3.027520e-01 | 5.023111e-01 |
| ## LINC02250         | 0.02523119  | 3.321437 | 1.0375746  | 3.030307e-01 | 5.026502e-01 |
| ## ECSIT             | -0.06789081 | 7.120119 | -1.0375600 | 3.030375e-01 | 5.026502e-01 |
| ## TSPAN32           | -0.07395439 | 6.035442 | -1.0375499 | 3.030421e-01 | 5.026502e-01 |
| ## LINC02653         | -0.04707060 | 3.876210 | -1.0375120 | 3.030597e-01 | 5.026502e-01 |
| ## TAS2R40           | -0.03467119 | 3.240085 | -1.0374745 | 3.030770e-01 | 5.026502e-01 |
| ## TBC1D10A          | -0.05260827 | 4.337203 | -1.0374152 | 3.031044e-01 | 5.026557e-01 |
| ## TDRD3             | -0.08101871 | 5.983503 | -1.0367346 | 3.034194e-01 | 5.030527e-01 |
| ## LAMA5-AS1         | -0.07535652 | 5.522080 | -1.0366656 | 3.034513e-01 | 5.030527e-01 |
| ## ODAD4             | -0.04284008 | 3.819625 | -1.0366468 | 3.034600e-01 | 5.030527e-01 |
| ## ASAP1-IT2         | 0.10252681  | 5.114162 | 1.0365983  | 3.034825e-01 | 5.030527e-01 |
| ## ARSI              | 0.05879269  | 4.190559 | 1.0365800  | 3.034910e-01 | 5.030527e-01 |
| ## TRIM67-AS1        | -0.06091432 | 4.415478 | -1.0364617 | 3.035457e-01 | 5.030527e-01 |
| ## ZFP14             | -0.03166932 | 3.524295 | -1.0364431 | 3.035543e-01 | 5.030527e-01 |
| ## KCNC3             | -0.05022749 | 5.027303 | -1.0364367 | 3.035573e-01 | 5.030527e-01 |
| ## SNX29             | -0.03860210 | 3.555713 | -1.0364282 | 3.035613e-01 | 5.030527e-01 |
| ## TCP11L2           | -0.05400899 | 3.743431 | -1.0361687 | 3.036814e-01 | 5.032117e-01 |
| ## LOC285422         | -0.05948510 | 3.784614 | -1.0354558 | 3.040117e-01 | 5.037190e-01 |
| ## PNPLA6            | 0.11616599  | 7.636395 | 1.0353677  | 3.040525e-01 | 5.037465e-01 |
| ## LOC105373223      | -0.04159693 | 3.360751 | -1.0351550 | 3.041512e-01 | 5.037671e-01 |
| ## MTUS2             | -0.05337914 | 3.696325 | -1.0350883 | 3.041821e-01 | 5.037671e-01 |
| ## HSPA1B            | 0.03050549  | 3.530606 | 1.0349836  | 3.042306e-01 | 5.037671e-01 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## NDUFAF1   | -0.10291038 | 7.518955  | -1.0349819 | 3.042314e-01 | 5.037671e-01 |
| ## STXBP1    | -0.21877857 | 7.169471  | -1.0349517 | 3.042454e-01 | 5.037671e-01 |
| ## SCARF1    | 0.07546759  | 5.404485  | 1.0349480  | 3.042471e-01 | 5.037671e-01 |
| ## TTLL12    | 0.11658473  | 8.003321  | 1.0349435  | 3.042492e-01 | 5.037671e-01 |
| ## PHACTR1   | 0.13416344  | 4.962442  | 1.0349235  | 3.042585e-01 | 5.037671e-01 |
| ## FNDC11    | 0.07871973  | 4.804815  | 1.0348157  | 3.043085e-01 | 5.038098e-01 |
| ## GCK       | -0.04469921 | 5.038640  | -1.0347097 | 3.043577e-01 | 5.038512e-01 |
| ## GPR162    | -0.07644697 | 5.380674  | -1.0344330 | 3.044860e-01 | 5.040236e-01 |
| ## CTDSP2    | -0.08412647 | 9.383039  | -1.0343697 | 3.045154e-01 | 5.040321e-01 |
| ## LINC01869 | -0.08260686 | 6.069301  | -1.0341755 | 3.046055e-01 | 5.041413e-01 |
| ## GPR85     | -0.02997634 | 3.339033  | -1.0341231 | 3.046298e-01 | 5.041415e-01 |
| ## EEF1B2    | -0.07409859 | 12.254159 | -1.0338639 | 3.047502e-01 | 5.042899e-01 |
| ## TASL      | -0.07373125 | 6.173386  | -1.0338255 | 3.047680e-01 | 5.042899e-01 |
| ## MYH3      | -0.05870929 | 3.838039  | -1.0333994 | 3.049659e-01 | 5.045773e-01 |
| ## NUCKS1    | -0.08914608 | 10.268026 | -1.0330774 | 3.051154e-01 | 5.047846e-01 |
| ## MROH2B    | -0.05338982 | 4.240652  | -1.0326215 | 3.053273e-01 | 5.050950e-01 |
| ## NEURL1    | 0.04410704  | 4.578607  | 1.0322396  | 3.055049e-01 | 5.052930e-01 |
| ## RD3       | -0.04675746 | 3.707908  | -1.0322233 | 3.055124e-01 | 5.052930e-01 |
| ## RAB40C    | 0.05647631  | 5.759890  | 1.0322054  | 3.055208e-01 | 5.052930e-01 |
| ## KIF12     | -0.09246382 | 6.167816  | -1.0320670 | 3.055851e-01 | 5.052930e-01 |
| ## HM13      | -0.06012776 | 4.292249  | -1.0320343 | 3.056003e-01 | 5.052930e-01 |
| ## BICDL2    | 0.12588282  | 6.964474  | 1.0319453  | 3.056417e-01 | 5.052930e-01 |
| ## LINC01523 | -0.04042122 | 4.255786  | -1.0318996 | 3.056630e-01 | 5.052930e-01 |
| ## ZNF850    | -0.16528428 | 4.201628  | -1.0318709 | 3.056764e-01 | 5.052930e-01 |
| ## LINC02604 | 0.08366396  | 6.121832  | 1.0318569  | 3.056829e-01 | 5.052930e-01 |
| ## CECR7     | 0.05692891  | 4.062667  | 1.0317932  | 3.057125e-01 | 5.052930e-01 |
| ## LMAN2L    | 0.08367500  | 7.268186  | 1.0316992  | 3.057562e-01 | 5.052930e-01 |
| ## RNF13     | 0.10675542  | 9.833772  | 1.0316881  | 3.057614e-01 | 5.052930e-01 |
| ## ASAP2     | -0.14117714 | 9.140044  | -1.0316860 | 3.057624e-01 | 5.052930e-01 |
| ## MYCNOS    | 0.04586106  | 4.544641  | 1.0314236  | 3.058845e-01 | 5.054546e-01 |
| ## LINC00315 | 0.03907612  | 6.272554  | 1.0312746  | 3.059539e-01 | 5.055291e-01 |
| ## PRKCA     | -0.05756644 | 5.110759  | -1.0311251 | 3.060235e-01 | 5.055995e-01 |
| ## PURPL     | 0.05118697  | 3.227984  | 1.0310682  | 3.060500e-01 | 5.055995e-01 |
| ## GOLM1     | -0.05487940 | 4.801868  | -1.0310266 | 3.060693e-01 | 5.055995e-01 |
| ## FAM50A    | 0.10572043  | 8.514929  | 1.0309200  | 3.061190e-01 | 5.056414e-01 |
| ## ZNF606    | -0.12717623 | 5.613027  | -1.0307058 | 3.062187e-01 | 5.057327e-01 |
| ## PROSER2   | 0.18350355  | 7.058675  | 1.0306820  | 3.062298e-01 | 5.057327e-01 |
| ## UBXN11    | 0.09769490  | 6.013189  | 1.0306449  | 3.062471e-01 | 5.057327e-01 |
| ## CD99      | -0.11513935 | 9.717446  | -1.0305036 | 3.063129e-01 | 5.058013e-01 |
| ## GCAT      | 0.11013676  | 6.903216  | 1.0302894  | 3.064127e-01 | 5.058859e-01 |
| ## PF4       | 0.17624878  | 5.267677  | 1.0302893  | 3.064127e-01 | 5.058859e-01 |
| ## DRC1      | -0.05834398 | 4.623267  | -1.0302174 | 3.064463e-01 | 5.058985e-01 |
| ## TRIM54    | -0.06379116 | 4.361114  | -1.0301687 | 3.064690e-01 | 5.058985e-01 |
| ## RPL38     | -0.16046731 | 8.450403  | -1.0300210 | 3.065378e-01 | 5.059720e-01 |
| ## CELSR3    | 0.12733902  | 5.839607  | 1.0299138  | 3.065878e-01 | 5.060144e-01 |
| ## CA3       | -0.07016914 | 3.493823  | -1.0297818 | 3.066493e-01 | 5.060758e-01 |
| ## CDH6      | -0.09866532 | 4.227452  | -1.0291039 | 3.069654e-01 | 5.064845e-01 |
| ## NFIX      | -0.07886974 | 5.127950  | -1.0291016 | 3.069665e-01 | 5.064845e-01 |
| ## KIAA0319  | 0.07051144  | 4.150897  | 1.0290767  | 3.069781e-01 | 5.064845e-01 |
| ## ACTA1     | -0.10591135 | 3.820468  | -1.0290158 | 3.070065e-01 | 5.064845e-01 |
| ## DGLUCY    | -0.09365141 | 6.905332  | -1.0289902 | 3.070185e-01 | 5.064845e-01 |
| ## BIRC7     | 0.08148363  | 6.029107  | 1.0288752  | 3.070721e-01 | 5.065012e-01 |
| ## MRNIP-DT  | -0.03672489 | 3.352115  | -1.0288642 | 3.070773e-01 | 5.065012e-01 |
| ## ZNF263    | 0.07330494  | 7.710829  | 1.0286426  | 3.071807e-01 | 5.066316e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## PELI1        | 0.10358778  | 9.070789 | 1.0285746  | 3.072124e-01 | 5.066438e-01 |
| ## GAL3ST4      | -0.10216266 | 6.873597 | -1.0284507 | 3.072703e-01 | 5.066692e-01 |
| ## ZNF688       | -0.08647237 | 6.673184 | -1.0284375 | 3.072764e-01 | 5.066692e-01 |
| ## KDM6B        | 0.09585076  | 6.633863 | 1.0283808  | 3.073029e-01 | 5.066727e-01 |
| ## PARVG        | -0.12335289 | 6.638816 | -1.0282002 | 3.073873e-01 | 5.067207e-01 |
| ## LOC101927247 | 0.04383947  | 4.111677 | 1.0281794  | 3.073970e-01 | 5.067207e-01 |
| ## LOC101928273 | -0.03097275 | 3.343269 | -1.0281621 | 3.074050e-01 | 5.067207e-01 |
| ## MAPK11       | -0.05833094 | 4.292163 | -1.0279817 | 3.074893e-01 | 5.068195e-01 |
| ## CFAP107      | -0.05091270 | 4.287203 | -1.0278004 | 3.075740e-01 | 5.069190e-01 |
| ## TAL2         | -0.05603688 | 4.115700 | -1.0275125 | 3.077085e-01 | 5.071005e-01 |
| ## TSSK2        | -0.08243448 | 4.244989 | -1.0272303 | 3.078404e-01 | 5.072773e-01 |
| ## TAB1         | -0.06089120 | 4.888170 | -1.0271787 | 3.078645e-01 | 5.072773e-01 |
| ## TNS2-AS1     | 0.05609017  | 5.701827 | 1.0269286  | 3.079814e-01 | 5.074138e-01 |
| ## TRPV1        | -0.10411481 | 4.891093 | -1.0268973 | 3.079961e-01 | 5.074138e-01 |
| ## LOC101927839 | -0.03974118 | 4.149530 | -1.0267409 | 3.080692e-01 | 5.074941e-01 |
| ## ITM2C        | -0.15860299 | 9.171723 | -1.0265291 | 3.081683e-01 | 5.076172e-01 |
| ## NCALD        | -0.04243767 | 3.381005 | -1.0261474 | 3.083469e-01 | 5.078443e-01 |
| ## LOC101928214 | -0.03596609 | 3.533700 | -1.0261301 | 3.083550e-01 | 5.078443e-01 |
| ## ZNF775       | 0.06508263  | 5.943458 | 1.0257793  | 3.085192e-01 | 5.080746e-01 |
| ## FKBP9        | 0.07884749  | 9.324827 | 1.0256559  | 3.085769e-01 | 5.081295e-01 |
| ## TEX261       | 0.06954400  | 8.363778 | 1.0252126  | 3.087845e-01 | 5.084311e-01 |
| ## SRRM5        | -0.08973905 | 4.044992 | -1.0250903 | 3.088418e-01 | 5.084852e-01 |
| ## DNAJC24      | -0.05614902 | 4.195485 | -1.0250209 | 3.088743e-01 | 5.084893e-01 |
| ## TRBV7-3      | 0.05686053  | 4.911721 | 1.0249809  | 3.088931e-01 | 5.084893e-01 |
| ## SNAPIN       | 0.08265261  | 8.659309 | 1.0246638  | 3.090417e-01 | 5.086937e-01 |
| ## OLIG3        | 0.03195769  | 3.503286 | 1.0244285  | 3.091520e-01 | 5.088098e-01 |
| ## CDR2         | 0.08805677  | 8.213645 | 1.0244089  | 3.091611e-01 | 5.088098e-01 |
| ## NCR2         | -0.05374508 | 6.528337 | -1.0241892 | 3.092641e-01 | 5.089251e-01 |
| ## PITRM1       | 0.10686336  | 8.527056 | 1.0241553  | 3.092800e-01 | 5.089251e-01 |
| ## TRIM33       | 0.13901991  | 8.124188 | 1.0240477  | 3.093305e-01 | 5.089550e-01 |
| ## POLR1E       | -0.09123480 | 4.507065 | -1.0240123 | 3.093471e-01 | 5.089550e-01 |
| ## LPCAT3       | 0.10646091  | 6.244425 | 1.0237208  | 3.094838e-01 | 5.091397e-01 |
| ## FAM78B       | -0.04368066 | 4.320828 | -1.0234646 | 3.096040e-01 | 5.092972e-01 |
| ## HCLS1        | -0.17391293 | 8.862306 | -1.0229316 | 3.098542e-01 | 5.096686e-01 |
| ## UST-AS1      | -0.02420354 | 3.198465 | -1.0226092 | 3.100056e-01 | 5.098773e-01 |
| ## TDRD9        | 0.17251383  | 3.678867 | 1.0225210  | 3.100470e-01 | 5.098853e-01 |
| ## PRDM15       | -0.06607997 | 4.096395 | -1.0224945 | 3.100594e-01 | 5.098853e-01 |
| ## TGM1         | 0.13544750  | 4.914816 | 1.0223913  | 3.101079e-01 | 5.099050e-01 |
| ## PAX1         | -0.05803706 | 4.016761 | -1.0223648 | 3.101204e-01 | 5.099050e-01 |
| ## KIZ-AS1      | -0.03754396 | 3.426529 | -1.0222047 | 3.101956e-01 | 5.099318e-01 |
| ## TREML5P      | -0.05168787 | 4.019736 | -1.0222017 | 3.101970e-01 | 5.099318e-01 |
| ## SPIN4        | 0.21994540  | 6.632802 | 1.0221737  | 3.102102e-01 | 5.099318e-01 |
| ## CHCT1        | -0.04884995 | 3.730388 | -1.0218554 | 3.103598e-01 | 5.100703e-01 |
| ## OR6B1        | -0.03997356 | 3.604415 | -1.0218509 | 3.103618e-01 | 5.100703e-01 |
| ## C3orf22      | -0.05690634 | 4.514577 | -1.0217939 | 3.103887e-01 | 5.100703e-01 |
| ## KLHL14       | -0.03268653 | 3.329126 | -1.0217859 | 3.103924e-01 | 5.100703e-01 |
| ## LINC01844    | -0.08866162 | 3.617523 | -1.0216893 | 3.104378e-01 | 5.101048e-01 |
| ## SPATA25      | -0.11842498 | 4.692109 | -1.0214169 | 3.105659e-01 | 5.102446e-01 |
| ## ZSCAN12P1    | 0.06362148  | 4.644014 | 1.0214040  | 3.105719e-01 | 5.102446e-01 |
| ## LOC100130872 | -0.07102963 | 5.324980 | -1.0212191 | 3.106589e-01 | 5.103472e-01 |
| ## ABHD16B      | 0.05013663  | 4.591971 | 1.0210946  | 3.107175e-01 | 5.104032e-01 |
| ## LOC100129455 | 0.04401700  | 3.613171 | 1.0207835  | 3.108639e-01 | 5.106033e-01 |
| ## MZB1         | -0.25170307 | 7.881731 | -1.0206098 | 3.109456e-01 | 5.106972e-01 |
| ## FDX2         | 0.07305067  | 6.679385 | 1.0204177  | 3.110360e-01 | 5.108055e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## BACE2        | -0.19151702 | 9.109349  | -1.0201495 | 3.111622e-01 | 5.109725e-01 |
| ## WDR11        | -0.07547765 | 8.170494  | -1.0200466 | 3.112107e-01 | 5.110078e-01 |
| ## TIGD4        | -0.04351143 | 3.228624  | -1.0199996 | 3.112328e-01 | 5.110078e-01 |
| ## SIT1         | -0.08201676 | 5.574091  | -1.0198818 | 3.112883e-01 | 5.110587e-01 |
| ## ATP5IF1      | -0.08645234 | 9.938484  | -1.0197222 | 3.113635e-01 | 5.111408e-01 |
| ## LINC00330    | -0.04428633 | 4.692962  | -1.0196713 | 3.113874e-01 | 5.111408e-01 |
| ## LOC399900    | 0.07029730  | 3.985835  | 1.0194871  | 3.114742e-01 | 5.112310e-01 |
| ## LINC02731    | 0.04456246  | 4.003108  | 1.0194504  | 3.114915e-01 | 5.112310e-01 |
| ## INIP         | 0.03951693  | 3.522259  | 1.0191941  | 3.116123e-01 | 5.113855e-01 |
| ## LINC02245    | -0.04296013 | 3.580911  | -1.0191465 | 3.116348e-01 | 5.113855e-01 |
| ## LOC105377458 | -0.02546292 | 3.210700  | -1.0189762 | 3.117150e-01 | 5.114384e-01 |
| ## MRPL33       | -0.05708767 | 9.653564  | -1.0189738 | 3.117161e-01 | 5.114384e-01 |
| ## KIAA1671     | 0.08829055  | 4.475798  | 1.0188503  | 3.117744e-01 | 5.114634e-01 |
| ## ELK1         | 0.06475431  | 8.178450  | 1.0188373  | 3.117805e-01 | 5.114634e-01 |
| ## LINC01432    | -0.03750425 | 3.628905  | -1.0187326 | 3.118298e-01 | 5.115041e-01 |
| ## PPP1CC       | -0.05783266 | 11.125065 | -1.0185481 | 3.119169e-01 | 5.116065e-01 |
| ## RND2         | -0.07717074 | 4.365895  | -1.0183668 | 3.120024e-01 | 5.116839e-01 |
| ## UNC5B        | 0.07296965  | 6.290455  | 1.0183439  | 3.120132e-01 | 5.116839e-01 |
| ## PCDHGA9      | 0.04949731  | 4.512326  | 1.0182847  | 3.120411e-01 | 5.116894e-01 |
| ## EIF4B        | -0.08610302 | 10.253283 | -1.0181005 | 3.121280e-01 | 5.117916e-01 |
| ## TMPRSS12     | -0.02958216 | 3.278909  | -1.0180355 | 3.121587e-01 | 5.118016e-01 |
| ## LINC01815    | 0.02503674  | 3.211714  | 1.0179770  | 3.121863e-01 | 5.118066e-01 |
| ## TXNDC8       | -0.03075080 | 4.015906  | -1.0178847 | 3.122298e-01 | 5.118324e-01 |
| ## ZNF837       | -0.05795186 | 4.535612  | -1.0178395 | 3.122512e-01 | 5.118324e-01 |
| ## TYMSOS       | 0.07960336  | 5.098995  | 1.0177434  | 3.122965e-01 | 5.118375e-01 |
| ## CHST1        | -0.09078672 | 5.803893  | -1.0177286 | 3.123035e-01 | 5.118375e-01 |
| ## ZNF138       | -0.02866085 | 3.434695  | -1.0175800 | 3.123737e-01 | 5.119123e-01 |
| ## GPR137C      | 0.08238510  | 3.539157  | 1.0174504  | 3.124348e-01 | 5.119722e-01 |
| ## GPR6         | 0.05185562  | 4.384993  | 1.0172671  | 3.125214e-01 | 5.120513e-01 |
| ## MXRA5        | 0.19287521  | 9.969090  | 1.0172440  | 3.125323e-01 | 5.120513e-01 |
| ## ADAMTS19     | -0.03740292 | 3.806819  | -1.0168003 | 3.127419e-01 | 5.123544e-01 |
| ## LINC00424    | -0.03383228 | 3.429582  | -1.0164570 | 3.129041e-01 | 5.125798e-01 |
| ## GPHB5        | -0.04299284 | 4.567621  | -1.0162105 | 3.130206e-01 | 5.127303e-01 |
| ## MCM8-AS1     | -0.04841668 | 3.670046  | -1.0160436 | 3.130995e-01 | 5.128192e-01 |
| ## RFPL1        | -0.03229086 | 3.147309  | -1.0159684 | 3.131350e-01 | 5.128371e-01 |
| ## NAV2-IT1     | -0.05183236 | 3.933637  | -1.0156894 | 3.132670e-01 | 5.130105e-01 |
| ## BIVM         | 0.03551971  | 3.755883  | 1.0156404  | 3.132902e-01 | 5.130105e-01 |
| ## LINC01988    | -0.05297739 | 5.304964  | -1.0153832 | 3.134118e-01 | 5.131423e-01 |
| ## MS4A4A       | -0.23679019 | 7.354368  | -1.0153399 | 3.134323e-01 | 5.131423e-01 |
| ## KLHL30-AS1   | -0.06895289 | 5.004941  | -1.0153140 | 3.134446e-01 | 5.131423e-01 |
| ## TMEM50A      | 0.08383562  | 9.268541  | 1.0151728  | 3.135114e-01 | 5.132113e-01 |
| ## NCKAP1L      | -0.16175194 | 7.375754  | -1.0149840 | 3.136008e-01 | 5.133173e-01 |
| ## MAPK12       | -0.07009921 | 6.045790  | -1.0149306 | 3.136260e-01 | 5.133183e-01 |
| ## SULT2A1      | -0.19737823 | 4.117119  | -1.0147964 | 3.136896e-01 | 5.133819e-01 |
| ## FABP7        | 0.03576478  | 3.241142  | 1.0147027  | 3.137339e-01 | 5.134142e-01 |
| ## NOX5         | -0.03573031 | 3.997977  | -1.0143840 | 3.138848e-01 | 5.136159e-01 |
| ## LMTK3        | 0.08751964  | 4.679470  | 1.0143134  | 3.139183e-01 | 5.136159e-01 |
| ## LOC105377730 | -0.04069467 | 4.839723  | -1.0142861 | 3.139312e-01 | 5.136159e-01 |
| ## LY96         | -0.19686866 | 8.249136  | -1.0140434 | 3.140461e-01 | 5.137636e-01 |
| ## MBOAT1       | 0.13881767  | 7.561649  | 1.0138559  | 3.141350e-01 | 5.138550e-01 |
| ## SAT2         | -0.10394715 | 8.252471  | -1.0138214 | 3.141514e-01 | 5.138550e-01 |
| ## ASGR2        | -0.07490266 | 5.330623  | -1.0136007 | 3.142560e-01 | 5.139857e-01 |
| ## KIF5A        | -0.04609366 | 5.138390  | -1.0135344 | 3.142874e-01 | 5.139967e-01 |
| ## RBFOX2       | -0.10746953 | 8.436829  | -1.0133850 | 3.143582e-01 | 5.140722e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## RHBDL3       | -0.04364201 | 3.898037  | -1.0130038 | 3.145390e-01 | 5.143274e-01 |
| ## LINC01831    | -0.14953278 | 3.714250  | -1.0127760 | 3.146470e-01 | 5.144637e-01 |
| ## FBH1         | 0.05621690  | 4.356009  | 1.0125979  | 3.147315e-01 | 5.145336e-01 |
| ## ITGB7        | -0.10055823 | 6.857419  | -1.0125536 | 3.147525e-01 | 5.145336e-01 |
| ## LINC02035    | -0.13722949 | 6.460997  | -1.0125295 | 3.147639e-01 | 5.145336e-01 |
| ## HOOK2        | 0.11834485  | 7.730777  | 1.0122915  | 3.148769e-01 | 5.146560e-01 |
| ## ATF1         | 0.10210341  | 6.581236  | 1.0122677  | 3.148882e-01 | 5.146560e-01 |
| ## CERS4        | -0.09582151 | 4.879206  | -1.0119567 | 3.150358e-01 | 5.148568e-01 |
| ## OR2B6        | 0.05944405  | 3.679303  | 1.0117945  | 3.151128e-01 | 5.149042e-01 |
| ## ETHE1        | 0.18054637  | 9.188407  | 1.0117916  | 3.151142e-01 | 5.149042e-01 |
| ## ZNF114       | 0.05544106  | 3.690236  | 1.0111574  | 3.154155e-01 | 5.153559e-01 |
| ## NEUROD4      | -0.05517620 | 4.174784  | -1.0110969 | 3.154442e-01 | 5.153625e-01 |
| ## CAVIN3       | -0.20577150 | 7.363319  | -1.0109901 | 3.154950e-01 | 5.154050e-01 |
| ## NLRP13       | -0.06921746 | 4.627118  | -1.0108440 | 3.155644e-01 | 5.154382e-01 |
| ## CHIC2        | 0.09106946  | 7.961057  | 1.0108431  | 3.155648e-01 | 5.154382e-01 |
| ## CD9          | 0.12221877  | 11.555858 | 1.0107477  | 3.156102e-01 | 5.154718e-01 |
| ## FAM47A       | -0.03432527 | 3.509192  | -1.0106365 | 3.156630e-01 | 5.155178e-01 |
| ## BCL10        | 0.13694327  | 4.085980  | 1.0105413  | 3.157083e-01 | 5.155513e-01 |
| ## USP29        | -0.03635015 | 3.746120  | -1.0104241 | 3.157640e-01 | 5.156018e-01 |
| ## SLC04C1      | 0.05239456  | 3.435441  | 1.0102964  | 3.158247e-01 | 5.156133e-01 |
| ## TBC1D2       | 0.17510309  | 6.204285  | 1.0102678  | 3.158383e-01 | 5.156133e-01 |
| ## KRTCAP2      | 0.07945822  | 10.411244 | 1.0102531  | 3.158453e-01 | 5.156133e-01 |
| ## AK1          | -0.12695297 | 8.494644  | -1.0101207 | 3.159083e-01 | 5.156629e-01 |
| ## PIK3C2B      | -0.10722754 | 9.130586  | -1.0100851 | 3.159252e-01 | 5.156629e-01 |
| ## C1orf122     | -0.08121538 | 8.334465  | -1.0100039 | 3.159639e-01 | 5.156855e-01 |
| ## GNA14-AS1    | -0.06405719 | 4.006677  | -1.0099427 | 3.159930e-01 | 5.156926e-01 |
| ## RDH13        | -0.15245710 | 5.772022  | -1.0097070 | 3.161051e-01 | 5.157625e-01 |
| ## FZD2         | 0.21620762  | 6.175139  | 1.0096801  | 3.161179e-01 | 5.157625e-01 |
| ## SPRR2C       | 0.15037782  | 3.652946  | 1.0096759  | 3.161199e-01 | 5.157625e-01 |
| ## CD200R1      | 0.04208569  | 3.525550  | 1.0096201  | 3.161465e-01 | 5.157625e-01 |
| ## TBR1         | -0.03907970 | 3.540672  | -1.0095636 | 3.161734e-01 | 5.157625e-01 |
| ## HMGN3        | -0.11894959 | 10.879619 | -1.0094888 | 3.162090e-01 | 5.157625e-01 |
| ## SNX30        | 0.11857201  | 7.026307  | 1.0094884  | 3.162092e-01 | 5.157625e-01 |
| ## EXD1         | 0.02501150  | 3.323423  | 1.0091394  | 3.163753e-01 | 5.159931e-01 |
| ## LINC02405    | 0.03996944  | 4.342721  | 1.0088848  | 3.164965e-01 | 5.161503e-01 |
| ## NINL         | -0.22320452 | 6.992581  | -1.0083784 | 3.167377e-01 | 5.165033e-01 |
| ## KRT27        | -0.03913574 | 3.673267  | -1.0083030 | 3.167737e-01 | 5.165214e-01 |
| ## AMIGO2       | 0.23997041  | 8.120967  | 1.0080009  | 3.169177e-01 | 5.167157e-01 |
| ## FGF12        | 0.04777606  | 3.553223  | 1.0079253  | 3.169537e-01 | 5.167217e-01 |
| ## PROCR        | 0.19742037  | 7.705151  | 1.0078891  | 3.169710e-01 | 5.167217e-01 |
| ## TPH2         | -0.02895480 | 3.333105  | -1.0072339 | 3.172834e-01 | 5.171906e-01 |
| ## SLC52A1      | -0.09000093 | 4.594047  | -1.0071535 | 3.173218e-01 | 5.172126e-01 |
| ## TTBK2        | -0.07881826 | 3.461667  | -1.0070098 | 3.173903e-01 | 5.172839e-01 |
| ## PTGER4       | 0.14253809  | 5.035234  | 1.0068367  | 3.174729e-01 | 5.173780e-01 |
| ## ZNF543       | 0.03083028  | 3.511914  | 1.0066732  | 3.175510e-01 | 5.174647e-01 |
| ## HYI          | -0.07220158 | 6.885944  | -1.0064213 | 3.176712e-01 | 5.176202e-01 |
| ## SPATA19      | -0.04593264 | 3.959148  | -1.0062979 | 3.177301e-01 | 5.176756e-01 |
| ## AMPD3        | 0.15041213  | 7.193952  | 1.0061342  | 3.178083e-01 | 5.177429e-01 |
| ## LOC101927814 | 0.03838580  | 4.425868  | 1.0061073  | 3.178212e-01 | 5.177429e-01 |
| ## RFNG         | 0.08694759  | 6.567767  | 1.0060544  | 3.178464e-01 | 5.177436e-01 |
| ## STYX         | -0.11927138 | 6.834585  | -1.0059570 | 3.178930e-01 | 5.177789e-01 |
| ## PLXNA1       | 0.06043553  | 4.361279  | 1.0057895  | 3.179729e-01 | 5.177886e-01 |
| ## UBE2D2       | -0.06645822 | 8.968977  | -1.0057870 | 3.179741e-01 | 5.177886e-01 |
| ## IL1RL2       | 0.10106030  | 5.106080  | 1.0057556  | 3.179891e-01 | 5.177886e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CITED1       | 0.10496471  | 5.047327  | 1.0056458  | 3.180416e-01 | 5.177886e-01 |
| ## RAB27B       | -0.16708783 | 5.258079  | -1.0056321 | 3.180481e-01 | 5.177886e-01 |
| ## LINC00629    | -0.05122533 | 3.541556  | -1.0055868 | 3.180698e-01 | 5.177886e-01 |
| ## IRF2BP2      | 0.09499376  | 11.309268 | 1.0055802  | 3.180730e-01 | 5.177886e-01 |
| ## JMJD6        | -0.03733928 | 3.831967  | -1.0054914 | 3.181154e-01 | 5.178171e-01 |
| ## ADGRE1       | -0.08642215 | 5.025731  | -1.0054088 | 3.181548e-01 | 5.178280e-01 |
| ## CNTN2        | -0.05156934 | 5.084132  | -1.0053544 | 3.181809e-01 | 5.178280e-01 |
| ## LHFPL3       | -0.04179031 | 3.584443  | -1.0052248 | 3.182428e-01 | 5.178280e-01 |
| ## TYRO3        | -0.06779846 | 4.773828  | -1.0052204 | 3.182449e-01 | 5.178280e-01 |
| ## UCN3         | -0.08236979 | 4.832182  | -1.0052052 | 3.182522e-01 | 5.178280e-01 |
| ## B3GALT5      | -0.07605633 | 4.056264  | -1.0051653 | 3.182713e-01 | 5.178280e-01 |
| ## EPHA4        | -0.17567358 | 5.838897  | -1.0047670 | 3.184617e-01 | 5.180917e-01 |
| ## SLC7A2       | 0.02851714  | 3.492639  | 1.0047107  | 3.184886e-01 | 5.180917e-01 |
| ## MEG8         | -0.05501802 | 3.676090  | -1.0046702 | 3.185080e-01 | 5.180917e-01 |
| ## MYOZ1        | -0.04836344 | 5.373973  | -1.0045486 | 3.185661e-01 | 5.181210e-01 |
| ## DRICH1       | -0.04022953 | 4.710629  | -1.0045286 | 3.185757e-01 | 5.181210e-01 |
| ## CETP         | -0.09975482 | 4.071895  | -1.0044184 | 3.186284e-01 | 5.181662e-01 |
| ## XDH          | 0.20682139  | 5.672733  | 1.0043470  | 3.186626e-01 | 5.181813e-01 |
| ## CNTNAP2      | 0.18067442  | 5.047363  | 1.0039503  | 3.188524e-01 | 5.184495e-01 |
| ## GCM2         | 0.02635338  | 3.253980  | 1.0036934  | 3.189754e-01 | 5.186090e-01 |
| ## MTUS1        | -0.20202151 | 7.779935  | -1.0034535 | 3.190902e-01 | 5.187265e-01 |
| ## PPP1R12B     | 0.02535725  | 3.230640  | 1.0034199  | 3.191063e-01 | 5.187265e-01 |
| ## LOC101928510 | 0.02573324  | 3.202805  | 1.0033863  | 3.191224e-01 | 5.187265e-01 |
| ## STX1B        | -0.04103264 | 4.709178  | -1.0033316 | 3.191486e-01 | 5.187286e-01 |
| ## CREBZF       | 0.07528858  | 5.610063  | 1.0030819  | 3.192682e-01 | 5.188825e-01 |
| ## C17orf100    | 0.08166977  | 4.791519  | 1.0029065  | 3.193523e-01 | 5.189786e-01 |
| ## AIF1         | -0.05168804 | 4.138985  | -1.0027179 | 3.194426e-01 | 5.190849e-01 |
| ## H3C6         | 0.04495704  | 3.970085  | 1.0026028  | 3.194978e-01 | 5.191340e-01 |
| ## LINC01165    | -0.03903567 | 4.633550  | -1.0025176 | 3.195386e-01 | 5.191598e-01 |
| ## ERAP1        | -0.03253577 | 3.736000  | -1.0023714 | 3.196087e-01 | 5.192332e-01 |
| ## FNDC4        | -0.07022430 | 6.865911  | -1.0022801 | 3.196525e-01 | 5.192638e-01 |
| ## TRAFD1       | 0.08344944  | 6.821745  | 1.0020911  | 3.197431e-01 | 5.193705e-01 |
| ## TSPEAR-AS2   | 0.05903520  | 5.596595  | 1.0019610  | 3.198055e-01 | 5.194313e-01 |
| ## JOSD2        | 0.07570661  | 6.455619  | 1.0016564  | 3.199516e-01 | 5.196281e-01 |
| ## VIPAS39      | 0.08016843  | 7.131188  | 1.0015778  | 3.199893e-01 | 5.196318e-01 |
| ## FBXW4P1      | -0.05984226 | 5.405562  | -1.0015476 | 3.200038e-01 | 5.196318e-01 |
| ## GGT1         | -0.04821614 | 5.755979  | -1.0013843 | 3.200821e-01 | 5.197185e-01 |
| ## TAOK1        | 0.06958889  | 7.467605  | 1.0012173  | 3.201623e-01 | 5.198081e-01 |
| ## DKFZp451B082 | 0.03702110  | 4.468165  | 1.0010119  | 3.202609e-01 | 5.199277e-01 |
| ## UCK1         | -0.07025014 | 7.253241  | -1.0008588 | 3.203343e-01 | 5.200064e-01 |
| ## SMC5-DT      | -0.05736355 | 4.690780  | -1.0007600 | 3.203818e-01 | 5.200258e-01 |
| ## ABCD1        | 0.09162856  | 6.211483  | 1.0006918  | 3.204145e-01 | 5.200258e-01 |
| ## MICAL3       | -0.13811903 | 6.093091  | -1.0006779 | 3.204212e-01 | 5.200258e-01 |
| ## PARP16       | -0.06655120 | 7.224391  | -1.0004952 | 3.205089e-01 | 5.201138e-01 |
| ## FAM124A      | -0.05151371 | 4.990738  | -1.0004173 | 3.205464e-01 | 5.201138e-01 |
| ## GCNT2        | 0.08873996  | 4.093532  | 1.0004090  | 3.205503e-01 | 5.201138e-01 |
| ## MARCHF9      | 0.10148111  | 6.412979  | 1.0002784  | 3.206131e-01 | 5.201700e-01 |
| ## ANKMY2       | 0.10990553  | 9.428354  | 1.0002328  | 3.206350e-01 | 5.201700e-01 |
| ## MASP2        | -0.03702242 | 4.534225  | -1.0001387 | 3.206802e-01 | 5.202028e-01 |
| ## LRP4         | 0.24145719  | 6.014244  | 1.0000557  | 3.207200e-01 | 5.202270e-01 |
| ## RAB1A        | 0.10878704  | 9.956766  | 0.9998800  | 3.208045e-01 | 5.203228e-01 |
| ## DLL3         | -0.04176698 | 4.011683  | -0.9998288 | 3.208291e-01 | 5.203228e-01 |
| ## UBP1         | -0.08518363 | 8.669964  | -0.9996727 | 3.209041e-01 | 5.203806e-01 |
| ## CALN1        | -0.07265238 | 4.492681  | -0.9996506 | 3.209147e-01 | 5.203806e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## NFE2L2       | -0.12197045 | 6.095882 | -0.9994465 | 3.210129e-01 | 5.204506e-01 |
| ## MICALL1      | -0.11005375 | 7.367393 | -0.9994298 | 3.210209e-01 | 5.204506e-01 |
| ## ZNF155       | 0.04865542  | 4.528088 | 0.9994049  | 3.210328e-01 | 5.204506e-01 |
| ## REG1CP       | -0.07867873 | 4.582766 | -0.9993435 | 3.210624e-01 | 5.204580e-01 |
| ## LINC00674    | 0.03204763  | 4.065451 | 0.9987720  | 3.213373e-01 | 5.208630e-01 |
| ## UNK          | -0.05541935 | 5.373103 | -0.9986134 | 3.214135e-01 | 5.209293e-01 |
| ## FOXP3        | 0.04481452  | 4.487973 | 0.9985830  | 3.214282e-01 | 5.209293e-01 |
| ## TMEM187      | -0.11825644 | 6.401103 | -0.9983551 | 3.215379e-01 | 5.210665e-01 |
| ## IGFLR1       | 0.10338374  | 6.878019 | 0.9981266  | 3.216479e-01 | 5.211776e-01 |
| ## IGSF9B       | -0.03809585 | 3.615830 | -0.9981087 | 3.216565e-01 | 5.211776e-01 |
| ## DNAJC16      | 0.09413639  | 7.665685 | 0.9979575  | 3.217293e-01 | 5.212245e-01 |
| ## ARL6IP5      | -0.10919559 | 9.930460 | -0.9979446 | 3.217355e-01 | 5.212245e-01 |
| ## ANKRD24      | 0.03767205  | 4.515994 | 0.9978191  | 3.217959e-01 | 5.212589e-01 |
| ## ERGIC2       | 0.13016252  | 7.822191 | 0.9977546  | 3.218270e-01 | 5.212589e-01 |
| ## SMAD1-AS2    | -0.03086238 | 3.426794 | -0.9977445 | 3.218318e-01 | 5.212589e-01 |
| ## HINT1        | 0.11600757  | 6.521563 | 0.9976309  | 3.218866e-01 | 5.212863e-01 |
| ## RESF1        | 0.15094352  | 8.998141 | 0.9976055  | 3.218988e-01 | 5.212863e-01 |
| ## ITGB8-AS1    | -0.09119854 | 6.433611 | -0.9974245 | 3.219860e-01 | 5.213736e-01 |
| ## SEMA3D       | -0.05177422 | 3.633306 | -0.9973513 | 3.220212e-01 | 5.213736e-01 |
| ## STK38L       | -0.17970730 | 7.598135 | -0.9973377 | 3.220278e-01 | 5.213736e-01 |
| ## LINC01554    | -0.03936684 | 4.087148 | -0.9972039 | 3.220923e-01 | 5.214374e-01 |
| ## SPTBN2       | 0.08433483  | 5.720094 | 0.9970911  | 3.221466e-01 | 5.214848e-01 |
| ## SNRNP70      | -0.08657953 | 9.098200 | -0.9969454 | 3.222168e-01 | 5.215580e-01 |
| ## ADAM11       | -0.08334987 | 5.192418 | -0.9968759 | 3.222504e-01 | 5.215717e-01 |
| ## LOC105378067 | 0.03157499  | 3.767958 | 0.9966532  | 3.223577e-01 | 5.217049e-01 |
| ## KRT32        | 0.04239098  | 4.976712 | 0.9964523  | 3.224546e-01 | 5.218211e-01 |
| ## MZT2B        | -0.07374490 | 7.542846 | -0.9961761 | 3.225878e-01 | 5.219802e-01 |
| ## TMC02        | -0.03498986 | 4.329603 | -0.9961312 | 3.226094e-01 | 5.219802e-01 |
| ## SPTY2D1      | 0.08240446  | 7.601899 | 0.9960926  | 3.226281e-01 | 5.219802e-01 |
| ## BMERB1       | -0.04078938 | 6.309457 | -0.9959402 | 3.227016e-01 | 5.220585e-01 |
| ## ERGIC1       | -0.12371102 | 7.272671 | -0.9956425 | 3.228452e-01 | 5.222504e-01 |
| ## KIF5C        | -0.07339045 | 4.398841 | -0.9954867 | 3.229204e-01 | 5.222983e-01 |
| ## EIF2AK3-DT   | -0.04775557 | 4.141807 | -0.9954695 | 3.229287e-01 | 5.222983e-01 |
| ## LOC286177    | 0.02912729  | 3.376759 | 0.9954252  | 3.229501e-01 | 5.222983e-01 |
| ## SLC7A9       | -0.29174485 | 5.403047 | -0.9951873 | 3.230650e-01 | 5.224068e-01 |
| ## PRR14        | 0.14461073  | 5.643771 | 0.9951823  | 3.230674e-01 | 5.224068e-01 |
| ## METTL17      | -0.06731661 | 4.848594 | -0.9950060 | 3.231525e-01 | 5.225039e-01 |
| ## RNF207       | 0.13311704  | 6.880425 | 0.9946463  | 3.233263e-01 | 5.227443e-01 |
| ## ERICH3-AS1   | -0.04572028 | 3.905342 | -0.9944905 | 3.234015e-01 | 5.228243e-01 |
| ## WFDC10B      | 0.04828936  | 3.694998 | 0.9944398  | 3.234260e-01 | 5.228243e-01 |
| ## KRT2         | -0.05105310 | 4.002696 | -0.9943556 | 3.234667e-01 | 5.228351e-01 |
| ## RTCB         | -0.06340299 | 9.235544 | -0.9943220 | 3.234829e-01 | 5.228351e-01 |
| ## C2CD2L       | 0.06379007  | 6.041900 | 0.9942354  | 3.235248e-01 | 5.228622e-01 |
| ## TMEM53       | 0.10747932  | 6.802980 | 0.9939431  | 3.236661e-01 | 5.230500e-01 |
| ## EPHA5        | -0.04436085 | 3.605027 | -0.9938292 | 3.237211e-01 | 5.230984e-01 |
| ## IP6K2        | -0.08497960 | 7.600114 | -0.9936428 | 3.238112e-01 | 5.231772e-01 |
| ## MISP3        | -0.11442174 | 6.562756 | -0.9936244 | 3.238201e-01 | 5.231772e-01 |
| ## RNF214       | -0.04749367 | 6.249635 | -0.9934397 | 3.239095e-01 | 5.232809e-01 |
| ## ANKRD2       | -0.06322902 | 4.309281 | -0.9933600 | 3.239480e-01 | 5.233026e-01 |
| ## ZFP1         | 0.11178169  | 5.989878 | 0.9930528  | 3.240967e-01 | 5.235021e-01 |
| ## DOCK5        | 0.10660968  | 3.872857 | 0.9929640  | 3.241396e-01 | 5.235175e-01 |
| ## CHRN3        | -0.03331045 | 3.812175 | -0.9928968 | 3.241721e-01 | 5.235175e-01 |
| ## SEL1L        | -0.10621478 | 9.327383 | -0.9928772 | 3.241816e-01 | 5.235175e-01 |
| ## TNFRSF10C    | -0.07538242 | 4.154010 | -0.9925792 | 3.243258e-01 | 5.237098e-01 |

|                       |             |           |            |              |              |
|-----------------------|-------------|-----------|------------|--------------|--------------|
| ## CCDC66             | 0.05261827  | 3.708594  | 0.9924490  | 3.243889e-01 | 5.237709e-01 |
| ## SLAMF1             | 0.05984441  | 4.171387  | 0.9923588  | 3.244325e-01 | 5.237837e-01 |
| ## BAZ2B-AS1          | -0.06914662 | 4.224797  | -0.9923287 | 3.244471e-01 | 5.237837e-01 |
| ## ZNF616             | 0.05802523  | 3.776411  | 0.9921856  | 3.245164e-01 | 5.238550e-01 |
| ## LOC102723458       | 0.05669742  | 4.022629  | 0.9916936  | 3.247548e-01 | 5.241991e-01 |
| ## DHDDS-AS1          | -0.04278035 | 4.271589  | -0.9915296 | 3.248342e-01 | 5.242555e-01 |
| ## LOC100132078       | -0.03196621 | 3.593032  | -0.9915176 | 3.248400e-01 | 5.242555e-01 |
| ## D21S2088E          | 0.02683810  | 3.419965  | 0.9912380  | 3.249755e-01 | 5.244336e-01 |
| ## ADCY6              | -0.08493309 | 7.441410  | -0.9911793 | 3.250040e-01 | 5.244388e-01 |
| ## POLR2A             | 0.08874329  | 7.556769  | 0.9908184  | 3.251789e-01 | 5.246805e-01 |
| ## AHNAK              | 0.03977222  | 4.277298  | 0.9907344  | 3.252197e-01 | 5.247056e-01 |
| ## KCTD9              | -0.12206858 | 7.642794  | -0.9905536 | 3.253074e-01 | 5.247180e-01 |
| ## CTNND2             | -0.03668812 | 3.914134  | -0.9905286 | 3.253195e-01 | 5.247180e-01 |
| ## MIR663AHG          | -0.02650552 | 3.366107  | -0.9904045 | 3.253797e-01 | 5.247180e-01 |
| ## LINC00504          | -0.03851382 | 3.419315  | -0.9903854 | 3.253890e-01 | 5.247180e-01 |
| ## CASTOR1            | -0.05900693 | 4.710308  | -0.9903802 | 3.253915e-01 | 5.247180e-01 |
| ## COPB2-DT           | -0.04859084 | 5.335418  | -0.9903755 | 3.253938e-01 | 5.247180e-01 |
| ## ZNF577             | -0.04059616 | 3.788288  | -0.9903549 | 3.254038e-01 | 5.247180e-01 |
| ## LINC01922          | -0.06213107 | 4.052314  | -0.9900965 | 3.255292e-01 | 5.248795e-01 |
| ## UBXN2B             | -0.07990988 | 8.145900  | -0.9890356 | 3.260443e-01 | 5.256694e-01 |
| ## HIP1R              | 0.17073249  | 8.069781  | 0.9888499  | 3.261345e-01 | 5.257330e-01 |
| ## SMIM3              | -0.18095440 | 7.083387  | -0.9888082 | 3.261547e-01 | 5.257330e-01 |
| ## BCR                | 0.10168053  | 7.411442  | 0.9887985  | 3.261595e-01 | 5.257330e-01 |
| ## TRIM3              | -0.05950595 | 3.841995  | -0.9886969 | 3.262088e-01 | 5.257718e-01 |
| ## DKK4               | 0.20621620  | 4.109185  | 0.9886238  | 3.262443e-01 | 5.257819e-01 |
| ## PCDHB15            | 0.11902868  | 3.635079  | 0.9885801  | 3.262656e-01 | 5.257819e-01 |
| ## RNF227             | 0.05795283  | 5.708143  | 0.9884533  | 3.263272e-01 | 5.258406e-01 |
| ## RNF39              | 0.13640098  | 5.575551  | 0.9883247  | 3.263897e-01 | 5.259006e-01 |
| ## RSU1P2             | -0.03694562 | 3.575396  | -0.9882255 | 3.264379e-01 | 5.259376e-01 |
| ## PTGER4P2-CDK2AP2P2 | -0.03238955 | 4.651461  | -0.9880271 | 3.265344e-01 | 5.260523e-01 |
| ## ENO1-AS1           | 0.04340095  | 3.732086  | 0.9877850  | 3.266521e-01 | 5.262013e-01 |
| ## SPCS2              | 0.06671064  | 11.042100 | 0.9876445  | 3.267205e-01 | 5.262707e-01 |
| ## DNAJC25            | 0.09804321  | 6.893630  | 0.9872933  | 3.268914e-01 | 5.265052e-01 |
| ## SLC4A8             | -0.04621353 | 4.188426  | -0.9870077 | 3.270303e-01 | 5.266489e-01 |
| ## COPS6              | 0.09394739  | 9.233814  | 0.9869926  | 3.270377e-01 | 5.266489e-01 |
| ## TMC03              | 0.12518786  | 6.556692  | 0.9869541  | 3.270564e-01 | 5.266489e-01 |
| ## PGM5P2             | -0.09653738 | 3.548409  | -0.9868599 | 3.271023e-01 | 5.266820e-01 |
| ## ARSL               | 0.25087275  | 6.124110  | 0.9864230  | 3.273150e-01 | 5.269838e-01 |
| ## CCDC40             | -0.04621493 | 3.977816  | -0.9863194 | 3.273655e-01 | 5.270243e-01 |
| ## HMGCR              | 0.14057763  | 7.550645  | 0.9860733  | 3.274854e-01 | 5.271095e-01 |
| ## NLRP8              | -0.04574733 | 4.801149  | -0.9860180 | 3.275124e-01 | 5.271095e-01 |
| ## LINC00567          | -0.02985251 | 3.725400  | -0.9859975 | 3.275223e-01 | 5.271095e-01 |
| ## LILRA2             | -0.09152149 | 4.520867  | -0.9859656 | 3.275379e-01 | 5.271095e-01 |
| ## IFI16              | 0.17815551  | 9.637346  | 0.9859069  | 3.275665e-01 | 5.271095e-01 |
| ## KCNK13             | -0.03598800 | 3.889447  | -0.9858991 | 3.275703e-01 | 5.271095e-01 |
| ## RPL10A             | -0.04893355 | 12.375209 | -0.9858136 | 3.276120e-01 | 5.271358e-01 |
| ## LOC101930112       | -0.06900455 | 5.195617  | -0.9857612 | 3.276375e-01 | 5.271361e-01 |
| ## COX8A              | 0.06775078  | 11.395889 | 0.9856183  | 3.277071e-01 | 5.271850e-01 |
| ## ATP5F1A            | -0.06092076 | 4.423689  | -0.9855950 | 3.277185e-01 | 5.271850e-01 |
| ## LOC284788          | -0.04599995 | 4.131402  | -0.9854307 | 3.277986e-01 | 5.272731e-01 |
| ## TRIM63             | -0.04996485 | 3.899934  | -0.9852014 | 3.279104e-01 | 5.273677e-01 |
| ## PLCH1-AS1          | -0.05931593 | 4.110534  | -0.9851649 | 3.279282e-01 | 5.273677e-01 |
| ## POMZP3             | -0.17827662 | 5.888752  | -0.9851460 | 3.279374e-01 | 5.273677e-01 |
| ## LOC100287704       | -0.06614325 | 5.329694  | -0.9851024 | 3.279587e-01 | 5.273677e-01 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## AMBRA1       | 0.05219255  | 7.861401  | 0.9848890  | 3.280628e-01 | 5.274943e-01 |
| ## LOC339975    | 0.03416474  | 4.102213  | 0.9848322  | 3.280905e-01 | 5.274981e-01 |
| ## IL37         | -0.05092073 | 3.788040  | -0.9846980 | 3.281559e-01 | 5.275626e-01 |
| ## HTR6         | -0.05240140 | 3.983025  | -0.9842343 | 3.283822e-01 | 5.278857e-01 |
| ## NDUFAF8      | -0.06186258 | 3.996891  | -0.9839262 | 3.285326e-01 | 5.280866e-01 |
| ## LINC00662    | -0.06366310 | 3.923263  | -0.9837733 | 3.286072e-01 | 5.281373e-01 |
| ## KCNH1        | -0.06088442 | 3.844928  | -0.9837578 | 3.286148e-01 | 5.281373e-01 |
| ## SRSF7        | -0.09394487 | 8.635624  | -0.9837029 | 3.286416e-01 | 5.281396e-01 |
| ## FRS3         | 0.10032993  | 6.019269  | 0.9835057  | 3.287379e-01 | 5.282536e-01 |
| ## ADCY3        | 0.07920652  | 6.390114  | 0.9832886  | 3.288440e-01 | 5.283756e-01 |
| ## CFI          | 0.27373728  | 7.173201  | 0.9832465  | 3.288646e-01 | 5.283756e-01 |
| ## ZBTB46       | -0.14428784 | 5.668841  | -0.9830674 | 3.289521e-01 | 5.284347e-01 |
| ## CS           | 0.09006499  | 10.211185 | 0.9830673  | 3.289521e-01 | 5.284347e-01 |
| ## Clorf52      | -0.06415230 | 8.053094  | -0.9828637 | 3.290516e-01 | 5.285537e-01 |
| ## SPDL1        | 0.03683874  | 3.649060  | 0.9827247  | 3.291195e-01 | 5.286041e-01 |
| ## CAMK1        | -0.05470207 | 4.937734  | -0.9826957 | 3.291337e-01 | 5.286041e-01 |
| ## BMP8B        | 0.04751008  | 4.053459  | 0.9825827  | 3.291889e-01 | 5.286520e-01 |
| ## PERM1        | -0.05352232 | 5.553045  | -0.9822760 | 3.293389e-01 | 5.288519e-01 |
| ## SPATA12      | 0.03980632  | 4.081895  | 0.9822244  | 3.293642e-01 | 5.288519e-01 |
| ## GCC1         | 0.06321721  | 7.403103  | 0.9821403  | 3.294053e-01 | 5.288771e-01 |
| ## TRPV4        | 0.06886341  | 5.532718  | 0.9819957  | 3.294760e-01 | 5.289498e-01 |
| ## CYREN        | -0.04801579 | 3.619374  | -0.9818717 | 3.295367e-01 | 5.290064e-01 |
| ## LOC101928211 | -0.02266649 | 3.188883  | -0.9817073 | 3.296171e-01 | 5.290948e-01 |
| ## REG3G        | -0.08068844 | 4.361681  | -0.9815738 | 3.296824e-01 | 5.291589e-01 |
| ## TRAV13-2     | 0.03972179  | 3.574161  | 0.9814541  | 3.297410e-01 | 5.292121e-01 |
| ## ZNF266       | -0.11529451 | 8.540448  | -0.9813522 | 3.297909e-01 | 5.292155e-01 |
| ## KMT2E        | 0.10483041  | 8.244003  | 0.9813338  | 3.297999e-01 | 5.292155e-01 |
| ## COX1         | -0.03848506 | 13.966067 | -0.9812941 | 3.298194e-01 | 5.292155e-01 |
| ## GSTZ1        | -0.09772986 | 6.709602  | -0.9811709 | 3.298797e-01 | 5.292461e-01 |
| ## GDAP2        | 0.11195540  | 7.946560  | 0.9811512  | 3.298893e-01 | 5.292461e-01 |
| ## VPS13C-DT    | -0.03419716 | 3.484366  | -0.9806923 | 3.301140e-01 | 5.295658e-01 |
| ## ATP13A4      | -0.17085610 | 4.725836  | -0.9805085 | 3.302041e-01 | 5.296290e-01 |
| ## PDXDC1       | 0.10224017  | 4.647157  | 0.9805080  | 3.302043e-01 | 5.296290e-01 |
| ## RAD17        | -0.07784544 | 7.697906  | -0.9803164 | 3.302981e-01 | 5.297388e-01 |
| ## LINC02483    | -0.03563853 | 3.882792  | -0.9802476 | 3.303319e-01 | 5.297521e-01 |
| ## HDAC4        | 0.05548335  | 4.495726  | 0.9801825  | 3.303638e-01 | 5.297625e-01 |
| ## ATF7IP2      | -0.14612643 | 7.245325  | -0.9800920 | 3.304081e-01 | 5.297928e-01 |
| ## SEMA4G       | 0.14973342  | 7.001228  | 0.9800169  | 3.304449e-01 | 5.298110e-01 |
| ## ELAC2        | -0.04470219 | 4.192014  | -0.9798654 | 3.305192e-01 | 5.298893e-01 |
| ## LOC100287387 | -0.03737846 | 3.343014  | -0.9798022 | 3.305502e-01 | 5.298981e-01 |
| ## SCN1A        | -0.03816459 | 3.451295  | -0.9794065 | 3.307442e-01 | 5.301667e-01 |
| ## FBXO41       | 0.06324470  | 4.913304  | 0.9793567  | 3.307686e-01 | 5.301667e-01 |
| ## ESX1         | 0.02912581  | 3.489285  | 0.9785956  | 3.311420e-01 | 5.307243e-01 |
| ## ASIC4        | -0.06394030 | 5.052658  | -0.9784093 | 3.312335e-01 | 5.307861e-01 |
| ## RASEF        | 0.14335776  | 9.241861  | 0.9783796  | 3.312480e-01 | 5.307861e-01 |
| ## SLC35A5      | -0.09235637 | 7.947269  | -0.9783614 | 3.312570e-01 | 5.307861e-01 |
| ## CHFR         | -0.04080055 | 4.610178  | -0.9782471 | 3.313131e-01 | 5.308030e-01 |
| ## VWA7         | -0.04312427 | 5.140342  | -0.9782360 | 3.313185e-01 | 5.308030e-01 |
| ## TMEM87B      | 0.10345749  | 8.523103  | 0.9779052  | 3.314810e-01 | 5.310224e-01 |
| ## PRRC2B       | -0.09448724 | 8.518120  | -0.9778459 | 3.315101e-01 | 5.310282e-01 |
| ## MAP4K1       | -0.12837001 | 5.685134  | -0.9777081 | 3.315778e-01 | 5.310451e-01 |
| ## DI01         | -0.02962233 | 3.418607  | -0.9776376 | 3.316124e-01 | 5.310451e-01 |
| ## PCSK4        | 0.05428745  | 5.670107  | 0.9776274  | 3.316174e-01 | 5.310451e-01 |
| ## CSNK1G2-AS1  | -0.05185647 | 5.055906  | -0.9776168 | 3.316226e-01 | 5.310451e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## HES5         | 0.04448706  | 4.908016  | 0.9774429  | 3.317081e-01 | 5.311410e-01 |
| ## BASP1-AS1    | -0.03828801 | 3.798911  | -0.9772126 | 3.318212e-01 | 5.312814e-01 |
| ## ATP6V0C      | 0.08431813  | 8.956289  | 0.9770039  | 3.319238e-01 | 5.314048e-01 |
| ## LOC102724612 | 0.03623489  | 3.821681  | 0.9769418  | 3.319543e-01 | 5.314128e-01 |
| ## CARD11       | 0.06150984  | 4.895986  | 0.9765420  | 3.321509e-01 | 5.316866e-01 |
| ## LOC100996549 | -0.02589043 | 3.442390  | -0.9764506 | 3.321959e-01 | 5.317177e-01 |
| ## SEPTIN4      | -0.06324839 | 4.176031  | -0.9762650 | 3.322872e-01 | 5.318229e-01 |
| ## L3HYPDH      | -0.10558140 | 5.132275  | -0.9759752 | 3.324298e-01 | 5.320103e-01 |
| ## C4orf33      | -0.13503714 | 6.762322  | -0.9758781 | 3.324775e-01 | 5.320220e-01 |
| ## SVIP         | -0.11298213 | 7.555376  | -0.9758564 | 3.324882e-01 | 5.320220e-01 |
| ## POU2F2       | 0.05661015  | 5.336671  | 0.9757519  | 3.325396e-01 | 5.320370e-01 |
| ## SP8          | 0.06899364  | 3.296737  | 0.9757336  | 3.325487e-01 | 5.320370e-01 |
| ## LINC00993    | -0.03480521 | 3.530185  | -0.9754706 | 3.326781e-01 | 5.321704e-01 |
| ## FAM95A       | 0.05604187  | 4.135779  | 0.9754581  | 3.326843e-01 | 5.321704e-01 |
| ## TMLHE        | 0.06585640  | 4.573011  | 0.9754084  | 3.327087e-01 | 5.321704e-01 |
| ## RGS19        | 0.09988214  | 7.704548  | 0.9753102  | 3.327571e-01 | 5.322069e-01 |
| ## ZNF595       | -0.31220048 | 5.234183  | -0.9752362 | 3.327935e-01 | 5.322243e-01 |
| ## LOC101927516 | 0.02455087  | 3.007997  | 0.9751532  | 3.328344e-01 | 5.322487e-01 |
| ## PPP1R14C     | 0.26593826  | 5.276470  | 0.9749042  | 3.329570e-01 | 5.324040e-01 |
| ## PEX1         | 0.10365683  | 6.017611  | 0.9748231  | 3.329970e-01 | 5.324270e-01 |
| ## ADM5         | -0.05914601 | 5.658968  | -0.9745436 | 3.331347e-01 | 5.325329e-01 |
| ## LAMA5        | 0.14210351  | 8.046323  | 0.9745391  | 3.331369e-01 | 5.325329e-01 |
| ## GLOD4        | 0.09528962  | 8.910408  | 0.9745329  | 3.331400e-01 | 5.325329e-01 |
| ## SLFN12       | 0.13611621  | 5.243450  | 0.9744558  | 3.331779e-01 | 5.325527e-01 |
| ## RNF128       | -0.28507100 | 9.358665  | -0.9743066 | 3.332515e-01 | 5.326186e-01 |
| ## PTGES3L      | -0.07483934 | 3.811177  | -0.9742685 | 3.332703e-01 | 5.326186e-01 |
| ## ZNF460       | -0.03938190 | 5.095082  | -0.9739248 | 3.334397e-01 | 5.328485e-01 |
| ## PKDREJ       | -0.04571942 | 4.316229  | -0.9738585 | 3.334724e-01 | 5.328598e-01 |
| ## TLNRD1       | -0.09015459 | 5.812699  | -0.9737372 | 3.335322e-01 | 5.329144e-01 |
| ## RYBP         | -0.08636128 | 8.601899  | -0.9736458 | 3.335773e-01 | 5.329256e-01 |
| ## CHST5        | -0.17245194 | 5.863770  | -0.9736193 | 3.335903e-01 | 5.329256e-01 |
| ## SGK1         | -0.17392254 | 10.757746 | -0.9734851 | 3.336565e-01 | 5.329904e-01 |
| ## IL7R         | -0.18482623 | 8.690317  | -0.9734166 | 3.336903e-01 | 5.330036e-01 |
| ## C3orf20      | -0.05314143 | 5.221624  | -0.9730819 | 3.338554e-01 | 5.332264e-01 |
| ## NEDD4        | -0.11745337 | 6.526601  | -0.9728076 | 3.339908e-01 | 5.333934e-01 |
| ## GBP3         | 0.27947819  | 9.313717  | 0.9727662  | 3.340113e-01 | 5.333934e-01 |
| ## LINC02171    | -0.06261707 | 4.808950  | -0.9726358 | 3.340756e-01 | 5.334553e-01 |
| ## DCTN5        | -0.12487855 | 5.542871  | -0.9719971 | 3.343910e-01 | 5.339180e-01 |
| ## FAM95C       | 0.18754285  | 4.732310  | 0.9716264  | 3.345742e-01 | 5.341695e-01 |
| ## C11orf54     | -0.04362684 | 4.069830  | -0.9710894 | 3.348396e-01 | 5.345523e-01 |
| ## LINC00698    | -0.04742344 | 4.138046  | -0.9707384 | 3.350132e-01 | 5.347884e-01 |
| ## ANXA5        | -0.08236485 | 10.943039 | -0.9705698 | 3.350966e-01 | 5.348805e-01 |
| ## GADL1        | 0.04038271  | 3.515593  | 0.9703618  | 3.351994e-01 | 5.350037e-01 |
| ## MRTFA-AS1    | -0.04673278 | 4.323008  | -0.9701340 | 3.353122e-01 | 5.351426e-01 |
| ## FCGR2C       | 0.16094487  | 6.903452  | 0.9698740  | 3.354409e-01 | 5.353070e-01 |
| ## TSPY26P      | -0.04667195 | 4.291860  | -0.9696474 | 3.355530e-01 | 5.354449e-01 |
| ## PAN3-AS1     | 0.12301174  | 4.656701  | 0.9694879  | 3.356320e-01 | 5.355299e-01 |
| ## CFAP161      | 0.02414705  | 3.278428  | 0.9692949  | 3.357276e-01 | 5.356414e-01 |
| ## IGSF11       | -0.05698353 | 3.742957  | -0.9690196 | 3.358639e-01 | 5.358164e-01 |
| ## LOC105371267 | 0.15470170  | 5.710590  | 0.9688881  | 3.359291e-01 | 5.358164e-01 |
| ## TSC2         | 0.07321267  | 4.407253  | 0.9687085  | 3.360181e-01 | 5.358164e-01 |
| ## DNAH2        | -0.03495199 | 4.048611  | -0.9686390 | 3.360525e-01 | 5.358164e-01 |
| ## TRBV25-1     | 0.02741871  | 3.509000  | 0.9686219  | 3.360610e-01 | 5.358164e-01 |
| ## CD101        | -0.05844805 | 4.356312  | -0.9686197 | 3.360621e-01 | 5.358164e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## KDEL3        | -0.14535523 | 9.739688 | -0.9685842 | 3.360797e-01 | 5.358164e-01 |
| ## DMT1         | 0.08924319  | 9.202729 | 0.9684851  | 3.361288e-01 | 5.358164e-01 |
| ## IL16         | -0.06637169 | 5.158289 | -0.9684827 | 3.361300e-01 | 5.358164e-01 |
| ## APBA2        | 0.04887022  | 6.395253 | 0.9684625  | 3.361400e-01 | 5.358164e-01 |
| ## LOC101927829 | -0.02928391 | 3.262181 | -0.9684086 | 3.361667e-01 | 5.358164e-01 |
| ## EDDM3B       | 0.02533010  | 3.272163 | 0.9683828  | 3.361795e-01 | 5.358164e-01 |
| ## MKKS         | 0.09522343  | 8.038270 | 0.9683753  | 3.361832e-01 | 5.358164e-01 |
| ## ETFBKMT      | -0.06466627 | 4.166323 | -0.9683299 | 3.362057e-01 | 5.358164e-01 |
| ## DSCR9        | -0.06655457 | 6.108659 | -0.9682946 | 3.362232e-01 | 5.358164e-01 |
| ## MICOS13      | -0.07468123 | 8.748324 | -0.9679752 | 3.363816e-01 | 5.359869e-01 |
| ## HOXD12       | -0.05672493 | 3.703790 | -0.9679750 | 3.363817e-01 | 5.359869e-01 |
| ## LINC01233    | -0.02806279 | 3.400354 | -0.9678205 | 3.364583e-01 | 5.360680e-01 |
| ## FAM13A-AS1   | -0.06601662 | 5.479731 | -0.9677475 | 3.364945e-01 | 5.360846e-01 |
| ## PAPOLG       | -0.04424291 | 4.197941 | -0.9674614 | 3.366364e-01 | 5.362697e-01 |
| ## PPFIBP1      | 0.07755748  | 4.206309 | 0.9671300  | 3.368009e-01 | 5.364855e-01 |
| ## APOLD1       | -0.19221075 | 7.938128 | -0.9670713 | 3.368301e-01 | 5.364855e-01 |
| ## LOC105377436 | -0.03165545 | 3.712016 | -0.9670327 | 3.368492e-01 | 5.364855e-01 |
| ## SLC24A2      | -0.04739389 | 4.507637 | -0.9667945 | 3.369675e-01 | 5.366328e-01 |
| ## TPPP2        | -0.03926448 | 3.650859 | -0.9658573 | 3.374330e-01 | 5.373330e-01 |
| ## P2RY13       | -0.20187420 | 5.407156 | -0.9658010 | 3.374609e-01 | 5.373365e-01 |
| ## TTLL7-IT1    | -0.03767095 | 3.780086 | -0.9655329 | 3.375942e-01 | 5.374503e-01 |
| ## UBE3D        | 0.02562367  | 3.150176 | 0.9654824  | 3.376193e-01 | 5.374503e-01 |
| ## CDNF         | 0.03310359  | 3.458945 | 0.9654288  | 3.376459e-01 | 5.374503e-01 |
| ## MX2          | 0.15791120  | 7.719869 | 0.9653854  | 3.376675e-01 | 5.374503e-01 |
| ## LAMP5        | -0.19466492 | 5.577796 | -0.9653121 | 3.377039e-01 | 5.374503e-01 |
| ## PAXIP1-DT    | 0.13034050  | 6.525927 | 0.9652941  | 3.377129e-01 | 5.374503e-01 |
| ## BSN          | -0.04697692 | 3.848630 | -0.9652937 | 3.377131e-01 | 5.374503e-01 |
| ## NMUR1        | -0.06825797 | 4.415680 | -0.9651375 | 3.377907e-01 | 5.375096e-01 |
| ## EYA1         | -0.03975123 | 3.735033 | -0.9651150 | 3.378019e-01 | 5.375096e-01 |
| ## B9D2         | -0.04852262 | 5.974944 | -0.9650399 | 3.378393e-01 | 5.375265e-01 |
| ## GABRQ        | -0.04208633 | 4.169408 | -0.9649898 | 3.378642e-01 | 5.375265e-01 |
| ## AZIN2        | -0.05236657 | 4.919491 | -0.9648013 | 3.379580e-01 | 5.376346e-01 |
| ## PNISR-AS1    | -0.03109378 | 3.527194 | -0.9647200 | 3.379984e-01 | 5.376578e-01 |
| ## FERD3L       | -0.07320849 | 4.211722 | -0.9646358 | 3.380403e-01 | 5.376834e-01 |
| ## MTHFD1L      | -0.04389090 | 3.683410 | -0.9644778 | 3.381189e-01 | 5.377674e-01 |
| ## TMEM51       | 0.09365484  | 7.271175 | 0.9641669  | 3.382736e-01 | 5.379723e-01 |
| ## APOBEC3F     | 0.07250826  | 5.604782 | 0.9640264  | 3.383436e-01 | 5.380425e-01 |
| ## TMC01        | 0.09670089  | 8.138236 | 0.9636864  | 3.385128e-01 | 5.382535e-01 |
| ## LOC105371414 | -0.04749094 | 3.870139 | -0.9636418 | 3.385350e-01 | 5.382535e-01 |
| ## TKTL2        | 0.02558376  | 3.476355 | 0.9636042  | 3.385538e-01 | 5.382535e-01 |
| ## PRAC1        | -0.08630374 | 3.557113 | -0.9632110 | 3.387496e-01 | 5.385237e-01 |
| ## WDR5B        | 0.09252136  | 5.953815 | 0.9630737  | 3.388181e-01 | 5.385914e-01 |
| ## TCTN2        | -0.08523668 | 7.389307 | -0.9629966 | 3.388565e-01 | 5.386113e-01 |
| ## ZNF12        | 0.08806102  | 8.426976 | 0.9625098  | 3.390991e-01 | 5.389024e-01 |
| ## MIR4458HG    | 0.12907606  | 5.276398 | 0.9625093  | 3.390993e-01 | 5.389024e-01 |
| ## DHH          | -0.04326562 | 3.948362 | -0.9624558 | 3.391260e-01 | 5.389024e-01 |
| ## CORO2A       | 0.16600994  | 6.627341 | 0.9623440  | 3.391818e-01 | 5.389024e-01 |
| ## ARHGEF33     | -0.02987577 | 3.541616 | -0.9622957 | 3.392058e-01 | 5.389024e-01 |
| ## ATXN1-AS1    | 0.03346184  | 3.893953 | 0.9622802  | 3.392135e-01 | 5.389024e-01 |
| ## NUA1         | -0.16815176 | 7.627353 | -0.9622658 | 3.392207e-01 | 5.389024e-01 |
| ## CCDC120      | 0.03796214  | 4.401458 | 0.9621510  | 3.392780e-01 | 5.389308e-01 |
| ## TWSG1        | 0.13650428  | 6.662749 | 0.9621262  | 3.392904e-01 | 5.389308e-01 |
| ## NEU3         | 0.03473692  | 4.368751 | 0.9619686  | 3.393690e-01 | 5.390145e-01 |
| ## BCAT2        | 0.10948260  | 7.273605 | 0.9617875  | 3.394593e-01 | 5.390824e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## PCP4         | -0.24150954 | 4.887501 | -0.9617791 | 3.394635e-01 | 5.390824e-01 |
| ## ARL9         | -0.10701520 | 5.181839 | -0.9614684 | 3.396185e-01 | 5.392523e-01 |
| ## LOC100630923 | 0.03975977  | 4.917387 | 0.9614283  | 3.396385e-01 | 5.392523e-01 |
| ## SEMA4A       | 0.09224948  | 7.306481 | 0.9614090  | 3.396482e-01 | 5.392523e-01 |
| ## AHI1         | 0.07026153  | 5.922316 | 0.9612556  | 3.397247e-01 | 5.393327e-01 |
| ## LOC101928389 | -0.03564730 | 3.862126 | -0.9611972 | 3.397539e-01 | 5.393369e-01 |
| ## LCMT1        | 0.06598823  | 8.387288 | 0.9611466  | 3.397791e-01 | 5.393369e-01 |
| ## CCNL1        | 0.08236659  | 9.857276 | 0.9608211  | 3.399416e-01 | 5.395537e-01 |
| ## TXNL4B       | 0.06441135  | 6.393433 | 0.9607297  | 3.399873e-01 | 5.395850e-01 |
| ## SPTA1        | -0.03168695 | 3.688361 | -0.9606294 | 3.400374e-01 | 5.396234e-01 |
| ## MIR3936HG    | -0.04450569 | 5.229581 | -0.9605205 | 3.400918e-01 | 5.396507e-01 |
| ## DEAF1        | -0.08928710 | 6.439501 | -0.9604673 | 3.401183e-01 | 5.396507e-01 |
| ## LOC105371079 | -0.04216203 | 4.358845 | -0.9604393 | 3.401323e-01 | 5.396507e-01 |
| ## FAM181A      | -0.06161216 | 4.669269 | -0.9603842 | 3.401599e-01 | 5.396533e-01 |
| ## RAB31        | -0.19188223 | 9.382476 | -0.9602075 | 3.402481e-01 | 5.397512e-01 |
| ## CD14         | -0.16123049 | 9.054475 | -0.9601569 | 3.402734e-01 | 5.397512e-01 |
| ## ONECUT1      | -0.04052015 | 3.777970 | -0.9599527 | 3.403754e-01 | 5.398719e-01 |
| ## Clorf220     | 0.03906079  | 3.419946 | 0.9598060  | 3.404488e-01 | 5.399471e-01 |
| ## TPP2         | 0.04178924  | 3.699916 | 0.9594190  | 3.406422e-01 | 5.402128e-01 |
| ## LHFPL1       | -0.03320747 | 3.625576 | -0.9592420 | 3.407308e-01 | 5.402781e-01 |
| ## LOC101929148 | -0.04149215 | 4.061197 | -0.9592329 | 3.407353e-01 | 5.402781e-01 |
| ## ODC1-DT      | -0.03751355 | 3.878366 | -0.9591277 | 3.407879e-01 | 5.403203e-01 |
| ## RXYLT1       | 0.14480406  | 5.212862 | 0.9589465  | 3.408786e-01 | 5.404229e-01 |
| ## MXD4         | -0.08898145 | 6.547933 | -0.9588397 | 3.409320e-01 | 5.404664e-01 |
| ## AGBL4        | -0.03819451 | 4.533188 | -0.9585954 | 3.410542e-01 | 5.406191e-01 |
| ## GPR37        | 0.23040216  | 4.001895 | 0.9584990  | 3.411025e-01 | 5.406544e-01 |
| ## LOC105371485 | 0.03926426  | 3.988017 | 0.9583829  | 3.411606e-01 | 5.406854e-01 |
| ## RPS9         | -0.04728450 | 4.077069 | -0.9583359 | 3.411841e-01 | 5.406854e-01 |
| ## CSMD1        | -0.06320771 | 3.745189 | -0.9583043 | 3.411999e-01 | 5.406854e-01 |
| ## RBMY2BP      | -0.03774176 | 3.857166 | -0.9582052 | 3.412495e-01 | 5.407229e-01 |
| ## PRG4         | 0.03811941  | 3.457360 | 0.9579964  | 3.413541e-01 | 5.408401e-01 |
| ## SLC16A8      | 0.04984206  | 5.262638 | 0.9579537  | 3.413754e-01 | 5.408401e-01 |
| ## LOC100506639 | 0.04504115  | 4.438969 | 0.9577281  | 3.414884e-01 | 5.409544e-01 |
| ## LINC02008    | -0.04826876 | 3.881330 | -0.9577059 | 3.414995e-01 | 5.409544e-01 |
| ## MMP24OS      | -0.10160206 | 7.131058 | -0.9575806 | 3.415623e-01 | 5.410126e-01 |
| ## CYP4V2       | 0.05360766  | 4.909006 | 0.9574430  | 3.416312e-01 | 5.410135e-01 |
| ## RARG         | 0.08008363  | 5.527680 | 0.9573913  | 3.416571e-01 | 5.410135e-01 |
| ## POM121L2     | -0.03955959 | 4.578051 | -0.9573209 | 3.416924e-01 | 5.410135e-01 |
| ## SLC5A2       | -0.05540825 | 5.256825 | -0.9572802 | 3.417128e-01 | 5.410135e-01 |
| ## PLCE1        | -0.03260386 | 4.099201 | -0.9572687 | 3.417185e-01 | 5.410135e-01 |
| ## LOC105370475 | 0.03294892  | 3.842930 | 0.9572683  | 3.417187e-01 | 5.410135e-01 |
| ## CYB5RL       | 0.06373978  | 5.486786 | 0.9570183  | 3.418440e-01 | 5.411317e-01 |
| ## LINC02549    | -0.03590358 | 3.761270 | -0.9570157 | 3.418453e-01 | 5.411317e-01 |
| ## LOC101927787 | -0.03667127 | 3.809307 | -0.9568812 | 3.419127e-01 | 5.411972e-01 |
| ## CAMK1G       | -0.04988162 | 4.181358 | -0.9565719 | 3.420678e-01 | 5.414015e-01 |
| ## USP49        | 0.02865734  | 3.584359 | 0.9564062  | 3.421509e-01 | 5.414918e-01 |
| ## PRKN         | -0.03378558 | 3.507334 | -0.9561334 | 3.422877e-01 | 5.416672e-01 |
| ## TMEM174      | -0.04776501 | 4.147255 | -0.9558435 | 3.424331e-01 | 5.418309e-01 |
| ## YPEL3        | -0.10331397 | 7.680161 | -0.9558234 | 3.424432e-01 | 5.418309e-01 |
| ## KIAA1210     | 0.02717019  | 3.287274 | 0.9556194  | 3.425456e-01 | 5.419028e-01 |
| ## TMSB4Y       | -0.04364357 | 6.017654 | -0.9555468 | 3.425820e-01 | 5.419028e-01 |
| ## CBX2         | -0.07328998 | 4.722468 | -0.9555389 | 3.425859e-01 | 5.419028e-01 |
| ## TSP02        | 0.06072110  | 4.653066 | 0.9555255  | 3.425927e-01 | 5.419028e-01 |
| ## IL1RAPL2     | -0.06269656 | 4.691751 | -0.9553735 | 3.426690e-01 | 5.419823e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LRP2         | -0.05885471 | 3.687871  | -0.9551498 | 3.427813e-01 | 5.421187e-01 |
| ## MDGA2        | -0.03664987 | 3.635098  | -0.9546162 | 3.430493e-01 | 5.425014e-01 |
| ## LOC101928553 | -0.02435900 | 3.431770  | -0.9544977 | 3.431088e-01 | 5.425328e-01 |
| ## H2AC10P      | 0.04167497  | 3.788068  | 0.9544728  | 3.431213e-01 | 5.425328e-01 |
| ## KHK          | -0.09497333 | 5.077680  | -0.9541211 | 3.432980e-01 | 5.427711e-01 |
| ## RPL8         | 0.07314210  | 12.586496 | 0.9540010  | 3.433583e-01 | 5.428252e-01 |
| ## GUSBP5       | -0.04211309 | 3.522413  | -0.9538832 | 3.434176e-01 | 5.428372e-01 |
| ## TMEM65       | 0.07142197  | 5.388059  | 0.9538223  | 3.434482e-01 | 5.428372e-01 |
| ## ZNF594       | -0.06717021 | 4.251443  | -0.9538044 | 3.434572e-01 | 5.428372e-01 |
| ## LMX1A-AS2    | -0.07823810 | 4.912606  | -0.9537786 | 3.434701e-01 | 5.428372e-01 |
| ## LOC105375382 | -0.03928577 | 3.204350  | -0.9537259 | 3.434966e-01 | 5.428378e-01 |
| ## PLEKHB1      | 0.25107192  | 6.584274  | 0.9533655  | 3.436779e-01 | 5.430479e-01 |
| ## SDS          | 0.04980162  | 4.680951  | 0.9533578  | 3.436817e-01 | 5.430479e-01 |
| ## ZNF787       | -0.05489637 | 4.164982  | -0.9532532 | 3.437343e-01 | 5.430690e-01 |
| ## GPHA2        | -0.04200964 | 5.291580  | -0.9532276 | 3.437472e-01 | 5.430690e-01 |
| ## THSD4-AS1    | -0.02965648 | 3.989390  | -0.9530697 | 3.438267e-01 | 5.430881e-01 |
| ## LOC105377143 | -0.04189781 | 3.573947  | -0.9530683 | 3.438273e-01 | 5.430881e-01 |
| ## TMEM50B      | 0.13217876  | 8.764855  | 0.9530480  | 3.438376e-01 | 5.430881e-01 |
| ## RCE1         | -0.05156017 | 5.972118  | -0.9528115 | 3.439566e-01 | 5.432349e-01 |
| ## ARC          | -0.11631868 | 4.310369  | -0.9526956 | 3.440149e-01 | 5.432857e-01 |
| ## TLCD3A       | 0.14088672  | 7.641895  | 0.9525935  | 3.440663e-01 | 5.433257e-01 |
| ## AKR1C1       | 0.06177580  | 4.209143  | 0.9524781  | 3.441243e-01 | 5.433762e-01 |
| ## ACTL7B       | -0.05486299 | 4.630586  | -0.9520970 | 3.443162e-01 | 5.436236e-01 |
| ## PCDHB1       | -0.03751711 | 4.101496  | -0.9520632 | 3.443332e-01 | 5.436236e-01 |
| ## DAB1         | -0.04463890 | 4.376327  | -0.9518463 | 3.444425e-01 | 5.437545e-01 |
| ## MAL2         | 0.22841883  | 10.593990 | 0.9517948  | 3.444684e-01 | 5.437545e-01 |
| ## TBX3         | 0.19666776  | 6.345367  | 0.9516255  | 3.445537e-01 | 5.438479e-01 |
| ## C2orf50      | 0.04406586  | 4.040829  | 0.9514817  | 3.446261e-01 | 5.438868e-01 |
| ## CDIPTOSP     | 0.05237417  | 5.056264  | 0.9514269  | 3.446537e-01 | 5.438868e-01 |
| ## AKR7A2       | -0.11036599 | 8.752951  | -0.9514211 | 3.446567e-01 | 5.438868e-01 |
| ## ZCWPW1       | -0.04470260 | 5.958142  | -0.9513221 | 3.447065e-01 | 5.439243e-01 |
| ## POLH-AS1     | -0.04103427 | 4.092971  | -0.9512179 | 3.447590e-01 | 5.439659e-01 |
| ## SETD2        | 0.07759592  | 8.326026  | 0.9510900  | 3.448235e-01 | 5.439877e-01 |
| ## MARCHF8      | -0.11224755 | 7.580066  | -0.9510677 | 3.448347e-01 | 5.439877e-01 |
| ## DPY19L2P4    | -0.04193155 | 3.450515  | -0.9510037 | 3.448670e-01 | 5.439877e-01 |
| ## OR2C1        | -0.03138522 | 4.631895  | -0.9509376 | 3.449003e-01 | 5.439877e-01 |
| ## ANAPC15      | -0.05963328 | 7.772011  | -0.9509314 | 3.449034e-01 | 5.439877e-01 |
| ## TTTY5        | -0.04432743 | 4.016848  | -0.9507372 | 3.450013e-01 | 5.441008e-01 |
| ## SLC38A5      | 0.21781369  | 6.256741  | 0.9504974  | 3.451223e-01 | 5.442273e-01 |
| ## FLG          | -0.02207727 | 3.251173  | -0.9504745 | 3.451338e-01 | 5.442273e-01 |
| ## CCL22        | -0.09072245 | 5.995923  | -0.9501429 | 3.453011e-01 | 5.444336e-01 |
| ## LOC100134040 | 0.05623300  | 4.186035  | 0.9500646  | 3.453406e-01 | 5.444336e-01 |
| ## MOS          | -0.04495711 | 3.955766  | -0.9500597 | 3.453430e-01 | 5.444336e-01 |
| ## SPG21        | -0.04394841 | 7.682512  | -0.9499390 | 3.454039e-01 | 5.444884e-01 |
| ## WT1-AS       | -0.06084969 | 4.126259  | -0.9497136 | 3.455177e-01 | 5.446092e-01 |
| ## TMEM156      | -0.06669984 | 3.900853  | -0.9496835 | 3.455329e-01 | 5.446092e-01 |
| ## LINC02915    | -0.03493047 | 3.560027  | -0.9494557 | 3.456479e-01 | 5.447149e-01 |
| ## CCDC171      | -0.02734893 | 3.298729  | -0.9493984 | 3.456768e-01 | 5.447149e-01 |
| ## AAGAB        | 0.06535810  | 6.336586  | 0.9493952  | 3.456784e-01 | 5.447149e-01 |
| ## OVOL1-AS1    | -0.05009432 | 5.289830  | -0.9490988 | 3.458280e-01 | 5.449094e-01 |
| ## MXD3         | 0.05475556  | 6.720490  | 0.9486678  | 3.460457e-01 | 5.452112e-01 |
| ## APOBR        | 0.07772236  | 5.282345  | 0.9485475  | 3.461065e-01 | 5.452383e-01 |
| ## STX1A        | 0.12386594  | 6.390350  | 0.9484800  | 3.461406e-01 | 5.452383e-01 |
| ## ZNF438       | -0.07629156 | 6.555527  | -0.9484783 | 3.461415e-01 | 5.452383e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## LINC01731    | -0.05991208 | 4.874432  | -0.9479789 | 3.463938e-01 | 5.455945e-01 |
| ## TMEM175      | -0.05971976 | 6.233716  | -0.9475359 | 3.466179e-01 | 5.459008e-01 |
| ## LINC01214    | 0.03912440  | 3.667100  | 0.9474907  | 3.466407e-01 | 5.459008e-01 |
| ## ZNF419       | -0.10486848 | 6.056076  | -0.9474175 | 3.466777e-01 | 5.459156e-01 |
| ## MTMR11       | 0.13197559  | 8.079485  | 0.9472951  | 3.467396e-01 | 5.459156e-01 |
| ## SGCZ         | -0.03273693 | 3.574279  | -0.9472778 | 3.467484e-01 | 5.459156e-01 |
| ## ITPR3-AS1    | 0.06006021  | 3.897691  | 0.9472648  | 3.467550e-01 | 5.459156e-01 |
| ## LSM1         | -0.08273591 | 9.481914  | -0.9471434 | 3.468164e-01 | 5.459324e-01 |
| ## SHF          | -0.04653008 | 5.221947  | -0.9471400 | 3.468181e-01 | 5.459324e-01 |
| ## MNX1-AS1     | 0.06907683  | 4.044568  | 0.9470050  | 3.468864e-01 | 5.459616e-01 |
| ## DIPK2B       | -0.07150134 | 4.866962  | -0.9469913 | 3.468933e-01 | 5.459616e-01 |
| ## EMILIN3      | 0.12127865  | 7.072304  | 0.9469458  | 3.469164e-01 | 5.459616e-01 |
| ## MED29        | -0.13142412 | 7.121558  | -0.9468961 | 3.469415e-01 | 5.459616e-01 |
| ## TEAD2        | -0.15562178 | 7.196748  | -0.9467796 | 3.470005e-01 | 5.460131e-01 |
| ## BBOX1        | -0.04642769 | 3.554936  | -0.9466657 | 3.470581e-01 | 5.460366e-01 |
| ## MIR17HG      | -0.02164854 | 3.158889  | -0.9466465 | 3.470678e-01 | 5.460366e-01 |
| ## PGD          | -0.05897741 | 4.332878  | -0.9465230 | 3.471303e-01 | 5.460937e-01 |
| ## FIS1         | -0.07043629 | 9.509157  | -0.9462627 | 3.472621e-01 | 5.462060e-01 |
| ## PPM1A        | -0.06586873 | 8.812912  | -0.9462374 | 3.472749e-01 | 5.462060e-01 |
| ## LOC100507156 | -0.03821974 | 4.654091  | -0.9462266 | 3.472804e-01 | 5.462060e-01 |
| ## LINC00836    | -0.03330648 | 3.894841  | -0.9460894 | 3.473499e-01 | 5.462740e-01 |
| ## ARSK         | -0.04237839 | 5.856100  | -0.9457481 | 3.475227e-01 | 5.465046e-01 |
| ## HSPA4L       | -0.19921029 | 4.575372  | -0.9455489 | 3.476236e-01 | 5.466220e-01 |
| ## PSD2         | -0.03689797 | 5.027428  | -0.9453753 | 3.477116e-01 | 5.467190e-01 |
| ## MFGE8        | -0.03703721 | 4.135006  | -0.9451620 | 3.478197e-01 | 5.468477e-01 |
| ## NOG          | -0.08814626 | 3.979791  | -0.9448790 | 3.479632e-01 | 5.469885e-01 |
| ## LOC105377085 | -0.03025342 | 3.688680  | -0.9448566 | 3.479745e-01 | 5.469885e-01 |
| ## ACMSD        | -0.09718020 | 3.626014  | -0.9448298 | 3.479881e-01 | 5.469885e-01 |
| ## LRR1Q3       | -0.03586792 | 3.476845  | -0.9445214 | 3.481445e-01 | 5.471931e-01 |
| ## NUDT9        | -0.09625363 | 8.121510  | -0.9442076 | 3.483037e-01 | 5.474020e-01 |
| ## LINC02042    | -0.03111878 | 3.322142  | -0.9441049 | 3.483558e-01 | 5.474186e-01 |
| ## OR5E1P       | 0.04078972  | 3.940276  | 0.9440831  | 3.483669e-01 | 5.474186e-01 |
| ## LYZ          | -0.42687971 | 10.616464 | -0.9438333 | 3.484936e-01 | 5.475764e-01 |
| ## OR3A2        | 0.03267009  | 3.825875  | 0.9436013  | 3.486114e-01 | 5.476901e-01 |
| ## ANGPT4       | -0.06004833 | 5.333959  | -0.9435872 | 3.486185e-01 | 5.476901e-01 |
| ## CPAMD8       | -0.04751978 | 4.924288  | -0.9434035 | 3.487117e-01 | 5.477952e-01 |
| ## XAGE2        | -0.05256426 | 5.889037  | -0.9429910 | 3.489212e-01 | 5.480416e-01 |
| ## TCAP         | 0.04845769  | 5.688715  | 0.9429456  | 3.489443e-01 | 5.480416e-01 |
| ## BTBD2        | 0.08476156  | 6.745991  | 0.9429000  | 3.489674e-01 | 5.480416e-01 |
| ## LYPD4        | 0.02233126  | 3.136319  | 0.9428874  | 3.489738e-01 | 5.480416e-01 |
| ## TMEM105      | -0.03563551 | 6.254134  | -0.9425419 | 3.491494e-01 | 5.482759e-01 |
| ## KRTAP4-12    | -0.05221871 | 3.564239  | -0.9417276 | 3.495633e-01 | 5.488845e-01 |
| ## COX7A2       | -0.05212269 | 11.565796 | -0.9414251 | 3.497171e-01 | 5.490451e-01 |
| ## SAMS1        | 0.16592439  | 7.105339  | 0.9414228  | 3.497183e-01 | 5.490451e-01 |
| ## PBOV1        | -0.04037551 | 3.537951  | -0.9411452 | 3.498595e-01 | 5.491883e-01 |
| ## DSP-AS1      | 0.08312269  | 4.033796  | 0.9411398  | 3.498623e-01 | 5.491883e-01 |
| ## AKAP17A      | 0.06811235  | 8.253872  | 0.9410696  | 3.498980e-01 | 5.492030e-01 |
| ## LINC02153    | 0.04751545  | 4.180072  | 0.9410082  | 3.499292e-01 | 5.492106e-01 |
| ## LINC01180    | -0.02782688 | 3.679758  | -0.9408850 | 3.499919e-01 | 5.492676e-01 |
| ## LOC101929372 | -0.07061920 | 5.397634  | -0.9408305 | 3.500197e-01 | 5.492697e-01 |
| ## KCNK7        | -0.04033564 | 4.872165  | -0.9407223 | 3.500748e-01 | 5.492796e-01 |
| ## APOF         | 0.02581441  | 3.441866  | 0.9406902  | 3.500911e-01 | 5.492796e-01 |
| ## BNIP1        | -0.06613610 | 6.577024  | -0.9406580 | 3.501075e-01 | 5.492796e-01 |
| ## LOC105371215 | -0.03603580 | 3.300749  | -0.9405847 | 3.501448e-01 | 5.492796e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## INSL4        | 0.04402616  | 4.225439  | 0.9404967  | 3.501896e-01 | 5.492796e-01 |
| ## CD300LF      | 0.14818550  | 6.603656  | 0.9404238  | 3.502267e-01 | 5.492796e-01 |
| ## DALRD3       | 0.05742544  | 4.983737  | 0.9404184  | 3.502294e-01 | 5.492796e-01 |
| ## LHX9         | -0.06442371 | 3.752499  | -0.9404037 | 3.502370e-01 | 5.492796e-01 |
| ## AK6          | -0.06941040 | 8.691478  | -0.9403177 | 3.502807e-01 | 5.493068e-01 |
| ## LIPI         | -0.02360260 | 3.218464  | -0.9402573 | 3.503115e-01 | 5.493137e-01 |
| ## PFKFB2       | 0.04391325  | 5.563306  | 0.9401554  | 3.503634e-01 | 5.493537e-01 |
| ## LINC00342    | -0.09965049 | 7.124356  | -0.9397978 | 3.505455e-01 | 5.495979e-01 |
| ## VPS9D1-AS1   | 0.06032327  | 5.874781  | 0.9396156  | 3.506383e-01 | 5.496110e-01 |
| ## SCAMP4       | 0.11064417  | 6.780483  | 0.9395919  | 3.506504e-01 | 5.496110e-01 |
| ## LINC02708    | 0.04165441  | 4.484699  | 0.9395760  | 3.506585e-01 | 5.496110e-01 |
| ## CTHRC1       | 0.28181971  | 10.151957 | 0.9395742  | 3.506594e-01 | 5.496110e-01 |
| ## SNORA71A     | -0.04419490 | 4.301717  | -0.9394651 | 3.507150e-01 | 5.496521e-01 |
| ## COPZ1        | 0.06370944  | 9.428307  | 0.9394192  | 3.507384e-01 | 5.496521e-01 |
| ## NDUFA8       | 0.07601415  | 9.451573  | 0.9392095  | 3.508453e-01 | 5.497781e-01 |
| ## RUBCN        | 0.04227123  | 3.837875  | 0.9390797  | 3.509114e-01 | 5.498251e-01 |
| ## CFP          | -0.05634541 | 5.210172  | -0.9390264 | 3.509386e-01 | 5.498251e-01 |
| ## CFAP418      | 0.05706855  | 5.496966  | 0.9389953  | 3.509545e-01 | 5.498251e-01 |
| ## OGG1         | 0.06594542  | 5.769841  | 0.9388275  | 3.510400e-01 | 5.498942e-01 |
| ## EME2         | -0.05984010 | 6.026706  | -0.9388053 | 3.510514e-01 | 5.498942e-01 |
| ## SPIN1        | 0.17745085  | 7.110990  | 0.9387022  | 3.511039e-01 | 5.499275e-01 |
| ## SPINT3       | -0.03038840 | 3.588146  | -0.9385617 | 3.511756e-01 | 5.499275e-01 |
| ## TTI2         | 0.08121105  | 6.482548  | 0.9385267  | 3.511934e-01 | 5.499275e-01 |
| ## HLTF         | -0.16512452 | 8.291899  | -0.9384648 | 3.512250e-01 | 5.499275e-01 |
| ## RAB40A       | -0.04013316 | 4.237386  | -0.9384393 | 3.512380e-01 | 5.499275e-01 |
| ## CCNB3        | -0.04433308 | 4.479212  | -0.9384374 | 3.512390e-01 | 5.499275e-01 |
| ## KCTD6        | 0.07253171  | 4.736228  | 0.9384011  | 3.512575e-01 | 5.499275e-01 |
| ## ANP32D       | -0.04165152 | 3.716167  | -0.9383416 | 3.512878e-01 | 5.499337e-01 |
| ## IFIT1        | 0.25832111  | 8.124021  | 0.9382638  | 3.513276e-01 | 5.499545e-01 |
| ## UBL5         | 0.05124193  | 9.931515  | 0.9382053  | 3.513574e-01 | 5.499598e-01 |
| ## ZNF497-AS1   | -0.07696116 | 4.178601  | -0.9381379 | 3.513918e-01 | 5.499599e-01 |
| ## TMEM258      | 0.06394948  | 10.708558 | 0.9381017  | 3.514102e-01 | 5.499599e-01 |
| ## AGBL3        | -0.02417632 | 3.167738  | -0.9379846 | 3.514700e-01 | 5.500010e-01 |
| ## POM121L10P   | 0.04024416  | 4.104308  | 0.9379468  | 3.514893e-01 | 5.500010e-01 |
| ## DNAJC1       | -0.07577900 | 8.397525  | -0.9378382 | 3.515447e-01 | 5.500464e-01 |
| ## RAB2B        | -0.07266447 | 8.054888  | -0.9376460 | 3.516428e-01 | 5.501585e-01 |
| ## PRKAR1B      | 0.04938448  | 5.709390  | 0.9373766  | 3.517804e-01 | 5.503256e-01 |
| ## LYSMD1       | 0.08824343  | 5.128712  | 0.9373309  | 3.518037e-01 | 5.503256e-01 |
| ## TEX9         | -0.03721293 | 3.575784  | -0.9372568 | 3.518415e-01 | 5.503256e-01 |
| ## KRTAP10-12   | -0.04761534 | 4.236866  | -0.9372297 | 3.518553e-01 | 5.503256e-01 |
| ## LINC02189    | -0.02880506 | 3.507822  | -0.9370342 | 3.519552e-01 | 5.504405e-01 |
| ## NECAB2       | 0.04775354  | 5.951248  | 0.9369172  | 3.520149e-01 | 5.504926e-01 |
| ## GPSM3        | -0.09297534 | 7.769591  | -0.9368143 | 3.520675e-01 | 5.505069e-01 |
| ## LSP1P4       | 0.07364761  | 4.550225  | 0.9367833  | 3.520834e-01 | 5.505069e-01 |
| ## LOC105375206 | 0.03290468  | 3.430965  | 0.9367037  | 3.521240e-01 | 5.505069e-01 |
| ## OR8G2P       | -0.04043889 | 3.574881  | -0.9366923 | 3.521298e-01 | 5.505069e-01 |
| ## RNF14        | -0.10915955 | 7.539669  | -0.9365951 | 3.521795e-01 | 5.505432e-01 |
| ## NUBP1        | 0.06794035  | 7.503034  | 0.9365160  | 3.522199e-01 | 5.505651e-01 |
| ## RPLP2P1      | -0.05152562 | 4.917372  | -0.9364403 | 3.522586e-01 | 5.505842e-01 |
| ## LOC105379807 | -0.05423967 | 5.955743  | -0.9362859 | 3.523375e-01 | 5.506662e-01 |
| ## KLF18        | -0.02831749 | 3.824135  | -0.9361238 | 3.524204e-01 | 5.507544e-01 |
| ## KRT5         | 0.22186540  | 4.704999  | 0.9359520  | 3.525082e-01 | 5.508095e-01 |
| ## LOC221946    | -0.03115755 | 3.809239  | -0.9359513 | 3.525086e-01 | 5.508095e-01 |
| ## CYP17A1      | 0.02712796  | 3.259078  | 0.9354999  | 3.527394e-01 | 5.511289e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## LINC01785    | -0.05152633 | 4.663295 | -0.9351859 | 3.529000e-01 | 5.513246e-01 |
| ## NSUN5        | 0.07516824  | 8.311326 | 0.9351365  | 3.529253e-01 | 5.513246e-01 |
| ## LINC00343    | -0.02950133 | 3.328981 | -0.9350733 | 3.529577e-01 | 5.513246e-01 |
| ## TFPT         | 0.09074003  | 7.218056 | 0.9350480  | 3.529706e-01 | 5.513246e-01 |
| ## LINC00528    | -0.05161153 | 4.085639 | -0.9349699 | 3.530106e-01 | 5.513457e-01 |
| ## ARR3         | -0.04750537 | 5.874064 | -0.9348839 | 3.530546e-01 | 5.513731e-01 |
| ## EMP3         | -0.12494987 | 8.523842 | -0.9347031 | 3.531471e-01 | 5.514762e-01 |
| ## COL27A1      | -0.03834801 | 4.160850 | -0.9345758 | 3.532123e-01 | 5.515366e-01 |
| ## XAB2         | 0.07900179  | 5.183618 | 0.9344507  | 3.532763e-01 | 5.515591e-01 |
| ## RNF146       | -0.10365435 | 6.835173 | -0.9344442 | 3.532797e-01 | 5.515591e-01 |
| ## KCTD11       | -0.07833136 | 6.252258 | -0.9340100 | 3.535020e-01 | 5.518649e-01 |
| ## ATP8A1       | -0.03611328 | 3.496437 | -0.9336837 | 3.536692e-01 | 5.520845e-01 |
| ## UNC45A       | 0.03743637  | 6.056334 | 0.9335410  | 3.537423e-01 | 5.521452e-01 |
| ## STX8         | 0.03005888  | 3.678753 | 0.9334690  | 3.537792e-01 | 5.521452e-01 |
| ## SHISA2       | -0.33842699 | 5.702698 | -0.9334525 | 3.537877e-01 | 5.521452e-01 |
| ## GNL1         | 0.04478525  | 6.782410 | 0.9333127  | 3.538593e-01 | 5.522157e-01 |
| ## LOC100419741 | -0.09514816 | 4.594486 | -0.9331728 | 3.539310e-01 | 5.522862e-01 |
| ## PHKA1-AS1    | -0.03180398 | 3.816513 | -0.9327768 | 3.541340e-01 | 5.525101e-01 |
| ## RAB30        | -0.07262287 | 4.831313 | -0.9327533 | 3.541461e-01 | 5.525101e-01 |
| ## MBNL3        | 0.06714468  | 4.376309 | 0.9326982  | 3.541743e-01 | 5.525101e-01 |
| ## ZC3H7B       | 0.04631149  | 6.240915 | 0.9326286  | 3.542100e-01 | 5.525101e-01 |
| ## RBM26-AS1    | -0.05009619 | 3.505806 | -0.9326166 | 3.542162e-01 | 5.525101e-01 |
| ## HS3ST3B1     | 0.05000451  | 4.847375 | 0.9325508  | 3.542499e-01 | 5.525101e-01 |
| ## LINC00544    | 0.06123473  | 3.832324 | 0.9324856  | 3.542834e-01 | 5.525101e-01 |
| ## GPD1         | 0.04732189  | 4.558691 | 0.9324790  | 3.542868e-01 | 5.525101e-01 |
| ## TNRC6B-DT    | 0.02854713  | 3.520892 | 0.9321750  | 3.544427e-01 | 5.527119e-01 |
| ## ADAM6        | -0.04379130 | 4.096145 | -0.9319634 | 3.545513e-01 | 5.528245e-01 |
| ## EARS2        | 0.03115587  | 4.409961 | 0.9318854  | 3.545913e-01 | 5.528245e-01 |
| ## TSPY1        | -0.04553655 | 4.270050 | -0.9318792 | 3.545945e-01 | 5.528245e-01 |
| ## OVGPI        | -0.06856366 | 6.117570 | -0.9317628 | 3.546543e-01 | 5.528480e-01 |
| ## TMEM272      | -0.04881643 | 4.031456 | -0.9317463 | 3.546627e-01 | 5.528480e-01 |
| ## PAGE5        | 0.04164271  | 4.523261 | 0.9315969  | 3.547394e-01 | 5.529262e-01 |
| ## SLC17A2      | -0.03092324 | 3.669849 | -0.9315173 | 3.547803e-01 | 5.529485e-01 |
| ## NRTN         | -0.12495410 | 4.103740 | -0.9312109 | 3.549376e-01 | 5.531337e-01 |
| ## CA5A         | -0.03430129 | 4.270564 | -0.9311824 | 3.549522e-01 | 5.531337e-01 |
| ## GP9          | -0.04957972 | 5.872070 | -0.9308532 | 3.551213e-01 | 5.533558e-01 |
| ## PRPF39-DT    | 0.04390127  | 4.614214 | 0.9307430  | 3.551780e-01 | 5.533894e-01 |
| ## RABEP2       | 0.05170174  | 5.954607 | 0.9307078  | 3.551961e-01 | 5.533894e-01 |
| ## ZNF749       | 0.03692048  | 3.456551 | 0.9304443  | 3.553314e-01 | 5.534624e-01 |
| ## ZNF697       | -0.05105765 | 4.741495 | -0.9304413 | 3.553330e-01 | 5.534624e-01 |
| ## FHOD3        | -0.18896289 | 4.865019 | -0.9303991 | 3.553547e-01 | 5.534624e-01 |
| ## SNX20        | 0.04035636  | 5.409532 | 0.9303787  | 3.553651e-01 | 5.534624e-01 |
| ## LINC02888    | -0.07062502 | 3.725869 | -0.9303403 | 3.553849e-01 | 5.534624e-01 |
| ## RIPOR2       | -0.09823360 | 5.438183 | -0.9303062 | 3.554024e-01 | 5.534624e-01 |
| ## LINC00358    | -0.04081853 | 3.267198 | -0.9299500 | 3.555855e-01 | 5.536758e-01 |
| ## SIK3         | -0.02860024 | 3.565555 | -0.9299362 | 3.555926e-01 | 5.536758e-01 |
| ## MTMR4        | 0.08641409  | 7.580377 | 0.9298584  | 3.556326e-01 | 5.536967e-01 |
| ## PHF2P1       | 0.09615721  | 3.473332 | 0.9297204  | 3.557036e-01 | 5.537547e-01 |
| ## CUEDC2       | -0.05639887 | 8.564666 | -0.9296367 | 3.557466e-01 | 5.537547e-01 |
| ## NFATC2       | -0.06287006 | 4.182680 | -0.9296308 | 3.557497e-01 | 5.537547e-01 |
| ## LCTL         | -0.01879619 | 3.131455 | -0.9295507 | 3.557908e-01 | 5.537774e-01 |
| ## MAP3K20      | 0.12180875  | 5.956890 | 0.9294622  | 3.558364e-01 | 5.538069e-01 |
| ## FAF1         | 0.06917448  | 8.478454 | 0.9293158  | 3.559117e-01 | 5.538661e-01 |
| ## ADAP2        | -0.10901373 | 7.182446 | -0.9292849 | 3.559276e-01 | 5.538661e-01 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## CRNDE        | -0.23372377 | 7.550780  | -0.9291177 | 3.560136e-01 | 5.539421e-01 |
| ## TM4SF5       | -0.23719585 | 7.449951  | -0.9290866 | 3.560296e-01 | 5.539421e-01 |
| ## LOC101928535 | -0.07470744 | 3.420320  | -0.9289172 | 3.561168e-01 | 5.540363e-01 |
| ## NLRP9        | -0.04865810 | 4.239948  | -0.9284573 | 3.563535e-01 | 5.543632e-01 |
| ## METTL9       | 0.05829844  | 10.366021 | 0.9283737  | 3.563966e-01 | 5.543888e-01 |
| ## MED11        | -0.04977786 | 7.553983  | -0.9282216 | 3.564749e-01 | 5.544389e-01 |
| ## ZNF346       | -0.07722414 | 6.432671  | -0.9282077 | 3.564820e-01 | 5.544389e-01 |
| ## KCNC4        | 0.05455870  | 4.975606  | 0.9279515  | 3.566140e-01 | 5.546027e-01 |
| ## PEX16        | 0.05440883  | 5.053545  | 0.9277685  | 3.567083e-01 | 5.546766e-01 |
| ## PLG          | -0.06006321 | 4.164103  | -0.9277559 | 3.567148e-01 | 5.546766e-01 |
| ## DSCAM        | -0.07055036 | 5.086791  | -0.9276992 | 3.567440e-01 | 5.546805e-01 |
| ## C20orf85     | -0.06639939 | 3.723490  | -0.9273880 | 3.569043e-01 | 5.548884e-01 |
| ## CLDN20       | -0.03423142 | 3.463573  | -0.9272373 | 3.569820e-01 | 5.549678e-01 |
| ## CPA5         | -0.06163372 | 5.221967  | -0.9270969 | 3.570544e-01 | 5.550111e-01 |
| ## OR2J3        | -0.03542741 | 3.705830  | -0.9270799 | 3.570632e-01 | 5.550111e-01 |
| ## LGALS2       | 0.33341070  | 7.052392  | 0.9269921  | 3.571084e-01 | 5.550400e-01 |
| ## MORN3        | -0.07873369 | 7.697120  | -0.9267786 | 3.572185e-01 | 5.551452e-01 |
| ## LINC00582    | -0.04833615 | 4.744559  | -0.9267574 | 3.572294e-01 | 5.551452e-01 |
| ## WASHC4       | 0.11128996  | 9.163316  | 0.9265936  | 3.573139e-01 | 5.552350e-01 |
| ## MAGI1-IT1    | -0.04044830 | 4.299209  | -0.9264214 | 3.574027e-01 | 5.553316e-01 |
| ## SLC5A1       | -0.26955190 | 6.339136  | -0.9262918 | 3.574696e-01 | 5.553941e-01 |
| ## JUND         | 0.11782624  | 6.361656  | 0.9262243  | 3.575044e-01 | 5.553948e-01 |
| ## PPARG        | -0.21832692 | 7.660249  | -0.9261875 | 3.575234e-01 | 5.553948e-01 |
| ## MYBPC1       | -0.20473243 | 4.307681  | -0.9260769 | 3.575805e-01 | 5.554170e-01 |
| ## C11orf94     | -0.05162956 | 4.593833  | -0.9260564 | 3.575911e-01 | 5.554170e-01 |
| ## LINC01723    | -0.05191181 | 4.519286  | -0.9259398 | 3.576512e-01 | 5.554691e-01 |
| ## ZNF605       | -0.02728928 | 3.069548  | -0.9257426 | 3.577530e-01 | 5.555489e-01 |
| ## LRRC52-AS1   | -0.04117369 | 4.133541  | -0.9257368 | 3.577560e-01 | 5.555489e-01 |
| ## ATP5MC3      | 0.08286930  | 10.994263 | 0.9256073  | 3.578228e-01 | 5.556113e-01 |
| ## APOC2        | 0.04333007  | 4.838342  | 0.9255408  | 3.578572e-01 | 5.556231e-01 |
| ## MRGPRG-AS1   | -0.03906813 | 5.640327  | -0.9254716 | 3.578929e-01 | 5.556372e-01 |
| ## LINC02511    | -0.02656912 | 3.367409  | -0.9253705 | 3.579451e-01 | 5.556768e-01 |
| ## ZNF260       | -0.14202070 | 6.243110  | -0.9252934 | 3.579849e-01 | 5.556972e-01 |
| ## CHAC1        | 0.13398922  | 5.990119  | 0.9251387  | 3.580648e-01 | 5.557538e-01 |
| ## TAS2R38      | -0.03973350 | 3.888913  | -0.9250844 | 3.580928e-01 | 5.557538e-01 |
| ## CPLX1        | 0.15834600  | 4.619253  | 0.9250678  | 3.581014e-01 | 5.557538e-01 |
| ## PDE4B        | -0.13937165 | 7.559853  | -0.9249737 | 3.581500e-01 | 5.557878e-01 |
| ## SEL1L3       | 0.15986091  | 8.916395  | 0.9249205  | 3.581775e-01 | 5.557890e-01 |
| ## SNCB         | -0.03580269 | 5.362944  | -0.9247066 | 3.582880e-01 | 5.559190e-01 |
| ## MIS12        | 0.07367296  | 7.959704  | 0.9246463  | 3.583192e-01 | 5.559260e-01 |
| ## C10orf95     | 0.05422082  | 4.929542  | 0.9245448  | 3.583716e-01 | 5.559659e-01 |
| ## JMJD1C-AS1   | 0.05116415  | 4.476389  | 0.9244295  | 3.584312e-01 | 5.559899e-01 |
| ## PPM1D        | 0.09394590  | 7.175850  | 0.9244115  | 3.584405e-01 | 5.559899e-01 |
| ## HSPC102      | -0.05067627 | 4.556579  | -0.9243342 | 3.584804e-01 | 5.559947e-01 |
| ## SPAG6        | 0.04160072  | 3.892511  | 0.9241624  | 3.585692e-01 | 5.559947e-01 |
| ## LOC101928682 | 0.03363042  | 3.759804  | 0.9241327  | 3.585846e-01 | 5.559947e-01 |
| ## OPA3         | 0.06567913  | 5.041812  | 0.9240555  | 3.586245e-01 | 5.559947e-01 |
| ## TIGD3        | 0.04637992  | 4.548837  | 0.9240327  | 3.586363e-01 | 5.559947e-01 |
| ## SYVN1        | 0.06768141  | 7.640630  | 0.9240233  | 3.586411e-01 | 5.559947e-01 |
| ## SGMS1        | 0.14270502  | 7.380943  | 0.9240171  | 3.586444e-01 | 5.559947e-01 |
| ## TMCC2        | -0.04599119 | 4.475730  | -0.9239923 | 3.586572e-01 | 5.559947e-01 |
| ## SAMD15       | -0.07348141 | 5.116574  | -0.9238202 | 3.587461e-01 | 5.560596e-01 |
| ## TSPAN8       | -0.23374058 | 12.789877 | -0.9237941 | 3.587597e-01 | 5.560596e-01 |
| ## FAM184B      | -0.09545457 | 4.252784  | -0.9237564 | 3.587791e-01 | 5.560596e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## CRTAM        | 0.14698116  | 4.049743 | 0.9232808  | 3.590252e-01 | 5.563995e-01 |
| ## MAP3K10      | -0.04701359 | 6.691233 | -0.9230949 | 3.591213e-01 | 5.565071e-01 |
| ## MTMR1        | 0.07991292  | 8.562138 | 0.9229329  | 3.592051e-01 | 5.565625e-01 |
| ## LINC01352    | -0.03124711 | 3.452555 | -0.9229225 | 3.592105e-01 | 5.565625e-01 |
| ## TRIM62       | -0.06222252 | 6.081760 | -0.9227462 | 3.593018e-01 | 5.566625e-01 |
| ## LOC100420872 | -0.03760834 | 3.591470 | -0.9224884 | 3.594352e-01 | 5.568278e-01 |
| ## SI           | -0.57737476 | 5.995024 | -0.9222016 | 3.595837e-01 | 5.570164e-01 |
| ## ITIH4        | -0.08644410 | 5.706445 | -0.9220905 | 3.596412e-01 | 5.570532e-01 |
| ## GATD1        | 0.06910358  | 7.505228 | 0.9220525  | 3.596610e-01 | 5.570532e-01 |
| ## MCOLN3       | -0.17343639 | 4.579363 | -0.9218797 | 3.597504e-01 | 5.571065e-01 |
| ## GLB1L        | 0.10289781  | 5.645849 | 0.9218253  | 3.597787e-01 | 5.571065e-01 |
| ## IMPG1        | 0.02115988  | 3.160664 | 0.9217805  | 3.598019e-01 | 5.571065e-01 |
| ## CSF3R        | 0.14496993  | 7.304037 | 0.9217794  | 3.598024e-01 | 5.571065e-01 |
| ## OPRD1        | -0.04395243 | 4.557979 | -0.9216514 | 3.598688e-01 | 5.571184e-01 |
| ## CENPBD1P     | 0.09959844  | 4.614804 | 0.9215472  | 3.599227e-01 | 5.571184e-01 |
| ## PHB1P19      | 0.07817333  | 6.056733 | 0.9215227  | 3.599354e-01 | 5.571184e-01 |
| ## DOCK7        | -0.08735739 | 8.305842 | -0.9214112 | 3.599932e-01 | 5.571184e-01 |
| ## CCDC13-AS2   | 0.02610366  | 3.349907 | 0.9214108  | 3.599934e-01 | 5.571184e-01 |
| ## NPAS3        | -0.04537927 | 4.947016 | -0.9213961 | 3.600010e-01 | 5.571184e-01 |
| ## TMPRSS13     | -0.06924753 | 5.109026 | -0.9213907 | 3.600038e-01 | 5.571184e-01 |
| ## FAM53B-AS1   | -0.03524459 | 3.751907 | -0.9213420 | 3.600290e-01 | 5.571184e-01 |
| ## LILRB1       | 0.09842531  | 6.924248 | 0.9212999  | 3.600509e-01 | 5.571184e-01 |
| ## HPS1-AS1     | -0.05299122 | 4.675964 | -0.9210824 | 3.601636e-01 | 5.572515e-01 |
| ## ATP5ME       | -0.07159485 | 9.869931 | -0.9209886 | 3.602123e-01 | 5.572853e-01 |
| ## KCNMA1-AS1   | -0.04347490 | 4.774448 | -0.9205730 | 3.604278e-01 | 5.575179e-01 |
| ## LINC01511    | -0.05203440 | 4.612179 | -0.9205554 | 3.604369e-01 | 5.575179e-01 |
| ## LINC01341    | -0.05908821 | 5.171310 | -0.9205438 | 3.604429e-01 | 5.575179e-01 |
| ## NR1H4        | -0.17213127 | 4.053477 | -0.9201045 | 3.606708e-01 | 5.577814e-01 |
| ## ZNF140       | -0.12697816 | 6.924467 | -0.9200149 | 3.607173e-01 | 5.577814e-01 |
| ## PPM1N        | 0.09328874  | 4.828493 | 0.9199777  | 3.607366e-01 | 5.577814e-01 |
| ## SMARCB1      | 0.03116754  | 3.515831 | 0.9199491  | 3.607514e-01 | 5.577814e-01 |
| ## TENT5C       | -0.19298232 | 6.791915 | -0.9199374 | 3.607575e-01 | 5.577814e-01 |
| ## RFK          | -0.09772478 | 9.532584 | -0.9199056 | 3.607740e-01 | 5.577814e-01 |
| ## SIAH3        | -0.03922829 | 3.271962 | -0.9197312 | 3.608645e-01 | 5.578799e-01 |
| ## RBX1         | 0.05590673  | 9.708474 | 0.9195708  | 3.609478e-01 | 5.579673e-01 |
| ## LINC00641    | -0.03656306 | 3.870412 | -0.9190919 | 3.611964e-01 | 5.582877e-01 |
| ## SERPINA6     | -0.03681982 | 3.910652 | -0.9190237 | 3.612319e-01 | 5.582877e-01 |
| ## ZHX3         | -0.04428250 | 5.529893 | -0.9189984 | 3.612450e-01 | 5.582877e-01 |
| ## MPZ          | -0.04518016 | 4.759074 | -0.9188896 | 3.613015e-01 | 5.582877e-01 |
| ## LCORL        | 0.08609417  | 5.407793 | 0.9188804  | 3.613063e-01 | 5.582877e-01 |
| ## TNNT2        | -0.05485872 | 4.718066 | -0.9188618 | 3.613160e-01 | 5.582877e-01 |
| ## KIR2DL2      | 0.04598682  | 4.422392 | 0.9187802  | 3.613583e-01 | 5.583063e-01 |
| ## LINC00540    | 0.10401618  | 4.154072 | 0.9186768  | 3.614121e-01 | 5.583063e-01 |
| ## YIPF5        | 0.12303988  | 7.578092 | 0.9186510  | 3.614254e-01 | 5.583063e-01 |
| ## SLC6A12      | -0.05712750 | 3.942913 | -0.9186322 | 3.614352e-01 | 5.583063e-01 |
| ## SNX5         | 0.06982880  | 9.130272 | 0.9185562  | 3.614747e-01 | 5.583258e-01 |
| ## LINC00687    | -0.04358916 | 4.406766 | -0.9184545 | 3.615276e-01 | 5.583661e-01 |
| ## CDS1         | -0.19125071 | 8.225448 | -0.9183651 | 3.615740e-01 | 5.583964e-01 |
| ## CTNNBIP1     | -0.08109599 | 7.379938 | -0.9182867 | 3.616148e-01 | 5.583995e-01 |
| ## AIFM3        | 0.07983829  | 5.317424 | 0.9182581  | 3.616296e-01 | 5.583995e-01 |
| ## TEX47        | -0.04642810 | 4.202273 | -0.9181386 | 3.616917e-01 | 5.584540e-01 |
| ## YPEL4        | -0.07495256 | 4.566137 | -0.9179772 | 3.617757e-01 | 5.585421e-01 |
| ## ISG20        | 0.16066015  | 8.878466 | 0.9178723  | 3.618302e-01 | 5.585849e-01 |
| ## TRAV20       | 0.03548110  | 4.117877 | 0.9175647  | 3.619902e-01 | 5.587904e-01 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## PLEKHG2   | -0.03408692 | 7.153472  | -0.9173986 | 3.620765e-01 | 5.588813e-01 |
| ## HHIPL1    | -0.04077342 | 4.378516  | -0.9172993 | 3.621282e-01 | 5.588813e-01 |
| ## NSMF      | 0.11311508  | 6.758089  | 0.9172968  | 3.621295e-01 | 5.588813e-01 |
| ## MRGPRX4   | -0.03163482 | 3.865396  | -0.9171194 | 3.622218e-01 | 5.589347e-01 |
| ## SAMD14    | -0.06541023 | 4.776122  | -0.9171178 | 3.622226e-01 | 5.589347e-01 |
| ## DENND2C   | 0.20709195  | 4.998591  | 0.9170755  | 3.622446e-01 | 5.589347e-01 |
| ## ZNF623    | -0.10362741 | 5.454366  | -0.9169509 | 3.623094e-01 | 5.589738e-01 |
| ## FKBP8     | 0.06005365  | 6.438380  | 0.9168805  | 3.623461e-01 | 5.589738e-01 |
| ## FRMPD1    | -0.08289640 | 4.128757  | -0.9168720 | 3.623505e-01 | 5.589738e-01 |
| ## C6orf62   | 0.05896358  | 9.367206  | 0.9167549  | 3.624114e-01 | 5.589997e-01 |
| ## MIR4527HG | -0.04820417 | 4.375512  | -0.9167366 | 3.624210e-01 | 5.589997e-01 |
| ## RPA2      | 0.08691797  | 7.819351  | 0.9166606  | 3.624605e-01 | 5.590193e-01 |
| ## PIN1P1    | -0.04092617 | 4.832178  | -0.9165574 | 3.625143e-01 | 5.590347e-01 |
| ## GRAPL     | -0.07926298 | 4.072981  | -0.9165383 | 3.625242e-01 | 5.590347e-01 |
| ## SSTR2     | -0.05876005 | 4.091141  | -0.9164306 | 3.625803e-01 | 5.590797e-01 |
| ## LINC00705 | -0.04918432 | 4.792490  | -0.9163015 | 3.626475e-01 | 5.591288e-01 |
| ## ZNF391    | -0.06604366 | 3.931090  | -0.9162188 | 3.626905e-01 | 5.591288e-01 |
| ## CCDC14    | 0.03195736  | 3.532136  | 0.9161633  | 3.627195e-01 | 5.591288e-01 |
| ## KIAA0040  | 0.10669429  | 6.931140  | 0.9161632  | 3.627195e-01 | 5.591288e-01 |
| ## LIFR-AS1  | -0.02522094 | 3.208514  | -0.9160699 | 3.627681e-01 | 5.591623e-01 |
| ## SLC26A8   | 0.03099894  | 3.594213  | 0.9159900  | 3.628097e-01 | 5.591851e-01 |
| ## PSG2      | -0.02951911 | 3.712881  | -0.9157887 | 3.629146e-01 | 5.592771e-01 |
| ## GJA4      | -0.06335936 | 6.694981  | -0.9157723 | 3.629231e-01 | 5.592771e-01 |
| ## TCEANC2   | -0.02268174 | 3.224566  | -0.9156835 | 3.629694e-01 | 5.593069e-01 |
| ## EPS8      | 0.10007794  | 9.916545  | 0.9156230  | 3.630009e-01 | 5.593141e-01 |
| ## AP1G2     | 0.10771725  | 8.565569  | 0.9155411  | 3.630435e-01 | 5.593384e-01 |
| ## BCAS2     | 0.10465314  | 8.933304  | 0.9154215  | 3.631059e-01 | 5.593585e-01 |
| ## OR8D2     | -0.04376106 | 4.012495  | -0.9154130 | 3.631103e-01 | 5.593585e-01 |
| ## ANAPC11   | 0.04646804  | 4.130398  | 0.9153564  | 3.631398e-01 | 5.593626e-01 |
| ## CD72      | 0.13694667  | 5.304301  | 0.9152671  | 3.631863e-01 | 5.593929e-01 |
| ## LINC01545 | -0.04535198 | 3.677616  | -0.9150630 | 3.632927e-01 | 5.595154e-01 |
| ## SPOCD1    | 0.04845801  | 4.056342  | 0.9149649  | 3.633439e-01 | 5.595528e-01 |
| ## DDX31     | -0.03691688 | 4.423363  | -0.9143754 | 3.636512e-01 | 5.599847e-01 |
| ## DIP2A     | 0.05747115  | 5.434046  | 0.9141720  | 3.637574e-01 | 5.601067e-01 |
| ## HSD11B2   | -0.17988197 | 5.487765  | -0.9139214 | 3.638881e-01 | 5.602382e-01 |
| ## LINC02363 | -0.04383179 | 4.079100  | -0.9139052 | 3.638966e-01 | 5.602382e-01 |
| ## LINC01416 | -0.03812995 | 3.626705  | -0.9137168 | 3.639949e-01 | 5.603482e-01 |
| ## ZNRF1     | 0.11681177  | 8.030657  | 0.9136128  | 3.640492e-01 | 5.603903e-01 |
| ## KCNK6     | -0.11826985 | 6.936203  | -0.9134585 | 3.641297e-01 | 5.604129e-01 |
| ## TOP3B     | 0.05379110  | 5.850819  | 0.9134278  | 3.641458e-01 | 5.604129e-01 |
| ## ZNF780B   | 0.02461429  | 3.209522  | 0.9133398  | 3.641917e-01 | 5.604129e-01 |
| ## RAX       | -0.05650899 | 5.512659  | -0.9133371 | 3.641931e-01 | 5.604129e-01 |
| ## UNC5D     | -0.09478667 | 3.716045  | -0.9133269 | 3.641984e-01 | 5.604129e-01 |
| ## LINC01361 | 0.02800460  | 3.485566  | 0.9131965  | 3.642665e-01 | 5.604762e-01 |
| ## CYP2E1    | 0.12638176  | 4.343111  | 0.9131409  | 3.642956e-01 | 5.604796e-01 |
| ## KRTAP4-5  | -0.05200854 | 4.949748  | -0.9129888 | 3.643750e-01 | 5.604986e-01 |
| ## DIP2B     | 0.06834439  | 3.645963  | 0.9129310  | 3.644051e-01 | 5.604986e-01 |
| ## TM9SF2    | 0.08929954  | 11.144532 | 0.9129279  | 3.644068e-01 | 5.604986e-01 |
| ## BLZF1     | 0.06259884  | 3.559397  | 0.9129110  | 3.644156e-01 | 5.604986e-01 |
| ## MST1L     | -0.04244978 | 3.556335  | -0.9128125 | 3.644671e-01 | 5.604993e-01 |
| ## TDG       | 0.09964777  | 7.207005  | 0.9128071  | 3.644699e-01 | 5.604993e-01 |
| ## SERTAD3   | 0.10826488  | 6.976712  | 0.9126184  | 3.645685e-01 | 5.606095e-01 |
| ## LINC00970 | -0.03163893 | 4.453318  | -0.9125411 | 3.646088e-01 | 5.606302e-01 |
| ## HORMAD2   | -0.03505586 | 3.584597  | -0.9124893 | 3.646359e-01 | 5.606304e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## MYL2         | -0.02975268 | 3.908552  | -0.9123144 | 3.647273e-01 | 5.607295e-01 |
| ## LOC105376292 | 0.07936668  | 6.484903  | 0.9119803  | 3.649019e-01 | 5.609145e-01 |
| ## ABCG4        | -0.03725777 | 5.680073  | -0.9119419 | 3.649220e-01 | 5.609145e-01 |
| ## VPS4A        | -0.06272650 | 8.217854  | -0.9119296 | 3.649284e-01 | 5.609145e-01 |
| ## CST5         | -0.04839590 | 4.376180  | -0.9117012 | 3.650478e-01 | 5.610566e-01 |
| ## CCDC160      | 0.02350153  | 3.439133  | 0.9112926  | 3.652615e-01 | 5.613436e-01 |
| ## NBEAL1       | 0.16193461  | 7.049109  | 0.9111649  | 3.653283e-01 | 5.613458e-01 |
| ## NSMCE1-DT    | -0.04568234 | 4.714248  | -0.9111161 | 3.653539e-01 | 5.613458e-01 |
| ## TRIML2       | -0.04473075 | 4.481841  | -0.9110975 | 3.653636e-01 | 5.613458e-01 |
| ## GNA12        | 0.06744081  | 6.809759  | 0.9110456  | 3.653907e-01 | 5.613458e-01 |
| ## CHRNA4       | -0.06745730 | 4.980091  | -0.9110323 | 3.653977e-01 | 5.613458e-01 |
| ## PUDP         | -0.15435036 | 8.342251  | -0.9106033 | 3.656222e-01 | 5.616492e-01 |
| ## PHF21A       | -0.07555822 | 6.225792  | -0.9104847 | 3.656843e-01 | 5.617032e-01 |
| ## IKZF4        | 0.03485801  | 5.345323  | 0.9102221  | 3.658217e-01 | 5.618729e-01 |
| ## ZNF385C      | -0.03845509 | 5.475541  | -0.9101392 | 3.658652e-01 | 5.618981e-01 |
| ## MPND         | -0.09280581 | 6.782260  | -0.9100514 | 3.659112e-01 | 5.619273e-01 |
| ## KANSL1       | -0.06164737 | 9.001212  | -0.9097774 | 3.660546e-01 | 5.621062e-01 |
| ## SFTPA2       | 0.12862490  | 5.098975  | 0.9096607  | 3.661158e-01 | 5.621586e-01 |
| ## KCNA3        | 0.10735063  | 4.304990  | 0.9094571  | 3.662225e-01 | 5.622809e-01 |
| ## AVL9         | 0.02375230  | 3.133465  | 0.9092153  | 3.663491e-01 | 5.624340e-01 |
| ## HYDIN        | -0.03432120 | 3.585828  | -0.9091229 | 3.663976e-01 | 5.624668e-01 |
| ## PCDHB14      | -0.16997097 | 4.632276  | -0.9089526 | 3.664868e-01 | 5.625364e-01 |
| ## FLVCR2       | -0.05536192 | 5.114989  | -0.9089334 | 3.664969e-01 | 5.625364e-01 |
| ## ADCY7        | 0.04292864  | 5.497588  | 0.9088441  | 3.665437e-01 | 5.625626e-01 |
| ## FKBP11       | 0.12113667  | 10.311009 | 0.9087978  | 3.665680e-01 | 5.625626e-01 |
| ## SLC10A7      | 0.03128863  | 3.820204  | 0.9087339  | 3.666015e-01 | 5.625726e-01 |
| ## TM6SF1       | -0.18499817 | 5.884523  | -0.9086520 | 3.666444e-01 | 5.625970e-01 |
| ## COPS8        | -0.07381853 | 9.438157  | -0.9084493 | 3.667507e-01 | 5.626456e-01 |
| ## RAVR2        | 0.04018356  | 3.361791  | 0.9084445  | 3.667533e-01 | 5.626456e-01 |
| ## CAGE1        | -0.02996392 | 3.208389  | -0.9084370 | 3.667572e-01 | 5.626456e-01 |
| ## LINC00536    | 0.02408890  | 3.490906  | 0.9080372  | 3.669669e-01 | 5.629258e-01 |
| ## MAP2K5       | -0.04540108 | 6.828047  | -0.9078884 | 3.670450e-01 | 5.630042e-01 |
| ## ARMC9        | -0.04940280 | 6.555692  | -0.9078323 | 3.670744e-01 | 5.630079e-01 |
| ## YWHAH        | -0.10236978 | 8.938865  | -0.9075964 | 3.671982e-01 | 5.631166e-01 |
| ## DOP1A        | -0.03352013 | 3.450737  | -0.9075941 | 3.671994e-01 | 5.631166e-01 |
| ## PDCD1        | 0.04849061  | 5.540221  | 0.9073488  | 3.673282e-01 | 5.632726e-01 |
| ## BTNL9        | -0.05244512 | 5.561965  | -0.9072855 | 3.673614e-01 | 5.632821e-01 |
| ## LOC105369167 | -0.05173832 | 3.766635  | -0.9071508 | 3.674321e-01 | 5.633490e-01 |
| ## TTC16        | 0.05139935  | 4.388141  | 0.9068059  | 3.676132e-01 | 5.635852e-01 |
| ## GTF2B        | 0.06203499  | 8.754189  | 0.9067191  | 3.676588e-01 | 5.636136e-01 |
| ## PICSAR       | 0.07656767  | 3.999754  | 0.9066031  | 3.677197e-01 | 5.636655e-01 |
| ## TMBIM4       | 0.09949810  | 4.904315  | 0.9063405  | 3.678577e-01 | 5.638299e-01 |
| ## SYCE1        | -0.04885388 | 3.602930  | -0.9062959 | 3.678812e-01 | 5.638299e-01 |
| ## CLMN         | -0.16046164 | 7.440343  | -0.9061631 | 3.679509e-01 | 5.638954e-01 |
| ## LENG8        | -0.11885780 | 7.266479  | -0.9059423 | 3.680670e-01 | 5.640296e-01 |
| ## GIPC3        | -0.05508630 | 4.075327  | -0.9058658 | 3.681072e-01 | 5.640296e-01 |
| ## CLRN3        | 0.39618324  | 7.986525  | 0.9058419  | 3.681198e-01 | 5.640296e-01 |
| ## PLXNA2       | -0.07683537 | 4.531759  | -0.9057864 | 3.681489e-01 | 5.640327e-01 |
| ## CCT6B        | 0.05010825  | 4.731769  | 0.9056289  | 3.682318e-01 | 5.641182e-01 |
| ## MYH6         | -0.04864541 | 4.834956  | -0.9055488 | 3.682738e-01 | 5.641182e-01 |
| ## MIP          | -0.03914817 | 3.996559  | -0.9055258 | 3.682860e-01 | 5.641182e-01 |
| ## SRL          | -0.04789893 | 5.698715  | -0.9052555 | 3.684281e-01 | 5.642944e-01 |
| ## TGM4         | -0.04926993 | 4.031357  | -0.9050816 | 3.685196e-01 | 5.643930e-01 |
| ## CYP8B1       | 0.02917826  | 3.612641  | 0.9048652  | 3.686334e-01 | 5.645034e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## APOL3        | -0.14485688 | 7.539799  | -0.9048281 | 3.686529e-01 | 5.645034e-01 |
| ## LRRC3        | -0.06967095 | 4.319377  | -0.9047574 | 3.686902e-01 | 5.645034e-01 |
| ## LINC00928    | -0.05522312 | 4.224697  | -0.9047031 | 3.687187e-01 | 5.645034e-01 |
| ## PABPC4       | -0.08753777 | 9.275510  | -0.9046870 | 3.687272e-01 | 5.645034e-01 |
| ## LATS1        | -0.02864764 | 3.623233  | -0.9043501 | 3.689045e-01 | 5.647333e-01 |
| ## PSMD7-DT     | 0.02507220  | 3.573755  | 0.9041301  | 3.690203e-01 | 5.648691e-01 |
| ## ATRNL1       | -0.03929974 | 3.907223  | -0.9040025 | 3.690875e-01 | 5.648743e-01 |
| ## TMEM179B     | 0.05258500  | 8.648174  | 0.9039728  | 3.691031e-01 | 5.648743e-01 |
| ## CCNYL1       | -0.09249771 | 7.441880  | -0.9039691 | 3.691051e-01 | 5.648743e-01 |
| ## C6orf89      | -0.04067714 | 4.037986  | -0.9038143 | 3.691866e-01 | 5.649575e-01 |
| ## PHOX2A       | -0.07362403 | 5.106435  | -0.9035839 | 3.693080e-01 | 5.651017e-01 |
| ## MTHFSD       | 0.03516378  | 3.735333  | 0.9033745  | 3.694183e-01 | 5.652289e-01 |
| ## LOC101928386 | -0.02189640 | 3.190300  | -0.9032190 | 3.695002e-01 | 5.653128e-01 |
| ## ST3GAL1      | -0.07764419 | 5.507106  | -0.9027770 | 3.697332e-01 | 5.655770e-01 |
| ## ZNF560       | 0.02006918  | 3.220962  | 0.9027165  | 3.697651e-01 | 5.655770e-01 |
| ## CCDC185      | -0.05234725 | 4.043612  | -0.9026912 | 3.697784e-01 | 5.655770e-01 |
| ## KIFAP3       | 0.11147587  | 7.692891  | 0.9026389  | 3.698060e-01 | 5.655770e-01 |
| ## CCDC88C      | 0.13628740  | 6.688296  | 0.9026315  | 3.698099e-01 | 5.655770e-01 |
| ## EDA          | -0.05741556 | 6.146683  | -0.9025821 | 3.698359e-01 | 5.655770e-01 |
| ## LRRC4B       | -0.07265915 | 3.851998  | -0.9023875 | 3.699385e-01 | 5.656785e-01 |
| ## LINC01029    | -0.03155387 | 3.876504  | -0.9023533 | 3.699566e-01 | 5.656785e-01 |
| ## SHISA4       | -0.06142824 | 5.653598  | -0.9019541 | 3.701671e-01 | 5.659245e-01 |
| ## RPLP0        | 0.03489004  | 13.302972 | 0.9019452  | 3.701718e-01 | 5.659245e-01 |
| ## SLC25A48-AS1 | -0.04114787 | 4.064990  | -0.9016138 | 3.703466e-01 | 5.661027e-01 |
| ## ARV1         | -0.09871514 | 8.041504  | -0.9015389 | 3.703862e-01 | 5.661027e-01 |
| ## CMKLR2       | -0.04206163 | 3.500960  | -0.9015274 | 3.703923e-01 | 5.661027e-01 |
| ## MRGPRX2      | -0.03912863 | 3.802660  | -0.9015182 | 3.703971e-01 | 5.661027e-01 |
| ## NACA2        | 0.03346499  | 3.524562  | 0.9012660  | 3.705302e-01 | 5.662646e-01 |
| ## LINC00326    | -0.04123191 | 3.608059  | -0.9008148 | 3.707685e-01 | 5.664908e-01 |
| ## LINC00680    | 0.04346149  | 3.716738  | 0.9008139  | 3.707689e-01 | 5.664908e-01 |
| ## ARL8B        | -0.06275954 | 10.015755 | -0.9007928 | 3.707800e-01 | 5.664908e-01 |
| ## PAGE4        | 0.09782696  | 4.239121  | 0.9007745  | 3.707897e-01 | 5.664908e-01 |
| ## SPINK5       | -0.29019155 | 6.398036  | -0.9007281 | 3.708142e-01 | 5.664908e-01 |
| ## TEX26-AS1    | -0.02035938 | 3.173754  | -0.9005404 | 3.709134e-01 | 5.665630e-01 |
| ## LINC02091    | -0.07275065 | 4.510740  | -0.9005355 | 3.709160e-01 | 5.665630e-01 |
| ## PIP5K1A      | 0.08488148  | 8.016507  | 0.9004605  | 3.709556e-01 | 5.665820e-01 |
| ## EFCAB5       | -0.04465920 | 3.479764  | -0.9003504 | 3.710138e-01 | 5.666079e-01 |
| ## PLA2G4C      | -0.04657520 | 3.813120  | -0.9003123 | 3.710339e-01 | 5.666079e-01 |
| ## KRIT1        | 0.05138025  | 6.731770  | 0.9002739  | 3.710542e-01 | 5.666079e-01 |
| ## MCF2         | -0.03213615 | 3.274958  | -0.9001967 | 3.710949e-01 | 5.666286e-01 |
| ## CYP4Z1       | 0.03364804  | 3.402438  | 0.9000304  | 3.711828e-01 | 5.667213e-01 |
| ## PIANP        | -0.05859945 | 5.050780  | -0.8997798 | 3.713153e-01 | 5.668819e-01 |
| ## LINC01743    | -0.06526679 | 5.339771  | -0.8995966 | 3.714121e-01 | 5.669882e-01 |
| ## ABCA1        | -0.06208318 | 4.403892  | -0.8994098 | 3.715109e-01 | 5.670973e-01 |
| ## DAOA-AS1     | 0.02861060  | 3.335172  | 0.8993481  | 3.715435e-01 | 5.671056e-01 |
| ## PNMA3        | -0.06511045 | 5.852688  | -0.8991468 | 3.716499e-01 | 5.671561e-01 |
| ## H3-3A        | 0.11808644  | 6.248542  | 0.8991421  | 3.716524e-01 | 5.671561e-01 |
| ## LOC101927513 | -0.03575613 | 4.993140  | -0.8991310 | 3.716583e-01 | 5.671561e-01 |
| ## IFT46        | -0.09832404 | 6.863481  | -0.8988189 | 3.718234e-01 | 5.673235e-01 |
| ## CCDC88A      | 0.04792220  | 3.846874  | 0.8987394  | 3.718654e-01 | 5.673235e-01 |
| ## MMD          | 0.14264273  | 8.481593  | 0.8987218  | 3.718748e-01 | 5.673235e-01 |
| ## BICDL1       | 0.04779856  | 4.381691  | 0.8985962  | 3.719412e-01 | 5.673235e-01 |
| ## LOC105377468 | -0.03319879 | 3.810762  | -0.8985815 | 3.719490e-01 | 5.673235e-01 |
| ## LHCGR        | -0.04928499 | 3.476290  | -0.8985339 | 3.719742e-01 | 5.673235e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## KLK1         | -0.16415870 | 6.928694 | -0.8985159 | 3.719837e-01 | 5.673235e-01 |
| ## GABPB1-AS1   | 0.04164841  | 3.864963 | 0.8985117  | 3.719859e-01 | 5.673235e-01 |
| ## DCTN3        | -0.06074349 | 9.314850 | -0.8981785 | 3.721622e-01 | 5.675508e-01 |
| ## COX8C        | 0.02248174  | 3.220731 | 0.8978279  | 3.723479e-01 | 5.677924e-01 |
| ## MYLK3        | -0.04426514 | 4.997410 | -0.8976282 | 3.724537e-01 | 5.679121e-01 |
| ## CASC6        | -0.02355441 | 3.396403 | -0.8973042 | 3.726252e-01 | 5.680937e-01 |
| ## FMR1NB       | -0.02312251 | 3.224076 | -0.8973003 | 3.726273e-01 | 5.680937e-01 |
| ## PRORY        | -0.04025575 | 5.952711 | -0.8970838 | 3.727420e-01 | 5.682270e-01 |
| ## CABP5        | 0.03394799  | 4.059799 | 0.8969415  | 3.728174e-01 | 5.683003e-01 |
| ## SPON2        | -0.15085794 | 8.806761 | -0.8968163 | 3.728838e-01 | 5.683598e-01 |
| ## LINC02099    | -0.05383540 | 4.003792 | -0.8966676 | 3.729626e-01 | 5.684383e-01 |
| ## EXOSC1       | 0.06927118  | 3.938979 | 0.8966119  | 3.729921e-01 | 5.684418e-01 |
| ## GAREM1       | -0.13277631 | 7.705715 | -0.8964693 | 3.730677e-01 | 5.685055e-01 |
| ## TMEM205      | 0.06967253  | 9.114341 | 0.8964300  | 3.730885e-01 | 5.685055e-01 |
| ## PRG3         | -0.03297871 | 4.031669 | -0.8962368 | 3.731910e-01 | 5.686200e-01 |
| ## LINC00619    | -0.02285393 | 3.266062 | -0.8960647 | 3.732822e-01 | 5.687174e-01 |
| ## LINC01149    | -0.03930949 | 3.455421 | -0.8958944 | 3.733726e-01 | 5.687742e-01 |
| ## HNRNPUL1     | 0.07247913  | 8.956099 | 0.8958915  | 3.733741e-01 | 5.687742e-01 |
| ## AHNK2        | 0.13097486  | 5.381633 | 0.8958258  | 3.734090e-01 | 5.687856e-01 |
| ## WWOX         | -0.05531797 | 6.568123 | -0.8956309 | 3.735124e-01 | 5.688869e-01 |
| ## MYH15        | -0.03070585 | 3.763864 | -0.8955975 | 3.735301e-01 | 5.688869e-01 |
| ## AMELX        | -0.03003727 | 3.380258 | -0.8954723 | 3.735965e-01 | 5.689386e-01 |
| ## HS3ST6       | 0.04958954  | 4.427899 | 0.8954305  | 3.736187e-01 | 5.689386e-01 |
| ## LOC100506730 | 0.08442399  | 3.908208 | 0.8952759  | 3.737007e-01 | 5.690219e-01 |
| ## TM4SF4       | -0.41970557 | 6.877928 | -0.8951719 | 3.737559e-01 | 5.690644e-01 |
| ## KLHL8        | 0.07453084  | 4.351244 | 0.8949343  | 3.738820e-01 | 5.692148e-01 |
| ## SPATA6L      | -0.07263896 | 3.993454 | -0.8947067 | 3.740029e-01 | 5.693498e-01 |
| ## LINC01098    | -0.03313768 | 3.422169 | -0.8946643 | 3.740254e-01 | 5.693498e-01 |
| ## DFFB         | 0.11116729  | 6.102410 | 0.8944769  | 3.741250e-01 | 5.694597e-01 |
| ## PTPN6        | 0.09105887  | 7.697718 | 0.8942297  | 3.742562e-01 | 5.695584e-01 |
| ## LINC02273    | -0.04233169 | 4.365428 | -0.8942159 | 3.742636e-01 | 5.695584e-01 |
| ## HAGH         | -0.06501313 | 7.863587 | -0.8942002 | 3.742719e-01 | 5.695584e-01 |
| ## IDI2         | -0.08293894 | 4.628782 | -0.8941483 | 3.742995e-01 | 5.695584e-01 |
| ## ATOSB        | 0.08538361  | 7.144551 | 0.8940913  | 3.743298e-01 | 5.695584e-01 |
| ## FER          | 0.05657851  | 6.088946 | 0.8940459  | 3.743539e-01 | 5.695584e-01 |
| ## FAM181B      | 0.04682499  | 4.243237 | 0.8937982  | 3.744855e-01 | 5.697170e-01 |
| ## SPO11        | 0.02459558  | 3.143780 | 0.8933250  | 3.747370e-01 | 5.700580e-01 |
| ## DDX4         | 0.03500164  | 3.668423 | 0.8931181  | 3.748470e-01 | 5.701837e-01 |
| ## LOC100505711 | -0.04847292 | 5.279246 | -0.8930489 | 3.748839e-01 | 5.701980e-01 |
| ## TRBV27       | -0.02918982 | 4.102028 | -0.8929881 | 3.749162e-01 | 5.702055e-01 |
| ## SRCIN1       | -0.03306211 | 4.985936 | -0.8928253 | 3.750028e-01 | 5.702956e-01 |
| ## PFKFB1       | -0.07730374 | 4.966656 | -0.8927147 | 3.750616e-01 | 5.703434e-01 |
| ## KCNQ1DN      | -0.05822632 | 5.792304 | -0.8925776 | 3.751345e-01 | 5.703679e-01 |
| ## TMEM63C      | -0.04280342 | 4.118792 | -0.8925744 | 3.751362e-01 | 5.703679e-01 |
| ## FXYD2        | -0.03678238 | 3.567991 | -0.8925050 | 3.751731e-01 | 5.703679e-01 |
| ## MRPL34       | -0.07499273 | 8.379338 | -0.8924784 | 3.751873e-01 | 5.703679e-01 |
| ## SYNGR4       | -0.05291532 | 4.254374 | -0.8921256 | 3.753750e-01 | 5.706117e-01 |
| ## SCNN1G       | -0.03347376 | 4.948636 | -0.8920182 | 3.754322e-01 | 5.706569e-01 |
| ## TP63         | -0.02641655 | 3.526445 | -0.8917147 | 3.755937e-01 | 5.708414e-01 |
| ## FAM53A       | -0.08636249 | 4.808736 | -0.8916872 | 3.756084e-01 | 5.708414e-01 |
| ## IFNAR1       | 0.07343345  | 5.264716 | 0.8916034  | 3.756530e-01 | 5.708675e-01 |
| ## ZNF425       | -0.04077188 | 3.999608 | -0.8915269 | 3.756937e-01 | 5.708878e-01 |
| ## NETO1-DT     | -0.03179271 | 3.613118 | -0.8914159 | 3.757529e-01 | 5.709360e-01 |
| ## RIPOR3       | -0.14224858 | 6.099212 | -0.8912178 | 3.758584e-01 | 5.710308e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## MKRN7P       | -0.05560389 | 4.397661 | -0.8911957 | 3.758701e-01 | 5.710308e-01 |
| ## MIR4453HG    | 0.07752032  | 6.498887 | 0.8910265  | 3.759603e-01 | 5.710981e-01 |
| ## ZNF718       | 0.09600076  | 4.026218 | 0.8910096  | 3.759693e-01 | 5.710981e-01 |
| ## CALY         | -0.05422403 | 4.506784 | -0.8905218 | 3.762292e-01 | 5.714513e-01 |
| ## TIMM21       | -0.09014371 | 8.936420 | -0.8903955 | 3.762965e-01 | 5.714932e-01 |
| ## DIP2C-AS1    | -0.09174237 | 3.940184 | -0.8903102 | 3.763420e-01 | 5.714932e-01 |
| ## PGLYRP1      | -0.05820361 | 5.106170 | -0.8902923 | 3.763515e-01 | 5.714932e-01 |
| ## EFNB2        | -0.14343154 | 9.721921 | -0.8902640 | 3.763666e-01 | 5.714932e-01 |
| ## LINC01516    | 0.04792527  | 3.608409 | 0.8901811  | 3.764108e-01 | 5.715187e-01 |
| ## LINC01428    | -0.04002849 | 3.638981 | -0.8900364 | 3.764880e-01 | 5.715326e-01 |
| ## PHF21B       | -0.03553042 | 3.565651 | -0.8900076 | 3.765033e-01 | 5.715326e-01 |
| ## FBX038-DT    | -0.03888278 | 4.132762 | -0.8899715 | 3.765226e-01 | 5.715326e-01 |
| ## ARIH1        | 0.07192311  | 3.924737 | 0.8899580  | 3.765298e-01 | 5.715326e-01 |
| ## GPR137B      | 0.15329643  | 8.010584 | 0.8898101  | 3.766086e-01 | 5.716106e-01 |
| ## MEIG1        | 0.03381505  | 4.058163 | 0.8897016  | 3.766665e-01 | 5.716453e-01 |
| ## SLAMF7       | 0.28541174  | 7.186185 | 0.8896465  | 3.766959e-01 | 5.716453e-01 |
| ## CNTN1        | -0.04423159 | 3.502960 | -0.8896032 | 3.767190e-01 | 5.716453e-01 |
| ## CCM2L        | -0.05435025 | 5.565716 | -0.8895615 | 3.767413e-01 | 5.716453e-01 |
| ## LINC01252    | -0.05661204 | 3.971489 | -0.8894993 | 3.767744e-01 | 5.716540e-01 |
| ## ST8SIA1      | -0.03804029 | 3.496380 | -0.8890088 | 3.770362e-01 | 5.720094e-01 |
| ## LYPLAL1      | 0.09371273  | 7.800048 | 0.8888376  | 3.771275e-01 | 5.721063e-01 |
| ## MYNN         | 0.03569819  | 3.679166 | 0.8887377  | 3.771809e-01 | 5.721456e-01 |
| ## ZNF71        | -0.06321511 | 6.049338 | -0.8884825 | 3.773171e-01 | 5.723106e-01 |
| ## MIR622       | 0.06678008  | 3.833965 | 0.8881688  | 3.774846e-01 | 5.725229e-01 |
| ## FLJ20712     | -0.03558810 | 4.320848 | -0.8880731 | 3.775357e-01 | 5.725502e-01 |
| ## GABRR3       | -0.02787744 | 3.513189 | -0.8880218 | 3.775632e-01 | 5.725502e-01 |
| ## REN          | -0.04520163 | 4.184053 | -0.8879474 | 3.776029e-01 | 5.725502e-01 |
| ## IGKV1D-8     | -0.14063997 | 5.319367 | -0.8879293 | 3.776126e-01 | 5.725502e-01 |
| ## CCDC127      | 0.06529841  | 8.534447 | 0.8876812  | 3.777451e-01 | 5.727094e-01 |
| ## NHSL1        | -0.18030436 | 7.850519 | -0.8876202 | 3.777777e-01 | 5.727172e-01 |
| ## LINC01876    | 0.04543442  | 4.219698 | 0.8875250  | 3.778286e-01 | 5.727526e-01 |
| ## VWCE         | 0.06163311  | 5.109775 | 0.8873245  | 3.779357e-01 | 5.728524e-01 |
| ## FASTKD2      | 0.08358274  | 5.131995 | 0.8872989  | 3.779494e-01 | 5.728524e-01 |
| ## DNAH5        | 0.09058690  | 5.393880 | 0.8871946  | 3.780052e-01 | 5.728638e-01 |
| ## ARHGAP17     | 0.07372600  | 8.820919 | 0.8871819  | 3.780120e-01 | 5.728638e-01 |
| ## FABP1        | -0.06043559 | 7.410708 | -0.8870203 | 3.780983e-01 | 5.729530e-01 |
| ## TAS1R2       | -0.03926209 | 3.781979 | -0.8867847 | 3.782243e-01 | 5.731022e-01 |
| ## MKRN1        | -0.08139885 | 9.384839 | -0.8867217 | 3.782580e-01 | 5.731116e-01 |
| ## BLVRA        | 0.14092075  | 6.350518 | 0.8866439  | 3.782996e-01 | 5.731329e-01 |
| ## PRDM13       | 0.02765038  | 3.647041 | 0.8864705  | 3.783924e-01 | 5.732317e-01 |
| ## CCDC85B      | -0.04689746 | 3.655220 | -0.8863761 | 3.784429e-01 | 5.732464e-01 |
| ## GLIS3-AS1    | -0.04792411 | 4.214702 | -0.8863494 | 3.784572e-01 | 5.732464e-01 |
| ## LOC441052    | -0.05117833 | 4.239532 | -0.8862266 | 3.785229e-01 | 5.733043e-01 |
| ## HAUS4        | -0.07021738 | 8.042935 | -0.8859844 | 3.786525e-01 | 5.734589e-01 |
| ## TMEM37       | -0.10934770 | 7.051085 | -0.8857147 | 3.787968e-01 | 5.736132e-01 |
| ## SLC15A2      | 0.12406598  | 5.095090 | 0.8856910  | 3.788095e-01 | 5.736132e-01 |
| ## ABI3         | -0.06346262 | 6.899168 | -0.8855219 | 3.789000e-01 | 5.737086e-01 |
| ## C21orf91-OT1 | 0.03528908  | 4.100991 | 0.8854570  | 3.789348e-01 | 5.737195e-01 |
| ## C2CD6        | 0.03787500  | 3.260167 | 0.8852897  | 3.790243e-01 | 5.737754e-01 |
| ## TP53         | 0.16930916  | 6.700484 | 0.8852851  | 3.790268e-01 | 5.737754e-01 |
| ## CFAP53       | 0.02889269  | 3.297268 | 0.8851594  | 3.790941e-01 | 5.737963e-01 |
| ## EPHA5-AS1    | -0.05410689 | 5.228940 | -0.8851564 | 3.790957e-01 | 5.737963e-01 |
| ## ZSWIM5       | -0.13426088 | 5.807522 | -0.8851012 | 3.791253e-01 | 5.737993e-01 |
| ## SPNS3        | -0.07774116 | 5.017082 | -0.8849757 | 3.791925e-01 | 5.738293e-01 |

|               |             |           |            |              |              |
|---------------|-------------|-----------|------------|--------------|--------------|
| ## MGC12916   | 0.05702406  | 4.600326  | 0.8849613  | 3.792002e-01 | 5.738293e-01 |
| ## CELA2B     | -0.04127042 | 4.207027  | -0.8848011 | 3.792860e-01 | 5.739175e-01 |
| ## MACIR      | -0.13167890 | 7.102395  | -0.8847214 | 3.793287e-01 | 5.739404e-01 |
| ## HSD17B14   | 0.08463200  | 5.801471  | 0.8845946  | 3.793967e-01 | 5.740015e-01 |
| ## Clorf210   | -0.16153742 | 6.134599  | -0.8844659 | 3.794656e-01 | 5.740147e-01 |
| ## LOC400541  | -0.02742233 | 3.566682  | -0.8844279 | 3.794860e-01 | 5.740147e-01 |
| ## TMEM127    | -0.05640968 | 7.834249  | -0.8844239 | 3.794881e-01 | 5.740147e-01 |
| ## ST6GAL1    | 0.16385058  | 8.807756  | 0.8840688  | 3.796784e-01 | 5.742163e-01 |
| ## DPH5       | -0.05240752 | 8.520730  | -0.8840607 | 3.796828e-01 | 5.742163e-01 |
| ## EIF2S1     | 0.07054546  | 8.177822  | 0.8840135  | 3.797081e-01 | 5.742163e-01 |
| ## NXF5       | -0.05095962 | 4.406566  | -0.8839695 | 3.797317e-01 | 5.742163e-01 |
| ## USP9X      | -0.07469502 | 8.665172  | -0.8837347 | 3.798576e-01 | 5.743649e-01 |
| ## SERPINA3   | 0.35728375  | 9.127237  | 0.8834910  | 3.799883e-01 | 5.745174e-01 |
| ## INPP5E     | 0.09152109  | 7.177614  | 0.8834438  | 3.800136e-01 | 5.745174e-01 |
| ## SEMA5A     | 0.10353231  | 7.019530  | 0.8833890  | 3.800430e-01 | 5.745177e-01 |
| ## TNKS2      | -0.09278212 | 8.641811  | -0.8833406 | 3.800690e-01 | 5.745177e-01 |
| ## VPS52      | 0.05557881  | 8.780007  | 0.8831377  | 3.801778e-01 | 5.746405e-01 |
| ## AAMDC      | 0.02450751  | 3.279017  | 0.8830276  | 3.802369e-01 | 5.746544e-01 |
| ## TIMP2      | 0.11469846  | 7.717919  | 0.8830177  | 3.802422e-01 | 5.746544e-01 |
| ## DCDC1      | 0.02029457  | 3.107395  | 0.8828009  | 3.803585e-01 | 5.747885e-01 |
| ## IGLV4-60   | -0.18870596 | 5.451288  | -0.8826797 | 3.804236e-01 | 5.748451e-01 |
| ## CHST14     | -0.07248997 | 6.768617  | -0.8824756 | 3.805331e-01 | 5.749689e-01 |
| ## UXS1       | 0.09988836  | 7.922913  | 0.8822383  | 3.806605e-01 | 5.751196e-01 |
| ## CLCA2      | 0.09811995  | 3.646316  | 0.8821539  | 3.807058e-01 | 5.751464e-01 |
| ## SLC7A60S   | -0.06165675 | 6.002900  | -0.8817024 | 3.809483e-01 | 5.754710e-01 |
| ## DBR1       | 0.09300280  | 7.089268  | 0.8815192  | 3.810468e-01 | 5.755779e-01 |
| ## RPS27L     | -0.06210319 | 11.260954 | -0.8814530 | 3.810823e-01 | 5.755899e-01 |
| ## PPT1       | 0.08149561  | 10.441030 | 0.8812577  | 3.811873e-01 | 5.757067e-01 |
| ## ZNF488     | 0.09802790  | 5.103752  | 0.8811025  | 3.812706e-01 | 5.757401e-01 |
| ## ST7L       | 0.04525484  | 3.838458  | 0.8810888  | 3.812780e-01 | 5.757401e-01 |
| ## TAF3       | 0.06061510  | 5.242484  | 0.8810621  | 3.812924e-01 | 5.757401e-01 |
| ## LINC01056  | -0.04480001 | 5.673129  | -0.8809346 | 3.813609e-01 | 5.757718e-01 |
| ## ZNF660     | -0.03753115 | 4.036072  | -0.8809202 | 3.813686e-01 | 5.757718e-01 |
| ## UBE3A      | -0.06587412 | 9.322112  | -0.8805780 | 3.815526e-01 | 5.760078e-01 |
| ## CBLN1      | -0.03495471 | 3.906130  | -0.8804679 | 3.816118e-01 | 5.760554e-01 |
| ## NTF4       | 0.03268630  | 3.805013  | 0.8803624  | 3.816685e-01 | 5.760849e-01 |
| ## SLC35G2    | 0.04795598  | 4.120340  | 0.8803007  | 3.817018e-01 | 5.760849e-01 |
| ## MUC5B      | 0.35839098  | 6.713526  | 0.8802773  | 3.817143e-01 | 5.760849e-01 |
| ## GPRIN2     | 0.08367388  | 4.789702  | 0.8802058  | 3.817528e-01 | 5.761012e-01 |
| ## KIAA1549L  | 0.06275849  | 3.524025  | 0.8798222  | 3.819591e-01 | 5.763708e-01 |
| ## ATP6AP1L   | -0.04129420 | 3.765555  | -0.8797224 | 3.820128e-01 | 5.764101e-01 |
| ## PCDHA5     | -0.05072805 | 4.901138  | -0.8796708 | 3.820406e-01 | 5.764102e-01 |
| ## PRR34      | -0.04505180 | 5.752799  | -0.8795610 | 3.820997e-01 | 5.764228e-01 |
| ## DND1       | -0.06318150 | 6.221714  | -0.8795369 | 3.821127e-01 | 5.764228e-01 |
| ## OTOF       | 0.03716291  | 4.616351  | 0.8795010  | 3.821320e-01 | 5.764228e-01 |
| ## ALOX5AP    | 0.18078095  | 8.866606  | 0.8793359  | 3.822209e-01 | 5.764962e-01 |
| ## NME3       | -0.07351066 | 7.741296  | -0.8793077 | 3.822360e-01 | 5.764962e-01 |
| ## RNF213-AS1 | -0.02617272 | 3.637820  | -0.8792364 | 3.822744e-01 | 5.764992e-01 |
| ## SLC51B     | -0.14370904 | 4.427527  | -0.8792012 | 3.822934e-01 | 5.764992e-01 |
| ## SERPINB12  | -0.04011214 | 4.284211  | -0.8791024 | 3.823466e-01 | 5.765377e-01 |
| ## KCNE4      | -0.12564903 | 4.786155  | -0.8790184 | 3.823918e-01 | 5.765641e-01 |
| ## ZNF474     | -0.04552286 | 3.973378  | -0.8787175 | 3.825539e-01 | 5.767073e-01 |
| ## SLC6A19    | -0.18838695 | 6.774380  | -0.8785516 | 3.826432e-01 | 5.767073e-01 |
| ## SPPL2A     | 0.10442223  | 9.440021  | 0.8785450  | 3.826468e-01 | 5.767073e-01 |



|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## MEF2C        | -0.08309283 | 5.407259  | -0.8785217 | 3.826593e-01 | 5.767073e-01 |
| ## SLC25A25-AS1 | -0.13947923 | 7.860893  | -0.8784824 | 3.826805e-01 | 5.767073e-01 |
| ## CDKN2AIP     | -0.10321256 | 7.169737  | -0.8784447 | 3.827008e-01 | 5.767073e-01 |
| ## CCNY         | -0.05588114 | 3.926711  | -0.8783963 | 3.827268e-01 | 5.767073e-01 |
| ## LINC01859    | -0.03387517 | 3.841594  | -0.8783882 | 3.827312e-01 | 5.767073e-01 |
| ## PDPF         | 0.09931210  | 7.405497  | 0.8783793  | 3.827360e-01 | 5.767073e-01 |
| ## CTTNBP2      | -0.17259613 | 5.501669  | -0.8781485 | 3.828604e-01 | 5.768477e-01 |
| ## TOE1         | 0.06380880  | 7.641470  | 0.8781036  | 3.828846e-01 | 5.768477e-01 |
| ## THAP6        | -0.06555013 | 5.575446  | -0.8773442 | 3.832940e-01 | 5.774227e-01 |
| ## KLK11        | -0.31415986 | 7.342969  | -0.8772631 | 3.833377e-01 | 5.774467e-01 |
| ## TUBGCP6      | -0.08465518 | 5.413665  | -0.8769436 | 3.835100e-01 | 5.776517e-01 |
| ## IL13         | -0.03826484 | 4.651831  | -0.8768886 | 3.835397e-01 | 5.776517e-01 |
| ## PWRN1        | -0.03109613 | 3.690520  | -0.8768160 | 3.835788e-01 | 5.776517e-01 |
| ## BTG4         | -0.02218815 | 3.144255  | -0.8768051 | 3.835847e-01 | 5.776517e-01 |
| ## RAPGEF2      | -0.16493173 | 7.468255  | -0.8766744 | 3.836552e-01 | 5.777161e-01 |
| ## E4F1         | 0.06045337  | 6.615711  | 0.8765713  | 3.837109e-01 | 5.777581e-01 |
| ## COL9A3       | 0.20721581  | 5.879729  | 0.8764775  | 3.837615e-01 | 5.777926e-01 |
| ## SOX2         | 0.06553922  | 4.912109  | 0.8762765  | 3.838699e-01 | 5.779141e-01 |
| ## LRRC72       | -0.03257828 | 3.676471  | -0.8760121 | 3.840127e-01 | 5.780821e-01 |
| ## IL17C        | 0.05214017  | 6.166848  | 0.8759670  | 3.840371e-01 | 5.780821e-01 |
| ## BRSK2        | 0.04470241  | 4.273443  | 0.8755905  | 3.842404e-01 | 5.782620e-01 |
| ## AVIL         | -0.07351324 | 4.305337  | -0.8755889 | 3.842412e-01 | 5.782620e-01 |
| ## RPGR         | 0.09009289  | 5.879788  | 0.8755611  | 3.842562e-01 | 5.782620e-01 |
| ## TXNIP        | -0.19767874 | 10.673939 | -0.8755400 | 3.842676e-01 | 5.782620e-01 |
| ## LINC00643    | -0.02118809 | 3.270444  | -0.8754236 | 3.843305e-01 | 5.783148e-01 |
| ## NXPE1        | 0.09113788  | 4.378580  | 0.8752898  | 3.844028e-01 | 5.783815e-01 |
| ## IZUM02       | 0.07757770  | 4.706732  | 0.8752387  | 3.844304e-01 | 5.783815e-01 |
| ## TRIM40       | -0.05770964 | 3.811803  | -0.8749390 | 3.845923e-01 | 5.785833e-01 |
| ## DIRC1        | -0.02268187 | 3.249760  | -0.8748232 | 3.846549e-01 | 5.786357e-01 |
| ## ATP2A1       | 0.04297199  | 4.054634  | 0.8745664  | 3.847937e-01 | 5.788026e-01 |
| ## RARA-AS1     | -0.11036869 | 6.613747  | -0.8744750 | 3.848431e-01 | 5.788351e-01 |
| ## KIF3A        | 0.10449574  | 5.416538  | 0.8742843  | 3.849462e-01 | 5.789484e-01 |
| ## AHR          | -0.09217024 | 9.925704  | -0.8741624 | 3.850122e-01 | 5.790058e-01 |
| ## TNFRSF18     | 0.06101416  | 5.280449  | 0.8739647  | 3.851190e-01 | 5.790975e-01 |
| ## DNM2         | 0.09638972  | 6.112005  | 0.8739468  | 3.851288e-01 | 5.790975e-01 |
| ## AQP1         | -0.23302277 | 7.947435  | -0.8737883 | 3.852144e-01 | 5.791845e-01 |
| ## RP2          | 0.02844591  | 3.640615  | 0.8737105  | 3.852566e-01 | 5.792060e-01 |
| ## SIGLEC7      | 0.10463043  | 4.809048  | 0.8735308  | 3.853538e-01 | 5.793103e-01 |
| ## SMR3B        | 0.02834592  | 3.482220  | 0.8734212  | 3.854131e-01 | 5.793577e-01 |
| ## TLCD5        | 0.05412886  | 4.485577  | 0.8732495  | 3.855060e-01 | 5.794555e-01 |
| ## LOC100130992 | 0.03474829  | 3.420727  | 0.8731265  | 3.855726e-01 | 5.794793e-01 |
| ## C22orf42     | -0.03786490 | 3.881117  | -0.8731175 | 3.855774e-01 | 5.794793e-01 |
| ## TCERG1       | 0.05605074  | 9.432046  | 0.8730168  | 3.856319e-01 | 5.795193e-01 |
| ## LOC105374621 | 0.03622072  | 4.564386  | 0.8729438  | 3.856714e-01 | 5.795369e-01 |
| ## SPACDR       | 0.05023548  | 4.564633  | 0.8727174  | 3.857940e-01 | 5.796792e-01 |
| ## LOC101928940 | -0.02928279 | 3.459499  | -0.8726580 | 3.858262e-01 | 5.796858e-01 |
| ## CALML6       | 0.03164687  | 3.729534  | 0.8724150  | 3.859577e-01 | 5.798416e-01 |
| ## ADAM22       | 0.02264006  | 3.272629  | 0.8722491  | 3.860476e-01 | 5.799018e-01 |
| ## CDRT15L2     | 0.03543512  | 3.884839  | 0.8722176  | 3.860647e-01 | 5.799018e-01 |
| ## JAZF1-AS1    | -0.03902466 | 3.380272  | -0.8721868 | 3.860814e-01 | 5.799018e-01 |
| ## RPS10        | 0.03777063  | 13.164545 | 0.8720739  | 3.861425e-01 | 5.799518e-01 |
| ## C2CD2        | -0.09133708 | 7.878014  | -0.8718376 | 3.862705e-01 | 5.801022e-01 |
| ## RPL29        | 0.05775999  | 12.348289 | 0.8716386  | 3.863784e-01 | 5.802136e-01 |
| ## EEF1AKMT1    | -0.09197623 | 6.833847  | -0.8715980 | 3.864004e-01 | 5.802136e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## PROC         | -0.08895879 | 5.670259  | -0.8715359 | 3.864340e-01 | 5.802223e-01 |
| ## LINC02443    | -0.04077502 | 4.381646  | -0.8714806 | 3.864641e-01 | 5.802255e-01 |
| ## ALDH1L1-AS2  | -0.03892429 | 4.663639  | -0.8713711 | 3.865234e-01 | 5.802727e-01 |
| ## IGLL3P       | -0.16103513 | 10.989280 | -0.8712284 | 3.866007e-01 | 5.803079e-01 |
| ## GLI4         | 0.03297550  | 3.628922  | 0.8712250  | 3.866026e-01 | 5.803079e-01 |
| ## CCDC105      | -0.06000251 | 5.018899  | -0.8709312 | 3.867619e-01 | 5.805052e-01 |
| ## ST20-AS1     | -0.05464023 | 4.637438  | -0.8706730 | 3.869020e-01 | 5.806736e-01 |
| ## ENPP1        | 0.02135064  | 3.534536  | 0.8705229  | 3.869834e-01 | 5.807539e-01 |
| ## LGALS12      | -0.04952484 | 4.360118  | -0.8704057 | 3.870469e-01 | 5.808075e-01 |
| ## MICALL2      | 0.08448062  | 4.264526  | 0.8703457  | 3.870795e-01 | 5.808145e-01 |
| ## TRPC6        | 0.06237186  | 4.201098  | 0.8702163  | 3.871497e-01 | 5.808409e-01 |
| ## SEC14L1P1    | 0.04186893  | 3.640652  | 0.8702104  | 3.871529e-01 | 5.808409e-01 |
| ## LINC01828    | -0.02723966 | 3.475345  | -0.8700381 | 3.872464e-01 | 5.809046e-01 |
| ## ZCRB1        | -0.07690525 | 9.333646  | -0.8700294 | 3.872511e-01 | 5.809046e-01 |
| ## SKIDA1       | -0.02644877 | 3.419342  | -0.8698762 | 3.873343e-01 | 5.809800e-01 |
| ## ACER3        | 0.11642142  | 6.424981  | 0.8698124  | 3.873689e-01 | 5.809800e-01 |
| ## FUT10        | 0.07720835  | 4.689431  | 0.8697188  | 3.874197e-01 | 5.809800e-01 |
| ## DPEP2NB      | -0.05642491 | 4.330243  | -0.8696725 | 3.874448e-01 | 5.809800e-01 |
| ## MARCHF1      | -0.02777294 | 3.806733  | -0.8695274 | 3.875236e-01 | 5.809800e-01 |
| ## RCOR3        | 0.09598819  | 7.176081  | 0.8695170  | 3.875293e-01 | 5.809800e-01 |
| ## HCG27        | -0.05790951 | 5.037829  | -0.8694974 | 3.875399e-01 | 5.809800e-01 |
| ## LINC02546    | -0.03248503 | 3.443312  | -0.8694904 | 3.875437e-01 | 5.809800e-01 |
| ## MAP10        | -0.02392279 | 3.427274  | -0.8694105 | 3.875871e-01 | 5.809800e-01 |
| ## TNFRSF14-AS1 | -0.05922247 | 6.863329  | -0.8694020 | 3.875917e-01 | 5.809800e-01 |
| ## CRIP1        | -0.19147771 | 9.714442  | -0.8693714 | 3.876083e-01 | 5.809800e-01 |
| ## EIF4ENIF1    | -0.06420300 | 7.433531  | -0.8692748 | 3.876608e-01 | 5.809849e-01 |
| ## ENGASE       | 0.11836950  | 7.585787  | 0.8692627  | 3.876674e-01 | 5.809849e-01 |
| ## KCNA4        | 0.02680950  | 4.624878  | 0.8690249  | 3.877965e-01 | 5.811366e-01 |
| ## RAB3B        | 0.15441654  | 4.705968  | 0.8688722  | 3.878795e-01 | 5.812191e-01 |
| ## IFT122       | 0.03586396  | 3.816407  | 0.8687774  | 3.879310e-01 | 5.812544e-01 |
| ## SLC7A4       | -0.06139220 | 4.307656  | -0.8687044 | 3.879706e-01 | 5.812721e-01 |
| ## B4GALT4      | 0.14472635  | 7.838131  | 0.8685207  | 3.880705e-01 | 5.813798e-01 |
| ## LOC101928850 | -0.03257337 | 3.513073  | -0.8683161 | 3.881816e-01 | 5.815045e-01 |
| ## TMEM104      | 0.04578843  | 6.316321  | 0.8680420  | 3.883307e-01 | 5.816859e-01 |
| ## ZNF394       | 0.07815024  | 7.707522  | 0.8679886  | 3.883597e-01 | 5.816876e-01 |
| ## SHC3         | -0.06464076 | 5.151557  | -0.8678510 | 3.884345e-01 | 5.817448e-01 |
| ## CRELD1       | -0.08408894 | 6.227549  | -0.8678155 | 3.884538e-01 | 5.817448e-01 |
| ## MTM1         | -0.06207865 | 4.882491  | -0.8676038 | 3.885689e-01 | 5.818194e-01 |
| ## KCNS1        | -0.07486459 | 6.028169  | -0.8675687 | 3.885880e-01 | 5.818194e-01 |
| ## APCDD1L-DT   | -0.05454780 | 6.543256  | -0.8675288 | 3.886097e-01 | 5.818194e-01 |
| ## DOK1         | 0.06223350  | 6.161783  | 0.8674673  | 3.886432e-01 | 5.818194e-01 |
| ## TOGARAM2     | 0.08516487  | 4.775237  | 0.8674663  | 3.886437e-01 | 5.818194e-01 |
| ## ABCB11       | -0.03303515 | 3.586837  | -0.8674157 | 3.886713e-01 | 5.818194e-01 |
| ## ARHGEF9      | -0.11833033 | 5.667798  | -0.8671127 | 3.888361e-01 | 5.820243e-01 |
| ## ACSBG1       | -0.03449506 | 3.652815  | -0.8669112 | 3.889457e-01 | 5.820502e-01 |
| ## PCDHGB6      | -0.02688416 | 3.532808  | -0.8668803 | 3.889625e-01 | 5.820502e-01 |
| ## SLC9A2       | -0.05632307 | 4.584561  | -0.8668364 | 3.889864e-01 | 5.820502e-01 |
| ## RASSF1       | 0.05666880  | 7.250009  | 0.8668350  | 3.889872e-01 | 5.820502e-01 |
| ## LINC02502    | -0.03135246 | 4.147815  | -0.8668194 | 3.889957e-01 | 5.820502e-01 |
| ## LINC01600    | 0.03407831  | 4.150266  | 0.8667727  | 3.890211e-01 | 5.820502e-01 |
| ## UROS         | 0.09220788  | 4.373054  | 0.8666700  | 3.890770e-01 | 5.820921e-01 |
| ## ZAP70        | 0.13560850  | 6.112219  | 0.8664813  | 3.891797e-01 | 5.821633e-01 |
| ## GBA2         | 0.07967293  | 7.444628  | 0.8664728  | 3.891844e-01 | 5.821633e-01 |
| ## COX6A1       | 0.06468169  | 11.969075 | 0.8664285  | 3.892085e-01 | 5.821633e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## ZNF800       | -0.04373213 | 5.209323 | -0.8662540 | 3.893035e-01 | 5.822433e-01 |
| ## VAMP5        | 0.11265641  | 6.947139 | 0.8662276  | 3.893179e-01 | 5.822433e-01 |
| ## STARD6       | -0.02851619 | 3.545783 | -0.8660052 | 3.894390e-01 | 5.823347e-01 |
| ## OCA2         | 0.09324710  | 5.753918 | 0.8659887  | 3.894480e-01 | 5.823347e-01 |
| ## TPSD1        | -0.04768375 | 5.313918 | -0.8659612 | 3.894629e-01 | 5.823347e-01 |
| ## EIF4G2       | -0.04471854 | 5.823869 | -0.8658093 | 3.895457e-01 | 5.823818e-01 |
| ## GAS2         | 0.13950387  | 4.732350 | 0.8657869  | 3.895579e-01 | 5.823818e-01 |
| ## OGFRP1       | -0.03824191 | 5.856131 | -0.8657494 | 3.895783e-01 | 5.823818e-01 |
| ## KRTDAP       | 0.06469858  | 3.656459 | 0.8654380  | 3.897480e-01 | 5.825936e-01 |
| ## DPH7         | 0.06229822  | 6.845956 | 0.8653778  | 3.897808e-01 | 5.825998e-01 |
| ## F2           | -0.05352615 | 4.897769 | -0.8652967 | 3.898249e-01 | 5.825998e-01 |
| ## LOC442028    | -0.04596799 | 4.027891 | -0.8652203 | 3.898666e-01 | 5.825998e-01 |
| ## ARX          | -0.05581221 | 5.976432 | -0.8651591 | 3.899000e-01 | 5.825998e-01 |
| ## LOC102723692 | -0.05598786 | 4.778933 | -0.8651327 | 3.899143e-01 | 5.825998e-01 |
| ## DGKI         | -0.05670177 | 4.060276 | -0.8651002 | 3.899320e-01 | 5.825998e-01 |
| ## ST8SIA3      | 0.04005066  | 3.757430 | 0.8650710  | 3.899479e-01 | 5.825998e-01 |
| ## TRPM7        | 0.06401617  | 6.170837 | 0.8649714  | 3.900022e-01 | 5.826296e-01 |
| ## C4BPB        | 0.22602510  | 6.646435 | 0.8648966  | 3.900430e-01 | 5.826296e-01 |
| ## LOC105378515 | -0.02702536 | 3.268251 | -0.8648804 | 3.900519e-01 | 5.826296e-01 |
| ## GPN2         | 0.08002716  | 6.747076 | 0.8646687  | 3.901673e-01 | 5.827315e-01 |
| ## PTK6         | -0.10017175 | 7.542224 | -0.8646091 | 3.901998e-01 | 5.827315e-01 |
| ## ADGRB2       | -0.04437075 | 4.157980 | -0.8646014 | 3.902040e-01 | 5.827315e-01 |
| ## MDGA1        | -0.04906618 | 6.331326 | -0.8644885 | 3.902655e-01 | 5.827816e-01 |
| ## GPR15        | 0.03285540  | 3.811019 | 0.8644268  | 3.902992e-01 | 5.827900e-01 |
| ## PTPRO        | -0.03751525 | 3.521337 | -0.8639476 | 3.905606e-01 | 5.831027e-01 |
| ## ATP5MC1      | 0.07918865  | 9.367751 | 0.8639402  | 3.905646e-01 | 5.831027e-01 |
| ## BMP1         | -0.04995078 | 5.705609 | -0.8636201 | 3.907393e-01 | 5.833217e-01 |
| ## ATP7B        | -0.23444328 | 6.539818 | -0.8635199 | 3.907940e-01 | 5.833616e-01 |
| ## OR2M4        | -0.03358749 | 3.471207 | -0.8632946 | 3.909170e-01 | 5.835033e-01 |
| ## DEGS2        | -0.12514460 | 6.647249 | -0.8631826 | 3.909781e-01 | 5.835528e-01 |
| ## HACD2        | 0.08721178  | 9.145338 | 0.8631042  | 3.910209e-01 | 5.835748e-01 |
| ## LINC00593    | -0.02317802 | 3.624161 | -0.8629363 | 3.911126e-01 | 5.836698e-01 |
| ## LOC100421171 | -0.04200281 | 3.762056 | -0.8625723 | 3.913114e-01 | 5.839246e-01 |
| ## LINC01667    | 0.04676168  | 3.717711 | 0.8625013  | 3.913502e-01 | 5.839407e-01 |
| ## LRRC52       | -0.04112401 | 5.274784 | -0.8622334 | 3.914965e-01 | 5.841172e-01 |
| ## ADAMTSL4-AS2 | -0.06313578 | 4.797362 | -0.8621131 | 3.915623e-01 | 5.841735e-01 |
| ## MTMR2        | 0.06820884  | 8.359769 | 0.8620565  | 3.915932e-01 | 5.841777e-01 |
| ## IGLON5       | -0.11452554 | 5.014872 | -0.8619416 | 3.916560e-01 | 5.842171e-01 |
| ## RGS7         | -0.04506078 | 3.597364 | -0.8619056 | 3.916757e-01 | 5.842171e-01 |
| ## PMVK         | -0.07022385 | 7.855526 | -0.8617123 | 3.917813e-01 | 5.843328e-01 |
| ## SIRPG        | 0.11652931  | 5.054393 | 0.8616106  | 3.918369e-01 | 5.843738e-01 |
| ## GNAI2        | 0.07924443  | 8.249947 | 0.8614469  | 3.919264e-01 | 5.844655e-01 |
| ## GSX2         | 0.03419260  | 4.145406 | 0.8613227  | 3.919943e-01 | 5.844882e-01 |
| ## FBX046       | 0.09047789  | 6.734395 | 0.8612765  | 3.920196e-01 | 5.844882e-01 |
| ## CDH11        | -0.17026605 | 8.093208 | -0.8612651 | 3.920258e-01 | 5.844882e-01 |
| ## APBA1        | -0.03576911 | 5.741997 | -0.8610825 | 3.921257e-01 | 5.845694e-01 |
| ## MAT1A        | 0.06013404  | 5.340967 | 0.8610629  | 3.921364e-01 | 5.845694e-01 |
| ## LINC00968    | -0.07747795 | 3.783545 | -0.8609694 | 3.921876e-01 | 5.846037e-01 |
| ## MIER1        | 0.08881149  | 5.536215 | 0.8608851  | 3.922337e-01 | 5.846168e-01 |
| ## ARPC4        | -0.06315678 | 9.116669 | -0.8608507 | 3.922525e-01 | 5.846168e-01 |
| ## SYNPR        | -0.07720222 | 3.848756 | -0.8607385 | 3.923139e-01 | 5.846664e-01 |
| ## DCP2         | -0.10965069 | 8.508167 | -0.8604987 | 3.924451e-01 | 5.847623e-01 |
| ## AP4E1        | 0.02107237  | 3.546037 | 0.8604119  | 3.924926e-01 | 5.847623e-01 |
| ## CCDC28A      | -0.08377121 | 7.988167 | -0.8603207 | 3.925425e-01 | 5.847623e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## TIMP1        | -0.14579574 | 11.857169 | -0.8603149 | 3.925457e-01 | 5.847623e-01 |
| ## NHEG1        | 0.03635366  | 4.490512  | 0.8603130  | 3.925467e-01 | 5.847623e-01 |
| ## NUP214       | -0.06659650 | 7.444294  | -0.8602656 | 3.925727e-01 | 5.847623e-01 |
| ## UBE2J1       | -0.09806346 | 8.753028  | -0.8602618 | 3.925748e-01 | 5.847623e-01 |
| ## NECTIN1      | -0.04106243 | 4.366802  | -0.8601455 | 3.926384e-01 | 5.848153e-01 |
| ## ELM03        | 0.13323615  | 7.241688  | 0.8598953  | 3.927754e-01 | 5.849775e-01 |
| ## HACD4        | -0.02601673 | 3.428184  | -0.8596961 | 3.928844e-01 | 5.850980e-01 |
| ## FAM120C      | 0.05525109  | 5.009711  | 0.8596076  | 3.929329e-01 | 5.851283e-01 |
| ## TXLNGY       | 0.25163512  | 5.778412  | 0.8591873  | 3.931632e-01 | 5.854294e-01 |
| ## HEATR5A-DT   | 0.01886289  | 3.318110  | 0.8590697  | 3.932276e-01 | 5.854834e-01 |
| ## ERO1B        | -0.14257098 | 5.135301  | -0.8589429 | 3.932971e-01 | 5.855178e-01 |
| ## EIF1AY       | 0.37286700  | 5.475022  | 0.8588762  | 3.933336e-01 | 5.855178e-01 |
| ## ARHGAP44     | -0.15544123 | 6.322077  | -0.8588527 | 3.933465e-01 | 5.855178e-01 |
| ## PCGF3-AS1    | 0.04829801  | 3.563582  | 0.8588005  | 3.933751e-01 | 5.855178e-01 |
| ## CCNH         | 0.07718401  | 8.485131  | 0.8587710  | 3.933912e-01 | 5.855178e-01 |
| ## FHDC1        | -0.11105453 | 7.273650  | -0.8583859 | 3.936023e-01 | 5.857901e-01 |
| ## TMEM45A      | -0.18218438 | 7.529229  | -0.8579869 | 3.938211e-01 | 5.860738e-01 |
| ## LOC101928045 | -0.03654083 | 3.733415  | -0.8577597 | 3.939457e-01 | 5.862174e-01 |
| ## CCDC144CP    | -0.05383539 | 3.572526  | -0.8576532 | 3.940042e-01 | 5.862428e-01 |
| ## LOC105372969 | -0.02600166 | 3.320364  | -0.8575986 | 3.940341e-01 | 5.862428e-01 |
| ## PAPP2        | -0.05760508 | 5.042954  | -0.8575746 | 3.940473e-01 | 5.862428e-01 |
| ## TOM1L2       | -0.06321507 | 6.485986  | -0.8574723 | 3.941034e-01 | 5.862844e-01 |
| ## NKTR         | 0.05841536  | 4.524116  | 0.8573769  | 3.941557e-01 | 5.863204e-01 |
| ## DNAJB8-AS1   | -0.03733519 | 3.503993  | -0.8571273 | 3.942927e-01 | 5.864822e-01 |
| ## KRT85        | -0.04219815 | 4.739064  | -0.8567791 | 3.944839e-01 | 5.867246e-01 |
| ## LINC02355    | -0.03600408 | 4.442384  | -0.8565762 | 3.945952e-01 | 5.868231e-01 |
| ## PPIL6        | 0.03528570  | 3.935393  | 0.8565558  | 3.946064e-01 | 5.868231e-01 |
| ## NLRP14       | -0.03776613 | 4.426010  | -0.8564357 | 3.946724e-01 | 5.868793e-01 |
| ## TWIST1       | 0.20626862  | 5.510603  | 0.8562378  | 3.947811e-01 | 5.869159e-01 |
| ## C14orf39     | -0.02929907 | 3.231960  | -0.8562142 | 3.947940e-01 | 5.869159e-01 |
| ## CNGB1        | -0.02615017 | 3.680958  | -0.8561684 | 3.948192e-01 | 5.869159e-01 |
| ## RREB1        | 0.06943026  | 9.202788  | 0.8561389  | 3.948354e-01 | 5.869159e-01 |
| ## ZNF99        | -0.01891498 | 3.151073  | -0.8561343 | 3.948379e-01 | 5.869159e-01 |
| ## C3orf52      | -0.11705893 | 4.977090  | -0.8559033 | 3.949648e-01 | 5.870626e-01 |
| ## ABRA         | -0.03668687 | 3.684849  | -0.8555284 | 3.951708e-01 | 5.873017e-01 |
| ## TATDN2       | -0.03434707 | 4.165345  | -0.8555079 | 3.951821e-01 | 5.873017e-01 |
| ## FGD5-AS1     | -0.05823418 | 5.543272  | -0.8552635 | 3.953164e-01 | 5.874259e-01 |
| ## SEC16A       | -0.08049419 | 9.010921  | -0.8552436 | 3.953274e-01 | 5.874259e-01 |
| ## CHD5         | -0.04684962 | 4.664800  | -0.8552019 | 3.953503e-01 | 5.874259e-01 |
| ## RAB42        | 0.05270878  | 5.771847  | 0.8547670  | 3.955894e-01 | 5.877393e-01 |
| ## DDX50        | 0.04173886  | 4.962208  | 0.8545368  | 3.957160e-01 | 5.878413e-01 |
| ## URI1         | -0.04319459 | 3.666267  | -0.8544892 | 3.957422e-01 | 5.878413e-01 |
| ## LINC01365    | -0.04880579 | 4.475802  | -0.8544881 | 3.957428e-01 | 5.878413e-01 |
| ## LOC100505715 | -0.09145263 | 6.138399  | -0.8542653 | 3.958654e-01 | 5.879815e-01 |
| ## VPS37C       | -0.05336762 | 5.211192  | -0.8541940 | 3.959046e-01 | 5.879931e-01 |
| ## RBL1         | 0.04478381  | 4.464091  | 0.8541484  | 3.959297e-01 | 5.879931e-01 |
| ## DIP2C        | -0.09873299 | 6.543721  | -0.8538843 | 3.960750e-01 | 5.881670e-01 |
| ## PAX5         | -0.04767575 | 5.397057  | -0.8536875 | 3.961833e-01 | 5.882523e-01 |
| ## PDSS2        | 0.10553686  | 6.163651  | 0.8536464  | 3.962059e-01 | 5.882523e-01 |
| ## PEAK1        | -0.05208941 | 5.582079  | -0.8536059 | 3.962282e-01 | 5.882523e-01 |
| ## TUBA4B       | 0.04937629  | 5.844886  | 0.8535746  | 3.962455e-01 | 5.882523e-01 |
| ## AOC1         | -0.34602895 | 8.533754  | -0.8532394 | 3.964300e-01 | 5.884844e-01 |
| ## C5orf47      | 0.02369190  | 3.720693  | 0.8528244  | 3.966586e-01 | 5.887817e-01 |
| ## ENTPD1       | 0.12658785  | 7.264985  | 0.8527465  | 3.967015e-01 | 5.888035e-01 |

|              |             |           |            |              |              |
|--------------|-------------|-----------|------------|--------------|--------------|
| ## PPP6R2    | -0.07616926 | 6.873481  | -0.8524201 | 3.968813e-01 | 5.890098e-01 |
| ## IL23R     | -0.03374029 | 3.479073  | -0.8523915 | 3.968971e-01 | 5.890098e-01 |
| ## PTTG2     | 0.03040705  | 3.569696  | 0.8520947  | 3.970607e-01 | 5.892106e-01 |
| ## STK32A    | 0.02949838  | 3.655338  | 0.8519565  | 3.971368e-01 | 5.892816e-01 |
| ## TPCN1     | -0.04071486 | 6.172712  | -0.8518852 | 3.971762e-01 | 5.892979e-01 |
| ## RLN3      | -0.03638605 | 4.351291  | -0.8517522 | 3.972495e-01 | 5.893647e-01 |
| ## ZNF77     | 0.06982581  | 4.548696  | 0.8516970  | 3.972799e-01 | 5.893678e-01 |
| ## BOLA1     | 0.08722209  | 6.273931  | 0.8516449  | 3.973087e-01 | 5.893685e-01 |
| ## AFAP1L1   | -0.04865124 | 4.771112  | -0.8513712 | 3.974596e-01 | 5.895083e-01 |
| ## ENO3      | 0.05764338  | 4.926476  | 0.8513659  | 3.974625e-01 | 5.895083e-01 |
| ## FUT11     | -0.09593849 | 6.845962  | -0.8513200 | 3.974878e-01 | 5.895083e-01 |
| ## STAC      | -0.07382332 | 5.858422  | -0.8511048 | 3.976065e-01 | 5.896424e-01 |
| ## CRYBA1    | -0.05531519 | 3.617650  | -0.8509444 | 3.976950e-01 | 5.897316e-01 |
| ## HEXB      | -0.09150805 | 10.801509 | -0.8507243 | 3.978164e-01 | 5.898563e-01 |
| ## GARIN2    | -0.02878416 | 3.659987  | -0.8506894 | 3.978357e-01 | 5.898563e-01 |
| ## SRRM4     | -0.03801918 | 3.942689  | -0.8502343 | 3.980869e-01 | 5.901653e-01 |
| ## MMP25     | -0.05605157 | 6.005818  | -0.8502051 | 3.981030e-01 | 5.901653e-01 |
| ## LINC01711 | -0.04405857 | 5.157014  | -0.8501578 | 3.981292e-01 | 5.901653e-01 |
| ## ZBTB12    | -0.04048138 | 4.370505  | -0.8498170 | 3.983173e-01 | 5.903759e-01 |
| ## P2RX5     | -0.15906240 | 6.862585  | -0.8497978 | 3.983279e-01 | 5.903759e-01 |
| ## SLC39A5   | -0.13385314 | 7.334653  | -0.8493840 | 3.985565e-01 | 5.906303e-01 |
| ## LRRC37A8P | 0.02789733  | 3.822490  | 0.8493600  | 3.985698e-01 | 5.906303e-01 |
| ## SLC44A3   | -0.19965315 | 7.642686  | -0.8493330 | 3.985847e-01 | 5.906303e-01 |
| ## BOLA3-DT  | 0.04732894  | 4.073404  | 0.8490651  | 3.987327e-01 | 5.908076e-01 |
| ## BCAR4     | 0.28956548  | 4.268729  | 0.8489215  | 3.988121e-01 | 5.908832e-01 |
| ## CDC23     | 0.07435182  | 7.490855  | 0.8488431  | 3.988554e-01 | 5.909053e-01 |
| ## TREML4    | -0.03057437 | 3.986725  | -0.8485428 | 3.990214e-01 | 5.911092e-01 |
| ## CFAP69    | -0.08860533 | 6.004847  | -0.8484477 | 3.990740e-01 | 5.911450e-01 |
| ## NAV2-AS2  | -0.04434294 | 3.962358  | -0.8483892 | 3.991063e-01 | 5.911509e-01 |
| ## SLC35B3   | -0.09562486 | 9.129255  | -0.8483217 | 3.991437e-01 | 5.911642e-01 |
| ## LAMA4-AS1 | -0.03758222 | 4.269128  | -0.8480120 | 3.993149e-01 | 5.913757e-01 |
| ## OSTCP1    | -0.02486274 | 3.432982  | -0.8479386 | 3.993556e-01 | 5.913939e-01 |
| ## ST3GAL3   | -0.04722384 | 3.430429  | -0.8478162 | 3.994233e-01 | 5.914521e-01 |
| ## LINC01737 | -0.03112366 | 4.210997  | -0.8477104 | 3.994818e-01 | 5.914967e-01 |
| ## RPS12     | -0.03409715 | 13.270895 | -0.8474901 | 3.996037e-01 | 5.916350e-01 |
| ## SH3D21    | 0.05852619  | 5.552418  | 0.8473374  | 3.996882e-01 | 5.917147e-01 |
| ## KIAA1958  | 0.09845156  | 6.160021  | 0.8472902  | 3.997143e-01 | 5.917147e-01 |
| ## KRT13     | 0.29996367  | 4.010532  | 0.8470891  | 3.998257e-01 | 5.917985e-01 |
| ## NDUFA7    | 0.04198331  | 5.322171  | 0.8470746  | 3.998337e-01 | 5.917985e-01 |
| ## SLC23A3   | -0.04276602 | 3.835119  | -0.8469598 | 3.998972e-01 | 5.917985e-01 |
| ## ACOT4     | -0.09968065 | 5.599185  | -0.8469464 | 3.999046e-01 | 5.917985e-01 |
| ## ZNF493    | -0.11754248 | 8.038123  | -0.8469313 | 3.999130e-01 | 5.917985e-01 |
| ## CPT2      | -0.08211575 | 7.051515  | -0.8468537 | 3.999559e-01 | 5.918200e-01 |
| ## RASA1     | 0.10689511  | 9.273136  | 0.8466876  | 4.000479e-01 | 5.919140e-01 |
| ## THSD4     | -0.02392623 | 3.189143  | -0.8463016 | 4.002617e-01 | 5.921611e-01 |
| ## LINC02339 | -0.02583337 | 3.331051  | -0.8462003 | 4.003178e-01 | 5.921611e-01 |
| ## TIGD6     | -0.02515699 | 3.336551  | -0.8461968 | 4.003198e-01 | 5.921611e-01 |
| ## EMC1      | 0.10367876  | 5.915559  | 0.8461807  | 4.003287e-01 | 5.921611e-01 |
| ## PARD6G    | -0.05083857 | 4.727997  | -0.8459713 | 4.004447e-01 | 5.922906e-01 |
| ## BTBD19    | 0.12883278  | 5.457899  | 0.8458296  | 4.005232e-01 | 5.923104e-01 |
| ## OAZ3      | 0.04398886  | 4.154556  | 0.8458043  | 4.005372e-01 | 5.923104e-01 |
| ## SPATA16   | -0.04406231 | 4.949029  | -0.8457465 | 4.005692e-01 | 5.923104e-01 |
| ## ZNF254    | -0.11743314 | 4.871567  | -0.8457418 | 4.005718e-01 | 5.923104e-01 |
| ## SEPHS1    | 0.06950001  | 8.003805  | 0.8451324  | 4.009097e-01 | 5.927454e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## PAXBP1-AS1   | -0.03036246 | 3.624535 | -0.8450736 | 4.009422e-01 | 5.927454e-01 |
| ## SLA2         | 0.05202408  | 4.958054 | 0.8450572  | 4.009514e-01 | 5.927454e-01 |
| ## GPR12        | 0.02974319  | 3.996235 | 0.8449015  | 4.010377e-01 | 5.928309e-01 |
| ## EXOC3L4      | -0.06553477 | 5.657708 | -0.8448455 | 4.010687e-01 | 5.928347e-01 |
| ## PTH          | -0.02377459 | 3.301018 | -0.8446384 | 4.011837e-01 | 5.929625e-01 |
| ## BPGM         | 0.11837564  | 6.361120 | 0.8445119  | 4.012538e-01 | 5.930241e-01 |
| ## DCAF11       | 0.07015513  | 7.454900 | 0.8442382  | 4.014057e-01 | 5.932064e-01 |
| ## EHHADH       | -0.14175443 | 5.709997 | -0.8440147 | 4.015297e-01 | 5.933143e-01 |
| ## COQ10B       | -0.02718138 | 3.680251 | -0.8439784 | 4.015498e-01 | 5.933143e-01 |
| ## IFNA10       | -0.04493743 | 3.780694 | -0.8439274 | 4.015781e-01 | 5.933143e-01 |
| ## ITIH6        | 0.02996178  | 4.004453 | 0.8439013  | 4.015926e-01 | 5.933143e-01 |
| ## TF           | -0.18659691 | 4.152857 | -0.8438395 | 4.016269e-01 | 5.933229e-01 |
| ## AP1M1        | -0.08306469 | 7.832200 | -0.8436558 | 4.017289e-01 | 5.934314e-01 |
| ## TULP1        | -0.03980608 | 4.338364 | -0.8434887 | 4.018217e-01 | 5.935263e-01 |
| ## MC1R         | -0.05616073 | 5.921345 | -0.8428493 | 4.021768e-01 | 5.940088e-01 |
| ## COX16        | -0.06739053 | 9.855232 | -0.8427606 | 4.022261e-01 | 5.940394e-01 |
| ## ZBTB48       | -0.08526021 | 6.522017 | -0.8427081 | 4.022552e-01 | 5.940404e-01 |
| ## CLGN         | -0.11179001 | 3.743467 | -0.8426426 | 4.022916e-01 | 5.940520e-01 |
| ## UBA5         | -0.07071558 | 8.072503 | -0.8422925 | 4.024862e-01 | 5.942971e-01 |
| ## SPACA7       | -0.03037229 | 3.735559 | -0.8421950 | 4.025404e-01 | 5.943350e-01 |
| ## FCHO2        | 0.10062801  | 4.305968 | 0.8421186  | 4.025829e-01 | 5.943413e-01 |
| ## FBXL18       | -0.05603124 | 7.013373 | -0.8420846 | 4.026018e-01 | 5.943413e-01 |
| ## PCMTD2       | 0.08173636  | 9.074842 | 0.8419005  | 4.027041e-01 | 5.944218e-01 |
| ## ABCA13       | -0.02122351 | 3.201680 | -0.8418839 | 4.027133e-01 | 5.944218e-01 |
| ## RIN2         | 0.09280430  | 9.670509 | 0.8414748  | 4.029409e-01 | 5.947155e-01 |
| ## LINC01514    | 0.02516701  | 3.348443 | 0.8413149  | 4.030298e-01 | 5.948045e-01 |
| ## LINC02809    | -0.03810304 | 5.219159 | -0.8411516 | 4.031206e-01 | 5.948400e-01 |
| ## PRDM9        | -0.03469068 | 4.083953 | -0.8411208 | 4.031378e-01 | 5.948400e-01 |
| ## GGN          | -0.05626432 | 4.108147 | -0.8411177 | 4.031395e-01 | 5.948400e-01 |
| ## TRO          | -0.03054176 | 3.874271 | -0.8408812 | 4.032711e-01 | 5.949790e-01 |
| ## PRKAG2       | -0.04716866 | 3.716950 | -0.8408457 | 4.032908e-01 | 5.949790e-01 |
| ## HAVCR1P1     | -0.04516645 | 5.077568 | -0.8407904 | 4.033216e-01 | 5.949822e-01 |
| ## PPP1R9B      | 0.06628040  | 6.220776 | 0.8406392  | 4.034058e-01 | 5.950642e-01 |
| ## IGDCC3       | -0.13663039 | 3.956543 | -0.8405579 | 4.034510e-01 | 5.950888e-01 |
| ## TRPM4        | -0.11688540 | 6.883370 | -0.8402334 | 4.036317e-01 | 5.952972e-01 |
| ## COX15        | 0.07656863  | 7.963351 | 0.8401855  | 4.036583e-01 | 5.952972e-01 |
| ## CRACR2A      | -0.05971193 | 4.361249 | -0.8401312 | 4.036886e-01 | 5.952972e-01 |
| ## LINC02067    | -0.13020022 | 8.123133 | -0.8400534 | 4.037319e-01 | 5.952972e-01 |
| ## LINC01343    | -0.03357456 | 4.877795 | -0.8400474 | 4.037352e-01 | 5.952972e-01 |
| ## AK4          | -0.13530613 | 6.579129 | -0.8395478 | 4.040135e-01 | 5.956550e-01 |
| ## NCOA5        | 0.08833825  | 6.990441 | 0.8395090  | 4.040351e-01 | 5.956550e-01 |
| ## ESPN         | 0.10290855  | 5.888169 | 0.8393719  | 4.041115e-01 | 5.957254e-01 |
| ## ATAT1        | 0.06500204  | 5.649561 | 0.8388468  | 4.044041e-01 | 5.961146e-01 |
| ## PDE4DIPP2    | 0.03926405  | 5.405356 | 0.8386305  | 4.045247e-01 | 5.962298e-01 |
| ## ILVBL        | -0.07642920 | 7.252806 | -0.8386040 | 4.045395e-01 | 5.962298e-01 |
| ## MAGIX        | -0.08058583 | 6.263095 | -0.8384621 | 4.046186e-01 | 5.963042e-01 |
| ## SPDYA        | 0.02301294  | 3.402419 | 0.8383754  | 4.046670e-01 | 5.963332e-01 |
| ## KLHL2        | -0.08117666 | 7.918741 | -0.8381792 | 4.047764e-01 | 5.964345e-01 |
| ## GRM7         | -0.02476615 | 3.220369 | -0.8381495 | 4.047930e-01 | 5.964345e-01 |
| ## CREB3L4      | -0.17468277 | 6.731002 | -0.8378274 | 4.049726e-01 | 5.966570e-01 |
| ## GRIN2D       | -0.07273186 | 3.896400 | -0.8373631 | 4.052317e-01 | 5.969673e-01 |
| ## SLC24A4      | -0.03351734 | 3.848934 | -0.8373472 | 4.052406e-01 | 5.969673e-01 |
| ## PPARD        | 0.04982842  | 6.169559 | 0.8370883  | 4.053851e-01 | 5.971169e-01 |
| ## LOC100127955 | -0.03700113 | 4.706696 | -0.8370458 | 4.054088e-01 | 5.971169e-01 |

|                 |             |          |            |              |              |
|-----------------|-------------|----------|------------|--------------|--------------|
| ## CCDC9        | 0.04399932  | 6.590553 | 0.8370112  | 4.054281e-01 | 5.971169e-01 |
| ## SCN4A        | -0.04820073 | 4.391289 | -0.8368650 | 4.055098e-01 | 5.971637e-01 |
| ## ULBP3        | 0.05736247  | 3.859940 | 0.8368515  | 4.055173e-01 | 5.971637e-01 |
| ## RAN          | 0.10678266  | 9.372522 | 0.8367770  | 4.055589e-01 | 5.971828e-01 |
| ## NFKBID       | 0.05148407  | 4.969580 | 0.8366492  | 4.056303e-01 | 5.972456e-01 |
| ## SYT5         | -0.04021531 | 4.242539 | -0.8365451 | 4.056884e-01 | 5.972890e-01 |
| ## GATD1-DT     | -0.05644398 | 4.963973 | -0.8363816 | 4.057797e-01 | 5.973479e-01 |
| ## TEK1         | 0.03531707  | 4.758143 | 0.8363134  | 4.058178e-01 | 5.973479e-01 |
| ## LINC02749    | -0.02628328 | 3.512568 | -0.8362906 | 4.058305e-01 | 5.973479e-01 |
| ## LOC339666    | -0.05131969 | 5.040128 | -0.8362681 | 4.058431e-01 | 5.973479e-01 |
| ## ADAL         | -0.05975569 | 4.275678 | -0.8361522 | 4.059079e-01 | 5.974009e-01 |
| ## NEAT1        | 0.20101854  | 8.349016 | 0.8360842  | 4.059459e-01 | 5.974147e-01 |
| ## SLC15A3      | 0.12011000  | 7.272368 | 0.8359327  | 4.060306e-01 | 5.974897e-01 |
| ## LOC284240    | -0.03475191 | 4.094599 | -0.8358804 | 4.060598e-01 | 5.974897e-01 |
| ## PTOV1-AS1    | 0.02589383  | 4.476426 | 0.8358389  | 4.060830e-01 | 5.974897e-01 |
| ## NKX2-8       | -0.04368832 | 4.850477 | -0.8357321 | 4.061426e-01 | 5.974977e-01 |
| ## OR51E1       | -0.17842953 | 4.391316 | -0.8357265 | 4.061458e-01 | 5.974977e-01 |
| ## OLMALINC     | 0.06081572  | 3.923212 | 0.8353428  | 4.063603e-01 | 5.977710e-01 |
| ## NDUFB6       | 0.04837621  | 3.666579 | 0.8349995  | 4.065522e-01 | 5.980111e-01 |
| ## LOC100507250 | 0.02966391  | 3.679707 | 0.8348868  | 4.066152e-01 | 5.980616e-01 |
| ## SLC25A53     | 0.03156375  | 3.516837 | 0.8345927  | 4.067797e-01 | 5.982613e-01 |
| ## GTPBP6       | 0.06335243  | 7.321586 | 0.8345313  | 4.068141e-01 | 5.982695e-01 |
| ## IFNA16       | -0.04046270 | 3.432296 | -0.8342459 | 4.069738e-01 | 5.984621e-01 |
| ## C18orf54     | 0.02195770  | 3.188941 | 0.8341411  | 4.070324e-01 | 5.985061e-01 |
| ## KRT36        | 0.03276282  | 3.778218 | 0.8339376  | 4.071463e-01 | 5.986088e-01 |
| ## GALNT14      | -0.03226399 | 4.321701 | -0.8338799 | 4.071786e-01 | 5.986088e-01 |
| ## CACNA2D4     | 0.04577392  | 4.449970 | 0.8338581  | 4.071908e-01 | 5.986088e-01 |
| ## SLC25A21     | -0.03253868 | 3.187801 | -0.8337723 | 4.072389e-01 | 5.986088e-01 |
| ## MUC20        | 0.29263836  | 7.392773 | 0.8337595  | 4.072460e-01 | 5.986088e-01 |
| ## SHISA7       | -0.04852979 | 5.030548 | -0.8337002 | 4.072792e-01 | 5.986153e-01 |
| ## FAM13A       | 0.02720199  | 3.734567 | 0.8336388  | 4.073136e-01 | 5.986236e-01 |
| ## NUP54        | -0.02928507 | 3.385676 | -0.8334213 | 4.074354e-01 | 5.987603e-01 |
| ## LINC01957    | -0.02593126 | 3.504059 | -0.8332242 | 4.075457e-01 | 5.988803e-01 |
| ## PRR15L       | 0.20163738  | 8.527601 | 0.8331704  | 4.075759e-01 | 5.988823e-01 |
| ## ACTG1P17     | -0.02632801 | 4.653365 | -0.8330695 | 4.076324e-01 | 5.989231e-01 |
| ## GALT         | 0.15190062  | 8.714898 | 0.8330036  | 4.076693e-01 | 5.989288e-01 |
| ## NLRX1        | 0.05274381  | 5.678502 | 0.8329599  | 4.076938e-01 | 5.989288e-01 |
| ## ZKSCAN8      | -0.02289859 | 3.571925 | -0.8326956 | 4.078419e-01 | 5.991015e-01 |
| ## MTNR1A       | -0.03696182 | 3.822193 | -0.8326474 | 4.078689e-01 | 5.991015e-01 |
| ## TMF1         | 0.10987870  | 7.304959 | 0.8324529  | 4.079779e-01 | 5.992193e-01 |
| ## PAPOLB       | -0.02855225 | 3.369730 | -0.8320184 | 4.082214e-01 | 5.995347e-01 |
| ## IL4          | -0.03840735 | 3.566658 | -0.8318795 | 4.082993e-01 | 5.995939e-01 |
| ## LRRC27       | 0.05924299  | 4.465114 | 0.8318438  | 4.083193e-01 | 5.995939e-01 |
| ## IL34         | -0.05091822 | 6.671105 | -0.8313470 | 4.085979e-01 | 5.999608e-01 |
| ## RHOT1        | -0.06969297 | 8.123300 | -0.8311621 | 4.087017e-01 | 6.000708e-01 |
| ## BDKRB2       | -0.10493281 | 7.109261 | -0.8306104 | 4.090113e-01 | 6.004830e-01 |
| ## ADGRF5       | 0.11993489  | 7.645173 | 0.8302278  | 4.092260e-01 | 6.007559e-01 |
| ## KLHL31       | 0.04296341  | 4.330615 | 0.8298214  | 4.094542e-01 | 6.010486e-01 |
| ## PEG10        | 0.18730933  | 5.121088 | 0.8297699  | 4.094832e-01 | 6.010487e-01 |
| ## SHCBP1L      | -0.03605942 | 4.641066 | -0.8296151 | 4.095702e-01 | 6.011142e-01 |
| ## LINC02987    | -0.06943771 | 5.636777 | -0.8295876 | 4.095856e-01 | 6.011142e-01 |
| ## ACSS2        | -0.12328548 | 8.495895 | -0.8292788 | 4.097591e-01 | 6.012874e-01 |
| ## TMEM72-AS1   | -0.03971022 | 5.351236 | -0.8292735 | 4.097621e-01 | 6.012874e-01 |
| ## EXT1         | -0.08106648 | 8.929962 | -0.8292061 | 4.098000e-01 | 6.012874e-01 |

|                 |             |           |            |              |              |
|-----------------|-------------|-----------|------------|--------------|--------------|
| ## PHC2         | -0.14424917 | 5.399335  | -0.8290958 | 4.098619e-01 | 6.012874e-01 |
| ## FMN1         | -0.03213769 | 3.667723  | -0.8290885 | 4.098660e-01 | 6.012874e-01 |
| ## ACTL10       | -0.06416469 | 5.879924  | -0.8289604 | 4.099380e-01 | 6.012874e-01 |
| ## LOC101927604 | -0.05400499 | 4.037579  | -0.8289314 | 4.099543e-01 | 6.012874e-01 |
| ## RCHY1        | 0.05050591  | 4.269186  | 0.8289201  | 4.099607e-01 | 6.012874e-01 |
| ## ACVR1C       | -0.14867753 | 6.018276  | -0.8289152 | 4.099634e-01 | 6.012874e-01 |
| ## TCL1B        | -0.03293830 | 5.122243  | -0.8286338 | 4.101216e-01 | 6.014770e-01 |
| ## ERVH-4       | 0.03666914  | 3.934742  | 0.8283446  | 4.102842e-01 | 6.016342e-01 |
| ## CCND3        | -0.10848213 | 6.105618  | -0.8283136 | 4.103016e-01 | 6.016342e-01 |
| ## WARS2-AS1    | 0.01735262  | 3.160985  | 0.8282890  | 4.103155e-01 | 6.016342e-01 |
| ## STPG3        | 0.05045477  | 4.714402  | 0.8280222  | 4.104656e-01 | 6.017646e-01 |
| ## COL1A1       | 0.11344202  | 12.580788 | 0.8280135  | 4.104704e-01 | 6.017646e-01 |
| ## USH1G        | -0.05075558 | 6.246307  | -0.8279768 | 4.104911e-01 | 6.017646e-01 |
| ## MTHFR        | 0.05068007  | 5.475477  | 0.8278068  | 4.105867e-01 | 6.018407e-01 |
| ## RBBP7        | 0.06367092  | 10.022464 | 0.8277817  | 4.106008e-01 | 6.018407e-01 |
| ## CHMP5        | 0.07403667  | 9.485325  | 0.8274954  | 4.107619e-01 | 6.020345e-01 |
| ## DUSP23       | 0.09243499  | 7.785082  | 0.8274020  | 4.108145e-01 | 6.020692e-01 |
| ## SLC5A4       | -0.02781153 | 3.675969  | -0.8272085 | 4.109234e-01 | 6.021864e-01 |
| ## ARL5A        | -0.05935748 | 9.113096  | -0.8270197 | 4.110297e-01 | 6.022998e-01 |
| ## ANKS4B       | 0.07180544  | 4.823226  | 0.8268430  | 4.111292e-01 | 6.023891e-01 |
| ## PREX1        | 0.10296715  | 7.151064  | 0.8268087  | 4.111485e-01 | 6.023891e-01 |
| ## APPBP2       | -0.07233113 | 8.079491  | -0.8266250 | 4.112519e-01 | 6.024422e-01 |
| ## AMOT         | -0.04444255 | 3.765300  | -0.8265562 | 4.112907e-01 | 6.024422e-01 |
| ## CSTF3-DT     | 0.02271955  | 3.090713  | 0.8265438  | 4.112977e-01 | 6.024422e-01 |
| ## FAM204A      | 0.03101585  | 3.767757  | 0.8265388  | 4.113005e-01 | 6.024422e-01 |
| ## DNAH6        | 0.03517938  | 3.539538  | 0.8262316  | 4.114735e-01 | 6.026533e-01 |
| ## PIP          | -0.04197416 | 4.276931  | -0.8260413 | 4.115807e-01 | 6.027307e-01 |
| ## C12orf29     | -0.09559762 | 7.545404  | -0.8260350 | 4.115843e-01 | 6.027307e-01 |
| ## IDH3B        | 0.06987219  | 8.084159  | 0.8259045  | 4.116578e-01 | 6.027893e-01 |
| ## FOXD4        | -0.03907754 | 4.352846  | -0.8258612 | 4.116822e-01 | 6.027893e-01 |
| ## REPS1        | 0.08252464  | 5.734865  | 0.8257325  | 4.117547e-01 | 6.028532e-01 |
| ## LINC03002    | -0.03526115 | 4.430250  | -0.8256187 | 4.118189e-01 | 6.028963e-01 |
| ## COL26A1      | -0.03343061 | 5.204084  | -0.8255775 | 4.118421e-01 | 6.028963e-01 |
| ## LINC02148    | -0.04224032 | 3.407774  | -0.8254185 | 4.119317e-01 | 6.029851e-01 |
| ## NMUR2        | 0.15715735  | 5.071445  | 0.8253281  | 4.119827e-01 | 6.030173e-01 |
| ## RFPL3S       | -0.02740618 | 3.321880  | -0.8252094 | 4.120496e-01 | 6.030729e-01 |
| ## KRT33B       | -0.03506577 | 4.497624  | -0.8250340 | 4.121485e-01 | 6.031752e-01 |
| ## BCL2L14      | -0.03097215 | 3.478877  | -0.8249263 | 4.122092e-01 | 6.031862e-01 |
| ## UTY          | 0.06784894  | 5.630490  | 0.8249180  | 4.122139e-01 | 6.031862e-01 |
| ## SWSAP1       | 0.05188494  | 5.538666  | 0.8248156  | 4.122717e-01 | 6.032137e-01 |
| ## ITIH2        | 0.12946892  | 4.460088  | 0.8247819  | 4.122907e-01 | 6.032137e-01 |
| ## ANKRD34C     | -0.02110133 | 3.407830  | -0.8246601 | 4.123593e-01 | 6.032718e-01 |
| ## TOPORS       | 0.08066409  | 7.569896  | 0.8244299  | 4.124893e-01 | 6.034195e-01 |
| ## IFRD1        | 0.10610991  | 8.567413  | 0.8241674  | 4.126374e-01 | 6.035937e-01 |
| ## TSPAN33      | -0.09763457 | 7.557861  | -0.8240162 | 4.127227e-01 | 6.036420e-01 |
| ## LINC00624    | 0.02127866  | 3.325541  | 0.8239407  | 4.127653e-01 | 6.036420e-01 |
| ## CNTRL        | -0.07530044 | 6.317272  | -0.8239131 | 4.127809e-01 | 6.036420e-01 |
| ## TRADD        | -0.05909704 | 8.084169  | -0.8239035 | 4.127863e-01 | 6.036420e-01 |
| ## PITPNA       | -0.05609804 | 8.455377  | -0.8235664 | 4.129766e-01 | 6.038661e-01 |
| ## MAP3K14-AS1  | -0.04608359 | 4.064795  | -0.8235293 | 4.129975e-01 | 6.038661e-01 |
| ## FLNB-AS1     | -0.04750292 | 4.237149  | -0.8233726 | 4.130860e-01 | 6.039384e-01 |
| ## RB1          | 0.09244740  | 8.856111  | 0.8233390  | 4.131050e-01 | 6.039384e-01 |
| ## ZGRF1        | 0.02265016  | 3.490256  | 0.8231227  | 4.132271e-01 | 6.040636e-01 |
| ## ADAMTS13     | 0.04139643  | 5.836560  | 0.8230846  | 4.132487e-01 | 6.040636e-01 |



|                 |               |           |            |              |              |
|-----------------|---------------|-----------|------------|--------------|--------------|
| ## MFSD14A      | 0.04404905    | 9.237366  | 0.8229165  | 4.133436e-01 | 6.041042e-01 |
| ## CXXC1P1      | -0.02837292   | 3.995796  | -0.8228877 | 4.133599e-01 | 6.041042e-01 |
| ## PHGDH        | -0.12554877   | 6.652105  | -0.8228813 | 4.133635e-01 | 6.041042e-01 |
| ## HESX1        | -0.04013463   | 4.717521  | -0.8228069 | 4.134055e-01 | 6.041233e-01 |
| ## CEACAM4      | 0.03390947    | 5.196697  | 0.8226995  | 4.134662e-01 | 6.041695e-01 |
| ## CLEC1B       | -0.03092859   | 4.084705  | -0.8225699 | 4.135394e-01 | 6.042341e-01 |
| ## LOC403312    | -0.01936213   | 3.267869  | -0.8224133 | 4.136279e-01 | 6.042860e-01 |
| ## OPRM1        | -0.02395960   | 3.378929  | -0.8223879 | 4.136423e-01 | 6.042860e-01 |
| ## LOC101927272 | -0.03274748   | 3.692962  | -0.8223530 | 4.136620e-01 | 6.042860e-01 |
| ## FNDC1-AS1    | -0.06745595   | 4.265124  | -0.8218047 | 4.139720e-01 | 6.046964e-01 |
| ## MLNR         | -0.02661251   | 3.405565  | -0.8217214 | 4.140190e-01 | 6.047228e-01 |
| ## KIF23-AS1    | -0.06131308   | 5.862351  | -0.8216598 | 4.140539e-01 | 6.047312e-01 |
| ## FAM228A      | -0.05717230   | 3.740913  | -0.8215288 | 4.141280e-01 | 6.047970e-01 |
| ## HOXD1        | 0.12769334    | 4.433792  | 0.8213941  | 4.142041e-01 | 6.048658e-01 |
| ## MUC4         | -0.07404453   | 4.457415  | -0.8212898 | 4.142631e-01 | 6.048701e-01 |
| ## CHRNA10      | -0.03575314   | 4.967261  | -0.8212674 | 4.142758e-01 | 6.048701e-01 |
| ## PLAA         | 0.05676754    | 4.528712  | 0.8212349  | 4.142942e-01 | 6.048701e-01 |
| ## CCDC7        | -0.02617503   | 3.262110  | -0.8210053 | 4.144241e-01 | 6.050008e-01 |
| ## TCN2         | -0.08377098   | 6.649961  | -0.8209453 | 4.144580e-01 | 6.050008e-01 |
| ## AFAP1        | -0.06488106   | 3.705951  | -0.8209225 | 4.144709e-01 | 6.050008e-01 |
| ## LINC02249    | 0.03113417    | 3.376136  | 0.8204392  | 4.147445e-01 | 6.053335e-01 |
| ## TSPAN13      | 0.15249155    | 11.258628 | 0.8203802  | 4.147778e-01 | 6.053335e-01 |
| ## C11orf71     | -0.11389417   | 5.636401  | -0.8203456 | 4.147974e-01 | 6.053335e-01 |
| ## PCDHB13      | 0.04773919    | 6.000503  | 0.8203020  | 4.148221e-01 | 6.053335e-01 |
| ## PPP1R2C      | -0.06909041   | 4.384021  | -0.8202631 | 4.148441e-01 | 6.053335e-01 |
| ## PCYT1A       | 0.08660582    | 6.409465  | 0.8202083  | 4.148752e-01 | 6.053363e-01 |
| ## CCZ1         | -0.04651239   | 4.857056  | -0.8199817 | 4.150034e-01 | 6.054811e-01 |
| ## CROCCP2      | -0.05531591   | 6.873624  | -0.8194184 | 4.153225e-01 | 6.059042e-01 |
| ## LUARIS       | -0.03727438   | 3.720923  | -0.8192226 | 4.154334e-01 | 6.060104e-01 |
| ## ZNF861P      | -0.06209874   | 4.642258  | -0.8191871 | 4.154535e-01 | 6.060104e-01 |
| ## LOC101927623 | -0.05570351   | 4.330183  | -0.8190616 | 4.155246e-01 | 6.060717e-01 |
| ## CCK          | 0.17700424    | 4.982672  | 0.8184219  | 4.158873e-01 | 6.065581e-01 |
| ## SLC44A3-AS1  | 0.03591799    | 3.976349  | 0.8182859  | 4.159644e-01 | 6.066281e-01 |
| ## ZCCHC2       | 0.09948639    | 7.162738  | 0.8181700  | 4.160301e-01 | 6.066814e-01 |
| ## GSN-AS1      | -0.03927064   | 4.225151  | -0.8180376 | 4.161052e-01 | 6.067466e-01 |
| ## QPRT         | 0.01488183    | 3.167213  | 0.8179736  | 4.161415e-01 | 6.067466e-01 |
| ## LINC02239    | -0.06083571   | 4.933039  | -0.8179370 | 4.161622e-01 | 6.067466e-01 |
| ## PM20D1       | -0.05684154   | 3.654690  | -0.8175395 | 4.163878e-01 | 6.070330e-01 |
| ## LINC02109    | -0.02637792   | 3.412137  | -0.8174431 | 4.164424e-01 | 6.070702e-01 |
| ##              |               | B         | g          |              |              |
| ## FIGNL1       | 20.3647077510 |           | Up         |              |              |
| ## PRIMA1       | 20.0110055033 |           | Down       |              |              |
| ## KIF18A       | 19.8721554466 |           | Up         |              |              |
| ## TYMS         | 19.8684907857 |           | Up         |              |              |
| ## JAM2         | 19.3858296938 |           | Down       |              |              |
| ## NFYA         | 18.6556636565 |           | Stable     |              |              |
| ## TMEM100      | 18.3392474707 |           | Down       |              |              |
| ## CDCA5        | 17.8317306616 |           | Up         |              |              |
| ## SCN4B        | 17.6403987081 |           | Stable     |              |              |
| ## SETBP1       | 17.6301049896 |           | Down       |              |              |
| ## CENPN        | 17.3731917348 |           | Up         |              |              |
| ## MCM2         | 17.2663228373 |           | Up         |              |              |
| ## TCF21        | 17.1710319009 |           | Down       |              |              |
| ## CKS1B        | 16.9896106965 |           | Up         |              |              |

|                |               |        |
|----------------|---------------|--------|
| ## FXYD1       | 16.7566429481 | Down   |
| ## NCAPD3      | 16.4029925795 | Stable |
| ## ANP32E      | 16.3478973945 | Up     |
| ## FAXDC2      | 16.2042314425 | Down   |
| ## UBE2S       | 16.1163761719 | Up     |
| ## CHEK1       | 16.0853707153 | Up     |
| ## ADH1B       | 15.9263936504 | Down   |
| ## SNRPC       | 15.5900862865 | Stable |
| ## FANCI       | 15.5538455689 | Up     |
| ## BUB1        | 15.5115596200 | Up     |
| ## EXO1        | 15.4874555110 | Stable |
| ## AURKB       | 15.4389707414 | Up     |
| ## MCM10       | 15.4383857834 | Up     |
| ## SMC4        | 15.3942068512 | Up     |
| ## CCT5        | 15.3361832644 | Stable |
| ## RAI2        | 15.2806661066 | Down   |
| ## PLK1        | 15.2536576252 | Up     |
| ## NCAPH       | 15.2049971959 | Up     |
| ## BCL2L12     | 15.1929948057 | Stable |
| ## ADAMTS9-AS2 | 15.1183208682 | Down   |
| ## CENPL       | 15.1124706287 | Stable |
| ## CHEK2       | 15.0782897300 | Stable |
| ## MAMDC2      | 15.0620592141 | Down   |
| ## UCK2        | 14.9557227608 | Stable |
| ## PFDN2       | 14.9527568945 | Stable |
| ## SPARCL1     | 14.8695933803 | Down   |
| ## CAPN6       | 14.8680525564 | Down   |
| ## KIF23       | 14.8477302278 | Up     |
| ## DDIAS       | 14.7050277525 | Stable |
| ## CSNK2A1     | 14.6890855899 | Stable |
| ## C16orf89    | 14.5692775056 | Down   |
| ## MTFR2       | 14.5517521856 | Up     |
| ## ANLN        | 14.5254200201 | Up     |
| ## POLQ        | 14.3361178479 | Up     |
| ## MFAP4       | 14.2231276255 | Down   |
| ## MAD2L1      | 14.2148259507 | Up     |
| ## TPX2        | 14.2050561274 | Up     |
| ## MCM4        | 13.9942782921 | Up     |
| ## CDK2        | 13.9597026103 | Stable |
| ## MCM3        | 13.8680470296 | Stable |
| ## ASPA        | 13.8604733393 | Down   |
| ## NCAPD2      | 13.7748762015 | Stable |
| ## FEN1        | 13.7704854866 | Stable |
| ## MATN2       | 13.7637926308 | Down   |
| ## TTC28       | 13.7491015276 | Stable |
| ## CAVIN2      | 13.7325208735 | Down   |
| ## GREM2       | 13.7285310572 | Down   |
| ## CNOT9       | 13.7095315987 | Stable |
| ## H2AZ2       | 13.5961689800 | Stable |
| ## ROR1        | 13.5774280211 | Stable |
| ## LINC01082   | 13.5645346547 | Stable |
| ## TRIP13      | 13.4995662491 | Up     |
| ## NEMP1       | 13.4617623791 | Stable |
| ## PRC1        | 13.4400019986 | Up     |

|            |               |        |
|------------|---------------|--------|
| ## NUP98   | 13.4237655151 | Stable |
| ## DMD     | 13.4035496846 | Down   |
| ## ADRB2   | 13.3942240597 | Down   |
| ## NCAPG2  | 13.3455303452 | Stable |
| ## BOC     | 13.3319932046 | Down   |
| ## NOVA1   | 13.3313170525 | Down   |
| ## KLHDC1  | 13.3193236086 | Stable |
| ## ILF2    | 13.2620214505 | Stable |
| ## ANK2    | 13.1653526398 | Down   |
| ## PSMA1   | 13.1561622713 | Stable |
| ## EIF4E3  | 13.1500389096 | Stable |
| ## CDC45   | 13.1016365267 | Stable |
| ## GINS1   | 13.0626353814 | Up     |
| ## ERCC6L  | 12.9557685958 | Stable |
| ## NSD2    | 12.9478359760 | Stable |
| ## ZMAT1   | 12.9063255661 | Down   |
| ## PRKACB  | 12.8976292717 | Stable |
| ## ZWILCH  | 12.8947713625 | Up     |
| ## SAMD11  | 12.8685170108 | Stable |
| ## RFC4    | 12.7973288339 | Stable |
| ## HPGDS   | 12.7642451968 | Stable |
| ## ISL1    | 12.7382662567 | Down   |
| ## DNAJC9  | 12.7154877545 | Stable |
| ## BDH2    | 12.6818373508 | Stable |
| ## CCDC51  | 12.6518587284 | Stable |
| ## RCC2    | 12.6237313646 | Stable |
| ## CHRDL1  | 12.5659394267 | Down   |
| ## SPC25   | 12.5632056148 | Up     |
| ## KIF15   | 12.5533038776 | Up     |
| ## ECRG4   | 12.5310077174 | Down   |
| ## FANCG   | 12.5240347512 | Stable |
| ## TDP1    | 12.5059922335 | Stable |
| ## FOXF1   | 12.4754913625 | Down   |
| ## PLK4    | 12.4458788926 | Stable |
| ## POLR2D  | 12.4404510915 | Stable |
| ## PATL1   | 12.4340199191 | Stable |
| ## GHR     | 12.4280667590 | Down   |
| ## EXOSC5  | 12.3710403934 | Stable |
| ## PLAC9   | 12.3515712982 | Down   |
| ## UBE2C   | 12.3188424372 | Up     |
| ## DCPS    | 12.3181806263 | Stable |
| ## AJUBA   | 12.2674014436 | Up     |
| ## CDCA8   | 12.2418137861 | Stable |
| ## ECT2    | 12.2227746570 | Up     |
| ## MELK    | 12.1855523423 | Up     |
| ## GOLGA8N | 12.1351458675 | Stable |
| ## CBX7    | 12.0929810831 | Stable |
| ## RUVBL1  | 12.0489027946 | Stable |
| ## CCDC86  | 12.0445102566 | Stable |
| ## KLHL13  | 12.0270121500 | Down   |
| ## UTP18   | 12.0198891780 | Stable |
| ## MYOCD   | 12.0141584112 | Down   |
| ## FMOD    | 11.9533139757 | Down   |
| ## RPA3    | 11.8716167732 | Stable |

|             |               |        |
|-------------|---------------|--------|
| ## CENPE    | 11.8630952778 | Up     |
| ## SG02     | 11.8389459914 | Stable |
| ## METTL7A  | 11.8154298033 | Down   |
| ## RAD51AP1 | 11.7698173329 | Up     |
| ## AOC3     | 11.7689754041 | Down   |
| ## GSTM5    | 11.7460811926 | Stable |
| ## PAFAH1B3 | 11.7232272873 | Stable |
| ## RCCD1    | 11.6745307097 | Stable |
| ## PPP1R14B | 11.6049154333 | Stable |
| ## C7       | 11.6005089364 | Down   |
| ## CCT3     | 11.5745129621 | Stable |
| ## HDGF     | 11.5465692142 | Stable |
| ## PKP4     | 11.4718087836 | Stable |
| ## TBRG4    | 11.3615119809 | Stable |
| ## KIT      | 11.2904293070 | Down   |
| ## SYNP02   | 11.2344598049 | Down   |
| ## MGP      | 11.1454173950 | Down   |
| ## SLC7A5   | 11.1372400077 | Up     |
| ## Clorf112 | 11.1195200324 | Stable |
| ## GTF3C4   | 11.0214778217 | Stable |
| ## CPE      | 11.0091033796 | Down   |
| ## RGMA     | 11.0082861426 | Down   |
| ## CFD      | 11.0074643453 | Down   |
| ## CCT2     | 10.9912127186 | Up     |
| ## PRKAR2B  | 10.9891770324 | Down   |
| ## HMGB3    | 10.9627537665 | Stable |
| ## KLHL7    | 10.9608778419 | Stable |
| ## FLAD1    | 10.9318616050 | Stable |
| ## ANKRD29  | 10.8569032988 | Down   |
| ## CKAP2L   | 10.8418570187 | Stable |
| ## HNRNPU   | 10.8355356592 | Stable |
| ## HSPD1    | 10.8326432250 | Stable |
| ## TTK      | 10.8153712703 | Up     |
| ## PSMB2    | 10.8086300031 | Stable |
| ## DNA2     | 10.7539854529 | Stable |
| ## SELENOP  | 10.7419286043 | Down   |
| ## UBE2T    | 10.7411812497 | Up     |
| ## RASA4    | 10.7356620022 | Stable |
| ## CNTN4    | 10.7353519893 | Down   |
| ## ESYT2    | 10.7276281056 | Stable |
| ## CCNF     | 10.6899121194 | Stable |
| ## JAM3     | 10.6885494825 | Down   |
| ## CCNA2    | 10.6883319951 | Up     |
| ## RCAN2    | 10.6729271572 | Down   |
| ## PSMD14   | 10.6702205464 | Stable |
| ## SF3B3    | 10.6531309159 | Stable |
| ## NDC80    | 10.6453200215 | Up     |
| ## DDX56    | 10.6342919594 | Stable |
| ## STX12    | 10.6212686633 | Stable |
| ## BORA     | 10.5694104711 | Stable |
| ## PWAR6    | 10.5637451473 | Down   |
| ## PCNA     | 10.5624284403 | Stable |
| ## NUSAP1   | 10.5495863492 | Up     |
| ## ZCCHC24  | 10.5453322565 | Down   |

|              |               |        |
|--------------|---------------|--------|
| ## MAPK10    | 10.5370163140 | Stable |
| ## DCLRE1B   | 10.5070588390 | Stable |
| ## NUF2      | 10.4885942145 | Up     |
| ## TK1       | 10.4763860093 | Up     |
| ## STIP1     | 10.4755423550 | Up     |
| ## CKAP5     | 10.4407782225 | Stable |
| ## PRPF4     | 10.4295578512 | Stable |
| ## ADCY2     | 10.4095042281 | Down   |
| ## LINC01140 | 10.4053565686 | Down   |
| ## ID4       | 10.3922656007 | Down   |
| ## LDOC1     | 10.3527423829 | Stable |
| ## ZNF540    | 10.3378006695 | Stable |
| ## LMOD1     | 10.3336988349 | Down   |
| ## AUNIP     | 10.3313386831 | Stable |
| ## ADAM33    | 10.3172699845 | Stable |
| ## FBLN5     | 10.2823245399 | Down   |
| ## CDT1      | 10.2760514106 | Stable |
| ## PID1      | 10.2696732052 | Down   |
| ## TICRR     | 10.2676328864 | Stable |
| ## EIF6      | 10.2658609880 | Stable |
| ## KIF14     | 10.2655872923 | Up     |
| ## OGN       | 10.2641203555 | Down   |
| ## SKA1      | 10.1884473054 | Stable |
| ## STIL      | 10.1801351078 | Up     |
| ## ASAP3     | 10.1554520075 | Stable |
| ## BUB1B     | 10.1487569626 | Up     |
| ## METTL13   | 10.1452833861 | Stable |
| ## VLDLR     | 10.1207533382 | Down   |
| ## PGM5-AS1  | 10.1046377489 | Down   |
| ## CEP85L    | 10.0539180771 | Stable |
| ## TIPIN     | 10.0430916628 | Stable |
| ## RRM1      | 10.0406703402 | Stable |
| ## KNSTRN    | 10.0273828627 | Stable |
| ## ABCA6     | 10.0116809102 | Stable |
| ## SUV39H2   | 10.0007282114 | Stable |
| ## MRPL17    | 9.9826341058  | Stable |
| ## MRPS17    | 9.9691373717  | Stable |
| ## ARHGAP6   | 9.9645673205  | Down   |
| ## PEG3      | 9.9239192959  | Down   |
| ## ALG3      | 9.8829052569  | Stable |
| ## DTX1      | 9.8570746295  | Stable |
| ## ASPM      | 9.8328073714  | Up     |
| ## CIAO1     | 9.8266540104  | Stable |
| ## ITPR1     | 9.8149175419  | Stable |
| ## UMPS      | 9.8086648281  | Stable |
| ## ALYREF    | 9.8009712922  | Stable |
| ## MYBL2     | 9.7996625789  | Stable |
| ## NUP37     | 9.7995221172  | Stable |
| ## SELENOI   | 9.7953545467  | Up     |
| ## CENPA     | 9.7779819661  | Up     |
| ## PARPBP    | 9.7728036948  | Stable |
| ## FOXM1     | 9.7506031340  | Up     |
| ## CNOT1     | 9.7457870472  | Stable |
| ## MPLKIP    | 9.7174826672  | Stable |

|              |              |        |
|--------------|--------------|--------|
| ## KIF2C     | 9.7127662917 | Up     |
| ## DAAM2     | 9.6846979435 | Down   |
| ## TLE4      | 9.6563210780 | Stable |
| ## MRPL38    | 9.5890479674 | Stable |
| ## TCEAL7    | 9.5780373557 | Down   |
| ## MKI67     | 9.5700622259 | Up     |
| ## PHF23     | 9.5620673919 | Stable |
| ## ANKRD50   | 9.5538543715 | Stable |
| ## E2F3      | 9.5503184634 | Stable |
| ## WDR5      | 9.5104464149 | Stable |
| ## CNRIP1    | 9.4932885464 | Stable |
| ## P2RY14    | 9.4928997587 | Down   |
| ## PABPC1L   | 9.4910424300 | Stable |
| ## RANGAP1   | 9.4863302650 | Stable |
| ## SNRPD1    | 9.4695056019 | Stable |
| ## FBLN1     | 9.4413251609 | Down   |
| ## LAMA2     | 9.4398084780 | Down   |
| ## PODN      | 9.4290846815 | Down   |
| ## MRT04     | 9.3833412425 | Stable |
| ## COA6      | 9.3749861889 | Stable |
| ## SPAG5     | 9.3643239471 | Up     |
| ## CH25H     | 9.3491465713 | Down   |
| ## EZH2      | 9.3203238603 | Stable |
| ## CCNB2     | 9.3072088328 | Up     |
| ## NFE2L3    | 9.3044085896 | Up     |
| ## ADHFE1    | 9.3022105574 | Stable |
| ## CSTF2     | 9.2960573804 | Stable |
| ## MRE11     | 9.2826797327 | Stable |
| ## SEC31A    | 9.2776882549 | Stable |
| ## H2AX      | 9.2585322206 | Stable |
| ## KIF4A     | 9.2544248041 | Up     |
| ## MAD2L2    | 9.2520929762 | Stable |
| ## PMAIP1    | 9.2370245793 | Up     |
| ## HAUS6     | 9.1972128079 | Stable |
| ## C4orf46   | 9.1883008621 | Stable |
| ## FHL1      | 9.1740934187 | Down   |
| ## SRPK1     | 9.1674910582 | Stable |
| ## DEPDC1    | 9.1610325877 | Stable |
| ## VIPR2     | 9.1559153465 | Stable |
| ## SYNPO     | 9.1185242822 | Stable |
| ## UBFD1     | 9.0956909200 | Stable |
| ## PPP5C     | 9.0620412213 | Stable |
| ## TSFM      | 9.0607804135 | Stable |
| ## TNS2      | 9.0593578703 | Stable |
| ## ZNF582-DT | 9.0359132015 | Stable |
| ## TCEAL3    | 9.0236430496 | Stable |
| ## ARMCX1    | 9.0151416557 | Down   |
| ## YAP1      | 9.0018608317 | Stable |
| ## NOP2      | 8.9396833517 | Stable |
| ## TEAD4     | 8.9296274895 | Stable |
| ## CDCA3     | 8.9045574185 | Stable |
| ## NCAPG     | 8.9044487041 | Up     |
| ## SLC25A4   | 8.8615889073 | Stable |
| ## KIF18B    | 8.8591286432 | Up     |

|               |              |        |
|---------------|--------------|--------|
| ## RERG       | 8.8583617957 | Down   |
| ## CLIP3      | 8.8429208375 | Stable |
| ## CD47       | 8.8354526537 | Stable |
| ## RPF2       | 8.8200668685 | Stable |
| ## ANO5       | 8.8188555747 | Stable |
| ## SNRPB      | 8.8024438251 | Stable |
| ## EML1       | 8.7669238680 | Down   |
| ## FENRR      | 8.7588181561 | Stable |
| ## PLPP1      | 8.7582581080 | Stable |
| ## GALNT2     | 8.7458056987 | Stable |
| ## ATP2A2     | 8.7189963410 | Stable |
| ## CEP76      | 8.7015408001 | Stable |
| ## E2F7       | 8.6716847439 | Up     |
| ## FRZB       | 8.6659085177 | Down   |
| ## ADGRD1     | 8.6642274265 | Down   |
| ## FBX05      | 8.6511882439 | Stable |
| ## IL33       | 8.6273886691 | Down   |
| ## DISP1      | 8.6202644786 | Stable |
| ## ZNF667-AS1 | 8.5888716457 | Down   |
| ## NR3C2      | 8.5871612541 | Down   |
| ## FAM13C     | 8.5740541336 | Down   |
| ## EHMT2      | 8.5637823623 | Stable |
| ## TIMELESS   | 8.5480957913 | Stable |
| ## FGF7P3     | 8.5445713235 | Stable |
| ## RPRD1B     | 8.5260467349 | Stable |
| ## RACGAP1    | 8.5037527032 | Stable |
| ## UTP25      | 8.4852411584 | Stable |
| ## NDC1       | 8.4800704440 | Stable |
| ## NME1       | 8.4757598756 | Stable |
| ## SCAMP3     | 8.4558925141 | Stable |
| ## BANF1      | 8.4391614509 | Stable |
| ## CCSAP      | 8.4364892477 | Stable |
| ## CSTF1      | 8.4049616057 | Stable |
| ## FAM107A    | 8.3944974613 | Stable |
| ## NXT1       | 8.3921569538 | Stable |
| ## CCL21      | 8.3698966593 | Down   |
| ## MRPS30     | 8.3636718846 | Stable |
| ## HHIP-AS1   | 8.3613085435 | Stable |
| ## CDC25A     | 8.3462533901 | Stable |
| ## ZNF195     | 8.3319988841 | Stable |
| ## CPNE1      | 8.3231092669 | Stable |
| ## TUBB       | 8.3207536180 | Stable |
| ## NUTF2      | 8.3203629424 | Stable |
| ## PRELP      | 8.3187974634 | Down   |
| ## FAM228B    | 8.3003339261 | Stable |
| ## PDE8B      | 8.2648227757 | Stable |
| ## MRPL58     | 8.2505642932 | Stable |
| ## OIP5       | 8.2492286136 | Up     |
| ## PPIA       | 8.2340019224 | Stable |
| ## DDI2       | 8.2305268019 | Stable |
| ## SSBP2      | 8.2259428393 | Stable |
| ## SLIT2      | 8.1993038965 | Down   |
| ## CDC20      | 8.1880080099 | Up     |
| ## HJURP      | 8.1593669854 | Up     |

|              |              |        |
|--------------|--------------|--------|
| ## LONRF2    | 8.1495999121 | Down   |
| ## PRMT3     | 8.1399294076 | Stable |
| ## AGTRAP    | 8.1368277969 | Stable |
| ## EMC8      | 8.1100959640 | Stable |
| ## UBQLN1    | 8.1100015799 | Stable |
| ## PIMREG    | 8.1092771253 | Stable |
| ## CEP55     | 8.0945889264 | Up     |
| ## BRCA1     | 8.0854613685 | Stable |
| ## CDCA4     | 8.0710161616 | Stable |
| ## ZFP28     | 8.0518948716 | Stable |
| ## LRRC42    | 8.0490871886 | Stable |
| ## SGPL1     | 8.0486485962 | Stable |
| ## NDN       | 8.0457934399 | Down   |
| ## CD01      | 8.0414209580 | Down   |
| ## PKP3      | 8.0401668385 | Stable |
| ## SLC28A3   | 8.0004709758 | Up     |
| ## XPR1      | 7.9974806673 | Stable |
| ## RRP9      | 7.9931483087 | Stable |
| ## XP05      | 7.9648983953 | Stable |
| ## NUP107    | 7.9627908293 | Stable |
| ## C14orf132 | 7.9601951850 | Down   |
| ## FCGBP     | 7.9461822562 | Down   |
| ## ANKRD35   | 7.9299585302 | Stable |
| ## PSME3     | 7.9152564076 | Stable |
| ## BRIP1     | 7.9139092274 | Stable |
| ## CNN1      | 7.8902896452 | Down   |
| ## NFRKB     | 7.8860585434 | Stable |
| ## KMT5A     | 7.8813347872 | Stable |
| ## RBM15     | 7.8777879944 | Stable |
| ## DCAF7     | 7.8748862322 | Stable |
| ## HSPB2     | 7.8687645346 | Stable |
| ## SF3B4     | 7.8524726918 | Stable |
| ## CENPM     | 7.8430485171 | Stable |
| ## CNTNAP1   | 7.8355366502 | Stable |
| ## ATAD2     | 7.8192925917 | Up     |
| ## USP28     | 7.8164942199 | Stable |
| ## ANGPTL1   | 7.8015158469 | Down   |
| ## CRY2      | 7.7960720743 | Stable |
| ## NOP58     | 7.7953275601 | Stable |
| ## CPSF6     | 7.7941922959 | Stable |
| ## PPIL1     | 7.7877155456 | Stable |
| ## GPR155    | 7.7706975030 | Down   |
| ## RBPMS2    | 7.7619813465 | Down   |
| ## PPP1R3C   | 7.7605500342 | Down   |
| ## ATIC      | 7.7595028275 | Stable |
| ## PLCL2     | 7.7561621398 | Stable |
| ## KNTC1     | 7.7327603245 | Stable |
| ## CDK1      | 7.7232456649 | Up     |
| ## DCLK1     | 7.7196088918 | Down   |
| ## RMND1     | 7.7157444171 | Stable |
| ## COL4A5    | 7.7149763930 | Down   |
| ## GPRASP1   | 7.7079138226 | Down   |
| ## FANCA     | 7.7011399182 | Stable |
| ## RMND5A    | 7.6713197087 | Stable |



|             |              |        |
|-------------|--------------|--------|
| ## RSRC1    | 7.6509020892 | Stable |
| ## PTGER1   | 7.6420319895 | Stable |
| ## HGF      | 7.6388140773 | Down   |
| ## PKM      | 7.5913959277 | Stable |
| ## SPON1    | 7.5698939722 | Down   |
| ## GSN      | 7.5681278535 | Stable |
| ## SALL2    | 7.5599898449 | Stable |
| ## HKDC1    | 7.5571897489 | Stable |
| ## SAMD1    | 7.5420952088 | Stable |
| ## LIX1L    | 7.5397183562 | Stable |
| ## ECHDC2   | 7.5373338875 | Stable |
| ## KIFC1    | 7.5302712167 | Stable |
| ## TFAM     | 7.5267607620 | Stable |
| ## YDJC     | 7.5233527835 | Stable |
| ## DKC1     | 7.5200617989 | Stable |
| ## OSBPL3   | 7.5142877023 | Stable |
| ## BID      | 7.5127715394 | Stable |
| ## PTGIS    | 7.5112169695 | Down   |
| ## TMEM185B | 7.5100821988 | Stable |
| ## AURKA    | 7.5095199011 | Up     |
| ## BYSL     | 7.5022676787 | Stable |
| ## NEK2     | 7.4905979060 | Up     |
| ## NR2F1    | 7.4831661250 | Down   |
| ## DUSP12   | 7.4742911568 | Stable |
| ## SHCBP1   | 7.4729459437 | Stable |
| ## ABHD11   | 7.4723557330 | Stable |
| ## PRCC     | 7.4670408455 | Stable |
| ## ELAVL1   | 7.4590759755 | Stable |
| ## DACT3    | 7.4369872493 | Stable |
| ## CASQ2    | 7.3867205471 | Down   |
| ## ORC6     | 7.3811596046 | Stable |
| ## RFWD3    | 7.3738156407 | Stable |
| ## FAM114A1 | 7.3694681722 | Stable |
| ## NBEA     | 7.3644599860 | Down   |
| ## PLEKHG4  | 7.3619967441 | Stable |
| ## LMNB2    | 7.3551401286 | Stable |
| ## CIRBP    | 7.3524187348 | Stable |
| ## BRIX1    | 7.3411456380 | Stable |
| ## CCNI     | 7.3398880399 | Stable |
| ## TOMM34   | 7.3160836996 | Stable |
| ## DBF4     | 7.3082679185 | Stable |
| ## KIF22    | 7.3012888034 | Stable |
| ## GLE1     | 7.2978600245 | Stable |
| ## PURA     | 7.2903286729 | Stable |
| ## RFC2     | 7.2882189266 | Stable |
| ## ACKR1    | 7.2584601700 | Down   |
| ## DAXX     | 7.2583948391 | Stable |
| ## NDRG2    | 7.2578289696 | Stable |
| ## CKS2     | 7.2575731862 | Up     |
| ## ADORA2B  | 7.2482297076 | Up     |
| ## MCM5     | 7.2452923920 | Stable |
| ## CENPW    | 7.2419044026 | Stable |
| ## TFDP1    | 7.2392317101 | Stable |
| ## ZNF367   | 7.2348245252 | Stable |

|             |              |        |
|-------------|--------------|--------|
| ## NFASC    | 7.2334389461 | Down   |
| ## URB2     | 7.2263250526 | Stable |
| ## MND1     | 7.2158195778 | Stable |
| ## ELN      | 7.1813243353 | Down   |
| ## ZWINT    | 7.1698057287 | Stable |
| ## ECM2     | 7.1654414114 | Stable |
| ## VRK2     | 7.1292986476 | Stable |
| ## ABCE1    | 7.1170491949 | Stable |
| ## KIF11    | 7.0992096385 | Up     |
| ## TMSB10   | 7.0941020932 | Stable |
| ## CTSF     | 7.0861164703 | Stable |
| ## GSK3B    | 7.0793880057 | Stable |
| ## PSMD12   | 7.0644531253 | Stable |
| ## SHISA3   | 7.0504994049 | Down   |
| ## THBS4    | 7.0158543080 | Down   |
| ## PSRC1    | 7.0121482257 | Stable |
| ## DHCR7    | 6.9818928834 | Stable |
| ## SNRPA1   | 6.9636872313 | Stable |
| ## SNRPD3   | 6.9622904895 | Stable |
| ## WDR12    | 6.9522280419 | Stable |
| ## PRPF19   | 6.9442719594 | Stable |
| ## TMEM237  | 6.9429065164 | Stable |
| ## EFNA4    | 6.9364146425 | Stable |
| ## HMBS     | 6.9330371559 | Stable |
| ## LRRN4CL  | 6.9230036513 | Down   |
| ## GNL3     | 6.8810328832 | Stable |
| ## GCHFR    | 6.8744161884 | Stable |
| ## WLS      | 6.8679061626 | Down   |
| ## HASPIN   | 6.8597613679 | Stable |
| ## ASB2     | 6.8440921010 | Stable |
| ## TAPBP    | 6.8343696637 | Stable |
| ## RAD54L   | 6.8306617367 | Stable |
| ## RERGL    | 6.8292686542 | Stable |
| ## BLM      | 6.8274879929 | Stable |
| ## PPP3CB   | 6.8270153976 | Stable |
| ## SRPX     | 6.7960720246 | Down   |
| ## LRCH2    | 6.7766045727 | Stable |
| ## LTBP4    | 6.7629621458 | Stable |
| ## CTSG     | 6.7619768798 | Stable |
| ## PSMB7    | 6.7563187393 | Stable |
| ## LHFPL6   | 6.7501172126 | Down   |
| ## ZNF677   | 6.7491802312 | Stable |
| ## XRN2     | 6.7377396614 | Stable |
| ## GGH      | 6.7220593128 | Up     |
| ## NELFCD   | 6.7197768262 | Stable |
| ## PLIN4    | 6.7176996392 | Stable |
| ## SLC7A6   | 6.7158745519 | Stable |
| ## HAT1     | 6.7135159633 | Stable |
| ## DTL      | 6.7082152082 | Stable |
| ## PRICKLE1 | 6.7061896223 | Down   |
| ## HSPE1    | 6.7055599652 | Stable |
| ## CARMN    | 6.7047695966 | Down   |
| ## POLR1C   | 6.6909673645 | Stable |
| ## FAT4     | 6.6900469925 | Stable |

|               |              |        |
|---------------|--------------|--------|
| ## PSMF1      | 6.6841707626 | Stable |
| ## ZSWIM6     | 6.6709308172 | Stable |
| ## KNL1       | 6.6493571425 | Stable |
| ## MAGEH1     | 6.6492738644 | Stable |
| ## MRPL47     | 6.6377280725 | Stable |
| ## SAE1       | 6.6201126011 | Stable |
| ## NSUN2      | 6.6162213257 | Stable |
| ## INSYN1     | 6.6032597498 | Stable |
| ## MTHFD2     | 6.5992047800 | Stable |
| ## ARHGAP11A  | 6.5794613625 | Stable |
| ## SCO1       | 6.5781583332 | Stable |
| ## MCM7       | 6.5761145436 | Stable |
| ## FAM117A    | 6.5753701960 | Stable |
| ## CAND2      | 6.5708958923 | Stable |
| ## PTBP3      | 6.5706952824 | Up     |
| ## ADRM1      | 6.5581628649 | Stable |
| ## ZBTB20     | 6.5563268294 | Stable |
| ## RNASEH2A   | 6.5520830032 | Stable |
| ## SLC24A3    | 6.5516705691 | Down   |
| ## CTPS1      | 6.5495231810 | Stable |
| ## WBP1L      | 6.5404170905 | Stable |
| ## SLC52A3    | 6.5342367443 | Stable |
| ## KARS1      | 6.5331552495 | Stable |
| ## GMPS       | 6.5317652468 | Stable |
| ## CSRP1      | 6.5290356627 | Down   |
| ## STMN2      | 6.5207728455 | Stable |
| ## BRCA2      | 6.5157457494 | Stable |
| ## DNMT1      | 6.5038989051 | Stable |
| ## FABP4      | 6.5021712978 | Down   |
| ## ENO1       | 6.4966979989 | Stable |
| ## TOMM40     | 6.4936208664 | Stable |
| ## RBBP8      | 6.4909968067 | Stable |
| ## STARD9     | 6.4857788184 | Stable |
| ## PNPT1      | 6.4850957938 | Stable |
| ## DES        | 6.4845933278 | Down   |
| ## CRYAB      | 6.4830409922 | Down   |
| ## GGCT       | 6.4630958131 | Stable |
| ## TEDC2      | 6.4562097677 | Stable |
| ## MYRIP      | 6.4268309515 | Down   |
| ## MICU3      | 6.4248477021 | Stable |
| ## MIR29B2CHG | 6.4112264835 | Down   |
| ## SNHG1      | 6.3983865836 | Stable |
| ## HSPB8      | 6.3813531417 | Down   |
| ## RTKN       | 6.3553862955 | Stable |
| ## MALT1      | 6.3526068405 | Stable |
| ## MTX1       | 6.3501004468 | Stable |
| ## PRPF31     | 6.3177791994 | Stable |
| ## TRIM27     | 6.3016736810 | Stable |
| ## FBF1       | 6.3015792576 | Stable |
| ## BUB3       | 6.2909222449 | Stable |
| ## GYPC       | 6.2773495713 | Stable |
| ## POLD2      | 6.2770989167 | Stable |
| ## FARSA      | 6.2747351607 | Stable |
| ## CSNK2B     | 6.2629835843 | Stable |

|              |              |        |
|--------------|--------------|--------|
| ## LTC4S     | 6.2624720985 | Stable |
| ## OSER1     | 6.2594489283 | Stable |
| ## NUP205    | 6.2492932617 | Stable |
| ## KIF20A    | 6.2461368483 | Up     |
| ## TRIB3     | 6.2206985190 | Stable |
| ## PSMB3     | 6.2204094151 | Stable |
| ## NUP155    | 6.2172085391 | Stable |
| ## FANCE     | 6.2002398857 | Stable |
| ## RPP40     | 6.1890345485 | Stable |
| ## SYNCRIP   | 6.1871864223 | Stable |
| ## HMGB3P1   | 6.1822542215 | Stable |
| ## KLF2      | 6.1790705949 | Stable |
| ## CACYBP    | 6.1518703426 | Stable |
| ## ACAP2     | 6.1484975154 | Stable |
| ## ENOPH1    | 6.1479789327 | Stable |
| ## ESPL1     | 6.1451865650 | Stable |
| ## ZW10      | 6.1272242295 | Stable |
| ## SNRPG     | 6.1107457290 | Stable |
| ## USP24     | 6.1087050554 | Stable |
| ## PRKCSH    | 6.1068298284 | Stable |
| ## POP7      | 6.1057971731 | Stable |
| ## PLSCR4    | 6.1002366346 | Stable |
| ## MSH2      | 6.0914679105 | Stable |
| ## SIGLEC17P | 6.0748103167 | Stable |
| ## SOD3      | 6.0741972579 | Stable |
| ## RAD18     | 6.0614000804 | Stable |
| ## CAPN9     | 6.0602857440 | Down   |
| ## SCRG1     | 6.0547809539 | Down   |
| ## HSD17B6   | 6.0425063595 | Down   |
| ## TWNK      | 6.0375704295 | Stable |
| ## PDE2A     | 6.0335068056 | Stable |
| ## ACTG2     | 6.0307393246 | Down   |
| ## ZNF423    | 6.0278232754 | Down   |
| ## WDR46     | 6.0260815640 | Stable |
| ## ZBTB16    | 6.0015941724 | Down   |
| ## RHOBTB1   | 5.9977943041 | Stable |
| ## PLA2G10   | 5.9902452991 | Down   |
| ## POC1A     | 5.9875136429 | Stable |
| ## FAM229B   | 5.9764854752 | Stable |
| ## ICAM1     | 5.9709589049 | Stable |
| ## SAPCD2    | 5.9666493692 | Stable |
| ## GTSE1     | 5.9662877368 | Stable |
| ## CCDC107   | 5.9624565901 | Stable |
| ## NOLC1     | 5.9604448356 | Stable |
| ## CTSO      | 5.9504093072 | Stable |
| ## PTCO3     | 5.9410341662 | Stable |
| ## SCG5      | 5.9391353445 | Down   |
| ## SDE2      | 5.9156825137 | Stable |
| ## U2SURP    | 5.9142568391 | Stable |
| ## GPD1L     | 5.9000207841 | Stable |
| ## RELN      | 5.8909374942 | Stable |
| ## SPRTN     | 5.8903400521 | Stable |
| ## HTR2A     | 5.8900334918 | Stable |
| ## TSEN34    | 5.8890706426 | Stable |

|              |              |        |
|--------------|--------------|--------|
| ## PHYH      | 5.8876688031 | Stable |
| ## TSN       | 5.8866554787 | Stable |
| ## RPAP3     | 5.8859828956 | Stable |
| ## RRP1      | 5.8823527469 | Stable |
| ## DSN1      | 5.8769840605 | Stable |
| ## BHMT2     | 5.8726858178 | Down   |
| ## EIF4A3    | 5.8631021020 | Stable |
| ## IMP4      | 5.8547426065 | Stable |
| ## ORC1      | 5.8508336951 | Stable |
| ## TGIF1     | 5.8458346908 | Stable |
| ## CHD9      | 5.8400491483 | Stable |
| ## TAP1      | 5.8334925347 | Stable |
| ## WDR75     | 5.8212542927 | Stable |
| ## DNAJB1    | 5.8049411912 | Stable |
| ## LRRC17    | 5.8036701576 | Down   |
| ## DDX18     | 5.7971258780 | Stable |
| ## NKX2-3    | 5.7824762565 | Stable |
| ## USP43     | 5.7808119390 | Stable |
| ## SORBS1    | 5.7788417959 | Stable |
| ## KPNA2     | 5.7757633839 | Stable |
| ## NUS1P3    | 5.7706603426 | Stable |
| ## ATL3      | 5.7581284262 | Stable |
| ## CHAF1B    | 5.7558170280 | Stable |
| ## CFH       | 5.7537204575 | Down   |
| ## COX7A1    | 5.7489516534 | Stable |
| ## RIF1      | 5.7441607257 | Stable |
| ## PGM2      | 5.7434066325 | Stable |
| ## MEN1      | 5.7325029630 | Stable |
| ## PCLAF     | 5.7227869074 | Stable |
| ## EID1      | 5.7207975488 | Stable |
| ## XRN1      | 5.7094665040 | Stable |
| ## TCP1      | 5.7084584247 | Stable |
| ## NAMPT     | 5.7057181468 | Up     |
| ## FAM172A   | 5.6785148808 | Stable |
| ## FBXL5     | 5.6673961870 | Stable |
| ## RPN2      | 5.6538167591 | Stable |
| ## SLBP      | 5.6458303318 | Stable |
| ## HSPA14    | 5.6313602420 | Stable |
| ## GSPT2     | 5.6161504686 | Down   |
| ## MIF       | 5.5895004507 | Stable |
| ## AMD1      | 5.5884927998 | Stable |
| ## PHYHD1    | 5.5810907151 | Stable |
| ## DLGAP5    | 5.5736608552 | Up     |
| ## FDPS      | 5.5730792553 | Stable |
| ## LIMS2     | 5.5693777671 | Stable |
| ## MEOX2     | 5.5683444414 | Down   |
| ## SNRPA     | 5.5615168209 | Stable |
| ## TNFRSF12A | 5.5567266276 | Stable |
| ## RIOX2     | 5.5551756923 | Stable |
| ## CD1C      | 5.5512265230 | Stable |
| ## C1QTNF7   | 5.5354977606 | Stable |
| ## GNG11     | 5.5315008989 | Stable |
| ## GAPDH     | 5.5314430761 | Stable |
| ## NMI       | 5.5286476569 | Stable |

|               |              |        |
|---------------|--------------|--------|
| ## FIGU       | 5.4923582164 | Stable |
| ## KCNT2      | 5.4906412711 | Stable |
| ## CNIH4      | 5.4867327109 | Stable |
| ## DCUN1D5    | 5.4813755793 | Stable |
| ## CLDN1      | 5.4737183643 | Up     |
| ## COL14A1    | 5.4686748041 | Down   |
| ## PNO1       | 5.4615142893 | Stable |
| ## TYW5       | 5.4586914670 | Stable |
| ## NUP188     | 5.4532604203 | Stable |
| ## PTTG1      | 5.4515634777 | Stable |
| ## SYNM       | 5.4436903196 | Down   |
| ## DEDD       | 5.4429385528 | Stable |
| ## GPBAR1     | 5.4427264837 | Stable |
| ## AIMP2      | 5.4406564264 | Stable |
| ## TARS2      | 5.4293032165 | Stable |
| ## NAP1L3     | 5.3982873531 | Down   |
| ## FIP1L1     | 5.3954487001 | Stable |
| ## ZNF790-AS1 | 5.3923924903 | Stable |
| ## ORC2       | 5.3891113744 | Stable |
| ## SETBP1-DT  | 5.3884673584 | Stable |
| ## FREM1      | 5.3552621993 | Stable |
| ## CPQ        | 5.3550378112 | Stable |
| ## SLC25A39   | 5.3458435943 | Stable |
| ## CCDC159    | 5.3308780866 | Stable |
| ## RAD54B     | 5.3268725987 | Stable |
| ## MRPL19     | 5.3202259774 | Stable |
| ## ITM2B      | 5.3134399468 | Stable |
| ## TRNT1      | 5.3123278998 | Stable |
| ## RPH3AL-AS1 | 5.3027535183 | Stable |
| ## TOPBP1     | 5.3012052835 | Stable |
| ## ZC4H2      | 5.3007487832 | Stable |
| ## EPHA3      | 5.2951991054 | Down   |
| ## MGLL       | 5.2862519787 | Stable |
| ## TM9SF4     | 5.2845981845 | Stable |
| ## DHRS3      | 5.2806838995 | Stable |
| ## SSRP1      | 5.2723474071 | Stable |
| ## PUS1       | 5.2703722725 | Stable |
| ## SASS6      | 5.2684049325 | Stable |
| ## OXSR1      | 5.2505485453 | Stable |
| ## HSPB7      | 5.2418723976 | Down   |
| ## UTP20      | 5.2413714286 | Stable |
| ## EGFL6      | 5.2339892243 | Up     |
| ## PUS7       | 5.2253061605 | Stable |
| ## NOP56      | 5.2237007024 | Stable |
| ## CRBN       | 5.2162329936 | Stable |
| ## NFIB       | 5.2158491543 | Stable |
| ## TRIM11     | 5.2155204203 | Stable |
| ## SH3BGR     | 5.2086924768 | Stable |
| ## MCM8       | 5.2058835070 | Stable |
| ## NIT2       | 5.2010152997 | Stable |
| ## NPR3       | 5.2007059372 | Stable |
| ## HUS1       | 5.1954337915 | Stable |
| ## DDX21      | 5.1944463344 | Stable |
| ## COMMD4     | 5.1731959205 | Stable |

|              |              |        |
|--------------|--------------|--------|
| ## NAT10     | 5.1655634483 | Stable |
| ## ABCA8     | 5.1611351175 | Stable |
| ## ZFX       | 5.1559675132 | Stable |
| ## GAR1      | 5.1555177661 | Stable |
| ## CXCL1     | 5.1482306277 | Up     |
| ## MTCH2     | 5.1482273486 | Stable |
| ## PDLIM3    | 5.1443471355 | Down   |
| ## DAP3      | 5.1433289694 | Stable |
| ## DCLRE1A   | 5.1245957041 | Stable |
| ## INMT      | 5.1225091023 | Down   |
| ## MYZAP     | 5.1177996018 | Stable |
| ## HDC       | 5.1138112022 | Stable |
| ## AHCTF1    | 5.1135672347 | Stable |
| ## DLAT      | 5.1085831924 | Stable |
| ## LRR1      | 5.1024826238 | Stable |
| ## MGME1     | 5.0939322698 | Stable |
| ## LRIG1     | 5.0921885660 | Stable |
| ## API5      | 5.0686656991 | Stable |
| ## SAC3D1    | 5.0650352484 | Stable |
| ## NOL11     | 5.0645337924 | Stable |
| ## POLE2     | 5.0644371175 | Stable |
| ## STX6      | 5.0624393149 | Stable |
| ## GTPBP2    | 5.0507479599 | Stable |
| ## HMMR      | 5.0487504861 | Up     |
| ## KIF20B    | 5.0472725964 | Stable |
| ## GINS3     | 5.0312736225 | Stable |
| ## TUBGCP3   | 5.0139671257 | Stable |
| ## DNTTIP1   | 5.0103232555 | Stable |
| ## FXYD6     | 5.0066976575 | Down   |
| ## PMS2P3    | 5.0060906436 | Stable |
| ## GGTA1     | 5.0005057091 | Stable |
| ## LSM12     | 4.9968106482 | Stable |
| ## WAPL      | 4.9947633032 | Stable |
| ## NUDT1     | 4.9897486874 | Stable |
| ## LRP8      | 4.9879075191 | Stable |
| ## SNHG15    | 4.9860649757 | Stable |
| ## PSAPL1    | 4.9860353704 | Stable |
| ## SLC16A2   | 4.9819558976 | Stable |
| ## PGRMC2    | 4.9808536723 | Stable |
| ## CAPN1     | 4.9774217642 | Stable |
| ## LDB2      | 4.9735808001 | Stable |
| ## CBX3      | 4.9691601061 | Stable |
| ## HNRNPF    | 4.9643861730 | Stable |
| ## MYOC      | 4.9640011437 | Down   |
| ## SERINC1   | 4.9630191649 | Stable |
| ## SPART     | 4.9628052096 | Stable |
| ## PPP1R35   | 4.9625143200 | Stable |
| ## MRPS26    | 4.9592603958 | Stable |
| ## RPRD1A    | 4.9556094764 | Stable |
| ## DZIP1     | 4.9450100252 | Stable |
| ## NR2F2-AS1 | 4.9396525850 | Stable |
| ## RSP03     | 4.9363313040 | Down   |
| ## MZT1      | 4.9337553531 | Stable |
| ## AZI2      | 4.9298379459 | Stable |

|              |              |        |
|--------------|--------------|--------|
| ## PPP1R36   | 4.9220807960 | Stable |
| ## HCAR3     | 4.9220205107 | Up     |
| ## DCX       | 4.9213967787 | Stable |
| ## WDR26     | 4.9154228127 | Stable |
| ## TMTC1     | 4.9142712382 | Stable |
| ## NFKBIE    | 4.9052080224 | Stable |
| ## GOLT1B    | 4.9013176517 | Stable |
| ## CDK4      | 4.9007747900 | Stable |
| ## C14orf28  | 4.9006258993 | Stable |
| ## MS4A2     | 4.8977254102 | Stable |
| ## C5orf34   | 4.8935136182 | Stable |
| ## SLC25A22  | 4.8884360801 | Stable |
| ## LARP6     | 4.8814026296 | Stable |
| ## TFG       | 4.8706144472 | Stable |
| ## MASTL     | 4.8699671151 | Stable |
| ## WNT2B     | 4.8684717007 | Stable |
| ## MTF2      | 4.8627733630 | Stable |
| ## DPAGT1    | 4.8578724377 | Stable |
| ## THYN1     | 4.8479395641 | Stable |
| ## ZC3H8     | 4.8340464960 | Stable |
| ## NUP93     | 4.8296850224 | Stable |
| ## AMMECR1   | 4.8162924069 | Stable |
| ## CHR1      | 4.8069881248 | Stable |
| ## AGTR1     | 4.7925828432 | Down   |
| ## ATL1      | 4.7797292498 | Stable |
| ## MAP1A     | 4.7780377261 | Stable |
| ## PRMT5     | 4.7753705580 | Stable |
| ## POLR1F    | 4.7654157990 | Stable |
| ## NR2F1-AS1 | 4.7527388160 | Stable |
| ## IGFBP5    | 4.7508747084 | Stable |
| ## MAGI2-AS3 | 4.7453850554 | Stable |
| ## RPL23AP32 | 4.7443410225 | Stable |
| ## CALR      | 4.7347687929 | Stable |
| ## FBXL22    | 4.7315875283 | Stable |
| ## MRM2      | 4.7298730881 | Stable |
| ## DNAAF5    | 4.7196300965 | Stable |
| ## CHAF1A    | 4.7163718156 | Stable |
| ## PSMD2     | 4.7120710413 | Stable |
| ## ZNF8      | 4.7054392056 | Stable |
| ## TCEAL2    | 4.6910546754 | Down   |
| ## DCAF17    | 4.6907979212 | Stable |
| ## PLP1      | 4.6883457989 | Stable |
| ## USP39     | 4.6880117691 | Stable |
| ## SMU1      | 4.6846423172 | Stable |
| ## C8orf88   | 4.6779509251 | Down   |
| ## ARPC5L    | 4.6777860587 | Stable |
| ## SLC4A11   | 4.6745519783 | Up     |
| ## MIS18A    | 4.6692551434 | Stable |
| ## SHMT2     | 4.6690660188 | Stable |
| ## RECQL4    | 4.6676994518 | Stable |
| ## PJA2      | 4.6624697873 | Stable |
| ## ZDHHC23   | 4.6495322568 | Stable |
| ## EEF1E1    | 4.6400509394 | Stable |
| ## CAPRIN1   | 4.6389263806 | Stable |



|             |              |        |
|-------------|--------------|--------|
| ## HSP90AB1 | 4.6370809507 | Up     |
| ## MSI2     | 4.6318600723 | Stable |
| ## PYGM     | 4.6189006120 | Stable |
| ## PAK3     | 4.6188985240 | Stable |
| ## NANP     | 4.6023888323 | Stable |
| ## WASF3    | 4.6011278413 | Down   |
| ## GNB1     | 4.6005081156 | Stable |
| ## CLDN7    | 4.5967121199 | Up     |
| ## SLIT3    | 4.5879569991 | Stable |
| ## CKB      | 4.5869781390 | Down   |
| ## FZD4     | 4.5853643753 | Stable |
| ## MTURN    | 4.5722393564 | Stable |
| ## BPNT2    | 4.5715297732 | Stable |
| ## CKMT2    | 4.5633769470 | Down   |
| ## PALB2    | 4.5582491792 | Stable |
| ## NOL9     | 4.5521930586 | Stable |
| ## TMEM47   | 4.5489930824 | Stable |
| ## SENP1    | 4.5466362875 | Stable |
| ## TRMT6    | 4.5461520239 | Stable |
| ## C1QTNF2  | 4.5448201599 | Stable |
| ## MYH11    | 4.5440357195 | Down   |
| ## SLITRK5  | 4.5435899138 | Stable |
| ## PRPH2    | 4.5284146111 | Stable |
| ## ARHGEF26 | 4.5276110708 | Stable |
| ## PANX1    | 4.5259496013 | Stable |
| ## RAB9B    | 4.5243674899 | Stable |
| ## PHB1     | 4.5211402864 | Stable |
| ## SLC04A1  | 4.5180369299 | Stable |
| ## MTBP     | 4.5154195957 | Stable |
| ## NTMT1    | 4.5150309057 | Stable |
| ## ZC3H15   | 4.4902929326 | Stable |
| ## IGF2BP2  | 4.4794608187 | Stable |
| ## SLC3A2   | 4.4777309475 | Stable |
| ## MARS1    | 4.4657437328 | Stable |
| ## EFEMP1   | 4.4612865846 | Down   |
| ## E2F6     | 4.4481495063 | Stable |
| ## MARS2    | 4.4478711933 | Stable |
| ## HSPB6    | 4.4363991490 | Down   |
| ## KCNN3    | 4.4332015800 | Stable |
| ## YPEL5    | 4.4220577232 | Stable |
| ## SRSF2    | 4.4216485531 | Stable |
| ## DARS2    | 4.4174030744 | Stable |
| ## ASF1B    | 4.4090560403 | Stable |
| ## CENPH    | 4.3990657828 | Stable |
| ## AOX1     | 4.3926116072 | Stable |
| ## DNAJC11  | 4.3919985807 | Stable |
| ## ACTA2    | 4.3904642801 | Stable |
| ## SLC35A2  | 4.3896386759 | Stable |
| ## TOP2A    | 4.3735963823 | Up     |
| ## MRGPRF   | 4.3720434275 | Down   |
| ## IGIP     | 4.3630116365 | Stable |
| ## SLC25A51 | 4.3588009126 | Stable |
| ## TXNDC9   | 4.3561895698 | Stable |
| ## ZNF281   | 4.3424355540 | Stable |

|             |              |        |
|-------------|--------------|--------|
| ## AKIRIN2  | 4.3315490768 | Stable |
| ## TTYH3    | 4.3256514679 | Stable |
| ## IARS1    | 4.3150653535 | Stable |
| ## PIK3C2G  | 4.3043207458 | Down   |
| ## TRABD2B  | 4.2954743839 | Stable |
| ## FRY      | 4.2935753066 | Stable |
| ## NISCH    | 4.2919660850 | Stable |
| ## FBXL7    | 4.2862151392 | Stable |
| ## CNPY3    | 4.2836431287 | Stable |
| ## MIR100HG | 4.2798306868 | Down   |
| ## RAE1     | 4.2770588264 | Stable |
| ## PDP2     | 4.2744410666 | Stable |
| ## UBAP2L   | 4.2641274871 | Stable |
| ## ABT1     | 4.2617721593 | Stable |
| ## MREG     | 4.2555558933 | Stable |
| ## CELF1    | 4.2511235043 | Stable |
| ## ARRDC4   | 4.2427828477 | Stable |
| ## NEXN     | 4.2416553036 | Down   |
| ## MAP2K1   | 4.2369541738 | Stable |
| ## DCN      | 4.2362538878 | Stable |
| ## PDCL     | 4.2184410151 | Stable |
| ## IGF1     | 4.2150793487 | Down   |
| ## ARHGEF37 | 4.2060812521 | Stable |
| ## GANAB    | 4.2036265562 | Stable |
| ## CGAS     | 4.1926361262 | Stable |
| ## ATG2A    | 4.1883569333 | Stable |
| ## ABCF1    | 4.1873678569 | Stable |
| ## MRPS14   | 4.1857900687 | Stable |
| ## UHRF1    | 4.1825670513 | Stable |
| ## SAAL1    | 4.1788384487 | Stable |
| ## TTLL7    | 4.1742940303 | Stable |
| ## NLGN1    | 4.1738360714 | Stable |
| ## APOD     | 4.1700198869 | Down   |
| ## HHIP     | 4.1544667936 | Stable |
| ## TP53RK   | 4.1535862040 | Stable |
| ## NPEPL1   | 4.1533439080 | Stable |
| ## TMOD1    | 4.1529838577 | Stable |
| ## ANAPC16  | 4.1481117298 | Stable |
| ## SSB      | 4.1469663484 | Stable |
| ## FRRS1L   | 4.1290298289 | Stable |
| ## ACADL    | 4.1289499069 | Stable |
| ## PSMC4    | 4.1257789632 | Stable |
| ## NFS1     | 4.1255770819 | Stable |
| ## COL4A3   | 4.1185664313 | Stable |
| ## TMEM35A  | 4.1162844129 | Stable |
| ## CFL2     | 4.1125622334 | Down   |
| ## IPO4     | 4.1084358360 | Stable |
| ## RNF217   | 4.1027857670 | Stable |
| ## PSMB6    | 4.0932101529 | Stable |
| ## SFT2D2   | 4.0846251766 | Stable |
| ## EIF2B2   | 4.0728513627 | Stable |
| ## SEMA3G   | 4.0672605179 | Stable |
| ## STUM     | 4.0643469683 | Stable |
| ## LYAR     | 4.0601206053 | Stable |

|              |              |        |
|--------------|--------------|--------|
| ## MYOM1     | 4.0506035326 | Stable |
| ## RFC3      | 4.0490321042 | Stable |
| ## CCT7      | 4.0469677030 | Stable |
| ## ATP1A2    | 4.0460663097 | Stable |
| ## SNORA21   | 4.0459155140 | Stable |
| ## SLC31A1   | 4.0448379755 | Stable |
| ## DDX39A    | 4.0414673446 | Stable |
| ## NDNF      | 4.0391224663 | Stable |
| ## EBPL      | 4.0354155833 | Stable |
| ## CPSF3     | 4.0327145644 | Stable |
| ## PSAT1     | 4.0317315344 | Stable |
| ## RNGTT     | 4.0233144233 | Stable |
| ## MAP7      | 4.0203446096 | Stable |
| ## GPR146    | 4.0174995604 | Stable |
| ## EXOSC3    | 4.0140379356 | Stable |
| ## NMT1      | 4.0077102971 | Stable |
| ## RBM28     | 4.0001640325 | Stable |
| ## MAN1C1    | 4.0000961907 | Stable |
| ## HNRNPA2B1 | 3.9973020834 | Stable |
| ## C17orf75  | 3.9954297956 | Stable |
| ## TMEM177   | 3.9881186325 | Stable |
| ## SOX10     | 3.9877948333 | Stable |
| ## MRGBP     | 3.9866246627 | Stable |
| ## LDHA      | 3.9825462311 | Stable |
| ## PRIM1     | 3.9823169555 | Stable |
| ## CMSS1     | 3.9797405686 | Stable |
| ## PLCXD3    | 3.9773589352 | Stable |
| ## MAZ       | 3.9763124447 | Stable |
| ## SLC7A8    | 3.9756968409 | Stable |
| ## ZMYND19   | 3.9734804501 | Stable |
| ## CCDC25    | 3.9677289704 | Stable |
| ## PSMD10    | 3.9641157515 | Stable |
| ## TFB1M     | 3.9633093268 | Stable |
| ## CBFEB     | 3.9538323559 | Stable |
| ## MSX2      | 3.9516600771 | Stable |
| ## DONSON    | 3.9454019920 | Stable |
| ## PTGES3    | 3.9435241649 | Stable |
| ## CDKN3     | 3.9283922590 | Up     |
| ## CXCL8     | 3.9165058231 | Up     |
| ## ADAR      | 3.8998850127 | Stable |
| ## CCDC167   | 3.8961217239 | Stable |
| ## IPW       | 3.8924611939 | Stable |
| ## UTP6      | 3.8909636697 | Stable |
| ## GK3P      | 3.8870200822 | Stable |
| ## SOSTDC1   | 3.8854578734 | Down   |
| ## STOML2    | 3.8833824586 | Stable |
| ## NUP62     | 3.8831000561 | Stable |
| ## POLR1A    | 3.8781136540 | Stable |
| ## HEATR1    | 3.8777539317 | Stable |
| ## HMCN1     | 3.8775689969 | Down   |
| ## CYS1      | 3.8694885439 | Down   |
| ## NUDT21    | 3.8687830655 | Stable |
| ## BEX4      | 3.8549250298 | Stable |
| ## SCN1B     | 3.8522761780 | Stable |

|              |              |        |
|--------------|--------------|--------|
| ## NAPG      | 3.8505055741 | Stable |
| ## CDK5      | 3.8426988014 | Stable |
| ## MYOT      | 3.8423029918 | Stable |
| ## MUC5AC    | 3.8391094844 | Down   |
| ## FANCM     | 3.8385254078 | Stable |
| ## BNC2      | 3.8367807396 | Stable |
| ## NAP1L5    | 3.8313493060 | Stable |
| ## TRAM1L1   | 3.8283628464 | Stable |
| ## RNF11     | 3.8238435723 | Stable |
| ## ZCCHC18   | 3.8150618672 | Stable |
| ## MRRF      | 3.8132193535 | Stable |
| ## CLCN4     | 3.8076796590 | Stable |
| ## POLE3     | 3.8039047118 | Stable |
| ## FAM110B   | 3.8036716598 | Stable |
| ## SHC1      | 3.7932180655 | Stable |
| ## ITIH5     | 3.7891246962 | Stable |
| ## FOXRED1   | 3.7861097619 | Stable |
| ## VTA1      | 3.7791986964 | Stable |
| ## DHX33     | 3.7787173318 | Stable |
| ## MN1       | 3.7743382790 | Down   |
| ## CDC5L     | 3.7742391765 | Stable |
| ## SGCE      | 3.7580388259 | Stable |
| ## NIF3L1    | 3.7459379168 | Stable |
| ## SYNE1     | 3.7455526803 | Stable |
| ## CD46      | 3.7409292376 | Stable |
| ## PFDN5     | 3.7353855209 | Stable |
| ## RPL3      | 3.7344581851 | Stable |
| ## TOMM70    | 3.7324255161 | Stable |
| ## MPDZ      | 3.7297605692 | Stable |
| ## SLC35F5   | 3.7287571474 | Stable |
| ## DENND1A   | 3.7264050692 | Stable |
| ## LONP2     | 3.7196080527 | Stable |
| ## MAGOHB    | 3.7184582707 | Stable |
| ## AKAP8     | 3.7121274798 | Stable |
| ## LINC01798 | 3.7104276714 | Stable |
| ## ZNF25     | 3.7070934102 | Stable |
| ## MAPRE1    | 3.7055144600 | Stable |
| ## XP04      | 3.7020944582 | Stable |
| ## ZNRD2     | 3.6990005964 | Stable |
| ## FILIP1    | 3.6973289067 | Down   |
| ## BRCC3     | 3.6935476117 | Stable |
| ## MXRA7     | 3.6932500163 | Stable |
| ## CCT4      | 3.6905587695 | Stable |
| ## YEATS4    | 3.6894841648 | Stable |
| ## RBL2      | 3.6890640199 | Stable |
| ## GTF3C5    | 3.6821744102 | Stable |
| ## NUP153    | 3.6725383346 | Stable |
| ## HSPBP1    | 3.6690571206 | Stable |
| ## F8        | 3.6668394878 | Stable |
| ## IGSF10    | 3.6662860783 | Stable |
| ## SKP2      | 3.6594458806 | Stable |
| ## ALDH2     | 3.6526814367 | Stable |
| ## GPSM2     | 3.6516779162 | Stable |
| ## CXCL16    | 3.6512791362 | Stable |

|                |              |        |
|----------------|--------------|--------|
| ## MYL9        | 3.6430896524 | Down   |
| ## TPSAB1      | 3.6359100085 | Stable |
| ## EXOC2       | 3.6257450731 | Stable |
| ## CYB5B       | 3.6215887522 | Stable |
| ## PPP1R1A     | 3.6208732284 | Stable |
| ## SMOC2       | 3.6134058682 | Down   |
| ## NUDT13      | 3.6126855304 | Stable |
| ## XP01        | 3.6059930296 | Stable |
| ## GDF10       | 3.6012170247 | Stable |
| ## ADIRF       | 3.5928177263 | Down   |
| ## ASB7        | 3.5901230457 | Stable |
| ## KAT2B       | 3.5815202118 | Stable |
| ## TMCC1       | 3.5745137329 | Stable |
| ## PDIA6       | 3.5741969518 | Stable |
| ## CCDC178     | 3.5709875614 | Stable |
| ## COLCA1      | 3.5691287847 | Stable |
| ## ITGA2       | 3.5663194312 | Stable |
| ## CMYA5       | 3.5639295096 | Stable |
| ## SPAST       | 3.5619111304 | Stable |
| ## PLPP3       | 3.5517460214 | Stable |
| ## OLA1        | 3.5487496609 | Stable |
| ## CYR1        | 3.5474368715 | Stable |
| ## PDRG1       | 3.5434844153 | Stable |
| ## PTPRM       | 3.5424335612 | Stable |
| ## MAP1B       | 3.5393801997 | Down   |
| ## MLEC        | 3.5340421047 | Stable |
| ## THUMP3      | 3.5336312047 | Stable |
| ## CLDN5       | 3.5322405572 | Stable |
| ## UHMK1       | 3.5316671535 | Stable |
| ## SFMBT1      | 3.5306239341 | Stable |
| ## SERTAD4-AS1 | 3.5197664897 | Stable |
| ## CLIC1       | 3.5142875031 | Stable |
| ## PMS2P1      | 3.5086430594 | Stable |
| ## SYNGR1      | 3.5028022595 | Stable |
| ## PSMB5       | 3.4984148854 | Stable |
| ## CSE1L       | 3.4903511308 | Stable |
| ## REEP1       | 3.4798896032 | Down   |
| ## ZNF781      | 3.4734067829 | Stable |
| ## ADK         | 3.4727616642 | Stable |
| ## NADK2       | 3.4708076824 | Stable |
| ## IGFBP4      | 3.4622126346 | Stable |
| ## TBX2-AS1    | 3.4617180741 | Stable |
| ## RBM12       | 3.4599721361 | Stable |
| ## PMS2P5      | 3.4558258260 | Stable |
| ## H2AZ1       | 3.4375944965 | Stable |
| ## HELLS       | 3.4367524495 | Stable |
| ## LSM2        | 3.4330820283 | Stable |
| ## SIDT2       | 3.4322624426 | Stable |
| ## TIMM23      | 3.4262388308 | Stable |
| ## ADCY9       | 3.4213271166 | Stable |
| ## ERF         | 3.4181524908 | Stable |
| ## FASTKD5     | 3.4170434605 | Stable |
| ## MRPL18      | 3.3997298844 | Stable |
| ## SHE         | 3.3987701777 | Stable |

|              |              |        |
|--------------|--------------|--------|
| ## TKT       | 3.3974489022 | Stable |
| ## NXPH3     | 3.3956859239 | Stable |
| ## PLN       | 3.3937088710 | Down   |
| ## SBN02     | 3.3905572755 | Stable |
| ## AMT       | 3.3899492666 | Stable |
| ## BCL2L1    | 3.3874619499 | Stable |
| ## RPL7L1    | 3.3856961249 | Stable |
| ## GPR107    | 3.3846632106 | Stable |
| ## DUSP3     | 3.3842537269 | Stable |
| ## PTGER3    | 3.3756027086 | Stable |
| ## PDCD5     | 3.3717988236 | Stable |
| ## TRPC1     | 3.3511198308 | Stable |
| ## UNG       | 3.3420112634 | Stable |
| ## NDUFB1    | 3.3415246271 | Stable |
| ## MRPL12    | 3.3397388713 | Stable |
| ## H2AC13    | 3.3385360238 | Stable |
| ## PSMA3     | 3.3381329005 | Stable |
| ## C1QBP     | 3.3347384655 | Stable |
| ## SST       | 3.3174125491 | Down   |
| ## ATG4C     | 3.2997162717 | Stable |
| ## EZH1      | 3.2983748196 | Stable |
| ## DCAF12    | 3.2923872806 | Stable |
| ## ADAMTS1   | 3.2866928145 | Stable |
| ## NCBP1     | 3.2830832773 | Stable |
| ## R3HDM1    | 3.2813616696 | Stable |
| ## BRAP      | 3.2784558325 | Stable |
| ## SMG5      | 3.2782835490 | Stable |
| ## PALM      | 3.2758449873 | Stable |
| ## PBK       | 3.2724362339 | Up     |
| ## HP1BP3    | 3.2690426161 | Stable |
| ## PSMA7     | 3.2611251169 | Stable |
| ## RGMB      | 3.2606648526 | Down   |
| ## MOSPD1    | 3.2601298671 | Stable |
| ## LARP4     | 3.2585879438 | Stable |
| ## SNX10     | 3.2539868873 | Stable |
| ## USP51     | 3.2528299081 | Stable |
| ## PHLDB1    | 3.2485722753 | Stable |
| ## PAM       | 3.2442641884 | Stable |
| ## SOCS4     | 3.2426365551 | Stable |
| ## CDC6      | 3.2247806135 | Up     |
| ## TNFAIP8L3 | 3.2245614415 | Stable |
| ## CXCL10    | 3.2231654196 | Up     |
| ## FAM149A   | 3.2231500765 | Stable |
| ## CLPX      | 3.2230014627 | Stable |
| ## PRICKLE2  | 3.2000356844 | Stable |
| ## ZMIZ1     | 3.1905499418 | Stable |
| ## RNF150    | 3.1825011001 | Stable |
| ## CDK16     | 3.1769386603 | Stable |
| ## CDH3      | 3.1714803054 | Up     |
| ## TSPAN18   | 3.1711301078 | Stable |
| ## CCDC150   | 3.1700463358 | Stable |
| ## AHS1      | 3.1635629813 | Stable |
| ## SUCLG2    | 3.1530821204 | Stable |
| ## UFSP2     | 3.1372478111 | Stable |

|              |              |        |
|--------------|--------------|--------|
| ## PHYKPL    | 3.1371044934 | Stable |
| ## PAK2      | 3.1318307854 | Stable |
| ## GTF2E1    | 3.1311701348 | Stable |
| ## EFHD1     | 3.1259527666 | Stable |
| ## EBNA1BP2  | 3.1255748807 | Stable |
| ## ADGRG2    | 3.1248935295 | Down   |
| ## LANCL2    | 3.1244463129 | Stable |
| ## LRPPRC    | 3.1206445372 | Stable |
| ## RMI2      | 3.1195513054 | Stable |
| ## PPP4C     | 3.1194297949 | Stable |
| ## MEIS1     | 3.1192523589 | Stable |
| ## ITCH      | 3.1189071752 | Stable |
| ## UGGT1     | 3.1146000854 | Stable |
| ## TCEAL1    | 3.1130583329 | Stable |
| ## PCDH18    | 3.1130480104 | Stable |
| ## TADA2A    | 3.1041251109 | Stable |
| ## CDCA2     | 3.0996098767 | Stable |
| ## AKIP1     | 3.0986393522 | Stable |
| ## ZBED1     | 3.0856622595 | Stable |
| ## BARX1     | 3.0839799808 | Stable |
| ## DSEL      | 3.0765163822 | Stable |
| ## H3C8      | 3.0755796505 | Stable |
| ## ALKAL2    | 3.0729712508 | Stable |
| ## SKA3      | 3.0601874085 | Stable |
| ## FOXF2     | 3.0589391742 | Down   |
| ## PLAU      | 3.0566408914 | Stable |
| ## CCNB1     | 3.0488225801 | Up     |
| ## UBAP2     | 3.0349641827 | Stable |
| ## CCT6A     | 3.0326702038 | Stable |
| ## MTHFD1    | 3.0285112092 | Stable |
| ## EVA1A     | 3.0282180412 | Stable |
| ## RRM2      | 3.0206950319 | Stable |
| ## GARS1     | 3.0137210387 | Stable |
| ## ERO1A     | 3.0063416400 | Stable |
| ## GPX3      | 3.0033729519 | Down   |
| ## EFCAB6    | 3.0028501482 | Stable |
| ## SNHG17    | 3.0025824927 | Stable |
| ## PRPF40A   | 2.9982090418 | Stable |
| ## PLOD3     | 2.9956384705 | Stable |
| ## TCEAL4    | 2.9897480493 | Stable |
| ## GAS7      | 2.9829641087 | Stable |
| ## TMEM139   | 2.9775245254 | Stable |
| ## CAMLG     | 2.9728818826 | Stable |
| ## LINC02381 | 2.9712600717 | Down   |
| ## GEMIN6    | 2.9683677749 | Stable |
| ## PTGER2    | 2.9682656612 | Stable |
| ## DPH3      | 2.9665194024 | Stable |
| ## DDR2      | 2.9662294092 | Stable |
| ## SLU7      | 2.9594083727 | Stable |
| ## FBP2      | 2.9590780483 | Stable |
| ## PZP       | 2.9570517433 | Stable |
| ## GNA01     | 2.9567864231 | Stable |
| ## C12orf57  | 2.9566719227 | Stable |
| ## SARAF     | 2.9557237027 | Stable |

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|--------------|--------------|--------|
| ## MYMX      | 2.9554881993 | Stable |
| ## BICD1     | 2.9543865085 | Stable |
| ## PSMD13    | 2.9432410007 | Stable |
| ## AGPS      | 2.9431202370 | Stable |
| ## GAD1      | 2.9415630683 | Up     |
| ## ADGRL3    | 2.9347718199 | Stable |
| ## DHX9      | 2.9344832561 | Stable |
| ## RASGRP2   | 2.9313166472 | Stable |
| ## WDR18     | 2.9302329968 | Stable |
| ## LTV1      | 2.9298048093 | Stable |
| ## ZNF662    | 2.9130789791 | Stable |
| ## CTDSPL2   | 2.9093521463 | Stable |
| ## GCFC2     | 2.9026988223 | Stable |
| ## WBP11     | 2.8974430524 | Stable |
| ## YWHAG     | 2.8956476100 | Stable |
| ## ZNF418    | 2.8946796457 | Stable |
| ## MRPL14    | 2.8921204546 | Stable |
| ## BATF2     | 2.8889229972 | Stable |
| ## PAICS     | 2.8861567634 | Stable |
| ## SRSF3     | 2.8835211416 | Stable |
| ## EIF4G1    | 2.8827788643 | Stable |
| ## CD80      | 2.8805459046 | Stable |
| ## CPOX      | 2.8787291553 | Stable |
| ## NOL6      | 2.8782280669 | Stable |
| ## MAL       | 2.8759835297 | Down   |
| ## MMP28     | 2.8758749391 | Stable |
| ## PI16      | 2.8734476905 | Stable |
| ## QSER1     | 2.8719609728 | Stable |
| ## STON1     | 2.8681949810 | Down   |
| ## PSPH      | 2.8677643128 | Stable |
| ## MTPAP     | 2.8590575663 | Stable |
| ## ZNF300P1  | 2.8536518023 | Stable |
| ## GFRA2     | 2.8501975778 | Stable |
| ## EFS       | 2.8474357032 | Stable |
| ## SENP2     | 2.8463392080 | Stable |
| ## CXCL2     | 2.8438084959 | Stable |
| ## MTRF1L    | 2.8344241800 | Stable |
| ## CYP4F12   | 2.8333531735 | Stable |
| ## TMEM220   | 2.8245802912 | Stable |
| ## MFSD4A    | 2.8228177611 | Down   |
| ## ALMS1-IT1 | 2.8207839051 | Stable |
| ## VAT1L     | 2.8201754927 | Stable |
| ## Clorf43   | 2.8198761958 | Stable |
| ## TNFAIP6   | 2.8190171624 | Up     |
| ## CFHR2     | 2.8144347576 | Stable |
| ## TBCEL     | 2.8066566918 | Stable |
| ## VKORC1L1  | 2.8056260174 | Stable |
| ## PTBP1     | 2.8040099420 | Stable |
| ## MAP3K1    | 2.8020620103 | Stable |
| ## FAM13B    | 2.7999478714 | Stable |
| ## CSNK1D    | 2.7983022590 | Stable |
| ## YIF1B     | 2.7817403813 | Stable |
| ## HAUS8     | 2.7772097537 | Stable |
| ## CBFA2T3   | 2.7758475153 | Stable |



|             |              |        |
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| ## CEP78    | 2.7726673455 | Stable |
| ## NAA25    | 2.7712411786 | Stable |
| ## GCLM     | 2.7710396359 | Stable |
| ## PDE1A    | 2.7679621656 | Stable |
| ## CRKL     | 2.7624311659 | Stable |
| ## PRDM6    | 2.7604818237 | Stable |
| ## SNRPF    | 2.7574052668 | Stable |
| ## VIT      | 2.7552579232 | Stable |
| ## SLC7A1   | 2.7521160623 | Stable |
| ## TUBG1    | 2.7487284105 | Stable |
| ## DLG3     | 2.7469276193 | Stable |
| ## IRAG1    | 2.7435099030 | Stable |
| ## CBLL1    | 2.7390451735 | Stable |
| ## PLTP     | 2.7371828364 | Stable |
| ## CCL20    | 2.7370704910 | Up     |
| ## SLC9A9   | 2.7370218208 | Stable |
| ## STRIP2   | 2.7355048119 | Stable |
| ## IQGAP2   | 2.7334561892 | Down   |
| ## LDB3     | 2.7296664431 | Down   |
| ## FNDC5    | 2.7283775752 | Stable |
| ## RAB37    | 2.7282786202 | Stable |
| ## CCNT1    | 2.7279196512 | Stable |
| ## POLR2H   | 2.7271375768 | Stable |
| ## NAPS B   | 2.7248178634 | Stable |
| ## MTERF2   | 2.7224651037 | Stable |
| ## TECPR2   | 2.7209784321 | Stable |
| ## HDAC2    | 2.7175282260 | Stable |
| ## GPN1     | 2.7036541078 | Stable |
| ## POGK     | 2.6965940637 | Stable |
| ## PSCA     | 2.6935314871 | Down   |
| ## TROAP    | 2.6912629538 | Stable |
| ## COA4     | 2.6905814749 | Stable |
| ## GNPDA2   | 2.6813535694 | Stable |
| ## PKMYT1   | 2.6746574240 | Stable |
| ## CPEB2    | 2.6634222451 | Stable |
| ## PTRH2    | 2.6611797894 | Stable |
| ## PARP1    | 2.6593273075 | Stable |
| ## WDR43    | 2.6580056631 | Stable |
| ## SRSF5    | 2.6535209585 | Stable |
| ## PCDH9    | 2.6509747040 | Stable |
| ## FAM110A  | 2.6493879342 | Stable |
| ## CEP43    | 2.6443950533 | Stable |
| ## OTULIN   | 2.6440315018 | Stable |
| ## SMARCA2  | 2.6422653439 | Stable |
| ## POGLUT1  | 2.6348150469 | Stable |
| ## RFC5     | 2.6345183313 | Stable |
| ## ITM2A    | 2.6338914917 | Down   |
| ## MRPS18B  | 2.6276500344 | Stable |
| ## PSMB8    | 2.6274551394 | Stable |
| ## PTPN14   | 2.6262151985 | Stable |
| ## SLC25A12 | 2.6239165613 | Stable |
| ## SERPINH1 | 2.6221024978 | Stable |
| ## CXCL11   | 2.6219187608 | Up     |
| ## C1QTNF6  | 2.6172226393 | Stable |

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|-----------------|--------------|--------|
| ## PFAS         | 2.6155956054 | Stable |
| ## CPA3         | 2.6125123593 | Down   |
| ## PLEKHH2      | 2.5981593485 | Stable |
| ## STT3A        | 2.5971109188 | Stable |
| ## ARHGEF6      | 2.5960811362 | Stable |
| ## PDGFRA       | 2.5955968706 | Stable |
| ## ASXL3        | 2.5935873364 | Stable |
| ## CCDC126      | 2.5867287256 | Stable |
| ## F13A1        | 2.5806563278 | Down   |
| ## MRPL9        | 2.5732765840 | Stable |
| ## SMARCD3      | 2.5692979080 | Stable |
| ## EPM2A        | 2.5662339636 | Stable |
| ## PKIG         | 2.5660848221 | Stable |
| ## TCF7L1       | 2.5630893319 | Stable |
| ## GNS          | 2.5591313128 | Stable |
| ## MAGOH        | 2.5534140711 | Stable |
| ## PTGES2       | 2.5533896490 | Stable |
| ## USP33        | 2.5526252737 | Stable |
| ## IFIH1        | 2.5371091951 | Stable |
| ## TBCE         | 2.5369043378 | Stable |
| ## STAT1        | 2.5339693122 | Stable |
| ## PPA2         | 2.5271029113 | Stable |
| ## MUCL3        | 2.5177447103 | Down   |
| ## ATAD5        | 2.5074668475 | Stable |
| ## BARD1        | 2.5065261139 | Stable |
| ## MMRN2        | 2.5025076299 | Stable |
| ## PDCD11       | 2.5017371344 | Stable |
| ## MRPS23       | 2.5015086936 | Stable |
| ## TFF1         | 2.4984728767 | Down   |
| ## EIPR1        | 2.4910145881 | Stable |
| ## LMBRD1       | 2.4904580799 | Stable |
| ## MAP6         | 2.4783998531 | Stable |
| ## GLI1         | 2.4769238937 | Stable |
| ## WARS1        | 2.4765464043 | Up     |
| ## GKN2         | 2.4734571593 | Down   |
| ## HTR2B        | 2.4699548793 | Down   |
| ## ANGPT2       | 2.4672895590 | Stable |
| ## OMD          | 2.4672524010 | Down   |
| ## HDGFL3       | 2.4664414629 | Stable |
| ## APOBEC3B     | 2.4637284845 | Up     |
| ## PLPP7        | 2.4540747782 | Stable |
| ## SFRP1        | 2.4503778377 | Down   |
| ## THOC6        | 2.4496085882 | Stable |
| ## ZNF142       | 2.4387305056 | Stable |
| ## E2F5         | 2.4385021622 | Stable |
| ## EFNA3        | 2.4314598858 | Stable |
| ## RPL9         | 2.4273752421 | Stable |
| ## PPA1         | 2.4271297579 | Stable |
| ## PROSER1      | 2.4244306081 | Stable |
| ## CHL1         | 2.4205613977 | Stable |
| ## ZBTB4        | 2.4147810276 | Stable |
| ## LOC105379448 | 2.4122013427 | Stable |
| ## ORC4         | 2.4109485361 | Stable |
| ## H3C11        | 2.4066682579 | Stable |

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|---------------|--------------|--------|
| ## MAN1A2     | 2.4055648012 | Stable |
| ## BCAS1      | 2.4003968523 | Down   |
| ## UNC5C-AS1  | 2.3994462565 | Stable |
| ## RNASE1     | 2.3993358074 | Down   |
| ## VPS72      | 2.3959810718 | Stable |
| ## ESR1       | 2.3948601552 | Stable |
| ## ZNF664     | 2.3940128835 | Stable |
| ## LY6E       | 2.3913847424 | Stable |
| ## PSMB1      | 2.3886133363 | Stable |
| ## SLC39A6    | 2.3849604442 | Stable |
| ## MIEF1      | 2.3816600414 | Stable |
| ## CZIB       | 2.3750208221 | Stable |
| ## NSDHL      | 2.3721674844 | Stable |
| ## UPP1       | 2.3703638291 | Stable |
| ## SORD       | 2.3658390138 | Stable |
| ## SOCS2-AS1  | 2.3646213383 | Stable |
| ## CLEC10A    | 2.3603585296 | Stable |
| ## IGFBP6     | 2.3594826211 | Stable |
| ## TACR2      | 2.3577700005 | Down   |
| ## NEURL3     | 2.3572491111 | Stable |
| ## CA2        | 2.3563158832 | Down   |
| ## PBX2       | 2.3560337209 | Stable |
| ## MBNL1-AS1  | 2.3546401272 | Down   |
| ## CILP       | 2.3489245582 | Down   |
| ## ZBTB26     | 2.3424376785 | Stable |
| ## VARS2      | 2.3409328408 | Stable |
| ## LOC728392  | 2.3295761654 | Stable |
| ## WDHD1      | 2.3231469152 | Stable |
| ## LRRC18     | 2.3081572265 | Stable |
| ## NUDT15     | 2.3075332423 | Stable |
| ## TUBA1A     | 2.3074610993 | Stable |
| ## NRAS       | 2.3067989027 | Stable |
| ## SNRPE      | 2.3039562831 | Stable |
| ## PER1       | 2.3013541211 | Stable |
| ## ZNF710-AS1 | 2.3004559924 | Stable |
| ## SLC1A5     | 2.2981813846 | Stable |
| ## WFDC1      | 2.2966290843 | Stable |
| ## SRRT       | 2.2965558851 | Stable |
| ## ARL6IP6    | 2.2916376398 | Stable |
| ## SCGB2A1    | 2.2912191750 | Down   |
| ## UQCC2      | 2.2907919528 | Stable |
| ## S100A11    | 2.2881434214 | Stable |
| ## GRB2       | 2.2833312939 | Stable |
| ## CCDC80     | 2.2728507190 | Down   |
| ## MRPL30     | 2.2716358652 | Stable |
| ## DCTPP1     | 2.2701484597 | Stable |
| ## MRPL37     | 2.2681491123 | Stable |
| ## SEC61G     | 2.2667415880 | Stable |
| ## TPI1       | 2.2665767285 | Stable |
| ## MIX23      | 2.2650411177 | Stable |
| ## RPS23      | 2.2601543204 | Stable |
| ## RRP36      | 2.2589493636 | Stable |
| ## ASCC3      | 2.2584190947 | Stable |
| ## STOX2      | 2.2567587351 | Stable |

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|---------------|--------------|--------|
| ## MCAT       | 2.2559324354 | Stable |
| ## ARHGAP10   | 2.2549981576 | Stable |
| ## MCM6       | 2.2511617660 | Stable |
| ## ACER2      | 2.2457771342 | Down   |
| ## NCSTN      | 2.2358000653 | Stable |
| ## TME61      | 2.2347182769 | Stable |
| ## SSX2IP     | 2.2314751489 | Stable |
| ## DPY30      | 2.2313243702 | Stable |
| ## CEBPB      | 2.2312598690 | Stable |
| ## TRPC4AP    | 2.2305008897 | Stable |
| ## CLCN5      | 2.2281218813 | Stable |
| ## TSPYL2     | 2.2280528460 | Stable |
| ## ZNF671     | 2.2236852579 | Stable |
| ## FGD4       | 2.2229399445 | Stable |
| ## IQCN       | 2.2144469835 | Stable |
| ## SMG9       | 2.2086817448 | Stable |
| ## KCMF1      | 2.1971245823 | Stable |
| ## ACAT2      | 2.1967163840 | Stable |
| ## FNBP1      | 2.1957206617 | Stable |
| ## MAPK1IP1L  | 2.1948284104 | Stable |
| ## DGKG       | 2.1913313912 | Stable |
| ## ILF3       | 2.1709857662 | Stable |
| ## CASK       | 2.1684660574 | Stable |
| ## ZNF106     | 2.1657618950 | Stable |
| ## GSTA4      | 2.1645620276 | Stable |
| ## RASL12     | 2.1619206894 | Stable |
| ## AMOTL1     | 2.1609597923 | Stable |
| ## ARHGEF25   | 2.1554599428 | Stable |
| ## CASP2      | 2.1439651845 | Stable |
| ## NME5       | 2.1395555310 | Stable |
| ## NPC1       | 2.1374600322 | Stable |
| ## SLC5A6     | 2.1345660902 | Stable |
| ## MRPL45     | 2.1343955166 | Stable |
| ## GDF7       | 2.1320414529 | Stable |
| ## PAK1IP1    | 2.1317872506 | Stable |
| ## HK2        | 2.1239557364 | Stable |
| ## COL21A1    | 2.1166923830 | Down   |
| ## GART       | 2.1147536856 | Stable |
| ## FAM86B2-DT | 2.1112849276 | Stable |
| ## ENPP2      | 2.1108313661 | Stable |
| ## SLITRK6    | 2.1079918081 | Stable |
| ## SMIM13     | 2.1068958737 | Stable |
| ## MFSD14CP   | 2.1062714586 | Stable |
| ## ACOX2      | 2.1047025605 | Stable |
| ## IFFO2      | 2.1027265301 | Stable |
| ## LGI2       | 2.0986205710 | Stable |
| ## RFX7       | 2.0967113888 | Stable |
| ## PRPS1      | 2.0964096871 | Stable |
| ## ROR2       | 2.0937806302 | Stable |
| ## CD36       | 2.0933934521 | Stable |
| ## UTP4       | 2.0882156309 | Stable |
| ## POLD1      | 2.0849430888 | Stable |
| ## WDR76      | 2.0848262181 | Stable |
| ## PPM1G      | 2.0788523283 | Stable |

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|-----------------|--------------|--------|
| ## RPS25        | 2.0775326204 | Stable |
| ## TSPAN11      | 2.0756415535 | Stable |
| ## SUPT16H      | 2.0698869397 | Stable |
| ## LSM4         | 2.0668164534 | Stable |
| ## TTPAL        | 2.0665470302 | Stable |
| ## HLF          | 2.0553963545 | Stable |
| ## CHCHD2       | 2.0471877511 | Stable |
| ## TRA2B        | 2.0447780544 | Stable |
| ## SOX15        | 2.0446719527 | Stable |
| ## HSP90B1      | 2.0421320214 | Stable |
| ## CEP152       | 2.0396353589 | Stable |
| ## MTX2         | 2.0394128017 | Stable |
| ## LOC102723722 | 2.0382204560 | Stable |
| ## WTAP         | 2.0356753948 | Stable |
| ## UCA1         | 2.0330217176 | Up     |
| ## C5orf22      | 2.0197853231 | Stable |
| ## UBE2M        | 2.0187455013 | Stable |
| ## TMEM200B     | 2.0180950198 | Stable |
| ## BMX          | 2.0158937556 | Stable |
| ## FAM117B      | 2.0122634928 | Stable |
| ## ARMH3        | 2.0096150441 | Stable |
| ## SERPINF1     | 2.0093538419 | Stable |
| ## SCD          | 2.0073184498 | Stable |
| ## TIMM8A       | 2.0068261061 | Stable |
| ## HFE          | 2.0015019626 | Stable |
| ## SLC35C2      | 2.0010342208 | Stable |
| ## PAXBP1       | 1.9925728637 | Stable |
| ## GRHL1        | 1.9923352219 | Stable |
| ## PSMG3        | 1.9728706534 | Stable |
| ## USP32        | 1.9717178066 | Stable |
| ## ENTREP1      | 1.9673664526 | Stable |
| ## GMFB         | 1.9664724256 | Stable |
| ## NR3C1        | 1.9623325233 | Stable |
| ## SYNC         | 1.9603024610 | Down   |
| ## MXRA8        | 1.9537226108 | Stable |
| ## LYVE1        | 1.9532123183 | Stable |
| ## SKP1         | 1.9482623728 | Stable |
| ## ERAL1        | 1.9403937329 | Stable |
| ## DPT          | 1.9370987543 | Stable |
| ## MRPL3        | 1.9363977678 | Stable |
| ## YWHAE        | 1.9297749901 | Stable |
| ## XP06         | 1.9291722584 | Stable |
| ## GMNN         | 1.9222638589 | Stable |
| ## PA2G4        | 1.9216617397 | Stable |
| ## GJB2         | 1.9140782042 | Up     |
| ## EFCC1        | 1.9115041216 | Stable |
| ## NPM3         | 1.9103928645 | Stable |
| ## BEX3         | 1.9066405178 | Stable |
| ## TMEM138      | 1.9047767498 | Stable |
| ## GID8         | 1.9010533135 | Stable |
| ## ZFPM2        | 1.8950591560 | Down   |
| ## KIAA1217     | 1.8910928135 | Stable |
| ## RPL36AL      | 1.8906967462 | Stable |
| ## C22orf39     | 1.8898067602 | Stable |

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| ## LARS1     | 1.8881733991 | Stable |
| ## CDCA7     | 1.8881355888 | Stable |
| ## HSPA4     | 1.8801644276 | Stable |
| ## ITGA7     | 1.8780968276 | Stable |
| ## MRPS7     | 1.8753161178 | Stable |
| ## SPATA18   | 1.8749260064 | Stable |
| ## RGN       | 1.8700205723 | Stable |
| ## SLC25A19  | 1.8700189016 | Stable |
| ## CENPQ     | 1.8686694704 | Stable |
| ## LAGE3     | 1.8684849573 | Stable |
| ## PPP2R5C   | 1.8684680451 | Stable |
| ## VRK1      | 1.8677964639 | Stable |
| ## MMP12     | 1.8652430993 | Up     |
| ## ADD1      | 1.8644377986 | Stable |
| ## EHF       | 1.8642586813 | Up     |
| ## NAE1      | 1.8528671060 | Stable |
| ## ARPP19    | 1.8524712399 | Stable |
| ## PGM3      | 1.8521308199 | Stable |
| ## ZNF317    | 1.8447768744 | Stable |
| ## MIR22HG   | 1.8434635205 | Stable |
| ## STARD13   | 1.8402424011 | Stable |
| ## GRIA1     | 1.8313093987 | Stable |
| ## ETV6      | 1.8274128756 | Stable |
| ## HSPA5     | 1.8255622847 | Stable |
| ## MED20     | 1.8244587268 | Stable |
| ## SPINDOC   | 1.8199320525 | Stable |
| ## USP30     | 1.8117475551 | Stable |
| ## EFEMP2    | 1.8074319509 | Stable |
| ## GAS6      | 1.8047569186 | Stable |
| ## PSMA5     | 1.8008751992 | Stable |
| ## CKLF      | 1.7920837311 | Stable |
| ## EIF3B     | 1.7845794920 | Stable |
| ## LRRC37A4P | 1.7843485366 | Stable |
| ## RCN2      | 1.7811384818 | Stable |
| ## EPHA7     | 1.7728033214 | Stable |
| ## CCNJ      | 1.7722614182 | Stable |
| ## MAP3K12   | 1.7714746188 | Stable |
| ## TAB3      | 1.7694023968 | Stable |
| ## NACC1     | 1.7652725154 | Stable |
| ## LGI4      | 1.7634946352 | Stable |
| ## EIF3L     | 1.7626112121 | Stable |
| ## SLC16A3   | 1.7584136539 | Stable |
| ## GPN3      | 1.7560016210 | Stable |
| ## BCAP31    | 1.7554843571 | Stable |
| ## POLR1H    | 1.7546770850 | Stable |
| ## PCMTD1    | 1.7435445320 | Stable |
| ## H2AC14    | 1.7378624229 | Stable |
| ## TUBGCP4   | 1.7378086734 | Stable |
| ## TRAIIP    | 1.7327099714 | Stable |
| ## ATAD3A    | 1.7291801209 | Stable |
| ## CORO1C    | 1.7285883919 | Stable |
| ## MSH6      | 1.7259459248 | Stable |
| ## ZNF239    | 1.7253247773 | Stable |
| ## GEM       | 1.7240074137 | Stable |

|              |              |        |
|--------------|--------------|--------|
| ## MT1M      | 1.7182613253 | Down   |
| ## RNASE4    | 1.7163903781 | Stable |
| ## CLMP      | 1.7124440434 | Down   |
| ## ENTPD6    | 1.7056943115 | Stable |
| ## PSMG3-AS1 | 1.7040276158 | Stable |
| ## FUBP1     | 1.6971549118 | Stable |
| ## BSG       | 1.6968679766 | Stable |
| ## COMMD2    | 1.6951802996 | Stable |
| ## AATF      | 1.6934881079 | Stable |
| ## RBP5      | 1.6785398962 | Stable |
| ## ZUP1      | 1.6781003506 | Stable |
| ## DNM3OS    | 1.6740560839 | Down   |
| ## DAGLB     | 1.6706987150 | Stable |
| ## EPSTI1    | 1.6676211350 | Stable |
| ## PRKD1     | 1.6674854829 | Stable |
| ## IGFBP2    | 1.6666825704 | Down   |
| ## TPD52L2   | 1.6636256313 | Stable |
| ## CDC25C    | 1.6616292928 | Stable |
| ## NANOG     | 1.6550013324 | Stable |
| ## UBE2Q1    | 1.6534810622 | Stable |
| ## SLC25A17  | 1.6460789671 | Stable |
| ## POLA2     | 1.6449403708 | Stable |
| ## NEK3      | 1.6438238377 | Stable |
| ## RNF138    | 1.6393899775 | Stable |
| ## MRPS10    | 1.6359882403 | Stable |
| ## NOP53     | 1.6209061350 | Stable |
| ## ISG15     | 1.6151809010 | Stable |
| ## TMOD3     | 1.6061467549 | Stable |
| ## FZD1      | 1.6058271991 | Stable |
| ## BBLN      | 1.5981966307 | Stable |
| ## MIPEP     | 1.5976299315 | Stable |
| ## NAP1L2    | 1.5973784008 | Stable |
| ## UPK1B     | 1.5968242737 | Down   |
| ## NACAD     | 1.5957364197 | Stable |
| ## JAZF1     | 1.5901583998 | Stable |
| ## PLAGL2    | 1.5882535363 | Stable |
| ## LOC202181 | 1.5874974376 | Stable |
| ## MMP11     | 1.5852660015 | Stable |
| ## COMMD5    | 1.5843962433 | Stable |
| ## AKR1B10   | 1.5801962396 | Down   |
| ## SRSF9     | 1.5770413993 | Stable |
| ## BCHE      | 1.5763039030 | Down   |
| ## PPAT      | 1.5760351357 | Stable |
| ## SELP      | 1.5730279617 | Stable |
| ## OXCT1     | 1.5725650443 | Stable |
| ## TGFBR3    | 1.5682679582 | Stable |
| ## HMGA1     | 1.5670260159 | Stable |
| ## SUV39H1   | 1.5664399701 | Stable |
| ## ADH1C     | 1.5661112754 | Down   |
| ## ZNFX1     | 1.5618925338 | Stable |
| ## P3H2      | 1.5597649165 | Down   |
| ## AAMP      | 1.5556693354 | Stable |
| ## VSIG2     | 1.5541588559 | Down   |
| ## PTGDR2    | 1.5489444141 | Stable |

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| ## RGS2       | 1.5487169167 | Stable |
| ## VCP        | 1.5479222311 | Stable |
| ## BEND5      | 1.5478543618 | Stable |
| ## PIGO       | 1.5478352750 | Stable |
| ## UBE2N      | 1.5398146220 | Stable |
| ## SIGMAR1    | 1.5348929882 | Stable |
| ## CDC123     | 1.5298482923 | Stable |
| ## SYT4       | 1.5294341304 | Stable |
| ## SPINK2     | 1.5287325319 | Stable |
| ## MRPS12     | 1.5226286370 | Stable |
| ## BAP1       | 1.5201278110 | Stable |
| ## TMEM33     | 1.5143219487 | Stable |
| ## ANO7       | 1.5130441109 | Stable |
| ## INVS       | 1.5112989172 | Stable |
| ## OLFML1     | 1.5081372010 | Stable |
| ## TSEN54     | 1.5072852434 | Stable |
| ## METTL26    | 1.5032120260 | Stable |
| ## C19orf48   | 1.4982848325 | Stable |
| ## MFSD14B    | 1.4978006932 | Stable |
| ## AGFG1      | 1.4976414476 | Stable |
| ## AGO2       | 1.4958123264 | Stable |
| ## MRPL49     | 1.4909611599 | Stable |
| ## ZNF354C    | 1.4907954825 | Stable |
| ## SNRNP200   | 1.4895149903 | Stable |
| ## ISG20L2    | 1.4872639668 | Stable |
| ## SRSF1      | 1.4859765220 | Stable |
| ## ZC3H12A    | 1.4825928497 | Stable |
| ## SGCA       | 1.4810373913 | Stable |
| ## LRFN5      | 1.4800010620 | Stable |
| ## GGCX       | 1.4784388936 | Stable |
| ## ITGA1      | 1.4751188465 | Stable |
| ## FLNC       | 1.4695206334 | Down   |
| ## SSR1       | 1.4651769540 | Stable |
| ## SRSF11     | 1.4627592935 | Stable |
| ## ADH1A      | 1.4567134213 | Stable |
| ## EPS15      | 1.4549625322 | Stable |
| ## CTPS2      | 1.4459492890 | Stable |
| ## CHGA       | 1.4435192076 | Down   |
| ## TPR        | 1.4432925640 | Stable |
| ## ST6GALNAC6 | 1.4389217010 | Stable |
| ## CCDC69     | 1.4373903740 | Stable |
| ## MLF2       | 1.4348643805 | Stable |
| ## TRAF3      | 1.4303222818 | Stable |
| ## CCL19      | 1.4281656023 | Down   |
| ## EBF1       | 1.4274279505 | Stable |
| ## GRPEL1     | 1.4238411389 | Stable |
| ## TMEM182    | 1.4155669307 | Stable |
| ## TIMM17A    | 1.4085309512 | Stable |
| ## FEZ1       | 1.4070751842 | Stable |
| ## OIP5-AS1   | 1.4054773360 | Stable |
| ## TSPAN2     | 1.4030529741 | Stable |
| ## MAIP1      | 1.4006279136 | Stable |
| ## ZNF583     | 1.3993128945 | Stable |
| ## DNPH1      | 1.3978022614 | Stable |



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| ## FOLR2      | 1.3952337572 | Stable |
| ## LMNB1      | 1.3909003324 | Stable |
| ## MRPL50     | 1.3873568256 | Stable |
| ## ORC5       | 1.3849794507 | Stable |
| ## YTHDF1     | 1.3809167425 | Stable |
| ## PDZRN3-AS1 | 1.3784948671 | Stable |
| ## LPAR1      | 1.3761600206 | Stable |
| ## UCHL3      | 1.3755051815 | Stable |
| ## FIGN       | 1.3677698051 | Stable |
| ## POLR2G     | 1.3603530805 | Stable |
| ## IPO7       | 1.3576944365 | Stable |
| ## PKNOX2     | 1.3572411621 | Stable |
| ## TGFB1I1    | 1.3569522784 | Stable |
| ## TP53BP2    | 1.3556699452 | Stable |
| ## ZNF536     | 1.3497291974 | Stable |
| ## TMEM88     | 1.3467924323 | Stable |
| ## DOP1B      | 1.3454695944 | Stable |
| ## MEIS2      | 1.3448308548 | Stable |
| ## SINHCAF    | 1.3439882225 | Stable |
| ## SHMT1      | 1.3409092967 | Stable |
| ## SSC5D      | 1.3389757684 | Stable |
| ## BRAT1      | 1.3370385387 | Stable |
| ## ZNF318     | 1.3349437864 | Stable |
| ## CDC7       | 1.3340200896 | Stable |
| ## LINC00261  | 1.3330879542 | Down   |
| ## ZCCHC4     | 1.3320870824 | Stable |
| ## METTL1     | 1.3301979411 | Stable |
| ## MAP9       | 1.3292347951 | Stable |
| ## PSMC3      | 1.3280846659 | Stable |
| ## NOP14      | 1.3257869502 | Stable |
| ## SEC61A2    | 1.3242886280 | Stable |
| ## NAA20      | 1.3236705169 | Stable |
| ## SURF6      | 1.3223541948 | Stable |
| ## TCEA3      | 1.3218519540 | Down   |
| ## LINC01354  | 1.3173326424 | Stable |
| ## ETFRF1     | 1.3151984777 | Stable |
| ## LTBP1      | 1.3066476010 | Stable |
| ## DEK        | 1.3016721721 | Stable |
| ## CDC73      | 1.3001378235 | Stable |
| ## TPM2       | 1.2982603505 | Down   |
| ## DESI1      | 1.2926124228 | Stable |
| ## TRABD      | 1.2924068529 | Stable |
| ## CCN5       | 1.2912527334 | Stable |
| ## VIP        | 1.2864288133 | Stable |
| ## PPFIA2     | 1.2857675265 | Stable |
| ## LRFN4      | 1.2828188137 | Stable |
| ## DYNC2I2    | 1.2824101191 | Stable |
| ## B4GALT3    | 1.2806912869 | Stable |
| ## PRKAR1A    | 1.2739492457 | Stable |
| ## CLSPN      | 1.2728971703 | Stable |
| ## FOXN2      | 1.2682186399 | Stable |
| ## ACTC1      | 1.2637915024 | Stable |
| ## MORC2      | 1.2637563210 | Stable |
| ## RPP38      | 1.2529628118 | Stable |

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| ## TNPO2        | 1.2508131273 | Stable |
| ## SLFN5        | 1.2477492187 | Stable |
| ## ADCY4        | 1.2436681810 | Stable |
| ## LDHC         | 1.2421085166 | Stable |
| ## AFF1         | 1.2415631677 | Stable |
| ## IQCB1        | 1.2399700695 | Stable |
| ## UBL3         | 1.2398453961 | Stable |
| ## HSD3B7       | 1.2378552274 | Stable |
| ## CARTPT       | 1.2336681515 | Stable |
| ## POLR3G       | 1.2293270751 | Stable |
| ## KCNE2        | 1.2264597885 | Down   |
| ## FAM83B       | 1.2258375440 | Stable |
| ## RRS1         | 1.2233567517 | Stable |
| ## IL32         | 1.2212446431 | Stable |
| ## MFAP3        | 1.2207192215 | Stable |
| ## RUNDC3B      | 1.2155338378 | Stable |
| ## HNRNPPLL     | 1.2134804721 | Stable |
| ## DGKD         | 1.2113099833 | Stable |
| ## MOCOS        | 1.2085895341 | Stable |
| ## GKN1         | 1.2071956120 | Down   |
| ## GBGT1        | 1.2019476434 | Stable |
| ## TET1         | 1.1973336360 | Stable |
| ## NIBAN1       | 1.1965616917 | Stable |
| ## ISCU         | 1.1962217155 | Stable |
| ## RNF180       | 1.1944844219 | Stable |
| ## LOC101927263 | 1.1906027604 | Stable |
| ## NR2F2        | 1.1905291970 | Stable |
| ## SNHG16       | 1.1886211070 | Stable |
| ## ACTA2-AS1    | 1.1845335385 | Stable |
| ## RIC8A        | 1.1822405134 | Stable |
| ## SEC22C       | 1.1817733784 | Stable |
| ## XIAP         | 1.1796354685 | Stable |
| ## RNF19B       | 1.1774242052 | Stable |
| ## GK           | 1.1768597099 | Stable |
| ## NIP7         | 1.1767657687 | Stable |
| ## TMC6         | 1.1757825241 | Stable |
| ## ATP6V1C1     | 1.1725727182 | Stable |
| ## OTUB1        | 1.1710040626 | Stable |
| ## PDZRN4       | 1.1701029371 | Down   |
| ## CHTF18       | 1.1692409281 | Stable |
| ## ZBTB33       | 1.1674260153 | Stable |
| ## FAM89A       | 1.1640686277 | Stable |
| ## RCC1         | 1.1610560495 | Stable |
| ## MARCHF5      | 1.1587012110 | Stable |
| ## MANEA        | 1.1561632625 | Stable |
| ## CSDE1        | 1.1542954488 | Stable |
| ## SLC50A1      | 1.1542305749 | Stable |
| ## LHPP         | 1.1533768144 | Stable |
| ## MRPL4        | 1.1525327715 | Stable |
| ## HS2ST1       | 1.1520589689 | Stable |
| ## ITIH3        | 1.1518352661 | Stable |
| ## GUCY1B1      | 1.1508980932 | Stable |
| ## RPL34        | 1.1493734669 | Stable |
| ## CLPB         | 1.1442129769 | Stable |

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|-------------|--------------|--------|
| ## GPER1    | 1.1340922375 | Stable |
| ## AP2S1    | 1.1328776511 | Stable |
| ## PIK3CB   | 1.1287860279 | Stable |
| ## TRIM28   | 1.1287297952 | Stable |
| ## MSANTD3  | 1.1277775699 | Stable |
| ## DACT1    | 1.1129136577 | Stable |
| ## ZNF165   | 1.1127550259 | Stable |
| ## NGFR     | 1.1066503817 | Stable |
| ## EPOP     | 1.1063214050 | Stable |
| ## SMTN     | 1.1054835357 | Stable |
| ## HOOK1    | 1.1003432740 | Stable |
| ## SLC11A2  | 1.0988276609 | Stable |
| ## RPP25    | 1.0915308122 | Stable |
| ## TAGLN    | 1.0887598516 | Stable |
| ## CEACAM7  | 1.0839434696 | Up     |
| ## CRIM1-DT | 1.0823551134 | Stable |
| ## CPEB3    | 1.0786790401 | Stable |
| ## CTDSP1   | 1.0780755162 | Stable |
| ## ATP11A   | 1.0768600930 | Stable |
| ## PGK1     | 1.0730650720 | Stable |
| ## GASK1A   | 1.0697041112 | Stable |
| ## SORCS2   | 1.0676986326 | Stable |
| ## SLC22A17 | 1.0676642555 | Stable |
| ## PIGW     | 1.0665174085 | Stable |
| ## TARS1    | 1.0663333838 | Stable |
| ## OTUD1    | 1.0658416902 | Stable |
| ## UBE2QL1  | 1.0655316813 | Stable |
| ## CREB3L2  | 1.0647198386 | Stable |
| ## ANKDD1A  | 1.0631973492 | Stable |
| ## CIBAR1   | 1.0538515977 | Stable |
| ## ADSS2    | 1.0508866712 | Stable |
| ## NAXE     | 1.0497412396 | Stable |
| ## GGT5     | 1.0479972184 | Stable |
| ## PPIH     | 1.0479468837 | Stable |
| ## MMRN1    | 1.0441237427 | Stable |
| ## GRK5     | 1.0436324778 | Stable |
| ## CDC25B   | 1.0412312393 | Stable |
| ## ZBTB44   | 1.0332442814 | Stable |
| ## ABRACL   | 1.0292857268 | Stable |
| ## RAD21    | 1.0290058437 | Stable |
| ## POLR3GL  | 1.0269084407 | Stable |
| ## MTMR9LP  | 1.0240637094 | Stable |
| ## FXN      | 1.0219100557 | Stable |
| ## DHX16    | 1.0216032252 | Stable |
| ## ISY1     | 1.0159216572 | Stable |
| ## MRPS15   | 1.0143861320 | Stable |
| ## LIG1     | 1.0129518947 | Stable |
| ## SLAIN2   | 1.0109074956 | Stable |
| ## ITSN2    | 1.0076246675 | Stable |
| ## CYP27B1  | 1.0052153478 | Stable |
| ## NELFA    | 1.0028243384 | Stable |
| ## GPRC5A   | 0.9896289222 | Up     |
| ## CMC2     | 0.9840630834 | Stable |
| ## CD1D     | 0.9829852486 | Stable |

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|-------------|--------------|--------|
| ## RAD1     | 0.9788951203 | Stable |
| ## SLC02A1  | 0.9770852306 | Stable |
| ## FUS      | 0.9757825359 | Stable |
| ## CLEC1A   | 0.9747636489 | Stable |
| ## YKT6     | 0.9682547153 | Stable |
| ## PWP1     | 0.9651646477 | Stable |
| ## TACO1    | 0.9593530772 | Stable |
| ## ADCY5    | 0.9577909110 | Stable |
| ## TRUB1    | 0.9553499361 | Stable |
| ## LAMC2    | 0.9495342304 | Stable |
| ## NCK1-DT  | 0.9475819663 | Stable |
| ## HOXC9    | 0.9412303648 | Stable |
| ## MICB     | 0.9394116166 | Stable |
| ## PPP1R14A | 0.9334424782 | Stable |
| ## PROS1    | 0.9298241830 | Stable |
| ## TRIM26   | 0.9270127086 | Stable |
| ## ADGRA2   | 0.9208770720 | Stable |
| ## HOXB9    | 0.9197355737 | Stable |
| ## PPP2R3A  | 0.9151141768 | Stable |
| ## IRF2BPL  | 0.9148447329 | Stable |
| ## FASN     | 0.9119060576 | Stable |
| ## PLCL1    | 0.9108530669 | Stable |
| ## RFXANK   | 0.9006103060 | Stable |
| ## NBDY     | 0.8967647284 | Stable |
| ## SPC24    | 0.8949288395 | Stable |
| ## BACH2    | 0.8940804872 | Stable |
| ## RBM14    | 0.8937036213 | Stable |
| ## LEMD2    | 0.8924546052 | Stable |
| ## LY9      | 0.8918027430 | Stable |
| ## TMEM119  | 0.8905002639 | Stable |
| ## NROB2    | 0.8887934524 | Stable |
| ## AKR1C2   | 0.8881989011 | Down   |
| ## HLA-B    | 0.8872905133 | Stable |
| ## MAP3K8   | 0.8858907590 | Stable |
| ## IFI6     | 0.8843352202 | Up     |
| ## OSBPL6   | 0.8838087187 | Stable |
| ## TNFAIP3  | 0.8781659204 | Stable |
| ## FLRT2    | 0.8740322722 | Stable |
| ## CCNE1    | 0.8696378763 | Up     |
| ## CHI3L1   | 0.8688772369 | Up     |
| ## TCF19    | 0.8630045260 | Stable |
| ## COLEC12  | 0.8580511217 | Down   |
| ## YTHDF3   | 0.8540574639 | Stable |
| ## CAPN13   | 0.8535778226 | Stable |
| ## RABL6    | 0.8471656418 | Stable |
| ## MRPL36   | 0.8471416909 | Stable |
| ## RAPGEF3  | 0.8458785454 | Stable |
| ## BBS1     | 0.8435484986 | Stable |
| ## COL11A1  | 0.8409581873 | Up     |
| ## PSMA4    | 0.8408731466 | Stable |
| ## PAQR4    | 0.8344490328 | Stable |
| ## ABHD16A  | 0.8334834913 | Stable |
| ## NCKAP5   | 0.8277274330 | Stable |
| ## INTS7    | 0.8209221103 | Stable |

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|-------------|--------------|--------|
| ## MRPL2    | 0.8193403062 | Stable |
| ## MRPL42   | 0.8149901942 | Stable |
| ## ASCL2    | 0.8135505758 | Stable |
| ## FBX09    | 0.8124890305 | Stable |
| ## SRXN1    | 0.8118158204 | Stable |
| ## MIR99AHG | 0.8116515934 | Stable |
| ## CXCL3    | 0.8083717743 | Up     |
| ## TMEM170B | 0.8070398367 | Stable |
| ## ARHGAP39 | 0.8065658542 | Stable |
| ## HAUS5    | 0.8059297551 | Stable |
| ## MTFP1    | 0.8019431008 | Stable |
| ## POU6F1   | 0.7951279655 | Stable |
| ## ITGB4    | 0.7934109694 | Stable |
| ## LYPLA1   | 0.7922673025 | Stable |
| ## CDC42BPA | 0.7837398139 | Stable |
| ## OTUD3    | 0.7830116245 | Stable |
| ## OLFML3   | 0.7796187540 | Stable |
| ## MOB1A    | 0.7786033767 | Stable |
| ## RNF185   | 0.7778673743 | Stable |
| ## ARHGAP15 | 0.7778287458 | Stable |
| ## CCDC110  | 0.7740010832 | Stable |
| ## UFD1     | 0.7734988667 | Stable |
| ## PRKDC    | 0.7729520673 | Stable |
| ## CDK5RAP1 | 0.7704995435 | Stable |
| ## MBOAT7   | 0.7666168536 | Stable |
| ## BEND3    | 0.7649942574 | Stable |
| ## ATP5PF   | 0.7602850727 | Stable |
| ## CFB      | 0.7584017724 | Up     |
| ## PTGDS    | 0.7544115273 | Stable |
| ## CNOT10   | 0.7521855422 | Stable |
| ## LRRC61   | 0.7482817061 | Stable |
| ## ASB6     | 0.7477790787 | Stable |
| ## PIK3AP1  | 0.7466290163 | Stable |
| ## KRCC1    | 0.7447003434 | Stable |
| ## ABCA5    | 0.7430326161 | Stable |
| ## GALNT11  | 0.7425195445 | Stable |
| ## SLC35F2  | 0.7413076434 | Stable |
| ## USE1     | 0.7380544822 | Stable |
| ## YBX1     | 0.7374390279 | Stable |
| ## BICC1    | 0.7314540458 | Stable |
| ## PRPF38A  | 0.7257599997 | Stable |
| ## STAM2    | 0.7216550644 | Stable |
| ## TALDO1   | 0.7197460140 | Stable |
| ## SNRNP48  | 0.7146793531 | Stable |
| ## UBE2A    | 0.7084116072 | Stable |
| ## PPP1R13B | 0.7075614525 | Stable |
| ## DUSP7    | 0.7035232813 | Stable |
| ## TRMT10C  | 0.6998502092 | Stable |
| ## MIR9-1HG | 0.6987724920 | Stable |
| ## TRIM25   | 0.6959504025 | Stable |
| ## NIFK     | 0.6937157775 | Stable |
| ## TCF20    | 0.6931791434 | Stable |
| ## RALA     | 0.6903831261 | Stable |
| ## ODF2     | 0.6889611856 | Stable |

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|--------------|--------------|--------|
| ## GTF2I     | 0.6850102080 | Stable |
| ## BORCS7    | 0.6845658219 | Stable |
| ## ATF6      | 0.6829509738 | Stable |
| ## DEPDC1B   | 0.6826317797 | Stable |
| ## HSPA2     | 0.6800650312 | Stable |
| ## ICMT      | 0.6778504307 | Stable |
| ## LINC00663 | 0.6748357486 | Stable |
| ## TUSC1     | 0.6741467202 | Stable |
| ## YARS1     | 0.6738497505 | Stable |
| ## C1orf21   | 0.6693064473 | Stable |
| ## ADAM10    | 0.6670056909 | Stable |
| ## SHC2      | 0.6629386674 | Stable |
| ## KIF2A     | 0.6626196103 | Stable |
| ## TARBP2    | 0.6621583000 | Stable |
| ## DNAJB4    | 0.6584571584 | Stable |
| ## DNAJC14   | 0.6484302638 | Stable |
| ## DNMT3A    | 0.6452362988 | Stable |
| ## KCNA5     | 0.6422313743 | Stable |
| ## CLCN2     | 0.6369106831 | Stable |
| ## OSGIN2    | 0.6362510359 | Stable |
| ## OAS3      | 0.6349107224 | Stable |
| ## CENPU     | 0.6334303771 | Stable |
| ## NUP42     | 0.6324189273 | Stable |
| ## MRPL13    | 0.6323914728 | Stable |
| ## ACSL3     | 0.6322959648 | Stable |
| ## HELZ2     | 0.6309745841 | Stable |
| ## RNFT1     | 0.6307941134 | Stable |
| ## MRPL15    | 0.6303161394 | Stable |
| ## FXVD5     | 0.6275469607 | Stable |
| ## LIF       | 0.6251439362 | Stable |
| ## PART1     | 0.6229748766 | Stable |
| ## ASPH      | 0.6196308710 | Stable |
| ## PATJ      | 0.6191951319 | Stable |
| ## MAP3K9    | 0.6184143101 | Stable |
| ## SMNDC1    | 0.6172410749 | Stable |
| ## M6PR      | 0.6165321018 | Stable |
| ## TMEM265   | 0.6120237410 | Stable |
| ## PREP      | 0.6117356392 | Stable |
| ## MCUR1     | 0.6079706400 | Stable |
| ## PYCR1     | 0.6070211773 | Stable |
| ## PUSL1     | 0.6061159525 | Stable |
| ## NFXL1     | 0.6017771310 | Stable |
| ## PRR7      | 0.6004156729 | Stable |
| ## SH3BGR1   | 0.5985231068 | Stable |
| ## TXN       | 0.5961608398 | Stable |
| ## NRK       | 0.5923515125 | Down   |
| ## BHLHE40   | 0.5893509442 | Stable |
| ## GLRB      | 0.5863607211 | Stable |
| ## NF1       | 0.5854062947 | Stable |
| ## CMBL      | 0.5850496296 | Down   |
| ## ARF1      | 0.5840485290 | Stable |
| ## KCNK3     | 0.5772423535 | Down   |
| ## NOX01     | 0.5727319093 | Stable |
| ## FAM222B   | 0.5722662756 | Stable |

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|---------------|--------------|--------|
| ## TIAL1      | 0.5719531099 | Stable |
| ## CRYBG3     | 0.5709293889 | Stable |
| ## ADNP       | 0.5687591142 | Stable |
| ## PTCH2      | 0.5666980418 | Stable |
| ## SUM01      | 0.5637335278 | Stable |
| ## SECISBP2L  | 0.5631815038 | Stable |
| ## TFF2       | 0.5610344061 | Down   |
| ## MAD1L1     | 0.5569315276 | Stable |
| ## TUBGCP2    | 0.5551161716 | Stable |
| ## LINC00924  | 0.5536390966 | Stable |
| ## BCL7A      | 0.5510597127 | Stable |
| ## ERG        | 0.5497433217 | Stable |
| ## DPY19L3    | 0.5477197843 | Stable |
| ## IKZF5      | 0.5470323207 | Stable |
| ## BIRC5      | 0.5469310178 | Stable |
| ## GLDN       | 0.5465844761 | Stable |
| ## TYMP       | 0.5461000340 | Stable |
| ## CYSTM1     | 0.5313165984 | Stable |
| ## PKD2       | 0.5301160674 | Stable |
| ## SC02       | 0.5284282688 | Stable |
| ## C2orf74    | 0.5254360391 | Stable |
| ## CYP1B1-AS1 | 0.5244008817 | Stable |
| ## BMPER      | 0.5232998410 | Stable |
| ## XRCC5      | 0.5228041100 | Stable |
| ## SLC52A2    | 0.5197071212 | Stable |
| ## ASB5       | 0.5196988442 | Stable |
| ## SNTB1      | 0.5187958848 | Stable |
| ## GPATCH11   | 0.5181556764 | Stable |
| ## S1PR1      | 0.5143197872 | Stable |
| ## SMYD5      | 0.5129302923 | Stable |
| ## PDCD10     | 0.5078240000 | Stable |
| ## ABLIM1     | 0.5069665970 | Stable |
| ## SRSF6      | 0.5046834013 | Up     |
| ## SUCO       | 0.5024280963 | Stable |
| ## IL1A       | 0.5021250889 | Stable |
| ## KCNJ8      | 0.5009785118 | Stable |
| ## AP1S2      | 0.4982062723 | Stable |
| ## GSPT1      | 0.4972950856 | Stable |
| ## CTSA       | 0.4897377119 | Stable |
| ## RASSF2     | 0.4841660057 | Stable |
| ## ZSCAN18    | 0.4833460338 | Stable |
| ## HLA-G      | 0.4824859506 | Stable |
| ## CACNA2D3   | 0.4738491315 | Stable |
| ## TFAP2A     | 0.4630622450 | Up     |
| ## TMEM63A    | 0.4614912489 | Stable |
| ## PPM1K      | 0.4601715944 | Stable |
| ## DHX29      | 0.4594403277 | Stable |
| ## ACBD5      | 0.4581542302 | Stable |
| ## CPEB1      | 0.4558114249 | Stable |
| ## CDK14      | 0.4551656550 | Stable |
| ## KAT14      | 0.4547901823 | Stable |
| ## CSTB       | 0.4538887697 | Stable |
| ## IFITM3     | 0.4517380533 | Stable |
| ## SH3BGR12   | 0.4485333423 | Stable |

|              |              |        |
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| ## TNN       | 0.4444344361 | Stable |
| ## CASQ1     | 0.4412701076 | Stable |
| ## ERH       | 0.4398543911 | Stable |
| ## TMEM178A  | 0.4384338075 | Stable |
| ## GUF1      | 0.4360934334 | Stable |
| ## AMN1      | 0.4330918043 | Stable |
| ## UPF3B     | 0.4328445597 | Stable |
| ## BZW1      | 0.4269202134 | Stable |
| ## ZNF516    | 0.4206798734 | Stable |
| ## MIR497HG  | 0.4194804794 | Stable |
| ## RTL10     | 0.4173566286 | Stable |
| ## IFITM1    | 0.4149601706 | Stable |
| ## HYOU1     | 0.4142270025 | Stable |
| ## TUBB3     | 0.4137700386 | Stable |
| ## TLE3      | 0.4134417752 | Stable |
| ## SMC1A     | 0.4125996214 | Stable |
| ## RIT1      | 0.4124959002 | Stable |
| ## PRICKLE3  | 0.4082892717 | Stable |
| ## TNNT3     | 0.4078365117 | Stable |
| ## CACNA2D2  | 0.4078237614 | Stable |
| ## EOLA1-DT  | 0.4077694846 | Stable |
| ## RAB35     | 0.3971429108 | Stable |
| ## ARMCX4    | 0.3945379470 | Stable |
| ## CUL4A     | 0.3931574151 | Stable |
| ## ADAM12    | 0.3877881085 | Stable |
| ## RTL8C     | 0.3828429257 | Stable |
| ## RNF126    | 0.3793635918 | Stable |
| ## EMG1      | 0.3761750633 | Stable |
| ## MIOS      | 0.3721143466 | Stable |
| ## C10orf143 | 0.3630348094 | Stable |
| ## CXCL9     | 0.3628098107 | Up     |
| ## STK32B    | 0.3625357444 | Stable |
| ## DUSP14    | 0.3597816487 | Stable |
| ## NECTIN2   | 0.3584970606 | Stable |
| ## ZC3HAV1L  | 0.3571328572 | Stable |
| ## SPATA5L1  | 0.3558227770 | Stable |
| ## TMEM30A   | 0.3510865333 | Stable |
| ## FNDC3B    | 0.3495332401 | Stable |
| ## SEMA4B    | 0.3462956640 | Stable |
| ## MAD2L1BP  | 0.3428509802 | Stable |
| ## INHBA     | 0.3422340039 | Stable |
| ## PDS5A     | 0.3415526126 | Stable |
| ## ANKRD65   | 0.3414672047 | Stable |
| ## HMGB2     | 0.3405870142 | Stable |
| ## KCNB1     | 0.3388796931 | Stable |
| ## TUBB4B    | 0.3387063549 | Stable |
| ## VANG1     | 0.3360283715 | Stable |
| ## OLFM1     | 0.3356496404 | Stable |
| ## TMM41     | 0.3336010267 | Stable |
| ## SGSM2     | 0.3326298983 | Stable |
| ## TRUB2     | 0.3258832024 | Stable |
| ## PMF1      | 0.3248690412 | Stable |
| ## DCBLD1    | 0.3233180498 | Stable |
| ## ZBED2     | 0.3217682021 | Stable |



|                 |              |        |
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| ## B3GALT6      | 0.3162487725 | Stable |
| ## SLC20A1      | 0.3151543097 | Stable |
| ## TSPAN7       | 0.3109720154 | Stable |
| ## HOXA4        | 0.3085604553 | Stable |
| ## MEOX1        | 0.3068786052 | Stable |
| ## LAMP3        | 0.3047068823 | Stable |
| ## CKAP2        | 0.3045538504 | Stable |
| ## OGFR         | 0.3004950776 | Stable |
| ## NUP88        | 0.3003673744 | Stable |
| ## GNG7         | 0.3001943067 | Stable |
| ## RGS9         | 0.2932732279 | Stable |
| ## PGAP2        | 0.2925695566 | Stable |
| ## TMEM167B     | 0.2921993605 | Stable |
| ## WDFPCP       | 0.2919484460 | Stable |
| ## SLC45A3      | 0.2896773490 | Stable |
| ## ZNF575       | 0.2873509542 | Stable |
| ## PRPF6        | 0.2869805247 | Stable |
| ## TRIM13       | 0.2813662726 | Stable |
| ## USP10        | 0.2803605209 | Stable |
| ## TMPO         | 0.2801378131 | Stable |
| ## NSMAF        | 0.2791109127 | Stable |
| ## MADCAM1      | 0.2778839197 | Stable |
| ## WNT5A        | 0.2758781768 | Stable |
| ## CRMA         | 0.2727521720 | Stable |
| ## ACTR2        | 0.2719365147 | Stable |
| ## KL           | 0.2705350450 | Stable |
| ## MARCO        | 0.2703580700 | Stable |
| ## MACC1        | 0.2703422023 | Up     |
| ## XPOT         | 0.2677005053 | Stable |
| ## FERMT2       | 0.2631326650 | Stable |
| ## EIF1AD       | 0.2629045604 | Stable |
| ## RDH12        | 0.2611855402 | Stable |
| ## NCL          | 0.2593962287 | Stable |
| ## LOC101928419 | 0.2593488178 | Stable |
| ## SCN7A        | 0.2580858372 | Stable |
| ## IARS2        | 0.2556889975 | Stable |
| ## NUDCD1       | 0.2541478584 | Stable |
| ## SETD6        | 0.2531525020 | Stable |
| ## HAUS3        | 0.2504483118 | Stable |
| ## ITPA         | 0.2500476626 | Stable |
| ## DSG2-AS1     | 0.2425188589 | Stable |
| ## DHX8         | 0.2418466449 | Stable |
| ## ADGRF4       | 0.2399274563 | Stable |
| ## LACTB        | 0.2371571641 | Stable |
| ## METRNL       | 0.2363587859 | Stable |
| ## DMAC1        | 0.2355410229 | Stable |
| ## ZNF322       | 0.2320726265 | Stable |
| ## DLC1         | 0.2253821370 | Stable |
| ## B3GALNT2     | 0.2247386171 | Stable |
| ## CNR2         | 0.2233168193 | Stable |
| ## EDC3         | 0.2215050110 | Stable |
| ## POLR3D       | 0.2206284246 | Stable |
| ## ALDOA        | 0.2163090836 | Stable |
| ## NOB1         | 0.2160315192 | Stable |

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| ## G3BP2   | 0.2137109158 | Stable |
| ## DDA1    | 0.2102245621 | Stable |
| ## GNAZ    | 0.2084588164 | Stable |
| ## PPIB    | 0.2082663635 | Stable |
| ## ZFP69B  | 0.2040083472 | Stable |
| ## CIP2A   | 0.2028931246 | Stable |
| ## SMDT1   | 0.2025356804 | Stable |
| ## ITGA8   | 0.2016566159 | Stable |
| ## PITPNC1 | 0.2015704970 | Stable |
| ## HGS     | 0.2015689666 | Stable |
| ## BPI     | 0.1997551260 | Stable |
| ## TPT1    | 0.1965886608 | Stable |
| ## CYFIP2  | 0.1926503073 | Stable |
| ## BAMBI   | 0.1923278282 | Up     |
| ## FCRLA   | 0.1910932154 | Stable |
| ## PPM1L   | 0.1890177330 | Stable |
| ## EIF4A2  | 0.1888359462 | Stable |
| ## ATG5    | 0.1858188444 | Stable |
| ## PRKCB   | 0.1853542021 | Stable |
| ## PTCHD1  | 0.1823880731 | Stable |
| ## GTF2H5  | 0.1784269836 | Stable |
| ## BORCS5  | 0.1761014790 | Stable |
| ## PPM1M   | 0.1752897442 | Stable |
| ## FGF10   | 0.1706790588 | Stable |
| ## TMX1    | 0.1699287864 | Stable |
| ## MOAP1   | 0.1650461216 | Stable |
| ## MINPP1  | 0.1641769878 | Stable |
| ## TRIM14  | 0.1624013147 | Stable |
| ## DUSP16  | 0.1584995036 | Stable |
| ## GTF3C2  | 0.1569178646 | Stable |
| ## ARRDC1  | 0.1552206405 | Stable |
| ## COG3    | 0.1536957071 | Stable |
| ## PSMD1   | 0.1524275971 | Stable |
| ## PHTF2   | 0.1462658937 | Stable |
| ## ANG     | 0.1423288877 | Stable |
| ## HPS5    | 0.1422182451 | Stable |
| ## FOXP1   | 0.1396398015 | Stable |
| ## ATP1B3  | 0.1381558187 | Stable |
| ## METTL4  | 0.1366324883 | Stable |
| ## TAF5L   | 0.1362574631 | Stable |
| ## FBXL20  | 0.1335180257 | Stable |
| ## CDC37   | 0.1325435392 | Stable |
| ## OSMR    | 0.1299117267 | Stable |
| ## TEK     | 0.1298780909 | Stable |
| ## NDFIP2  | 0.1290489697 | Stable |
| ## PAPLN   | 0.1284209941 | Stable |
| ## NEDD1   | 0.1263184544 | Stable |
| ## DTX2    | 0.1255034059 | Stable |
| ## KDM1A   | 0.1229904157 | Stable |
| ## ZFR     | 0.1209358001 | Stable |
| ## MFSD10  | 0.1205287193 | Stable |
| ## SURF4   | 0.1148051142 | Stable |
| ## PBX3    | 0.1142479768 | Stable |
| ## AR      | 0.1139955527 | Stable |

|                 |              |        |
|-----------------|--------------|--------|
| ## FAM114A2     | 0.1126764389 | Stable |
| ## C1orf74      | 0.1115983986 | Stable |
| ## LINC00092    | 0.1114265902 | Stable |
| ## COLEC11      | 0.1076832532 | Stable |
| ## ZNF626       | 0.1053775732 | Stable |
| ## EED          | 0.1049940129 | Stable |
| ## LINC01550    | 0.1036248821 | Stable |
| ## HAND2-AS1    | 0.1030024231 | Down   |
| ## GLIPR2       | 0.0970939982 | Stable |
| ## BAZ2A        | 0.0963160446 | Stable |
| ## MAPKAPK3     | 0.0945770946 | Stable |
| ## JADE1        | 0.0928320605 | Stable |
| ## RBM34        | 0.0923657701 | Stable |
| ## RIPK2-DT     | 0.0915223275 | Stable |
| ## THNSL2       | 0.0914146769 | Stable |
| ## SMARCA5      | 0.0901009718 | Stable |
| ## TGIF2        | 0.0897679359 | Stable |
| ## SCARA3       | 0.0788513093 | Stable |
| ## ZNF436       | 0.0786244488 | Stable |
| ## CSTF3        | 0.0775445245 | Stable |
| ## EYA3         | 0.0765843054 | Stable |
| ## TAC1         | 0.0741845841 | Stable |
| ## FOXP2        | 0.0741575026 | Stable |
| ## KIAA0408     | 0.0739671970 | Stable |
| ## STX16        | 0.0730500530 | Stable |
| ## ABRAXAS2     | 0.0727848737 | Stable |
| ## SMC2         | 0.0698975034 | Stable |
| ## MRNIP        | 0.0666334127 | Stable |
| ## MDK          | 0.0646018671 | Stable |
| ## SNX21        | 0.0602290548 | Stable |
| ## ETS1         | 0.0600388143 | Stable |
| ## YME1L1       | 0.0594681517 | Stable |
| ## MORN5        | 0.0590362770 | Stable |
| ## HOXA10       | 0.0564863221 | Stable |
| ## CHTOP        | 0.0496804760 | Stable |
| ## GLMN         | 0.0475309441 | Stable |
| ## SOX9         | 0.0356782223 | Stable |
| ## LAPTM4A      | 0.0338594227 | Stable |
| ## AP5B1        | 0.0303079327 | Stable |
| ## ZNF568       | 0.0281534441 | Stable |
| ## C1orf131     | 0.0237438587 | Stable |
| ## FAM120A      | 0.0216320375 | Stable |
| ## MED28        | 0.0201708247 | Stable |
| ## TNNT1        | 0.0187863045 | Stable |
| ## TEX30        | 0.0179435824 | Stable |
| ## ARPC5        | 0.0171567288 | Stable |
| ## GRB7         | 0.0159483918 | Stable |
| ## GEN1         | 0.0145316738 | Stable |
| ## GMEB1        | 0.0134964519 | Stable |
| ## ABCA9        | 0.0132934266 | Stable |
| ## EPB41L4A-AS1 | 0.0101101812 | Stable |
| ## PCSK9        | 0.0056895353 | Stable |
| ## FHL2         | 0.0039397886 | Stable |
| ## CYBA         | 0.0024064806 | Stable |

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| ## ZNF19        | 0.0002125052  | Stable |
| ## MYL6         | -0.0006333649 | Stable |
| ## NRAV         | -0.0014443276 | Stable |
| ## ME3          | -0.0023212682 | Stable |
| ## ESRRG        | -0.0029181120 | Down   |
| ## RYR3         | -0.0078335967 | Stable |
| ## PES1         | -0.0086298748 | Stable |
| ## CSRP2        | -0.0088674822 | Stable |
| ## IL17D        | -0.0090599941 | Stable |
| ## NEGR1        | -0.0099184032 | Stable |
| ## TARDBP       | -0.0148313290 | Stable |
| ## AKT1S1       | -0.0157542962 | Stable |
| ## PON2         | -0.0195539181 | Stable |
| ## GID4         | -0.0206597834 | Stable |
| ## GUCY1A1      | -0.0226858857 | Stable |
| ## IFNGR1       | -0.0244257539 | Stable |
| ## ELL          | -0.0251276245 | Stable |
| ## DYRK2        | -0.0254616899 | Stable |
| ## FARP1        | -0.0271299799 | Stable |
| ## PTPN2        | -0.0289041354 | Stable |
| ## CTSV         | -0.0290062187 | Stable |
| ## BZW2         | -0.0291155879 | Stable |
| ## ACTN2        | -0.0344924408 | Stable |
| ## DHX30        | -0.0351117595 | Stable |
| ## ZNF529       | -0.0358167284 | Stable |
| ## TRIM15       | -0.0367304504 | Stable |
| ## TOR1AIP2     | -0.0367403565 | Stable |
| ## BMS1         | -0.0437514772 | Stable |
| ## ATXN7L3      | -0.0440785251 | Stable |
| ## ADRA2A       | -0.0446888316 | Down   |
| ## AADAC        | -0.0447336678 | Down   |
| ## IDH3A        | -0.0468374272 | Stable |
| ## ZBTB47       | -0.0469523591 | Stable |
| ## TOGARAM1     | -0.0483020510 | Stable |
| ## MARK2        | -0.0497192144 | Stable |
| ## LAMTOR2      | -0.0527808956 | Stable |
| ## CDCP1        | -0.0538746868 | Stable |
| ## LOC102723678 | -0.0548843103 | Stable |
| ## MPC1         | -0.0583324306 | Stable |
| ## SLC6A6       | -0.0600377584 | Stable |
| ## APTX         | -0.0665707125 | Stable |
| ## SERPINB2     | -0.0666661983 | Stable |
| ## CMA1         | -0.0669167565 | Stable |
| ## TP53INP2     | -0.0684087837 | Stable |
| ## ZNF473       | -0.0708097137 | Stable |
| ## ALKBH2       | -0.0724955054 | Stable |
| ## PSMD3        | -0.0734928498 | Stable |
| ## VSTM2A       | -0.0738576116 | Stable |
| ## ABI2         | -0.0777193152 | Stable |
| ## NSA2         | -0.0777943619 | Stable |
| ## PHF20L1      | -0.0792008444 | Stable |
| ## UBE2L6       | -0.0793284652 | Stable |
| ## AQP9         | -0.0831770141 | Stable |
| ## POLR3E       | -0.0833478192 | Stable |

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| ## MRPS2      | -0.0879740763 | Stable |
| ## MAFG       | -0.0916588340 | Stable |
| ## DNAL1      | -0.0930209074 | Stable |
| ## EXOSC2     | -0.0961868344 | Stable |
| ## PFDN6      | -0.0986176148 | Stable |
| ## TRIM59     | -0.0990694980 | Stable |
| ## ZNF385B    | -0.1004726383 | Stable |
| ## BAX        | -0.1017939565 | Stable |
| ## RNF114     | -0.1027699835 | Stable |
| ## EPRS1      | -0.1051121533 | Stable |
| ## PGP        | -0.1083601358 | Stable |
| ## SS18       | -0.1114180403 | Stable |
| ## SVEP1      | -0.1148840689 | Stable |
| ## MMP3       | -0.1192883601 | Up     |
| ## TASOR      | -0.1247228104 | Stable |
| ## TRIAP1     | -0.1336372597 | Stable |
| ## ARHGAP27P1 | -0.1346799831 | Stable |
| ## DNPEP      | -0.1359041278 | Stable |
| ## MS4A8      | -0.1385962428 | Down   |
| ## EMILIN1    | -0.1403671060 | Stable |
| ## CCN3       | -0.1417260328 | Stable |
| ## ATP6V1F    | -0.1432199798 | Stable |
| ## C11orf96   | -0.1480532376 | Stable |
| ## TRHDE      | -0.1489846893 | Stable |
| ## SH2D2A     | -0.1491410408 | Stable |
| ## RHBDF2     | -0.1497828010 | Stable |
| ## AKAP6      | -0.1546078449 | Stable |
| ## PDCD2      | -0.1561726598 | Stable |
| ## ELOVL4     | -0.1573665285 | Stable |
| ## NF2        | -0.1584597629 | Stable |
| ## ADH7       | -0.1587730031 | Stable |
| ## SCLT1      | -0.1633411076 | Stable |
| ## CACFD1     | -0.1639715691 | Stable |
| ## PLEK       | -0.1653281852 | Stable |
| ## MYO7A      | -0.1655474344 | Stable |
| ## CPA2       | -0.1698105741 | Down   |
| ## H2BC17     | -0.1698941488 | Stable |
| ## SLC16A9    | -0.1717344555 | Stable |
| ## TUBA3C     | -0.1727893970 | Stable |
| ## TMTC2      | -0.1728774009 | Stable |
| ## CENPO      | -0.1737973792 | Stable |
| ## PSMG1      | -0.1765422932 | Stable |
| ## GSTO1      | -0.1783706714 | Stable |
| ## ATP4A      | -0.1807816774 | Down   |
| ## RPA1       | -0.1811723650 | Stable |
| ## GATA6-AS1  | -0.1866213095 | Down   |
| ## BLACAT1    | -0.1912602038 | Stable |
| ## LARS2      | -0.1958158863 | Stable |
| ## SNX8       | -0.1969331013 | Stable |
| ## MAP2K4     | -0.2007380054 | Stable |
| ## PI3        | -0.2080061065 | Up     |
| ## FZD10-AS1  | -0.2109631609 | Stable |
| ## DAZAP1     | -0.2123453100 | Stable |
| ## CD274      | -0.2207368278 | Stable |

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|--------------|---------------|--------|
| ## CEBPG     | -0.2213267817 | Stable |
| ## A2M-AS1   | -0.2229469202 | Stable |
| ## FOXK2     | -0.2231104842 | Stable |
| ## ASXL2     | -0.2281855347 | Stable |
| ## ALDH1A3   | -0.2300648202 | Stable |
| ## TLCD1     | -0.2323578874 | Stable |
| ## WWTR1     | -0.2342857554 | Stable |
| ## LINC03013 | -0.2357021845 | Stable |
| ## COLGALT1  | -0.2374834965 | Stable |
| ## NUP85     | -0.2400804860 | Stable |
| ## POMP      | -0.2405058185 | Stable |
| ## SCIN      | -0.2428087360 | Down   |
| ## TBC1D31   | -0.2440034966 | Stable |
| ## ACTL6A    | -0.2444898914 | Stable |
| ## LIMD1     | -0.2448412252 | Stable |
| ## GREB1     | -0.2457063497 | Stable |
| ## MYBBP1A   | -0.2529862274 | Stable |
| ## RNA45SN5  | -0.2533343999 | Stable |
| ## ARF6      | -0.2579172910 | Stable |
| ## KCTD20    | -0.2655612482 | Stable |
| ## SYNDIG1   | -0.2659570251 | Stable |
| ## METTL8    | -0.2687600032 | Stable |
| ## TIMM29    | -0.2714956262 | Stable |
| ## NOC3L     | -0.2730005021 | Stable |
| ## AGL       | -0.2739036910 | Stable |
| ## MARCHF6   | -0.2741448227 | Stable |
| ## TNFRSF10A | -0.2760528909 | Stable |
| ## MRPL35    | -0.2771959804 | Stable |
| ## ELAPOR1   | -0.2779862432 | Down   |
| ## SELENOM   | -0.2787834587 | Stable |
| ## TAF5      | -0.2811456815 | Stable |
| ## TMEM41A   | -0.2857425812 | Stable |
| ## BACE1     | -0.2876725093 | Stable |
| ## SENP3     | -0.2891489863 | Stable |
| ## CHORDC1   | -0.2921639093 | Stable |
| ## PIGC      | -0.2933641392 | Stable |
| ## PAIP2B    | -0.2940787804 | Stable |
| ## ZNF853    | -0.2946884270 | Stable |
| ## POLR3K    | -0.2977313146 | Stable |
| ## HMGB1     | -0.2977496333 | Stable |
| ## BCL2A1    | -0.2981819380 | Up     |
| ## MED19     | -0.2995614201 | Stable |
| ## NUP35     | -0.3006420059 | Stable |
| ## MTRR      | -0.3021252002 | Stable |
| ## MYO19     | -0.3048766292 | Stable |
| ## SYPL2     | -0.3051198945 | Stable |
| ## RBM45     | -0.3059482828 | Stable |
| ## NXT2      | -0.3107627672 | Stable |
| ## CD207     | -0.3111835052 | Stable |
| ## DMKN      | -0.3146001020 | Stable |
| ## TYRP1     | -0.3151024652 | Down   |
| ## MAGEE1    | -0.3156427469 | Stable |
| ## MSRB3     | -0.3177301085 | Stable |
| ## AGPAT3    | -0.3212524589 | Stable |

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| ## NRROS     | -0.3245252065 | Stable |
| ## ZNF451    | -0.3294949846 | Stable |
| ## HINFP     | -0.3302480066 | Stable |
| ## TMEM160   | -0.3326837542 | Stable |
| ## GNAI3     | -0.3351035536 | Stable |
| ## ULBP2     | -0.3388194592 | Stable |
| ## ETFDH     | -0.3395405563 | Stable |
| ## COA1      | -0.3398359238 | Stable |
| ## ACADM     | -0.3404055998 | Stable |
| ## MRPL48    | -0.3459907901 | Stable |
| ## PTTG3P    | -0.3471895274 | Stable |
| ## CAT       | -0.3482063098 | Stable |
| ## MRPS5     | -0.3486274834 | Stable |
| ## BAK1      | -0.3526179755 | Stable |
| ## DDRGK1    | -0.3540393053 | Stable |
| ## ATG3      | -0.3541811152 | Stable |
| ## NOL7      | -0.3562425470 | Stable |
| ## FGF14-AS2 | -0.3576956275 | Stable |
| ## SUPV3L1   | -0.3600853975 | Stable |
| ## AP3M1     | -0.3601378897 | Stable |
| ## IL1RAP    | -0.3612553772 | Stable |
| ## HDHD5     | -0.3613273907 | Stable |
| ## CEP85     | -0.3666005980 | Stable |
| ## PLAGL1    | -0.3715789349 | Stable |
| ## JMY       | -0.3725807574 | Stable |
| ## IPPK      | -0.3744741376 | Stable |
| ## RBM33     | -0.3754971964 | Stable |
| ## CCDC77    | -0.3764540174 | Stable |
| ## EI24      | -0.3771694676 | Stable |
| ## EPPK1     | -0.3783265189 | Stable |
| ## AHCY      | -0.3807545949 | Stable |
| ## TARS3     | -0.3869403073 | Stable |
| ## DIABLO    | -0.3892039582 | Stable |
| ## PSMB9     | -0.3896120821 | Stable |
| ## C1orf109  | -0.3908997942 | Stable |
| ## LRRN3     | -0.3916705937 | Stable |
| ## EZR       | -0.3955398437 | Up     |
| ## DUS3L     | -0.3955767676 | Stable |
| ## KCNK17    | -0.3969203759 | Stable |
| ## ASIC5     | -0.3970509243 | Stable |
| ## KIAA1755  | -0.3979981977 | Stable |
| ## FBX045    | -0.3982663393 | Stable |
| ## IDO1      | -0.3995792897 | Up     |
| ## SLC28A2   | -0.4009666565 | Down   |
| ## H2AC16    | -0.4036293623 | Stable |
| ## TRRAP     | -0.4036749812 | Stable |
| ## B4GALT5   | -0.4048362748 | Stable |
| ## CDH10     | -0.4067352616 | Stable |
| ## SELENBP1  | -0.4069639924 | Stable |
| ## MTAP      | -0.4081326453 | Stable |
| ## HSBP1L1   | -0.4123446353 | Stable |
| ## TMX2      | -0.4142496489 | Stable |
| ## SERBP1    | -0.4144891050 | Stable |
| ## GNAI1     | -0.4158999057 | Stable |

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| ## BMAL2     | -0.4162682256 | Stable |
| ## SERTM1    | -0.4186373924 | Stable |
| ## LINC03040 | -0.4187825012 | Stable |
| ## AFDN      | -0.4221492058 | Stable |
| ## GDPD3     | -0.4222540904 | Stable |
| ## CYB5D2    | -0.4228761919 | Stable |
| ## BRMS1     | -0.4270312127 | Stable |
| ## PIK3C2A   | -0.4271022843 | Stable |
| ## CEBPZOS   | -0.4282995795 | Stable |
| ## BCAT1     | -0.4290530050 | Stable |
| ## NRXN3     | -0.4322882658 | Stable |
| ## RIMKLB    | -0.4344489659 | Stable |
| ## UBE2D1    | -0.4367656497 | Stable |
| ## RBAK      | -0.4379113401 | Stable |
| ## IFNG      | -0.4403691705 | Stable |
| ## DNM3      | -0.4416033385 | Stable |
| ## SULT1C2   | -0.4438162524 | Down   |
| ## RTN4IP1   | -0.4459519801 | Stable |
| ## HNRNPR    | -0.4515347631 | Stable |
| ## VPREB3    | -0.4539878008 | Stable |
| ## DPH2      | -0.4542268184 | Stable |
| ## MDH2      | -0.4554240729 | Stable |
| ## MAGEA3    | -0.4569133924 | Up     |
| ## MMUT      | -0.4585949811 | Stable |
| ## FEM1B     | -0.4646422499 | Stable |
| ## ZNF285    | -0.4676617521 | Stable |
| ## SYNGR3    | -0.4677262347 | Stable |
| ## NCR3LG1   | -0.4705989211 | Stable |
| ## ERICH5    | -0.4713200039 | Stable |
| ## SNX19     | -0.4715312363 | Stable |
| ## H2BC6     | -0.4729716746 | Stable |
| ## LOXL2     | -0.4762485152 | Stable |
| ## RAD51-AS1 | -0.4766307312 | Stable |
| ## PAMR1     | -0.4786086036 | Stable |
| ## LINC02878 | -0.4792418951 | Stable |
| ## PNPLA7    | -0.4796080490 | Stable |
| ## POLG2     | -0.4805979324 | Stable |
| ## HMGCS2    | -0.4839729918 | Down   |
| ## SLC25A33  | -0.4902688134 | Stable |
| ## H2AC4     | -0.4951812361 | Stable |
| ## BOP1      | -0.4975656642 | Stable |
| ## HMGXB4    | -0.5001813606 | Stable |
| ## MAGEA6    | -0.5027033355 | Up     |
| ## PMPCA     | -0.5029858561 | Stable |
| ## H4C5      | -0.5053559803 | Stable |
| ## PNPLA3    | -0.5106135274 | Stable |
| ## PCBD1     | -0.5123414498 | Stable |
| ## RBM27     | -0.5147039329 | Stable |
| ## OSTF1     | -0.5161495368 | Stable |
| ## FHIT      | -0.5175757094 | Stable |
| ## BHLHE41   | -0.5221770668 | Stable |
| ## CFAP36    | -0.5246690247 | Stable |
| ## ZNF200    | -0.5248271363 | Stable |
| ## AMPD1     | -0.5269348633 | Stable |



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| ## FOXRED2   | -0.5305354432 | Stable |
| ## GZMB      | -0.5318968761 | Up     |
| ## TRMT1     | -0.5319709242 | Stable |
| ## TFDP2     | -0.5329693257 | Stable |
| ## AEN       | -0.5330417818 | Stable |
| ## H2BC7     | -0.5345012700 | Stable |
| ## ZNF202    | -0.5352534280 | Stable |
| ## YWHAZ     | -0.5369815043 | Stable |
| ## PPP4R2    | -0.5380963921 | Stable |
| ## MPHOSPH9  | -0.5393206646 | Stable |
| ## C8orf76   | -0.5398991120 | Stable |
| ## RUSC1     | -0.5403047804 | Stable |
| ## MMP9      | -0.5414634775 | Stable |
| ## PRR34-AS1 | -0.5456500931 | Stable |
| ## COPZ2     | -0.5460135335 | Stable |
| ## RGS4      | -0.5460254488 | Down   |
| ## INTS6L    | -0.5494244424 | Stable |
| ## TPRA1     | -0.5593646649 | Stable |
| ## C1QTNF4   | -0.5604280999 | Stable |
| ## RBP7      | -0.5638395096 | Stable |
| ## PLEKHS1   | -0.5644423163 | Stable |
| ## CCNG1     | -0.5674258527 | Stable |
| ## DSG2      | -0.5699533290 | Stable |
| ## H4C2      | -0.5711183099 | Stable |
| ## IL1R1     | -0.5717062427 | Stable |
| ## TOMM22    | -0.5722959773 | Stable |
| ## UBE3C     | -0.5747246158 | Stable |
| ## CENPX     | -0.5766106510 | Stable |
| ## PAXIP1    | -0.5767247692 | Stable |
| ## LINC00926 | -0.5774722879 | Stable |
| ## AZIN1     | -0.5790744950 | Stable |
| ## LRWD1     | -0.5806505282 | Stable |
| ## FKBP1B    | -0.5892021487 | Stable |
| ## DTX3L     | -0.5897305287 | Stable |
| ## NOSTRIN   | -0.5901879440 | Stable |
| ## PALMD     | -0.5903572613 | Stable |
| ## G6PC3     | -0.5945204028 | Stable |
| ## SCYL2     | -0.5992801104 | Stable |
| ## ASS1      | -0.6000890912 | Stable |
| ## STAT2     | -0.6011053611 | Stable |
| ## AQR       | -0.6020469236 | Stable |
| ## CST1      | -0.6025478648 | Up     |
| ## PIP4P2    | -0.6045125129 | Stable |
| ## OSR1      | -0.6053376280 | Stable |
| ## GALNT16   | -0.6058360109 | Stable |
| ## H2BC9     | -0.6191952625 | Stable |
| ## MMS19     | -0.6195272379 | Stable |
| ## LYSMD2    | -0.6195765208 | Stable |
| ## SLC01C1   | -0.6205912246 | Stable |
| ## EIF5      | -0.6213951705 | Stable |
| ## DPY19L2   | -0.6272909808 | Stable |
| ## COL16A1   | -0.6305149010 | Stable |
| ## DTD2      | -0.6307505701 | Stable |
| ## LRRC8B    | -0.6430260590 | Stable |

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| ## ZSCAN26  | -0.6442283473 | Stable |
| ## TPTEP1   | -0.6444901480 | Stable |
| ## SPNS1    | -0.6447077174 | Stable |
| ## PASK     | -0.6450028042 | Stable |
| ## MYLK     | -0.6469042688 | Stable |
| ## REPIN1   | -0.6484628774 | Stable |
| ## TMEM199  | -0.6492389253 | Stable |
| ## CAMSAP2  | -0.6510302068 | Stable |
| ## GPD2     | -0.6510772731 | Stable |
| ## FAM220A  | -0.6520921888 | Stable |
| ## STARD7   | -0.6527098712 | Stable |
| ## OAF      | -0.6559751654 | Stable |
| ## MCL1     | -0.6561926279 | Stable |
| ## OCEL1    | -0.6591146193 | Stable |
| ## LIMA1    | -0.6607660913 | Stable |
| ## MGAT2    | -0.6609501527 | Stable |
| ## MFAP5    | -0.6613982061 | Down   |
| ## PCGF5    | -0.6627597390 | Stable |
| ## ZNF232   | -0.6628520140 | Stable |
| ## BUD23    | -0.6640707704 | Stable |
| ## P2RY6    | -0.6657994127 | Stable |
| ## TTC27    | -0.6675147993 | Stable |
| ## PDGFRL   | -0.6744941123 | Stable |
| ## KRT80    | -0.6778460876 | Stable |
| ## PRRC2C   | -0.6802026881 | Stable |
| ## ETV7     | -0.6805502147 | Stable |
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| ## HDAC1    | -0.6824766809 | Stable |
| ## RBBP4    | -0.6837796671 | Stable |
| ## CENPK    | -0.6840457670 | Stable |
| ## IL4I1    | -0.6915028808 | Stable |
| ## ACTR3B   | -0.6927969338 | Stable |
| ## ENAM     | -0.6936482554 | Stable |
| ## MROH8    | -0.6940729075 | Stable |
| ## PIRT     | -0.6945860916 | Stable |
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| ## ZFP82    | -0.6957529178 | Stable |
| ## CRHBP    | -0.6990279631 | Stable |
| ## CDK7     | -0.7002372709 | Stable |
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| ## RARB     | -0.7009824119 | Stable |
| ## PREX2    | -0.7017944245 | Stable |
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| ## EVL      | -0.7071619081 | Stable |
| ## PDE7B    | -0.7073991661 | Stable |
| ## MOV10    | -0.7103196702 | Stable |
| ## FBX017   | -0.7140313547 | Stable |
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| ## RNF139   | -0.7211138196 | Stable |
| ## ANKRD40  | -0.7215594640 | Stable |
| ## ZNF644   | -0.7233596011 | Stable |
| ## KRT12    | -0.7235653011 | Stable |
| ## SLC25A11 | -0.7238677289 | Stable |

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| ## HILPDA    | -0.7248614941 | Stable |
| ## CAVIN1    | -0.7256095817 | Stable |
| ## CAPN8     | -0.7269533079 | Down   |
| ## HOXB6     | -0.7280999106 | Stable |
| ## POLR2E    | -0.7282647522 | Stable |
| ## ANXA8     | -0.7326553925 | Stable |
| ## ASPN      | -0.7346307587 | Stable |
| ## LIN7C     | -0.7358676593 | Stable |
| ## FIBIN     | -0.7366572332 | Stable |
| ## ZEB2      | -0.7417648490 | Stable |
| ## PEMT      | -0.7428093109 | Stable |
| ## TRAP1     | -0.7433966812 | Stable |
| ## KLHL12    | -0.7444266480 | Stable |
| ## PKN2      | -0.7487068566 | Stable |
| ## RIC1      | -0.7492221721 | Stable |
| ## CCNE2     | -0.7537266585 | Stable |
| ## PSMC3IP   | -0.7549117326 | Stable |
| ## ATR       | -0.7596966513 | Stable |
| ## HOXB7     | -0.7598430458 | Stable |
| ## ACD       | -0.7621103995 | Stable |
| ## VAV2      | -0.7651905612 | Stable |
| ## MFSD4B    | -0.7652270116 | Stable |
| ## ATP6V1A   | -0.7714502603 | Stable |
| ## FBXL19    | -0.7727421345 | Stable |
| ## TENT5A    | -0.7737040902 | Stable |
| ## CHRNA3    | -0.7743614426 | Stable |
| ## PABPC4L   | -0.7752720040 | Stable |
| ## SLC26A10P | -0.7755075748 | Stable |
| ## TAP2      | -0.7764345466 | Stable |
| ## ANXA10    | -0.7796747417 | Down   |
| ## PPP4R3B   | -0.7899749490 | Stable |
| ## UBR1      | -0.7949756710 | Stable |
| ## NFKBIZ    | -0.7973005116 | Stable |
| ## SLC12A7   | -0.8038372914 | Stable |
| ## CRLF3     | -0.8039177321 | Stable |
| ## HAUS1     | -0.8055769110 | Stable |
| ## SLC8B1    | -0.8069158856 | Stable |
| ## KAZALD1   | -0.8087770964 | Stable |
| ## ADAP1     | -0.8099606325 | Stable |
| ## POLB      | -0.8106823317 | Stable |
| ## PTPN12    | -0.8113841394 | Stable |
| ## SH3KBP1   | -0.8118718980 | Stable |
| ## STEAP4    | -0.8122461340 | Stable |
| ## HAPLN4    | -0.8129847718 | Stable |
| ## DOLK      | -0.8136594799 | Stable |
| ## APH1A     | -0.8138500510 | Stable |
| ## PCGF1     | -0.8169076273 | Stable |
| ## GAN       | -0.8219614343 | Stable |
| ## STEAP3    | -0.8228235278 | Stable |
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| ## BAG4      | -0.8241163112 | Stable |
| ## KMT5B     | -0.8250458224 | Stable |
| ## TENM2     | -0.8365779814 | Stable |
| ## COL23A1   | -0.8418213260 | Stable |

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| ## PRRG4      | -0.8418412295 | Stable |
| ## ABCC4      | -0.8452263371 | Stable |
| ## GPM6B      | -0.8454986749 | Stable |
| ## RASAL2     | -0.8460824110 | Stable |
| ## FTO        | -0.8507973120 | Stable |
| ## SLC12A2-DT | -0.8511252404 | Stable |
| ## NEK6       | -0.8534981951 | Stable |
| ## ANKRD44    | -0.8546335845 | Stable |
| ## DPP3       | -0.8553810703 | Stable |
| ## EXOC5      | -0.8555166697 | Stable |
| ## DNAJC10    | -0.8566721649 | Stable |
| ## OAS2       | -0.8607659813 | Stable |
| ## GUSBP1     | -0.8634019198 | Stable |
| ## CCDC137    | -0.8646915983 | Stable |
| ## TNFSF12    | -0.8669460615 | Stable |
| ## NAT9       | -0.8670339233 | Stable |
| ## AKT3       | -0.8682101999 | Stable |
| ## NSG2       | -0.8698573556 | Stable |
| ## C16orf87   | -0.8707401786 | Stable |
| ## NOM1       | -0.8715781525 | Stable |
| ## VPS13B     | -0.8718455437 | Stable |
| ## ZNF862     | -0.8722330943 | Stable |
| ## UBL7       | -0.8752970085 | Stable |
| ## EPM2A-DT   | -0.8763462694 | Stable |
| ## SIX2       | -0.8770587857 | Stable |
| ## MED25      | -0.8774548184 | Stable |
| ## KRT6B      | -0.8804261415 | Stable |
| ## NYNRIN     | -0.8815021065 | Stable |
| ## YRDC       | -0.8827056594 | Stable |
| ## C15orf39   | -0.8827853852 | Stable |
| ## PPP1R26    | -0.8838065499 | Stable |
| ## TIGAR      | -0.8853883674 | Stable |
| ## EXOSC7     | -0.8869611001 | Stable |
| ## APOO       | -0.8874816912 | Stable |
| ## LINC01278  | -0.8889233040 | Stable |
| ## RASGEF1B   | -0.8907261813 | Stable |
| ## PRR5L      | -0.8910765093 | Stable |
| ## HTT        | -0.8926675145 | Stable |
| ## SEPSECS    | -0.8949699289 | Stable |
| ## RASA2      | -0.8949726465 | Stable |
| ## UCKL1      | -0.8955747265 | Stable |
| ## MEX3A      | -0.8961458363 | Stable |
| ## SMAD3      | -0.8997330942 | Stable |
| ## EEF1A1     | -0.9019867262 | Stable |
| ## UBALD2     | -0.9026168346 | Stable |
| ## CWH43      | -0.9046751036 | Stable |
| ## SAA4       | -0.9064859583 | Stable |
| ## APMAP      | -0.9087190503 | Stable |
| ## SLC7A11    | -0.9121642371 | Stable |
| ## SIGLEC11   | -0.9139625361 | Stable |
| ## PLOD1      | -0.9178424705 | Stable |
| ## LINC01614  | -0.9190589888 | Stable |
| ## PARP14     | -0.9192957215 | Stable |
| ## SYNE2      | -0.9223611196 | Stable |

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| ## H2BC10   | -0.9225371472 | Stable |
| ## ENPP6    | -0.9236543367 | Stable |
| ## BRMS1L   | -0.9269184051 | Stable |
| ## FBLN2    | -0.9300872605 | Stable |
| ## FAM193B  | -0.9303859814 | Stable |
| ## SMPX     | -0.9311282817 | Down   |
| ## ANAPC1   | -0.9340646952 | Stable |
| ## PPP1R13L | -0.9434054685 | Stable |
| ## ALDH3A1  | -0.9466960841 | Down   |
| ## RWDD1    | -0.9482774624 | Stable |
| ## MAPKAPK5 | -0.9500229378 | Stable |
| ## CLIC2    | -0.9521014385 | Stable |
| ## ERCC6    | -0.9555341061 | Stable |
| ## KLHL5    | -0.9555761445 | Stable |
| ## PGM1     | -0.9586139503 | Stable |
| ## CDH1     | -0.9598791663 | Up     |
| ## GLT8D2   | -0.9639026170 | Stable |
| ## PHYHIPL  | -0.9665979527 | Stable |
| ## ENOX1    | -0.9688785842 | Stable |
| ## LARP4B   | -0.9719867236 | Stable |
| ## ZBED4    | -0.9731958002 | Stable |
| ## G2E3     | -0.9733456142 | Stable |
| ## HYAL1    | -0.9739392057 | Stable |
| ## CENPS    | -0.9739917241 | Stable |
| ## FUNDC2   | -0.9740250905 | Stable |
| ## CCT8     | -0.9740258337 | Stable |
| ## OSM      | -0.9779870442 | Stable |
| ## TMEM263  | -0.9837174436 | Stable |
| ## PAIP1    | -0.9844643761 | Stable |
| ## IRF7     | -0.9848352719 | Stable |
| ## IWS1     | -0.9850876114 | Stable |
| ## TMEM131  | -0.9863347040 | Stable |
| ## SGSM3    | -0.9864382733 | Stable |
| ## CIAPIN1  | -0.9928384740 | Stable |
| ## GTF2F1   | -0.9937821387 | Stable |
| ## FAM20A   | -0.9951639835 | Stable |
| ## BAZ1A    | -0.9959190470 | Stable |
| ## C1orf35  | -0.9959435456 | Stable |
| ## PIAS1    | -0.9978257868 | Stable |
| ## CALHM5   | -0.9983567477 | Stable |
| ## LOH12CR2 | -0.9991089552 | Stable |
| ## C4BPA    | -1.0008637387 | Stable |
| ## CSAG3    | -1.0031480378 | Stable |
| ## EMCN     | -1.0058542590 | Stable |
| ## C1R      | -1.0168126782 | Stable |
| ## CROT     | -1.0170085094 | Stable |
| ## GPR84    | -1.0175019810 | Stable |
| ## MIDEAS   | -1.0209183615 | Stable |
| ## PDZK1IP1 | -1.0222627686 | Up     |
| ## RRAGA    | -1.0249875528 | Stable |
| ## GHRL     | -1.0259200130 | Down   |
| ## PPP1R15A | -1.0301984621 | Stable |
| ## SPOP     | -1.0308376827 | Stable |
| ## CYLD     | -1.0343744783 | Stable |

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| ## ZNF667     | -1.0345220035 | Stable |
| ## ST14       | -1.0355266350 | Stable |
| ## LRRK2      | -1.0355268496 | Stable |
| ## CHRDL2     | -1.0372347865 | Down   |
| ## GBP5       | -1.0373101307 | Stable |
| ## PHLDA3     | -1.0376892740 | Stable |
| ## ATL2       | -1.0377762716 | Stable |
| ## EPHA2      | -1.0380582330 | Stable |
| ## ZNF639     | -1.0399809108 | Stable |
| ## METTL15    | -1.0424123077 | Stable |
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| ## ERCC3      | -1.0440182301 | Stable |
| ## ZNF382     | -1.0447532685 | Stable |
| ## KLK6       | -1.0454598839 | Up     |
| ## SMYD1      | -1.0481031312 | Stable |
| ## MAP4K2     | -1.0500614770 | Stable |
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| ## HSPA1L     | -1.0519766504 | Stable |
| ## ART4       | -1.0523582538 | Stable |
| ## DPM2       | -1.0574047762 | Stable |
| ## ANKS1A     | -1.0589237600 | Stable |
| ## PITX2      | -1.0594263031 | Stable |
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| ## BAIAP2L2   | -1.0678730668 | Stable |
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| ## POPDC2     | -1.0718834272 | Stable |
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| ## SP2-DT     | -1.0722077995 | Stable |
| ## RMI1       | -1.0738472490 | Stable |
| ## R3HCC1L    | -1.0745400462 | Stable |
| ## KIF24      | -1.0757234166 | Stable |
| ## PAXIP1-AS2 | -1.0770509865 | Stable |
| ## TPM3       | -1.0773005615 | Stable |
| ## NABP1      | -1.0784392927 | Stable |
| ## KLHDC2     | -1.0800641344 | Stable |
| ## RPUSD4     | -1.0814941441 | Stable |
| ## HEPACAM2   | -1.0836870724 | Down   |
| ## PSME2      | -1.0861413843 | Stable |
| ## ROGDI      | -1.0870561920 | Stable |
| ## CLP1       | -1.0897699598 | Stable |
| ## SIGLEC6    | -1.0902792300 | Stable |
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| ## DNAAF3     | -1.0922514757 | Stable |
| ## COMMD6     | -1.0932360898 | Stable |
| ## HIPK3      | -1.0935642125 | Stable |
| ## NDUFAF4    | -1.0937516684 | Stable |
| ## RPUSD1     | -1.0954109729 | Stable |
| ## IL6ST      | -1.0962015759 | Stable |
| ## FERMT1     | -1.0963554403 | Stable |

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| ## FRMD5        | -1.0970694788 | Stable |
| ## ZFP64        | -1.0976464470 | Stable |
| ## BBC3         | -1.0977786479 | Stable |
| ## GPS1         | -1.0982814965 | Stable |
| ## FPGS         | -1.0985107008 | Stable |
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| ## CHST10       | -1.1033140067 | Stable |
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| ## SLC25A10     | -1.1153244815 | Stable |
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| ## PMP2         | -1.1227321942 | Stable |
| ## FBXL6        | -1.1230328052 | Stable |
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| ## TMEM130      | -1.1289050055 | Stable |
| ## ARHGEF19     | -1.1305094616 | Stable |
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| ## PPP1R12C     | -1.1404526259 | Stable |
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| ## SUN2         | -1.1493907759 | Stable |
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| ## S100A2       | -1.1549526950 | Up     |
| ## ZNF589       | -1.1598805008 | Stable |
| ## TREM1        | -1.1628523588 | Stable |
| ## TLR5         | -1.1633909887 | Stable |
| ## PDE12        | -1.1643273641 | Stable |
| ## SLC25A34     | -1.1655702371 | Stable |
| ## FLNA         | -1.1661373421 | Stable |
| ## TMEM102      | -1.1688204632 | Stable |
| ## MOSPD2       | -1.1690709787 | Stable |
| ## FAXC         | -1.1705206194 | Stable |
| ## NFKB2        | -1.1792451922 | Stable |
| ## FCRL2        | -1.1795062902 | Stable |
| ## ZFP2         | -1.1813037389 | Stable |
| ## S100A16      | -1.1835131456 | Stable |
| ## ATPAF1       | -1.1853990151 | Stable |
| ## FGD3         | -1.1862030364 | Stable |
| ## MRPS11       | -1.1863548226 | Stable |
| ## GPC3         | -1.1868331051 | Down   |
| ## RELT         | -1.1908238734 | Stable |
| ## SNHG7        | -1.1925695885 | Stable |
| ## NDUFS2       | -1.1935969305 | Stable |
| ## ALG8         | -1.1950042467 | Stable |

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| ## ETV4      | -1.1958266980 | Stable |
| ## FGFR2     | -1.1985609364 | Stable |
| ## TAF1A     | -1.1986615310 | Stable |
| ## TMP0-AS1  | -1.1987967288 | Stable |
| ## MRPS16    | -1.1997576487 | Stable |
| ## CT83      | -1.2014796200 | Up     |
| ## MTFMT     | -1.2022297378 | Stable |
| ## CHST11    | -1.2022955284 | Stable |
| ## BHLHE22   | -1.2044732104 | Stable |
| ## RNF213    | -1.2064213449 | Stable |
| ## UBE2Q2P13 | -1.2064337740 | Stable |
| ## LRRC66    | -1.2093635061 | Stable |
| ## RNF112    | -1.2140774231 | Stable |
| ## DDOST     | -1.2158221081 | Stable |
| ## GFRA3     | -1.2182481433 | Stable |
| ## DUSP5P1   | -1.2223448726 | Stable |
| ## FAM241A   | -1.2228035378 | Stable |
| ## SMIM10    | -1.2243833183 | Stable |
| ## GNLY      | -1.2269138332 | Stable |
| ## NRM       | -1.2272399479 | Stable |
| ## MEA1      | -1.2272917534 | Stable |
| ## CRYBG2    | -1.2290571384 | Stable |
| ## KNOP1     | -1.2298556201 | Stable |
| ## DDR1      | -1.2315987784 | Stable |
| ## TLE1      | -1.2325578829 | Stable |
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| ## PDGFD     | -1.2367853188 | Stable |
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| ## PLCB4     | -1.2414569813 | Stable |
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| ## GPR158    | -1.2470486627 | Stable |
| ## LAMA4     | -1.2474915390 | Stable |
| ## RTCA      | -1.2482132500 | Stable |
| ## MRPL39    | -1.2487439546 | Stable |
| ## HCG18     | -1.2489006034 | Stable |
| ## PLIN3     | -1.2507007979 | Stable |
| ## NOS2      | -1.2514919134 | Stable |
| ## UQCRQ     | -1.2516218551 | Stable |
| ## CDC42EP3  | -1.2530279704 | Stable |
| ## SLC49A4   | -1.2566882519 | Stable |
| ## RBMS2     | -1.2576640400 | Stable |
| ## EDEM2     | -1.2596290129 | Stable |
| ## TMEM266   | -1.2601672571 | Stable |
| ## SUPT3H    | -1.2614102803 | Stable |
| ## RRP12     | -1.2621309334 | Stable |
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| ## PDP1      | -1.2652464934 | Stable |
| ## SLC7A3    | -1.2656179751 | Stable |



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| ## ACLY       | -1.2658235557 | Stable |
| ## CTSZ       | -1.2680761114 | Stable |
| ## BMP6       | -1.2687632870 | Stable |
| ## NFKBIB     | -1.2706184408 | Stable |
| ## CREB3L1    | -1.2719874287 | Stable |
| ## FAT1       | -1.2745606165 | Stable |
| ## GEMIN5     | -1.2765663712 | Stable |
| ## MYL4       | -1.2791475192 | Stable |
| ## CEP97      | -1.2794323068 | Stable |
| ## ZNF146     | -1.2800923710 | Stable |
| ## ARMCX2     | -1.2807000353 | Stable |
| ## ARL14      | -1.2814630051 | Down   |
| ## PDZD8      | -1.2818263806 | Stable |
| ## TSPYL4     | -1.2835912250 | Stable |
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| ## DUSP19     | -1.2870253049 | Stable |
| ## NT5C3A     | -1.2875077475 | Stable |
| ## COP1       | -1.2880314826 | Stable |
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| ## GBP1       | -1.2890010774 | Stable |
| ## TBCC       | -1.2911393538 | Stable |
| ## ATG7       | -1.2920154528 | Stable |
| ## GABPA      | -1.2920994792 | Stable |
| ## HOXC6      | -1.2944476389 | Up     |
| ## SPINK13    | -1.3044779074 | Stable |
| ## GTF2H4     | -1.3046493692 | Stable |
| ## LINC01943  | -1.3087885354 | Stable |
| ## PRUNE2     | -1.3105584682 | Down   |
| ## ACOT13     | -1.3106063312 | Stable |
| ## MLKL       | -1.3116969632 | Stable |
| ## QRICH1     | -1.3137422719 | Stable |
| ## LSM8       | -1.3138877295 | Stable |
| ## MAP7D2     | -1.3151005640 | Stable |
| ## ADPGK      | -1.3167555022 | Stable |
| ## FBXO6      | -1.3169903228 | Stable |
| ## AP1S1      | -1.3188518925 | Stable |
| ## SLC25A45   | -1.3202943038 | Stable |
| ## DNAJB5     | -1.3211452093 | Stable |
| ## KBTBD12    | -1.3223760992 | Stable |
| ## WDR45B     | -1.3232389595 | Stable |
| ## ERVMER34-1 | -1.3256825416 | Stable |
| ## ATP8B4     | -1.3272356629 | Stable |
| ## PCF11      | -1.3281161963 | Stable |
| ## PLEKHG6    | -1.3290775929 | Stable |
| ## NINJ2-AS1  | -1.3290916929 | Stable |
| ## GLA        | -1.3301228550 | Stable |
| ## GEMIN4     | -1.3344526354 | Stable |
| ## CFAP91     | -1.3387873405 | Stable |
| ## PSENEN     | -1.3389397990 | Stable |
| ## ZNF615     | -1.3392917364 | Stable |
| ## TRIL       | -1.3398576717 | Stable |
| ## SGSM1      | -1.3433908158 | Stable |
| ## APEX2      | -1.3461884598 | Stable |
| ## TTC7B      | -1.3483318098 | Stable |

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| ## THSD7B       | -1.3491003718 | Stable |
| ## SYNGR2       | -1.3512132218 | Stable |
| ## RBCK1        | -1.3515599287 | Stable |
| ## SIPA1L1      | -1.3535794305 | Stable |
| ## ADSL         | -1.3550932020 | Stable |
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| ## ATP13A2      | -1.3566282704 | Stable |
| ## GAP43        | -1.3569339468 | Stable |
| ## SPOPL        | -1.3605553891 | Stable |
| ## CARMIL1      | -1.3609664615 | Stable |
| ## RBMS3-AS3    | -1.3639961012 | Stable |
| ## CPLANE1      | -1.3679861454 | Stable |
| ## ZNF593       | -1.3699490741 | Stable |
| ## CTSB         | -1.3703345962 | Stable |
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| ## SEC24A       | -1.3717356237 | Stable |
| ## DDX27        | -1.3720828813 | Stable |
| ## TFRC         | -1.3721263701 | Stable |
| ## ARDC3        | -1.3765513071 | Stable |
| ## UBL4A        | -1.3782742126 | Stable |
| ## ZNF211       | -1.3791750156 | Stable |
| ## ECD          | -1.3794686450 | Stable |
| ## PIK3R1       | -1.3823761153 | Stable |
| ## REEP2        | -1.3837976187 | Stable |
| ## OPCML        | -1.3863242974 | Stable |
| ## SLC5A5       | -1.3863751069 | Stable |
| ## PKIB         | -1.3881273271 | Down   |
| ## NKD2         | -1.3889500551 | Stable |
| ## CARM1        | -1.3942362596 | Stable |
| ## ABITRAM      | -1.3991989541 | Stable |
| ## MLIP         | -1.4023814285 | Stable |
| ## NIM1K        | -1.4046702569 | Stable |
| ## CMTM5        | -1.4052544355 | Stable |
| ## EXOSC4       | -1.4060379937 | Stable |
| ## BRINP3       | -1.4073771091 | Stable |
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| ## ZC3H6        | -1.4097440272 | Stable |
| ## SFN          | -1.4098167866 | Stable |
| ## TRIM21       | -1.4105781218 | Stable |
| ## POT1         | -1.4139589986 | Stable |
| ## ZNF485       | -1.4142224509 | Stable |
| ## HSPA12B      | -1.4143552126 | Stable |
| ## TUFM         | -1.4186750124 | Stable |
| ## HMG4         | -1.4188259290 | Stable |
| ## IKBKE        | -1.4194718270 | Stable |
| ## ZNF668       | -1.4203780460 | Stable |
| ## NFATC2IP     | -1.4222191242 | Stable |
| ## KCNJ16       | -1.4233299729 | Down   |
| ## DYNLRB2      | -1.4251550273 | Stable |
| ## PCSK2        | -1.4257970734 | Stable |
| ## AGT          | -1.4317734617 | Down   |
| ## SNAP91       | -1.4335349545 | Stable |
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| ## RAB8B       | -1.4466659973 | Stable |
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| ## DEPTOR      | -1.4538711064 | Stable |
| ## GTF2A2      | -1.4558325671 | Stable |
| ## TMEM141     | -1.4560909849 | Stable |
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| ## CKMT2-AS1   | -1.4601651222 | Stable |
| ## SMARCC2     | -1.4607973388 | Stable |
| ## ABCC10      | -1.4611272275 | Stable |
| ## PARP9       | -1.4611393658 | Stable |
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| ## HDDC3       | -1.4658495907 | Stable |
| ## NEU1        | -1.4662538245 | Stable |
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| ## AUP1        | -1.4673202975 | Stable |
| ## PTPRU       | -1.4688931357 | Stable |
| ## ACTR3       | -1.4708804237 | Stable |
| ## TOMM5       | -1.4724976096 | Stable |
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| ## PPP2R1A     | -1.4770703429 | Stable |
| ## SRI         | -1.4777843897 | Stable |
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| ## BHMT        | -1.4793153802 | Stable |
| ## PSME4       | -1.4813447947 | Stable |
| ## NR2F6       | -1.4832660305 | Stable |
| ## ZNF74       | -1.4845295918 | Stable |
| ## VAC14       | -1.4846526068 | Stable |
| ## LRRC49      | -1.4861158069 | Stable |
| ## NELFE       | -1.4869953782 | Stable |
| ## CFAP298     | -1.4878570617 | Stable |
| ## BPNT1       | -1.4914197882 | Stable |
| ## BAZ2B       | -1.4920790618 | Stable |
| ## MIOS-DT     | -1.4921416347 | Stable |
| ## GMCL1       | -1.4929344646 | Stable |
| ## SLC25A40    | -1.4934824434 | Stable |
| ## GFRA1       | -1.4985081209 | Stable |
| ## UACA        | -1.4991506559 | Stable |
| ## CNN3-DT     | -1.4994365558 | Stable |
| ## YAF2        | -1.5007722268 | Stable |
| ## PPP1R26-AS1 | -1.5020125192 | Stable |
| ## P4HB        | -1.5034866042 | Stable |
| ## ACTR5       | -1.5068188791 | Stable |
| ## JADE3       | -1.5084532492 | Stable |
| ## PAK6        | -1.5124725350 | Stable |
| ## ADAM28      | -1.5130167618 | Stable |
| ## RAD51D      | -1.5171338208 | Stable |
| ## ZBTB24      | -1.5189729642 | Stable |
| ## SMC3        | -1.5190622991 | Stable |
| ## CYBRD1      | -1.5215761720 | Stable |
| ## ARIH2       | -1.5226552457 | Stable |
| ## DMXL1       | -1.5243509122 | Stable |

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| ## DLGAP1-AS2   | -1.5254604633 | Stable |
| ## KIF13B       | -1.5256788562 | Stable |
| ## SH3GLB1      | -1.5273680161 | Stable |
| ## CBX6         | -1.5281044562 | Stable |
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| ## SSH2         | -1.5306752449 | Stable |
| ## PMM1         | -1.5308469083 | Stable |
| ## INAFM2       | -1.5312779411 | Stable |
| ## DNMI1L       | -1.5320362718 | Stable |
| ## SLC16A7      | -1.5323191300 | Stable |
| ## TMEM106B     | -1.5327465847 | Stable |
| ## IKBKG        | -1.5335255190 | Stable |
| ## FAM241B      | -1.5345823617 | Stable |
| ## ADH4         | -1.5375204831 | Stable |
| ## GSS          | -1.5382646367 | Stable |
| ## RALY         | -1.5394483502 | Stable |
| ## TMEM62       | -1.5394831967 | Stable |
| ## TTC23        | -1.5429914279 | Stable |
| ## SNX4         | -1.5432209493 | Stable |
| ## SAMD5        | -1.5479584584 | Stable |
| ## NUP58        | -1.5500480282 | Stable |
| ## FAM216B      | -1.5533204488 | Stable |
| ## POLA1        | -1.5552973264 | Stable |
| ## LUC7L2       | -1.5570761336 | Stable |
| ## CALHM2       | -1.5572640197 | Stable |
| ## RBMS3        | -1.5579533372 | Stable |
| ## GRIP2        | -1.5596327980 | Stable |
| ## BMP8A        | -1.5628359060 | Stable |
| ## WTIP         | -1.5634608740 | Stable |
| ## TOP3A        | -1.5639405491 | Stable |
| ## MED30        | -1.5655451260 | Stable |
| ## TIMM10B      | -1.5657124354 | Stable |
| ## OBI1         | -1.5669895356 | Stable |
| ## XRCC6        | -1.5682672432 | Stable |
| ## FUCA2        | -1.5704099091 | Stable |
| ## TAX1BP1      | -1.5713499109 | Stable |
| ## CREB1        | -1.5715126820 | Stable |
| ## LOC105371312 | -1.5716005272 | Stable |
| ## TBK1         | -1.5723919341 | Stable |
| ## MAN2A1       | -1.5727671679 | Stable |
| ## WRAP53       | -1.5754095664 | Stable |
| ## PIERCE1      | -1.5761762967 | Stable |
| ## PANK2        | -1.5767814892 | Stable |
| ## NTPCR        | -1.5773338150 | Stable |
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| ## PPFIA1       | -1.5794630383 | Stable |
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| ## ERBIN        | -1.5829913214 | Stable |
| ## PLAT         | -1.5937705667 | Stable |
| ## TUBG2        | -1.5942820633 | Stable |
| ## RAVR1        | -1.5958294744 | Stable |

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| ## CHD7       | -1.5963442279 | Stable |
| ## RBM24      | -1.5963459542 | Stable |
| ## PSMA2      | -1.5981670199 | Stable |
| ## GPR34      | -1.6004264734 | Stable |
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| ## RPS4X      | -1.6029838163 | Stable |
| ## EMC3-AS1   | -1.6050920095 | Stable |
| ## SH3PXD2A   | -1.6059709022 | Stable |
| ## PMEPA1     | -1.6065339364 | Stable |
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| ## ASH1L-AS1  | -1.6113212749 | Stable |
| ## ADPRS      | -1.6125214627 | Stable |
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| ## TRAF2      | -1.6136259119 | Stable |
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| ## ATP2A1-AS1 | -1.6223994777 | Stable |
| ## ZKSCAN7    | -1.6229393246 | Stable |
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| ## TIA1       | -1.6278329474 | Stable |
| ## NR2C2AP    | -1.6279784211 | Stable |
| ## IGFBP7     | -1.6292303052 | Stable |
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| ## ATMIN      | -1.6432173824 | Stable |
| ## CIT        | -1.6455827503 | Stable |
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| ## MED1       | -1.6480067675 | Stable |
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| ## MAGEA12    | -1.6511705705 | Up     |
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| ## FBXO3      | -1.6557955695 | Stable |
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| ## CRISPLD1   | -1.6585531260 | Down   |
| ## CST3       | -1.6614229879 | Stable |
| ## KRT15      | -1.6618763460 | Stable |

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| ## DR1         | -1.6622944369 | Stable |
| ## KIRREL3-AS2 | -1.6625040613 | Stable |
| ## NOX1        | -1.6634114917 | Up     |
| ## CARS1       | -1.6650588338 | Stable |
| ## EMC6        | -1.6694875790 | Stable |
| ## DCAF15      | -1.6695938182 | Stable |
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| ## ILRUN       | -1.6698475739 | Stable |
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| ## NUP133      | -1.6892023585 | Stable |
| ## SNX27       | -1.6899404121 | Stable |
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| ## TTI1        | -1.6919776432 | Stable |
| ## LHX3        | -1.6932768561 | Stable |
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| ## UNC5B-AS1   | -1.7019679672 | Stable |
| ## SNHG4       | -1.7046949606 | Stable |
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| ## WDR89       | -1.7078876722 | Stable |
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| ## RPS6KB1     | -1.7178821292 | Stable |
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| ## SAP18       | -1.7307858673 | Stable |
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| ## METAP1      | -1.7332574740 | Stable |
| ## SMC6        | -1.7342663117 | Stable |
| ## IL20RB      | -1.7383220496 | Stable |

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| ## GAS2L3       | -1.7403220647 | Stable |
| ## HELB         | -1.7407272773 | Stable |
| ## RAD9B        | -1.7431131138 | Stable |
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| ## TNFRSF25     | -1.7482223076 | Stable |
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| ## RBM19        | -1.7503508867 | Stable |
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| ## HCFC1        | -1.7722194283 | Stable |
| ## GOLGA8A      | -1.7724995788 | Stable |
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| ## CYP39A1      | -1.7878330877 | Stable |
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| ## SSH1         | -1.7909711564 | Stable |
| ## AMIG01       | -1.7915714711 | Stable |
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| ## KANK2        | -1.7977168782 | Stable |
| ## FAF2         | -1.7979803559 | Stable |

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| ## DPY19L1P1 | -1.8008765164 | Stable |
| ## DUT       | -1.8015895356 | Stable |
| ## PTPDC1    | -1.8033871495 | Stable |
| ## ZG16      | -1.8039538500 | Stable |
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| ## CSKMT     | -1.8146890451 | Stable |
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| ## FBXL13    | -1.8279935645 | Stable |
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| ## RFX6      | -1.8340656296 | Stable |
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| ## CCR10     | -1.8829139735 | Stable |
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| ## RASSF3       | -1.8981223330 | Stable |
| ## SPINT1       | -1.9002057938 | Stable |
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| ## LSM3         | -1.9032179938 | Stable |
| ## PDLIM7       | -1.9042091566 | Stable |
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| ## SARS2        | -1.9227462295 | Stable |
| ## UQCC1        | -1.9241535267 | Stable |
| ## GNAQ         | -1.9241975389 | Stable |
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| ## TMTC3        | -1.9270105697 | Stable |
| ## LTN1         | -1.9274526457 | Stable |
| ## MAVS         | -1.9284020999 | Stable |
| ## GAST         | -1.9293911613 | Down   |
| ## PAXX         | -1.9322370942 | Stable |
| ## NEIL3        | -1.9325179540 | Stable |
| ## AZGP1P1      | -1.9326510906 | Stable |
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| ## VSTM2A-OT1   | -1.9334816822 | Stable |
| ## CBX4         | -1.9347215727 | Stable |
| ## PTGS1        | -1.9351969925 | Stable |
| ## BUD31        | -1.9361458380 | Stable |
| ## CCKBR        | -1.9389447713 | Down   |
| ## SLC8A3       | -1.9416297689 | Stable |
| ## VCL          | -1.9430815406 | Stable |
| ## SLC33A1      | -1.9454539767 | Stable |
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| ## COX7C        | -1.9462044495 | Stable |
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| ## ABCG1        | -1.9467177171 | Stable |
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| ## PARP3      | -1.9495917827 | Stable |
| ## FAT3       | -1.9497915506 | Stable |
| ## LRCH1      | -1.9509980487 | Stable |
| ## KYNU       | -1.9515824562 | Stable |
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| ## SMIM19     | -1.9537670831 | Stable |
| ## FRG1JP     | -1.9560183724 | Stable |
| ## SMIM24     | -1.9572071345 | Down   |
| ## RTL6       | -1.9598110129 | Stable |
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| ## SPCS3      | -1.9703821507 | Stable |
| ## COL4A4     | -1.9709021231 | Stable |
| ## FILIP1L    | -1.9710608261 | Stable |
| ## POLR1G     | -1.9711405759 | Stable |
| ## HEIH       | -1.9715999891 | Stable |
| ## N4BP1      | -1.9750474352 | Stable |
| ## STC2       | -1.9758722352 | Stable |
| ## LINC01806  | -1.9766469438 | Stable |
| ## SOX11      | -1.9789254736 | Stable |
| ## SNHG3      | -1.9799284991 | Stable |
| ## COX10-DT   | -1.9803642920 | Stable |
| ## EVA1C      | -1.9824162774 | Stable |
| ## PRND       | -1.9830815563 | Stable |
| ## LMO4       | -1.9832874830 | Stable |
| ## AIFM2      | -1.9841336654 | Stable |
| ## CIDEB      | -1.9847139261 | Stable |
| ## EVPL       | -1.9851779657 | Stable |
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| ## DENR       | -1.9935445941 | Stable |
| ## DEDD2      | -1.9936040006 | Stable |
| ## MAPK8      | -1.9947973803 | Stable |
| ## TMEM230    | -1.9953928968 | Stable |
| ## ACTL6B     | -1.9957386918 | Stable |
| ## ABHD17B    | -1.9966514998 | Stable |
| ## FKBP1A     | -1.9976352504 | Stable |
| ## MET        | -1.9986731091 | Stable |
| ## GALNT6     | -2.0004052482 | Stable |
| ## ESRP1      | -2.0018823756 | Stable |
| ## PHAX       | -2.0035984230 | Stable |
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| ## ZNF542P    | -2.0051843887 | Stable |
| ## SH3BP5-AS1 | -2.0053964606 | Stable |
| ## NIPSNAP1   | -2.0064565375 | Stable |
| ## C2         | -2.0120178788 | Stable |
| ## NUDT11     | -2.0153762484 | Stable |
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| ## NICN1        | -2.0177201494 | Stable |
| ## RPS6KA3      | -2.0178817020 | Stable |
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| ## ZNF442       | -2.0184591656 | Stable |
| ## FBX025       | -2.0186122959 | Stable |
| ## FBXW4        | -2.0223972707 | Stable |
| ## ZFP90        | -2.0226902982 | Stable |
| ## ZNF267       | -2.0233371349 | Stable |
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| ## ZNF658       | -2.0269236404 | Stable |
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| ## WRAP73       | -2.0270915402 | Stable |
| ## KLHL42       | -2.0283706615 | Stable |
| ## NNAT         | -2.0291214790 | Stable |
| ## MAP2K6       | -2.0296757502 | Stable |
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| ## CNOT3        | -2.0329472392 | Stable |
| ## EDAR         | -2.0336869161 | Stable |
| ## GRINA        | -2.0352112473 | Stable |
| ## PTH1R        | -2.0355875673 | Stable |
| ## MRM1         | -2.0367221419 | Stable |
| ## LYPD3        | -2.0383546996 | Stable |
| ## TTC28-AS1    | -2.0409979398 | Stable |
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| ## DPEP2        | -2.0427778042 | Stable |
| ## CEP135       | -2.0446970743 | Stable |
| ## ACP1         | -2.0456636337 | Stable |
| ## DYNLT1       | -2.0457081962 | Stable |
| ## PPP1CA       | -2.0466103869 | Stable |
| ## MAPK13       | -2.0471088376 | Stable |
| ## NRBP2        | -2.0488307502 | Stable |
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| ## VAMP4        | -2.0528418353 | Stable |
| ## TLR7         | -2.0534688828 | Stable |
| ## MATR3        | -2.0537183715 | Stable |
| ## CDS2         | -2.0543447859 | Stable |
| ## DHFR         | -2.0546934714 | Stable |
| ## LINC01088    | -2.0561591408 | Stable |
| ## S100A9       | -2.0587688467 | Stable |
| ## DHX37        | -2.0592271211 | Stable |
| ## AUTS2        | -2.0608742649 | Stable |
| ## SYAP1        | -2.0622730874 | Stable |
| ## NRDC         | -2.0624932685 | Stable |
| ## VBP1         | -2.0640849479 | Stable |
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| ## MSMB         | -2.5452010273 | Down   |
| ## FAM3B        | -2.5465329808 | Down   |
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| ## ACOT7        | -2.5930132340 | Stable |
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| ## MDFIC     | -2.5940491236 | Stable |
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| ## KDM7A-DT  | -2.6441282372 | Stable |
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| ## RTKL1-TNFRSF6B | -2.6948850893 | Stable |
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| ## SERPINB5     | -2.7701030720 | Stable |
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| ## MAS1         | -2.7955783630 | Stable |
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| ## GRAMD2A      | -2.8149560051 | Stable |
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| ## SPOUT1     | -2.8191115797 | Stable |
| ## ARHGEF28   | -2.8192099583 | Stable |
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| ## TAGLN3     | -2.8328080896 | Stable |
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| ## UTP11      | -2.8433588751 | Stable |
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| ## DET1       | -2.8576321881 | Stable |
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| ## C16orf54   | -2.8652860497 | Stable |
| ## MIDEAS-AS1 | -2.8656782205 | Stable |
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| ## CHUK       | -2.8699071825 | Stable |
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| ## MAP6D1     | -2.9130683835 | Stable |

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| ## HPGD        | -2.9843330643 | Down   |
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| ## FGF14       | -3.0124515913 | Stable |
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| ## CD82        | -3.0130439817 | Stable |
| ## AKTIP       | -3.0146343673 | Stable |
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| ## RSP02        | -3.0174686486 | Stable |
| ## PPP2R2A      | -3.0174733753 | Stable |
| ## GRHL2        | -3.0179279362 | Stable |
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| ## TTC17        | -3.0209084777 | Stable |
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| ## CD180        | -3.0248462821 | Stable |
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| ## GGA2         | -3.0610771028 | Stable |
| ## MAB21L2      | -3.0616452549 | Stable |
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| ## TIMM10       | -3.0630988679 | Stable |
| ## SMIM5        | -3.0633066182 | Stable |
| ## FGFR1        | -3.0635037886 | Stable |
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| ## ZNF395       | -3.1114778051 | Stable |
| ## ASH1L        | -3.1128735183 | Stable |

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| ## PRINS      | -3.1135891188 | Stable |
| ## KLF3-AS1   | -3.1137444102 | Stable |
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| ## SLC35B2    | -3.1141538036 | Stable |
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| ## IFIT2      | -3.1142006671 | Stable |
| ## ATOSA      | -3.1148812445 | Stable |
| ## RNF7       | -3.1149446629 | Stable |
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| ## CYP3A5     | -3.1198540678 | Stable |
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| ## TRIM52-AS1 | -3.1206933020 | Stable |
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| ## GSDMC      | -3.1324313386 | Stable |
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| ## TOX-DT          | -3.1615966093 | Stable |
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| ## DNAJB11         | -3.1779898176 | Stable |
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| ## PPP4R1L         | -3.1889134536 | Stable |
| ## TMX4            | -3.1891077330 | Stable |
| ## HSD17B7         | -3.1934280915 | Stable |
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| ## MTF1            | -3.1942316935 | Stable |
| ## CDC42           | -3.1947650851 | Stable |
| ## PROM2           | -3.1951889813 | Stable |
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| ## CYP3A7-CYP3A51P | -3.1962598088 | Stable |
| ## ZNF14           | -3.1974554013 | Stable |
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| ## CACNB2          | -3.2040611045 | Stable |
| ## TLR4            | -3.2042896348 | Stable |
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| ## MAPRE2          | -3.2061301663 | Stable |
| ## SDR16C5         | -3.2062572148 | Stable |
| ## FAM174A         | -3.2075307567 | Stable |
| ## DDHD2           | -3.2076419382 | Stable |
| ## WDFY3-AS2       | -3.2081382091 | Stable |
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| ## LCN2            | -3.2100155505 | Up     |
| ## H1-3            | -3.2100805983 | Stable |
| ## CCR7            | -3.2102322964 | Stable |
| ## RAMAC           | -3.2103352072 | Stable |
| ## BCS1L           | -3.2105435147 | Stable |
| ## CSNK1G2         | -3.2148651719 | Stable |



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| ## UBA6         | -3.2152807042 | Stable |
| ## CDH26        | -3.2158032516 | Stable |
| ## IP6K3        | -3.2207454478 | Stable |
| ## CLEC2B       | -3.2220761915 | Stable |
| ## SYT16        | -3.2224071977 | Stable |
| ## TLE2         | -3.2224917014 | Stable |
| ## RBM43        | -3.2239712854 | Stable |
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| ## CCDC15       | -3.2255725351 | Stable |
| ## CDK17        | -3.2263667197 | Stable |
| ## CRIP3        | -3.2265442402 | Stable |
| ## FCN2         | -3.2273380466 | Stable |
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| ## HOXA11-AS    | -4.8089847658 | Stable |
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| ## TTF1       | -4.9076854706 | Stable |
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| ## DSE          | -5.9171713993 | Stable |
| ## ACTL8        | -5.9174808342 | Stable |
| ## C3orf80      | -5.9177242574 | Stable |
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## [ reached 'max' / getOption("max.print") -- omitted 6539 rows ]
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```
table(temoutput$g)
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##
##   Down Stable      Up
##   278  20401      145
```

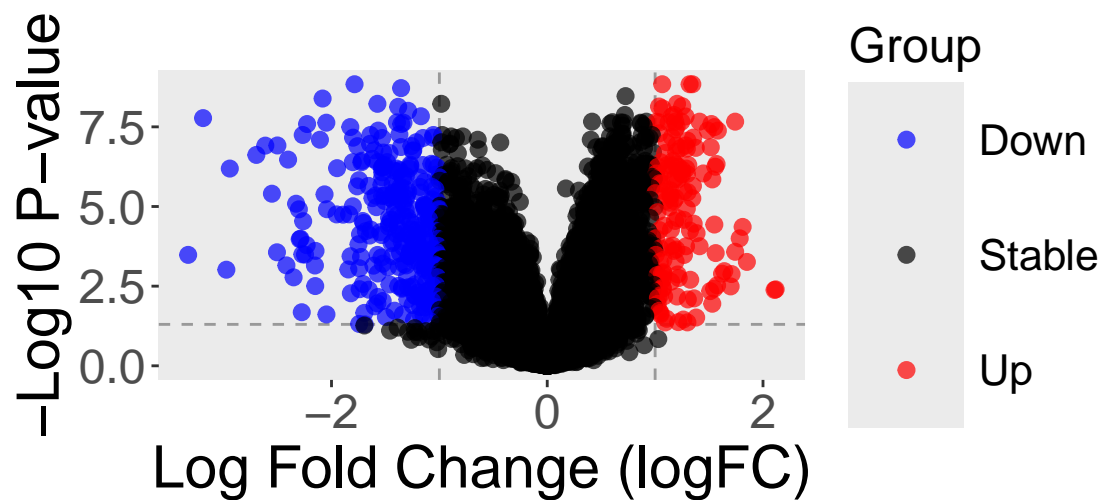
```
library(ggplot2)
```

```
professional_colors <- c("blue", "black", "red")
```

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ggplot(temoutput, aes(x=logFC, y=-log10(adj.P.Val))) +
  geom_hline(yintercept = -log10(0.05), linetype = 'dashed', size = 0.5, color = "grey60") +
  geom_vline(xintercept = c(-1,1), linetype = 'dashed', size = 0.5, color = "grey60") +
  geom_point(aes(color = g), size = 2.5, alpha = 0.7) +
  scale_color_manual(values = professional_colors) +
  labs(title = "Volcano Plot", x = "Log Fold Change (logFC)", y = "-Log10 P-value", colour = "Group") +
  # theme_classic(base_family = "Arial") +
  theme(
    text = element_text(size = 16),
    plot.title = element_text(size = 28, hjust = 0.5, margin = margin(b = 80, unit = "pt")),
    axis.title = element_text(size = 22),
    axis.text = element_text(size = 18),
    legend.position = "right",
    legend.title = element_text(size = 18),
    legend.text = element_text(size = 16),
    legend.key.size = unit(3, "lines"),
    plot.margin = margin(1, 1, 1, 1, "cm"),
    panel.grid.major = element_blank(),
    panel.grid.minor = element_blank()
  )
```

```
## Warning: Using `size` aesthetic for lines was deprecated in ggplot2 3.4.0.
## i Please use `linewidth` instead.
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was
## generated.
```

# Volcano Plot



```
genes <- rownames(temoutput[temoutput$g %in% c("Up","Down"),]) %>% data.frame()
colnames(genes) <- "gene"

library(clusterProfiler)

##

## clusterProfiler v4.12.2 Learn more at https://yulab-smu.top/contribution-knowledge-mining/
##
## Please cite:
##
## S Xu, E Hu, Y Cai, Z Xie, X Luo, L Zhan, W Tang, Q Wang, B Liu, R Wang,
## W Xie, T Wu, L Xie, G Yu. Using clusterProfiler to characterize
## multiomics data. Nature Protocols. 2024, doi:10.1038/s41596-024-01020-z

##
## 'clusterProfiler'

## The following object is masked from 'package:stats':
##
## filter
```

```
library(org.Hs.eg.db)
```

```
##      AnnotationDbi
```

```
##      stats4
```

```
##      BiocGenerics
```

```
##
```

```
##      'BiocGenerics'
```

```
## The following object is masked from 'package:limma':
```

```
##
```

```
##      plotMA
```

```
## The following objects are masked from 'package:stats':
```

```
##
```

```
##      IQR, mad, sd, var, xtabs
```

```
## The following objects are masked from 'package:base':
```

```
##
```

```
##      anyDuplicated, aperm, append, as.data.frame, basename, cbind,  
##      colnames, dirname, do.call, duplicated, eval, evalq, Filter, Find,  
##      get, grep, grepl, intersect, is.unsorted, lapply, Map, mapply,  
##      match, mget, order, paste, pmax, pmax.int, pmin, pmin.int,  
##      Position, rank, rbind, Reduce, rownames, sapply, setdiff, table,  
##      tapply, union, unique, unsplit, which.max, which.min
```

```
##      Biobase
```

```
## Welcome to Bioconductor
```

```
##
```

```
##      Vignettes contain introductory material; view with  
##      'browseVignettes()'. To cite Bioconductor, see  
##      'citation("Biobase")', and for packages 'citation("pkgname")'.
```

```
##      IRanges
```

```
##      S4Vectors
```

```
##
```

```
##      'S4Vectors'
```

```
## The following object is masked from 'package:clusterProfiler':
```

```
##
```

```
##      rename
```

```
## The following object is masked from 'package:tidyr':
```

```
##
```

```
##      expand
```

```

## The following object is masked from 'package:utils':
##
##   findMatches

## The following objects are masked from 'package:base':
##
##   expand.grid, I, unname

##
##   'IRanges'

## The following object is masked from 'package:clusterProfiler':
##
##   slice

## The following object is masked from 'package:grDevices':
##
##   windows

##
##   'AnnotationDbi'

## The following object is masked from 'package:clusterProfiler':
##
##   select

##

diffgene<-bitr(genes$gene,fromType = "SYMBOL",toType = "ENTREZID",OrgDb = "org.Hs.eg.db")

## 'select()' returned 1:1 mapping between keys and columns

## Warning in bitr(genes$gene, fromType = "SYMBOL", toType = "ENTREZID", OrgDb =
## "org.Hs.eg.db"): 0.24% of input gene IDs are fail to map...

genes_entrez <- diffgene$ENTREZID
enrich_result <- enrichKEGG(gene = genes_entrez,
                           organism = "hsa",
                           keyType = "kegg",
                           pAdjustMethod = "holm",
                           pvalueCutoff = 0.05,
                           qvalueCutoff = 0.05)

## Reading KEGG annotation online: "https://rest.kegg.jp/link/hsa/pathway"...

## Reading KEGG annotation online: "https://rest.kegg.jp/list/pathway/hsa"...

data.frame(enrich_result)

```

```
##                                category
## hsa04110                      Cellular Processes
## hsa04820                      <NA>
## hsa04657                      Organismal Systems
## hsa04061 Environmental Information Processing
## hsa04914                      Organismal Systems
## hsa04971                      Organismal Systems
##                                subcategory      ID
## hsa04110                      Cell growth and death hsa04110
## hsa04820                      <NA> hsa04820
## hsa04657                      Immune system hsa04657
## hsa04061 Signaling molecules and interaction hsa04061
## hsa04914                      Endocrine system hsa04914
## hsa04971                      Digestive system hsa04971
##                                Description
## hsa04110                      Cell cycle
## hsa04820                      Cytoskeleton in muscle cells
## hsa04657                      IL-17 signaling pathway
## hsa04061 Viral protein interaction with cytokine and cytokine receptor
## hsa04914                      Progesterone-mediated oocyte maturation
## hsa04971                      Gastric acid secretion
##      GeneRatio  BgRatio      pvalue    p.adjust    qvalue
## hsa04110      19/208 158/8843 4.493395e-09 1.087402e-06 1.007466e-06
## hsa04820      21/208 232/8843 1.081839e-07 2.607233e-05 1.212799e-05
## hsa04657      11/208  95/8843 1.296148e-05 3.110754e-03 9.686998e-04
## hsa04061      11/208 100/8843 2.121473e-05 5.070322e-03 1.189142e-03
## hsa04914      11/208 111/8843 5.655758e-05 1.346071e-02 2.520071e-03
## hsa04971       9/208  76/8843 6.743852e-05 1.598293e-02 2.520071e-03
##
## hsa04110                      113130/4171/1111/699/9212/5347/4085/4173/9319/7272/890/10403/701/9133/99
## hsa04820 1756/287/171024/25802/23500/2192/3908/2273/1287/2006/7060/1465/1674/72/27295/4629/10398/111
## hsa04657                      2919/3326/3576/4586/3627/6364/2921/43
## hsa04061                      6366/2919/3576/3627/6364/6373/6363/29
## hsa04914                      699/5347/4085/890/108/9133/983/6
## hsa04971                      108/6750/760/9992/495/7
##      Count
## hsa04110      19
## hsa04820      21
## hsa04657      11
## hsa04061      11
## hsa04914      11
## hsa04971       9
```

```
ek.rt <- data.frame(enrich_result@result)

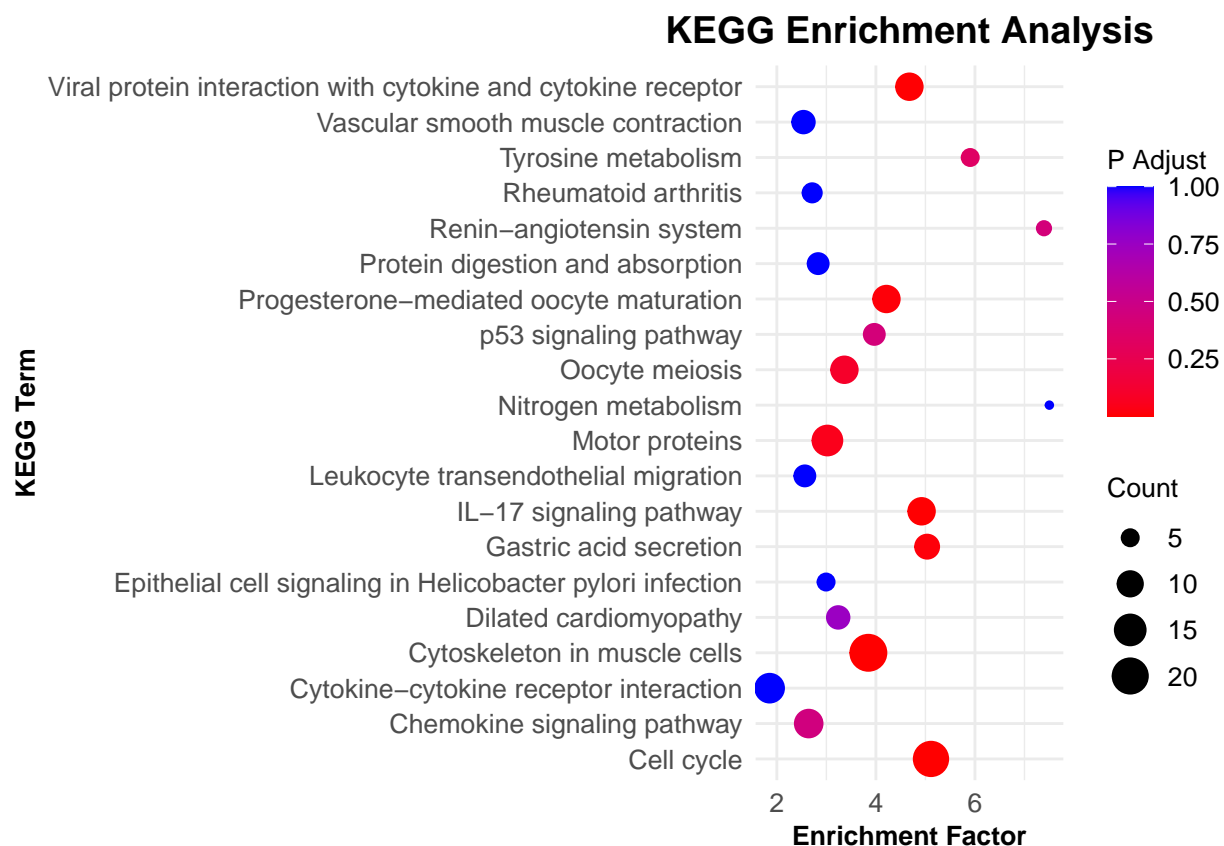
ek.rt <- separate(data=ek.rt, col=GeneRatio, into = c("GR1", "GR2"), sep = "/") # GeneRatio 2 GR1 GR2
ek.rt <- separate(data=ek.rt, col=BgRatio, into = c("BR1", "BR2"), sep = "/") # BgRatio 2 BR1 BR2
ek.rt <- mutate(ek.rt, enrichment_factor = (as.numeric(GR1)/as.numeric(GR2))/(as.numeric(BR1)/as.numeric(BR2)))

ek.rt10 <- ek.rt %>% dplyr::filter(dplyr::row_number() >= 1, dplyr::row_number() <= as.numeric(20))

p1 <- ggplot(ek.rt10, aes(enrichment_factor, Description)) +
  geom_point(aes(size=Count, color=p.adjust)) +
  scale_color_gradient(low="red", high="blue") +
```

```
labs(color="P Adjust", size="Count", x="Enrichment Factor", y="KEGG Term", title="KEGG Enrichment Analysis") +
theme_minimal() +
theme(
  text = element_text(size=10),
  axis.title = element_text(size=10, face="bold"),
  axis.text = element_text(size=10),
  legend.title = element_text(size=10),
  legend.text = element_text(size=10),
  axis.text.x = element_text(size = 10),
  axis.text.y = element_text(size = 10),
  plot.title = element_text(size=14, face="bold", hjust=0.5))
```

p1



```
p2 <- ggplot(ek.rt10, aes(x = enrichment_factor, y = reorder(Description, enrichment_factor))) +
  geom_bar(stat = "identity", aes(fill = p.adjust), width = 0.7) +
  scale_fill_gradient(low = "red", high = "blue", name = "P Adjust") +
  labs(size = "Count", x = "Enrichment Factor", y = "KEGG Term", title = "KEGG Enrichment Analysis") +
  theme_minimal() +
  theme(
    text = element_text(size = 10),
    axis.title = element_text(size = 10, face = "bold"),
    axis.text = element_text(size = 10),
    legend.title = element_text(size = 10),
    legend.text = element_text(size = 10),
    axis.text.x = element_text(size = 10),
```

```
axis.text.y = element_text(size = 10),
plot.title = element_text(size = 14, face = "bold", hjust = 0.5)
)
p2
```

