

| Downregulated genes in KC epithelium |                    |                 | Upregulated genes in KC epithelium |                    |                 |
|--------------------------------------|--------------------|-----------------|------------------------------------|--------------------|-----------------|
| Gene Symbol                          | Linear fold change | P-value (2-way) | Gene Symbol                        | Linear fold change | P-value (2-way) |
| LOC389332                            | -2.57              | 0.03            | MEGF6                              | 2.67               | <0.01           |
| CORO2B                               | -2.06              | 0.02            | FAM83E                             | 2.23               | 0.03            |
| PRUNE2                               | -2.04              | 0.03            | TIMP3                              | 2.23               | 0.02            |
| COLEC12                              | -2.01              | 0.03            | NEAT1                              | 2.17               | 0.01            |
| SLC6A4                               | -2.00              | 0.02            | ADAM8                              | 2.16               | 0.03            |
| CENPA                                | -1.95              | 0.01            | UNC93A                             | 2.12               | 0.02            |
| SYNE1                                | -1.95              | 0.01            | EMB                                | 2.10               | <0.01           |
| MCAM                                 | -1.88              | 0.02            | AQP3                               | 2.09               | 0.04            |
| LOC728554                            | -1.81              | 0.02            | TMEM45B                            | 2.07               | <0.01           |
| TRIM16L                              | -1.80              | <0.01           | NRARP                              | 2.05               | 0.04            |
| NBEA                                 | -1.76              | 0.04            | SLC16A3                            | 2.02               | 0.02            |
| BASP1                                | -1.75              | 0.01            | CHST2                              | 2.02               | 0.05            |
| HIST2H3D                             | -1.74              | 0.04            | GPNMB                              | 1.88               | 0.01            |
| ZNF124                               | -1.73              | 0.02            | RAET1E                             | 1.81               | 0.01            |
| SIAH3                                | -1.70              | 0.02            | CCDC88B                            | 1.77               | <0.01           |
| BEND5                                | -1.70              | 0.02            | DUOXA1                             | 1.75               | 0.04            |
| ITGB3BP                              | -1.70              | 0.01            | TMEM184A                           | 1.75               | 0.04            |

|              |       |      |         |      |      |
|--------------|-------|------|---------|------|------|
| WNT10A       | -1.69 | 0.02 | AGPAT4  | 1.70 | 0.01 |
| COL12A1      | -1.69 | 0.02 | CTSC    | 1.61 | 0.04 |
| APBA1        | -1.64 | 0.01 | PLA2G4F | 1.59 | 0.01 |
| LOC105373944 | -1.64 | 0.02 | NABP1   | 1.58 | 0.05 |
| TRNL1        | -1.64 | 0.02 | SLC2A12 | 1.55 | 0.01 |
| LOC105370988 | -1.63 | 0.02 | ABCG1   | 1.54 | 0.01 |
| CIT          | -1.62 | 0.01 | SH3BP2  | 1.53 | 0.01 |
| LINC00235    | -1.61 | 0.02 | RAB27B  | 1.52 | 0.04 |
| DLX3         | -1.59 | 0.01 | RHOV    | 1.52 | 0.04 |
| TRNG         | -1.59 | 0.02 | ANKRD22 | 1.51 | 0.05 |
| CD83         | -1.59 | 0.03 | ZNF276  | 1.51 | 0.02 |
| ME1          | -1.58 | 0.01 | TNFSF10 | 1.51 | 0.02 |
| RAI2         | -1.57 | 0.03 | MAPK11  | 1.48 | 0.02 |
| CPVL         | -1.57 | 0.02 | ZNF662  | 1.47 | 0.02 |
| MIR4523      | -1.55 | 0.05 | TCIRG1  | 1.46 | 0.01 |
| CDC42EP3     | -1.55 | 0.04 | GGT6    | 1.45 | 0.04 |
| CAP2         | -1.55 | 0.01 | GPC1    | 1.45 | 0.04 |
| ND4L         | -1.55 | 0.01 | CLDN12  | 1.44 | 0.03 |

|                  |       |       |           |      |       |
|------------------|-------|-------|-----------|------|-------|
| RCBTB1           | -1.55 | 0.03  | TBC1D8    | 1.44 | 0.03  |
| TRAM2-AS1        | -1.54 | 0.01  | SIAE      | 1.44 | 0.04  |
| CXCL14           | -1.52 | 0.03  | MALAT1    | 1.44 | 0.03  |
| FAM171A1         | -1.52 | 0.02  | SCARNA17  | 1.42 | 0.04  |
| SLC7A8           | -1.51 | 0.03  | TLR5      | 1.42 | 0.03  |
| NREP             | -1.50 | 0.05  | LYNX1     | 1.41 | 0.03  |
| RPL7AP45         | -1.49 | 0.01  | RALGAPA2  | 1.41 | 0.04  |
| TRPM6            | -1.47 | 0.03  | GRN       | 1.40 | 0.03  |
| SLC16A12         | -1.46 | 0.03  | MID2      | 1.39 | 0.04  |
| NUP93            | -1.45 | <0.01 | SLC12A7   | 1.38 | <0.01 |
| JAZF1            | -1.45 | 0.04  | RAB11FIP4 | 1.37 | 0.03  |
| SPARC            | -1.44 | 0.04  | OGFRL1    | 1.37 | 0.02  |
| OPN3             | -1.43 | 0.01  | MVP       | 1.37 | 0.04  |
| THOC3            | -1.43 | 0.01  | ADCY7     | 1.37 | 0.01  |
| LOC1079865<br>67 | -1.42 | 0.01  | CTSB      | 1.36 | 0.02  |

| Column # | Sort  | Gene Symbol (original) | Gene Symbol (consensus Apr-17) | Pair Grand P-Value | Sample Class Grand P-Value | Mean 1Way (Cont) | Mean 1Way (Exp) | Avg 1Way (Exp + Cont) | Exp_1Way vs. Cont (p-val) |
|----------|-------|------------------------|--------------------------------|--------------------|----------------------------|------------------|-----------------|-----------------------|---------------------------|
| 16061    | 11722 | LOC38933               | LOC38933                       | 0.361173           | 0.029776                   | 2.54067          | 1.17834         | 1.859505              | 0.0176                    |
| 39274    | 2562  | CORO2B                 | CORO2B                         | 0.080817           | 0.015969                   | 1.10506          | 0.064917        | 0.584989              | 0.045181                  |
| 25872    | 4015  | PRUNE2                 | PRUNE2                         | 0.125723           | 0.026224                   | 2.46007          | 1.43105         | 1.94556               | 0.051035                  |
| 44355    | 9159  | COLEC12                | COLEC12                        | 0.281346           | 0.030261                   | 3.63473          | 2.62794         | 3.131335              | 0.025054                  |
| 42775    | 25771 | SLC6A4                 | SLC6A4                         | 0.800857           | 0.023992                   | 0.859745         | -0.14154        | 0.359104              | 0.002876                  |
| 5473     | 7086  | CENPA                  | CENPA                          | 0.221176           | 0.012122                   | 1.56893          | 0.604275        | 1.086603              | 0.009427                  |
| 19642    | 1226  | SYNE1                  | SYNE1                          | 0.038774           | 0.007118                   | 2.72574          | 1.76276         | 2.24425               | 0.038772                  |
| 31900    | 23607 | MCAM                   | MCAM                           | 0.727743           | 0.01737                    | 1.36142          | 0.45349         | 0.907455              | 0.002045                  |
| 16795    | 4037  | LOC72855               | LOC72855                       | 0.126322           | 0.020352                   | 1.62862          | 0.776138        | 1.202379              | 0.037802                  |
| 42518    | 2914  | TRIM16L                | TRIM16L                        | 0.092064           | 0.001127                   | 3.13974          | 2.2885          | 2.71412               | 0.000922                  |
| 35085    | 4207  | NBEA                   | NBEA                           | 0.131672           | 0.035719                   | 4.22374          | 3.41043         | 3.817085              | 0.068876                  |
| 14597    | 17056 | BASP1                  | BASP1                          | 0.522778           | 0.010017                   | 3.71453          | 2.90923         | 3.31188               | 0.0016                    |
| 2874     | 13703 | HIST2H3D               | HIST2H3D                       | 0.42363            | 0.044075                   | 4.37805          | 3.58108         | 3.979565              | 0.025107                  |
| 4992     | 3523  | ZNF124                 | ZNF124                         | 0.11063            | 0.01836                    | 2.10064          | 1.30633         | 1.703485              | 0.038486                  |
| 35280    | 18789 | SIAH3                  | SIAH3                          | 0.575738           | 0.023581                   | 2.92891          | 2.16254         | 2.545725              | 0.005736                  |
| 1401     | 4814  | BEND5                  | BEND5                          | 0.149627           | 0.021688                   | 1.11154          | 0.345458        | 0.728499              | 0.034007                  |
| 1653     | 5717  | ITGB3BP                | ITGB3BP                        | 0.179088           | 0.005285                   | 1.71523          | 0.95174         | 1.333485              | 0.003688                  |
| 8495     | 14170 | WNT10A                 | WNT10A                         | 0.437622           | 0.021491                   | 4.21471          | 3.45829         | 3.8365                | 0.007978                  |
| 18665    | 2780  | COL12A1                | COL12A1                        | 0.087604           | 0.024563                   | 2.47783          | 1.72203         | 2.09993               | 0.066563                  |
| 25781    | 8758  | APBA1                  | APBA1                          | 0.269704           | 0.007131                   | 0.781337         | 0.066081        | 0.423709              | 0.003048                  |
| 8805     | 2047  | LOC10537               | LOC10537                       | 0.065001           | 0.018516                   | 0.684261         | -0.02815        | 0.328055              | 0.064848                  |
| 53831    | 3079  | TRNL1                  | TRNL1                          | 0.097188           | 0.022373                   | 2.92109          | 2.2095          | 2.565295              | 0.054784                  |
| 39862    | 2792  | LOC10537               | LOC10537                       | 0.087944           | 0.016285                   | 1.36888          | 0.663109        | 1.015995              | 0.042441                  |
| 34421    | 1625  | CIT                    | CIT                            | 0.051603           | 0.006038                   | 0.864135         | 0.166463        | 0.515299              | 0.023673                  |
| 40027    | 17362 | LINC00235              | LINC00235                      | 0.531897           | 0.02032                    | 0.826263         | 0.136774        | 0.481519              | 0.005183                  |
| 43558    | 3059  | DLX3                   | DLX3                           | 0.096478           | 0.014234                   | 2.22282          | 1.54951         | 1.886165              | 0.032954                  |
| 53850    | 2032  | TRNG                   | TRNG                           | 0.064335           | 0.020224                   | 3.25899          | 2.59126         | 2.925125              | 0.071495                  |
| 17198    | 12241 | CD83                   | CD83                           | 0.379084           | 0.031525                   | 0.473412         | -0.19278        | 0.140315              | 0.017889                  |
| 18750    | 1772  | ME1                    | ME1                            | 0.056467           | 0.010417                   | 2.02509          | 1.36454         | 1.694815              | 0.040283                  |
| 51298    | 14018 | RAI2                   | RAI2                           | 0.432798           | 0.025754                   | 1.97564          | 1.32073         | 1.648185              | 0.010802                  |
| 20400    | 7441  | CPVL                   | CPVL                           | 0.230934           | 0.023543                   | 5.50096          | 4.84779         | 5.174375              | 0.022753                  |
| 42754    | 11957 | MIR4523                | MIR4523                        | 0.369245           | 0.045915                   | 1.16865          | 0.533998        | 0.851324              | 0.031806                  |
| 5653     | 14032 | CDC42EP3               | CDC42EP3                       | 0.433068           | 0.036136                   | 1.20211          | 0.567822        | 0.884966              | 0.018136                  |
| 17242    | 1056  | CAP2                   | CAP2                           | 0.033269           | 0.011578                   | 0.456966         | -0.17518        | 0.140895              | 0.072938                  |
| 53853    | 8783  | ND4L                   | ND4L                           | 0.270651           | 0.013011                   | 6.17719          | 5.54553         | 5.86136               | 0.007781                  |
| 35350    | 9084  | RCBTB1                 | RCBTB1                         | 0.278951           | 0.02879                    | 5.62662          | 4.99781         | 5.312215              | 0.023644                  |
| 18441    | 1569  | TRAM2-AS               | TRAM2-AS                       | 0.049711           | 0.010313                   | 0.549642         | -0.07259        | 0.238528              | 0.045202                  |
| 16048    | 2789  | CXCL14                 | CXCL14                         | 0.087918           | 0.025628                   | 8.71716          | 8.11235         | 8.414755              | 0.069337                  |
| 27407    | 1063  | FAM171A1               | FAM171A1                       | 0.033382           | 0.016676                   | 1.9503           | 1.35081         | 1.650555              | 0.100889                  |
| 36485    | 4565  | SLC7A8                 | SLC7A8                         | 0.142455           | 0.026653                   | 4.25882          | 3.66799         | 3.963405              | 0.045904                  |
| 15711    | 10199 | NREP                   | NREP                           | 0.31267            | 0.045172                   | 3.34057          | 2.76017         | 3.05037               | 0.037978                  |

|       |       |           |           |          |          |          |          |          |          |
|-------|-------|-----------|-----------|----------|----------|----------|----------|----------|----------|
| 25536 | 196   | RPL7AP45  | RPL7AP45  | 0.005954 | 0.014843 | 0.554557 | -0.01922 | 0.26767  | 0.252407 |
| 25847 | 2898  | TRPM6     | TRPM6     | 0.091552 | 0.027331 | 0.501054 | -0.05325 | 0.223904 | 0.071525 |
| 28540 | 859   | SLC16A12  | SLC16A12  | 0.027107 | 0.026776 | 2.72819  | 2.18274  | 2.455465 | 0.167802 |
| 41253 | 949   | NUP93     | NUP93     | 0.030215 | 0.003135 | 5.36725  | 4.83096  | 5.099105 | 0.019879 |
| 20391 | 9203  | JAZF1     | JAZF1     | 0.282511 | 0.041461 | 0.886885 | 0.352413 | 0.619649 | 0.038089 |
| 16410 | 9735  | SPARC     | SPARC     | 0.298466 | 0.042878 | 6.56055  | 6.03223  | 6.29639  | 0.037387 |
| 4893  | 16359 | OPN3      | OPN3      | 0.503874 | 0.014851 | 1.83429  | 1.31885  | 1.57657  | 0.003387 |
| 16728 | 8415  | THOC3     | THOC3     | 0.260077 | 0.009016 | 6.22301  | 5.71197  | 5.96749  | 0.004699 |
| 17161 | 2052  | LOC10798  | LOC10798  | 0.065104 | 0.008263 | 0.912166 | 0.406489 | 0.659328 | 0.026547 |
| 16416 | 4004  | LOC10065  | LOC10065  | 0.125309 | 0.043438 | 0.762234 | 0.267174 | 0.514704 | 0.08836  |
| 4075  | 9428  | SHISA4    | SHISA4    | 0.28958  | 0.030406 | 2.4669   | 1.97488  | 2.22089  | 0.024322 |
| 25853 | 2728  | C9orf40   | C9orf40   | 0.086198 | 0.021601 | 0.503239 | 0.012971 | 0.258105 | 0.059004 |
| 35861 | 1195  | IPO5      | IPO5      | 0.037586 | 0.000869 | 4.50773  | 4.03243  | 4.27008  | 0.002572 |
| 46182 | 790   | HOMER3    | HOMER3    | 0.024976 | 0.003431 | 6.32158  | 5.8501   | 6.08584  | 0.027318 |
| 42195 | 9763  | POLR2A    | POLR2A    | 0.299058 | 0.045321 | 3.64907  | 3.17827  | 3.41367  | 0.04014  |
| 36216 | 2477  | CCNB1IP1  | CCNB1IP1  | 0.078183 | 0.018966 | 4.34778  | 3.8783   | 4.11304  | 0.056233 |
| 22966 | 12225 | NEIL2     | NEIL2     | 0.378602 | 0.034454 | 2.64049  | 2.17232  | 2.406405 | 0.020419 |
| 4405  | 4164  | ESRRG     | ESRRG     | 0.130101 | 0.025127 | 0.324462 | -0.14309 | 0.090688 | 0.046971 |
| 4006  | 20739 | C1orf53   | C1orf53   | 0.636391 | 0.021237 | 1.08051  | 0.613487 | 0.846999 | 0.003938 |
| 2269  | 2137  | HENMT1    | HENMT1    | 0.067641 | 0.039084 | 1.74054  | 1.27414  | 1.50734  | 0.126957 |
| 35088 | 7173  | MAB21L1   | MAB21L1   | 0.223226 | 0.036842 | 4.90977  | 4.44452  | 4.677145 | 0.04249  |
| 754   | 1456  | MAN1C1    | MAN1C1    | 0.046051 | 0.022109 | 0.844627 | 0.382206 | 0.613417 | 0.101539 |
| 27384 | 137   | CDNF      | CDNF      | 0.003968 | 0.001547 | 1.11058  | 0.648286 | 0.879433 | 0.070721 |
| 41551 | 1078  | PHLPP2    | PHLPP2    | 0.034018 | 0.026017 | 1.27265  | 0.810731 | 1.041691 | 0.143101 |
| 32245 | 1016  | WNK1      | WNK1      | 0.032107 | 0.00873  | 4.24061  | 3.78251  | 4.01156  | 0.057336 |
| 38992 | 2188  | GNB5      | GNB5      | 0.068993 | 0.033393 | 2.92338  | 2.46581  | 2.694595 | 0.108872 |
| 2327  | 706   | SLC6A17   | SLC6A17   | 0.022541 | 0.009059 | 1.43121  | 0.974086 | 1.202648 | 0.080175 |
| 33041 | 652   | SLC38A4   | SLC38A4   | 0.020696 | 0.005478 | 1.69557  | 1.23857  | 1.46707  | 0.053943 |
| 34952 | 1606  | WASF3     | WASF3     | 0.051056 | 0.01778  | 2.1043   | 1.64878  | 1.87654  | 0.076623 |
| 20017 | 4388  | LFNG      | LFNG      | 0.137167 | 0.035632 | 4.37628  | 3.92694  | 4.15161  | 0.0662   |
| 53859 | 4128  | ND6       | ND6       | 0.128901 | 0.032184 | 3.71645  | 3.26796  | 3.492205 | 0.062664 |
| 24878 | 19413 | DOCK8     | DOCK8     | 0.595901 | 0.033258 | 1.64624  | 1.20041  | 1.423325 | 0.009536 |
| 17386 | 10092 | HIST1H2BC | HIST1H2BC | 0.308839 | 0.045899 | 7.32156  | 6.87878  | 7.10017  | 0.039349 |
| 50466 | 76    | MN1       | MN1       | 0.002171 | 0.000167 | 2.18977  | 1.74765  | 1.96871  | 0.013022 |
| 30099 | 4984  | FJX1      | FJX1      | 0.154776 | 0.036436 | 1.55576  | 1.12708  | 1.34142  | 0.060674 |
| 21362 | 3309  | TP53TG1   | TP53TG1   | 0.104536 | 0.04926  | 0.611695 | 0.196528 | 0.404112 | 0.115094 |
| 53190 | 8137  | LAGE3     | LAGE3     | 0.251747 | 0.028158 | 2.85965  | 2.44635  | 2.653    | 0.026064 |
| 8824  | 2348  | COPS8     | COPS8     | 0.073831 | 0.026073 | 5.23556  | 4.8273   | 5.03143  | 0.081816 |
| 5629  | 7666  | LOC10028  | LOC10028  | 0.237626 | 0.010458 | 2.98078  | 2.57346  | 2.77712  | 0.0068   |
| 30051 | 4212  | QSER1     | QSER1     | 0.131832 | 0.011794 | 2.11741  | 1.71584  | 1.916625 | 0.018117 |
| 26803 | 12378 | ENDOG     | ENDOG     | 0.382688 | 0.033298 | 2.04864  | 1.65152  | 1.85008  | 0.019135 |
| 41680 | 416   | GCSH      | GCSH      | 0.013527 | 0.008705 | 3.4554   | 3.05856  | 3.25698  | 0.113556 |
| 17901 | 830   | APOM      | APOM      | 0.026147 | 0.029986 | 0.336524 | -0.05685 | 0.139835 | 0.185365 |
| 35065 | 12109 | PDS5B     | PDS5B     | 0.374983 | 0.031347 | 1.59294  | 1.20335  | 1.398145 | 0.018012 |
| 9592  | 4055  | ZNF501    | ZNF501    | 0.126913 | 0.037942 | 1.14169  | 0.753766 | 0.947728 | 0.075908 |
| 13379 | 7134  | CCDC109B  | MCUB      | 0.222428 | 0.045198 | 3.80479  | 3.42234  | 3.613565 | 0.05487  |
| 46510 | 7460  | ZNF181    | ZNF181    | 0.231351 | 0.043073 | 1.67454  | 1.29315  | 1.483845 | 0.049694 |

|       |       |          |          |          |          |          |          |          |          |
|-------|-------|----------|----------|----------|----------|----------|----------|----------|----------|
| 40363 | 3392  | ATF7IP2  | ATF7IP2  | 0.106828 | 0.028702 | 0.438303 | 0.059599 | 0.248951 | 0.06569  |
| 27676 | 68    | LOC10537 | LOC10537 | 0.001899 | 0.00165  | 0.314796 | -0.06296 | 0.125918 | 0.127438 |
| 39148 | 1690  | TLN2     | TLN2     | 0.053948 | 0.007429 | 1.08928  | 0.711934 | 0.900607 | 0.028797 |
| 4358  | 14552 | NENF     | NENF     | 0.448471 | 0.049914 | 4.38502  | 4.01042  | 4.19772  | 0.02789  |
| 5128  | 7745  | ADI1     | ADI1     | 0.240147 | 0.036563 | 4.31795  | 3.94507  | 4.13151  | 0.038845 |
| 53195 | 10212 | G6PD     | G6PD     | 0.313022 | 0.028499 | 4.17733  | 3.80524  | 3.991285 | 0.020071 |
| 10703 | 3565  | HEG1     | HEG1     | 0.111795 | 0.022565 | 2.05223  | 1.68039  | 1.86631  | 0.048305 |
| 1120  | 3566  | MACF1    | MACF1    | 0.111797 | 0.03078  | 4.66257  | 4.29658  | 4.479575 | 0.067946 |
| 18457 | 7510  | GSTA4    | GSTA4    | 0.232745 | 0.018147 | 5.84775  | 5.48184  | 5.664795 | 0.015709 |
| 24502 | 7033  | TBC1D31  | TBC1D31  | 0.219244 | 0.047511 | 0.822495 | 0.456848 | 0.639672 | 0.059106 |
| 199   | 2027  | DFFB     | DFFB     | 0.064216 | 0.027101 | 0.494037 | 0.129268 | 0.311653 | 0.094875 |
| 23213 | 6719  | DOCK5    | DOCK5    | 0.209856 | 0.003909 | 2.42779  | 2.06696  | 2.247375 | 0.001753 |
| 10521 | 2937  | BOC      | BOC      | 0.092818 | 0.04943  | 3.76614  | 3.40691  | 3.586525 | 0.125683 |
| 35203 | 2197  | DGKH     | DGKH     | 0.069405 | 0.025805 | 1.40833  | 1.04946  | 1.228895 | 0.085181 |
| 20316 | 6736  | MPP6     | MPP6     | 0.210594 | 0.046226 | 3.28034  | 2.92893  | 3.104635 | 0.059505 |
| 28177 | 558   | TSPAN15  | TSPAN15  | 0.017989 | 0.03264  | 2.89162  | 2.55133  | 2.721475 | 0.236434 |
| 42113 | 1711  | C1QBP    | C1QBP    | 0.054649 | 0.024946 | 6.85069  | 6.51062  | 6.680655 | 0.099476 |
| 27491 | 2896  | COMMD3   | COMMD3   | 0.091526 | 0.037219 | 5.01127  | 4.67175  | 4.84151  | 0.097344 |
| 46    | 26723 | MTATP6P1 | MTATP6P1 | 0.834298 | 0.02655  | 4.15442  | 3.81709  | 3.985755 | 0.003093 |
| 37302 | 7617  | ACOT2    | ACOT2    | 0.236354 | 0.03528  | 2.35349  | 2.01717  | 2.18533  | 0.037771 |
| 19749 | 4900  | ACAT2    | ACAT2    | 0.152233 | 0.031323 | 4.09601  | 3.76308  | 3.929545 | 0.051844 |
| 20121 | 2292  | RPA3     | RPA3     | 0.072239 | 0.017537 | 4.28444  | 3.95383  | 4.119135 | 0.055701 |
| 41622 | 8325  | TMEM231  | TMEM231  | 0.257286 | 0.040479 | 0.926898 | 0.597831 | 0.762365 | 0.041009 |
| 51843 | 2077  | HUWE1    | HUWE1    | 0.065863 | 0.022783 | 3.37524  | 3.0467   | 3.21097  | 0.07881  |
| 42920 | 6210  | AP2B1    | AP2B1    | 0.1942   | 0.034798 | 3.52495  | 3.20025  | 3.3626   | 0.045894 |
| 6225  | 2826  | ALMS1    | ALMS1    | 0.089161 | 0.020543 | 1.52492  | 1.20106  | 1.36299  | 0.05417  |
| 47833 | 3333  | SRXN1    | SRXN1    | 0.105182 | 0.007074 | 4.3934   | 4.06969  | 4.231545 | 0.012175 |
| 8798  | 1048  | AGAP1    | AGAP1    | 0.032978 | 0.01293  | 1.44512  | 1.12505  | 1.285085 | 0.081342 |
| 38329 | 885   | NDN      | NDN      | 0.027904 | 0.00459  | 3.55762  | 3.2382   | 3.39791  | 0.033611 |
| 44274 | 21115 | ARL16    | ARL16    | 0.649466 | 0.041624 | 3.57096  | 3.25379  | 3.412375 | 0.011818 |
| 25102 | 3093  | FOCAD    | FOCAD    | 0.097515 | 0.024405 | 3.02212  | 2.70576  | 2.86394  | 0.060005 |
| 40844 | 4065  | ZNF688   | ZNF688   | 0.127197 | 0.026945 | 1.39944  | 1.08401  | 1.241725 | 0.052034 |
| 25369 | 791   | TLN1     | TLN1     | 0.02498  | 0.008008 | 3.77204  | 3.45863  | 3.615335 | 0.065771 |
| 23403 | 5254  | PROSC    | PLPBP    | 0.163087 | 0.029899 | 3.06393  | 2.75108  | 2.907505 | 0.045792 |
| 31114 | 3008  | ANAPC15  | ANAPC15  | 0.094722 | 0.03842  | 2.36388  | 2.05208  | 2.20798  | 0.097739 |
| 53215 | 1590  | F8       | F8       | 0.050472 | 0.041849 | 0.948989 | 0.637573 | 0.793281 | 0.162086 |
| 1212  | 2070  | YBX1     | YBX1     | 0.06551  | 0.046062 | 6.03059  | 5.71962  | 5.875105 | 0.149038 |
| 21559 | 1043  | GS1-259H | TMEM225  | 0.032884 | 0.037834 | 1.56972  | 1.25884  | 1.41428  | 0.19209  |
| 52087 | 509   | NAP1L2   | NAP1L2   | 0.01656  | 0.03833  | 1.32883  | 1.01824  | 1.173535 | 0.268904 |
| 53848 | 10504 | ATP6     | ATP6     | 0.322071 | 0.030066 | 6.45057  | 6.14022  | 6.295395 | 0.020859 |
| 1802  | 10783 | TYW3     | TYW3     | 0.330659 | 0.04085  | 3.51692  | 3.20659  | 3.361755 | 0.030996 |
| 21533 | 3545  | TRRAP    | TRRAP    | 0.111223 | 0.022734 | 1.93629  | 1.62649  | 1.78139  | 0.04896  |
| 41600 | 1225  | RFWD3    | RFWD3    | 0.038766 | 0.004507 | 2.92965  | 2.62072  | 2.775185 | 0.023078 |
| 45526 | 7167  | MRPL54   | MRPL54   | 0.223091 | 0.03168  | 5.07838  | 4.77074  | 4.92456  | 0.035098 |
| 6015  | 1102  | EHBP1    | EHBP1    | 0.035006 | 0.015854 | 2.24465  | 1.93832  | 2.091485 | 0.093163 |
| 42810 | 4440  | NF1      | NF1      | 0.138806 | 0.013786 | 2.69437  | 2.38815  | 2.54126  | 0.020874 |
| 40788 | 11543 | KIF22    | KIF22    | 0.355307 | 0.013452 | 3.43114  | 3.12559  | 3.278365 | 0.005331 |

|       |               |          |          |          |          |          |          |          |
|-------|---------------|----------|----------|----------|----------|----------|----------|----------|
| 26743 | 849 PTRH1     | PTRH1    | 0.026867 | 0.02436  | 0.827376 | 0.523349 | 0.675363 | 0.157558 |
| 14783 | 1830 C5orf42  | C5orf42  | 0.058471 | 0.025271 | 1.94191  | 1.63966  | 1.790785 | 0.095603 |
| 3095  | 819 CREB3L4   | CREB3L4  | 0.025842 | 0.024907 | 1.49225  | 1.1947   | 1.343475 | 0.163854 |
| 10913 | 3007 CDV3     | CDV3     | 0.094689 | 0.032242 | 6.15844  | 5.86225  | 6.010345 | 0.082239 |
| 15102 | 228 SGTB      | SGTB     | 0.007116 | 0.042134 | 0.798273 | 0.502454 | 0.650364 | 0.380929 |
| 6164  | 4141 SNRPG    | SNRPG    | 0.129339 | 0.047146 | 4.58453  | 4.28967  | 4.4371   | 0.093648 |
| 43803 | 3453 TANC2    | TANC2    | 0.108745 | 0.030902 | 1.20992  | 0.916354 | 1.063137 | 0.069928 |
| 13257 | 4179 H2AFZ    | H2AFZ    | 0.130787 | 0.049175 | 6.61432  | 6.32219  | 6.468255 | 0.096886 |
| 13153 | 2287 PKD2     | PKD2     | 0.072182 | 0.015786 | 1.92786  | 1.63612  | 1.78199  | 0.049812 |
| 32675 | 1861 HIST4H4  | HIST4H4  | 0.05943  | 0.025653 | 5.90214  | 5.61061  | 5.756375 | 0.095726 |
| 16690 | 2087 BOD1     | BOD1     | 0.066161 | 0.007604 | 3.32196  | 3.03529  | 3.178625 | 0.023584 |
| 45613 | 4981 ALKBH7   | ALKBH7   | 0.15467  | 0.016169 | 3.65513  | 3.36957  | 3.51235  | 0.022548 |
| 32565 | 5785 YBX3     | YBX3     | 0.181058 | 0.029983 | 6.60358  | 6.31883  | 6.461205 | 0.041187 |
| 22969 | 3127 FDFT1    | FDFT1    | 0.098295 | 0.018615 | 3.95427  | 3.66983  | 3.81205  | 0.044148 |
| 298   | 1267 SLC25A33 | SLC25A33 | 0.040493 | 0.023726 | 2.64466  | 2.36055  | 2.502605 | 0.118355 |
| 37945 | 3677 SIVA1    | SIVA1    | 0.115357 | 0.032145 | 4.01887  | 3.73492  | 3.876895 | 0.069203 |
| 50197 | 2223 SDF2L1   | SDF2L1   | 0.069931 | 0.032317 | 2.7182   | 2.43535  | 2.576775 | 0.104621 |
| 40408 | 328 SNX29     | SNX29    | 0.010483 | 0.002691 | 2.0792   | 1.79638  | 1.93779  | 0.050328 |
| 38771 | 26694 MAPKBP1 | MAPKBP1  | 0.832937 | 0.044896 | 2.81494  | 2.53367  | 2.674305 | 0.007985 |
| 4559  | 5612 PYCR2    | PYCR2    | 0.175265 | 0.006294 | 5.28432  | 5.00528  | 5.1448   | 0.004991 |
| 25027 | 385 NFIB      | NFIB     | 0.012624 | 0.021234 | 1.18849  | 0.910185 | 1.049338 | 0.217062 |
| 19539 | 946 UTRN      | UTRN     | 0.030151 | 0.01682  | 3.21792  | 2.94438  | 3.08115  | 0.109444 |
| 5002  | 1047 ZNF496   | ZNF496   | 0.03297  | 0.01104  | 2.06128  | 1.7894   | 1.92534  | 0.070277 |
| 1214  | 5176 P3H1     | P3H1     | 0.160567 | 0.017977 | 0.755721 | 0.48424  | 0.619981 | 0.024748 |
| 25807 | 8708 ABHD17B  | ABHD17B  | 0.268504 | 0.018251 | 2.43223  | 2.16104  | 2.296635 | 0.013026 |
| 46213 | 2574 ZNF14    | ZNF14    | 0.081199 | 0.029708 | 2.38423  | 2.11384  | 2.249035 | 0.086006 |
| 25250 | 14320 SMU1    | SMU1     | 0.441875 | 0.030941 | 3.98045  | 3.71139  | 3.84592  | 0.013901 |
| 5889  | 5678 PSME4    | PSME4    | 0.177561 | 0.028659 | 4.1864   | 3.91745  | 4.051925 | 0.039785 |
| 31289 | 896 TENM4     | TENM4    | 0.028418 | 0.046239 | 1.82292  | 1.55441  | 1.688665 | 0.236083 |
| 46157 | 11309 LSM4    | LSM4     | 0.347598 | 0.047095 | 4.93697  | 4.66895  | 4.80296  | 0.035467 |
| 35840 | 670 UGGT2     | UGGT2    | 0.021401 | 0.006252 | 1.48951  | 1.22277  | 1.35614  | 0.059487 |
| 20295 | 3097 MALSU1   | MALSU1   | 0.09765  | 0.022479 | 3.50312  | 3.23656  | 3.36984  | 0.054823 |
| 8255  | 1910 CARF     | CARF     | 0.061058 | 0.031554 | 0.948453 | 0.682611 | 0.815532 | 0.113088 |
| 6660  | 7207 ZNF514   | ZNF514   | 0.224342 | 0.044977 | 1.27702  | 1.01183  | 1.144425 | 0.054077 |
| 20657 | 5928 POLD2    | POLD2    | 0.185762 | 0.047672 | 3.95643  | 3.69143  | 3.82393  | 0.069445 |
| 25378 | 8406 HINT2    | HINT2    | 0.259724 | 0.030029 | 4.43109  | 4.1661   | 4.298595 | 0.027368 |
| 19828 | 1865 MPC1     | MPC1     | 0.059605 | 0.019961 | 3.26099  | 2.99613  | 3.12856  | 0.075295 |
| 16712 | 5973 MSX2     | MSX2     | 0.187207 | 0.041698 | 3.71505  | 3.45076  | 3.582905 | 0.059085 |
| 4756  | 719 PCNX2     | PCNX2    | 0.023033 | 0.017579 | 1.16041  | 0.896248 | 1.028329 | 0.136083 |
| 46628 | 12412 ZNF420  | ZNF420   | 0.383418 | 0.045814 | 1.95709  | 1.69417  | 1.82563  | 0.030242 |
| 43247 | 1381 HSD17B1  | HSD17B1  | 0.044174 | 0.012628 | 1.23374  | 0.970985 | 1.102363 | 0.062156 |
| 2939  | 1896 PRUNE    | PRUNE1   | 0.060716 | 0.039722 | 2.45671  | 2.19753  | 2.32712  | 0.138385 |
| 17010 | 3788 PSMG4    | PSMG4    | 0.118572 | 0.033738 | 0.439559 | 0.184567 | 0.312063 | 0.07111  |
| 25732 | 618 ZNF658    | ZNF658   | 0.019697 | 0.017823 | 2.62543  | 2.37275  | 2.49909  | 0.151645 |
| 24253 | 3540 ANKRD46  | ANKRD46  | 0.111131 | 0.039757 | 3.27743  | 3.02535  | 3.15139  | 0.089053 |
| 2884  | 8359 HIST2H2A | HIST2H2A | 0.258308 | 0.049033 | 7.0811   | 6.83043  | 6.955765 | 0.052059 |
| 50682 | 6130 IFT27    | IFT27    | 0.191925 | 0.043669 | 2.76149  | 2.51199  | 2.63674  | 0.06088  |

|       |       |           |           |          |          |          |          |          |          |
|-------|-------|-----------|-----------|----------|----------|----------|----------|----------|----------|
| 52407 | 733   | BEX2      | BEX2      | 0.023283 | 0.04452  | 3.46659  | 3.21867  | 3.34263  | 0.252727 |
| 42049 | 615   | CYB5D2    | CYB5D2    | 0.019645 | 0.006238 | 2.63608  | 2.38957  | 2.512825 | 0.063962 |
| 28213 | 12274 | PCBD1     | PCBD1     | 0.379844 | 0.033104 | 3.09608  | 2.84979  | 2.972935 | 0.019168 |
| 23933 | 1142  | PEX2      | PEX2      | 0.035948 | 0.01877  | 3.47564  | 3.23049  | 3.353065 | 0.105721 |
| 48860 | 3233  | ADNP      | ADNP      | 0.1017   | 0.040914 | 2.85462  | 2.61071  | 2.732665 | 0.098314 |
| 43519 | 2042  | ATP5G1    | ATP5G1    | 0.064818 | 0.0467   | 5.10939  | 4.86559  | 4.98749  | 0.151751 |
| 49456 | 510   | N6AMT1    | N6AMT1    | 0.016611 | 0.018264 | 1.34996  | 1.57545  | 1.462705 | 0.170553 |
| 6920  | 21746 | LIMS1     | LIMS1     | 0.66869  | 0.004835 | 3.31033  | 3.53633  | 3.42333  | 0.000242 |
| 5324  | 24674 | SMC6      | SMC6      | 0.762835 | 0.049698 | 2.46227  | 2.68838  | 2.575325 | 0.011648 |
| 18601 | 20964 | FAM135A   | FAM135A   | 0.64387  | 0.018529 | 3.91378  | 4.14049  | 4.027135 | 0.003031 |
| 5505  | 4031  | ZNF513    | ZNF513    | 0.126264 | 0.006215 | 1.93002  | 2.1592   | 2.04461  | 0.007922 |
| 49100 | 2048  | ARFGAP1   | ARFGAP1   | 0.065009 | 0.039122 | 2.69984  | 2.93039  | 2.815115 | 0.130544 |
| 18002 | 10579 | BRD2      | BRD2      | 0.32435  | 0.037636 | 4.48248  | 4.71418  | 4.59833  | 0.028343 |
| 41608 | 7911  | ZFP1      | ZFP1      | 0.244696 | 0.042238 | 1.04773  | 1.28409  | 1.16591  | 0.045716 |
| 24326 | 1128  | FZD6      | FZD6      | 0.035588 | 0.004162 | 4.03155  | 4.2686   | 4.150075 | 0.023118 |
| 6918  | 7608  | GCC2      | GCC2      | 0.236031 | 0.026873 | 2.36478  | 2.60208  | 2.48343  | 0.026475 |
| 42382 | 3049  | TVP23C    | TVP23C    | 0.096164 | 0.031296 | 0.643932 | 0.88233  | 0.763131 | 0.078778 |
| 50444 | 2170  | TPST2     | TPST2     | 0.068505 | 0.02763  | 2.45366  | 2.69609  | 2.574875 | 0.09187  |
| 21860 | 8229  | MET       | MET       | 0.254477 | 0.017416 | 3.53127  | 3.77943  | 3.65535  | 0.013116 |
| 24785 | 7276  | FAM83H-A  | FAM83H-A  | 0.226726 | 0.020937 | 2.10274  | 2.35883  | 2.230785 | 0.01984  |
| 51823 | 2054  | FAM156B   | FAM156B   | 0.065154 | 0.02691  | 1.96713  | 2.22831  | 2.09772  | 0.093197 |
| 26004 | 1133  | DAPK1     | DAPK1     | 0.035654 | 0.040952 | 3.16716  | 3.42894  | 3.29805  | 0.194351 |
| 29356 | 10708 | PDDC1     | GATD1     | 0.328024 | 0.020816 | 2.17379  | 2.43625  | 2.30502  | 0.011875 |
| 2558  | 6139  | NOTCH2    | NOTCH2    | 0.192294 | 0.042369 | 2.76391  | 3.03011  | 2.89701  | 0.058654 |
| 47156 | 1020  | NUCB1     | NUCB1     | 0.032275 | 0.004779 | 3.59886  | 3.86934  | 3.7341   | 0.030181 |
| 16242 | 10565 | FCHSD1    | FCHSD1    | 0.32398  | 0.019247 | 1.01444  | 1.28713  | 1.150785 | 0.010749 |
| 45058 | 18793 | ATP8B1    | ATP8B1    | 0.57588  | 0.010387 | 3.75236  | 4.02718  | 3.88977  | 0.001392 |
| 26738 | 7466  | LRSAM1    | LRSAM1    | 0.231578 | 0.021411 | 1.53516  | 1.81406  | 1.67461  | 0.019915 |
| 688   | 2337  | TCEA3     | TCEA3     | 0.073438 | 0.042387 | 2.95792  | 3.23977  | 3.098845 | 0.128802 |
| 51896 | 8674  | SPIN3     | SPIN3     | 0.267186 | 0.014901 | 0.748549 | 1.03514  | 0.891845 | 0.009728 |
| 22591 | 8150  | CHPF2     | CHPF2     | 0.25212  | 0.036788 | 3.06685  | 3.35345  | 3.21015  | 0.037076 |
| 46906 | 19273 | CADM4     | CADM4     | 0.591361 | 0.032084 | 2.90408  | 3.19105  | 3.047565 | 0.009111 |
| 40311 | 19098 | ALG1      | ALG1      | 0.585604 | 0.031908 | 1.19824  | 1.48988  | 1.34406  | 0.009188 |
| 29673 | 19833 | PPFIBP2   | PPFIBP2   | 0.608954 | 0.032303 | 1.5974   | 1.8935   | 1.74545  | 0.008737 |
| 24651 | 2205  | ST3GAL1   | ST3GAL1   | 0.069609 | 0.021516 | 2.25629  | 2.55294  | 2.404615 | 0.071079 |
| 41844 | 3494  | GALNS     | GALNS     | 0.109895 | 0.005279 | 0.288559 | 0.588701 | 0.43863  | 0.007621 |
| 51069 | 8479  | LMF2      | LMF2      | 0.26168  | 0.037439 | 2.84615  | 3.15075  | 2.99845  | 0.036361 |
| 36766 | 12084 | PNN       | PNN       | 0.37406  | 0.024928 | 3.43509  | 3.74139  | 3.58824  | 0.012836 |
| 34275 | 3602  | FAM109A   | FAM109A   | 0.11263  | 0.005957 | 0.747053 | 1.05403  | 0.900542 | 0.008745 |
| 50162 | 3001  | LZTR1     | LZTR1     | 0.094583 | 0.021336 | 1.81481  | 2.1225   | 1.968655 | 0.053375 |
| 23988 | 9249  | FABP5     | FABP5     | 0.284077 | 0.049806 | 8.33335  | 8.64357  | 8.48846  | 0.048029 |
| 1541  | 728   | TTC22     | TTC22     | 0.023204 | 0.011427 | 2.9851   | 3.29567  | 3.140385 | 0.095889 |
| 27085 | 3619  | NDOR1     | NDOR1     | 0.113289 | 0.026072 | 1.79335  | 2.11279  | 1.95307  | 0.056057 |
| 30084 | 6173  | EHF       | EHF       | 0.1933   | 0.039631 | 5.58265  | 5.90343  | 5.74304  | 0.053924 |
| 41404 | 2419  | KIAA0895L | KIAA0895L | 0.076228 | 0.018171 | 1.56213  | 1.8889   | 1.725515 | 0.055016 |
| 18379 | 23884 | CD2AP     | CD2AP     | 0.735782 | 0.013014 | 3.65408  | 3.98342  | 3.81875  | 0.001179 |
| 28985 | 7318  | ABLIM1    | ABLIM1    | 0.227687 | 0.012299 | 3.08027  | 3.41087  | 3.24557  | 0.009235 |



|       |       |           |           |          |          |          |          |          |          |
|-------|-------|-----------|-----------|----------|----------|----------|----------|----------|----------|
| 6168  | 8778  | TGFA      | TGFA      | 0.270567 | 0.024656 | 3.0183   | 3.35722  | 3.18776  | 0.019816 |
| 45454 | 9471  | MKNK2     | MKNK2     | 0.29059  | 0.025112 | 4.959    | 5.29799  | 5.128495 | 0.018507 |
| 3806  | 2407  | QSOX1     | QSOX1     | 0.075908 | 0.01542  | 3.0358   | 3.37602  | 3.20591  | 0.046238 |
| 53112 | 7145  | ZNF185    | ZNF185    | 0.222644 | 0.046764 | 4.93123  | 5.27941  | 5.10532  | 0.05712  |
| 7738  | 25899 | CERS6     | CERS6     | 0.80542  | 0.043554 | 3.20854  | 3.55676  | 3.38265  | 0.008213 |
| 14984 | 14964 | IL6ST     | IL6ST     | 0.460764 | 0.038275 | 3.3848   | 3.74147  | 3.563135 | 0.018073 |
| 33959 | 17141 | RN7SL737I | RN7SL737I | 0.525527 | 0.049914 | 1.01119  | 1.37395  | 1.19257  | 0.02232  |
| 183   | 10785 | ARHGEF16  | ARHGEF16  | 0.330716 | 0.035071 | 3.29156  | 3.65654  | 3.47405  | 0.025061 |
| 9776  | 9880  | SEMA3F    | SEMA3F    | 0.30246  | 0.048088 | 4.12013  | 4.48773  | 4.30393  | 0.042844 |
| 37420 | 15732 | SPTLC2    | SPTLC2    | 0.485122 | 0.029104 | 2.97438  | 3.34209  | 3.158235 | 0.01091  |
| 44076 | 3066  | RECQL5    | RECQL5    | 0.096662 | 0.034033 | 2.22288  | 2.59619  | 2.409535 | 0.085354 |
| 29337 | 8667  | LRRC56    | LRRC56    | 0.267028 | 0.049754 | 0.15153  | 0.525742 | 0.338636 | 0.051219 |
| 31143 | 1841  | ATG16L2   | ATG16L2   | 0.058855 | 0.047884 | 1.12556  | 1.50303  | 1.314295 | 0.164289 |
| 357   | 1123  | FBXO44    | FBXO44    | 0.035515 | 0.004137 | 1.35416  | 1.73291  | 1.543535 | 0.023013 |
| 51007 | 6806  | GRAMD4    | GRAMD4    | 0.212614 | 0.005564 | 2.88256  | 3.287    | 3.08478  | 0.003036 |
| 43236 | 5383  | STAT5A    | STAT5A    | 0.167784 | 0.028702 | 0.476575 | 0.891019 | 0.683797 | 0.042332 |
| 7006  | 10920 | TMEM87B   | TMEM87B   | 0.334653 | 0.001548 | 3.50021  | 3.92831  | 3.71426  | 0.000143 |
| 36561 | 10685 | RIPK3     | RIPK3     | 0.327131 | 0.023505 | 1.28509  | 1.71559  | 1.50034  | 0.014284 |
| 16128 | 4527  | CXXC5     | CXXC5     | 0.141233 | 0.009007 | 3.00639  | 3.4378   | 3.222095 | 0.011486 |
| 37942 | 2007  | ADSSL1    | ADSSL1    | 0.063575 | 0.020761 | 1.78553  | 2.22292  | 2.004225 | 0.074116 |
| 237   | 2726  | PLEKHG5   | PLEKHG5   | 0.086146 | 0.038963 | 2.50588  | 2.94542  | 2.72565  | 0.106482 |
| 33848 | 9063  | TMTC2     | TMTC2     | 0.278128 | 0.009277 | 1.4609   | 1.90115  | 1.681025 | 0.004412 |
| 70    | 1210  | KLHL17    | KLHL17    | 0.038104 | 0.010423 | 0.374736 | 0.815028 | 0.594882 | 0.058598 |
| 22970 | 10561 | CTSB      | CTSB      | 0.323874 | 0.020326 | 5.74682  | 6.18951  | 5.968165 | 0.011674 |
| 41126 | 105   | ADCY7     | ADCY7     | 0.002967 | 0.010845 | 0.655691 | 1.1047   | 0.880196 | 0.289667 |
| 40793 | 7189  | MVP       | MVP       | 0.223798 | 0.03856  | 5.09076  | 5.54366  | 5.31721  | 0.044858 |
| 18613 | 27656 | OGFRL1    | OGFRL1    | 0.869793 | 0.018842 | 1.94116  | 2.39572  | 2.16844  | 0.001449 |
| 42816 | 10699 | RAB11FIP4 | RAB11FIP4 | 0.327611 | 0.02806  | 1.5921   | 2.04838  | 1.82024  | 0.018463 |
| 14398 | 1186  | SLC12A7   | SLC12A7   | 0.037354 | 0.003443 | 0.87288  | 1.33873  | 1.105805 | 0.017382 |
| 52484 | 12303 | MID2      | MID2      | 0.380436 | 0.041868 | -0.13415 | 0.341628 | 0.103738 | 0.02688  |
| 43356 | 14296 | GRN       | GRN       | 0.441352 | 0.032093 | 5.33205  | 5.81715  | 5.5746   | 0.014729 |
| 48180 | 16036 | RALGAPA2  | RALGAPA2  | 0.49402  | 0.038316 | 0.43161  | 0.922432 | 0.677021 | 0.016306 |
| 24735 | 3019  | LYNX1     | LYNX1     | 0.094997 | 0.032513 | 2.24305  | 2.73391  | 2.48848  | 0.08271  |
| 4504  | 28700 | TLR5      | TLR5      | 0.910126 | 0.031399 | 0.156777 | 0.657752 | 0.407265 | 0.003215 |
| 44969 | 16380 | SCARNA17  | SCARNA17  | 0.504472 | 0.042258 | 4.1269   | 4.63027  | 4.378585 | 0.018373 |
| 30865 | 2557  | MALAT1    | MALAT1    | 0.080637 | 0.026572 | 7.63148  | 8.15272  | 7.8921   | 0.077473 |
| 32046 | 16430 | SIAE      | SIAE      | 0.505976 | 0.036016 | 0.752021 | 1.27391  | 1.012966 | 0.014267 |
| 6798  | 16780 | TBC1D8    | TBC1D8    | 0.515461 | 0.025643 | -0.15228 | 0.369688 | 0.108704 | 0.008043 |
| 21399 | 5802  | CLDN12    | CLDN12    | 0.181525 | 0.031761 | 2.43479  | 2.96447  | 2.69963  | 0.044068 |
| 8886  | 7115  | GPC1      | GPC1      | 0.222005 | 0.044633 | 5.04904  | 5.58844  | 5.31874  | 0.054143 |
| 42059 | 7857  | GGT6      | GGT6      | 0.243112 | 0.039124 | 4.12229  | 4.66279  | 4.39254  | 0.041785 |
| 31016 | 1665  | TCIRG1    | TCIRG1    | 0.052745 | 0.010402 | 2.29527  | 2.8388   | 2.567035 | 0.04305  |
| 9551  | 3549  | ZNF662    | ZNF662    | 0.11127  | 0.018276 | 0.445795 | 1.00112  | 0.723458 | 0.038045 |
| 51059 | 5247  | MAPK11    | MAPK11    | 0.162919 | 0.021657 | 1.50676  | 2.07527  | 1.791015 | 0.030869 |
| 11450 | 6482  | TNFSF10   | TNFSF10   | 0.202281 | 0.021799 | 4.94938  | 5.54108  | 5.24523  | 0.024153 |
| 41885 | 6822  | ZNF276    | ZNF276    | 0.21303  | 0.018803 | 0.613544 | 1.20564  | 0.909592 | 0.018536 |
| 28517 | 5911  | ANKRD22   | ANKRD22   | 0.18505  | 0.046147 | -0.05828 | 0.535548 | 0.238634 | 0.067156 |

|       |       |         |         |          |          |          |          |          |          |
|-------|-------|---------|---------|----------|----------|----------|----------|----------|----------|
| 38743 | 24339 | RHOV    | RHOV    | 0.752068 | 0.037496 | 4.56553  | 5.16815  | 4.86684  | 0.007389 |
| 45019 | 8051  | RAB27B  | RAB27B  | 0.249235 | 0.039734 | 2.9952   | 3.5981   | 3.29665  | 0.041472 |
| 12013 | 4385  | SH3BP2  | SH3BP2  | 0.137095 | 0.010422 | 2.44449  | 3.0607   | 2.752595 | 0.014605 |
| 49756 | 5761  | ABCG1   | ABCG1   | 0.180122 | 0.008687 | 2.58736  | 3.21201  | 2.899685 | 0.007765 |
| 19382 | 19112 | SLC2A12 | SLC2A12 | 0.585966 | 0.007328 | 0.603261 | 1.23369  | 0.918476 | 0.000717 |
| 8071  | 12240 | NABP1   | NABP1   | 0.37904  | 0.048929 | 0.669674 | 1.33074  | 1.000207 | 0.03365  |
| 38785 | 1585  | PLA2G4F | PLA2G4F | 0.050259 | 0.00545  | 0.779203 | 1.44768  | 1.113442 | 0.021559 |
| 31391 | 23818 | CTSC    | CTSC    | 0.733528 | 0.039531 | 3.10953  | 3.79702  | 3.453275 | 0.008541 |
| 19772 | 11029 | AGPAT4  | AGPAT4  | 0.338405 | 0.010914 | 0.104156 | 0.873853 | 0.489005 | 0.004135 |
| 19986 | 4740  | TMEM184 | TMEM184 | 0.147448 | 0.041725 | 3.25413  | 4.05774  | 3.655935 | 0.073726 |
| 38877 | 6977  | DUOXA1  | DUOXA1  | 0.217634 | 0.03851  | 0.947363 | 1.7521   | 1.349732 | 0.046128 |
| 30798 | 612   | CCDC88B | CCDC88B | 0.01958  | 0.004684 | -0.01093 | 0.816101 | 0.402587 | 0.04863  |
| 19599 | 22425 | RAET1E  | RAET1E  | 0.689449 | 0.006491 | 2.55238  | 3.4049   | 2.97864  | 0.000387 |
| 20294 | 1113  | GPNMB   | GPNMB   | 0.035309 | 0.006058 | 2.71736  | 3.62545  | 3.171405 | 0.035761 |
| 11065 | 6649  | CHST2   | CHST2   | 0.207261 | 0.046043 | 2.27628  | 3.28825  | 2.782265 | 0.060152 |
| 44309 | 16617 | SLC16A3 | SLC16A3 | 0.511053 | 0.023282 | 1.56918  | 2.58242  | 2.0758   | 0.006975 |
| 27097 | 29029 | NRARP   | NRARP   | 0.922086 | 0.040409 | 2.53058  | 3.56289  | 3.046735 | 0.004897 |
| 32152 | 5560  | TMEM45B | TMEM45B | 0.173592 | 0.004584 | 2.16992  | 3.21678  | 2.69335  | 0.003102 |
| 25262 | 9089  | AQP3    | AQP3    | 0.279201 | 0.039498 | 5.44301  | 6.50502  | 5.974015 | 0.036217 |
| 14902 | 7022  | EMB     | EMB     | 0.21905  | 0.00324  | 1.28414  | 2.35199  | 1.818065 | 0.001192 |
| 19851 | 1477  | UNC93A  | UNC93A  | 0.046636 | 0.015066 | 0.770828 | 1.85217  | 1.311499 | 0.070495 |
| 29262 | 11744 | ADAM8   | ADAM8   | 0.361925 | 0.032076 | 1.63723  | 2.74882  | 2.193025 | 0.019567 |
| 30861 | 3991  | NEAT1   | NEAT1   | 0.124984 | 0.008676 | 3.56074  | 4.67664  | 4.11869  | 0.01283  |
| 50620 | 27821 | TIMP3   | TIMP3   | 0.876588 | 0.022107 | 2.82606  | 3.98161  | 3.403835 | 0.001903 |
| 47133 | 12395 | FAM83E  | FAM83E  | 0.383002 | 0.034947 | 0.301505 | 1.45962  | 0.880563 | 0.020518 |
| 184   | 3992  | MEGF6   | MEGF6   | 0.125    | 0.002971 | 0.001767 | 1.41925  | 0.710509 | 0.002651 |

| <i>Exp_1Way</i><br><i>y vs.</i><br><i>Cont</i><br><i>(ratio)</i> | <i>Exp_1Way</i><br><i>y vs.</i><br><i>Cont</i><br><i>Lin(FC)</i> | <i>Exp_1Way</i><br><i>y vs.</i><br><i>Cont</i><br><i>(Description)</i> | <i>Exp_1Way</i><br><i>y vs.</i><br><i>Cont</i><br><i>95%</i><br><i>lower</i><br><i>limit</i> | <i>Exp_1Way</i><br><i>y vs.</i><br><i>Cont</i><br><i>95%</i><br><i>upper</i><br><i>limit</i> | <i>Exp_1Way</i><br><i>y vs.</i><br><i>Cont</i><br><i>Log2(FC)</i> | <i>Mean</i><br><i>2Way</i><br><i>(Cont)</i> | <i>Mean</i><br><i>2Way</i><br><i>(Exp)</i> | <i>Avg</i><br><i>2Way</i><br><i>(Exp +</i><br><i>Cont)</i> | <i>Exp_Pair</i><br><i>ed-2Way</i><br><i>vs. Cont</i><br><i>(p-val)</i> |
|--|--|--|--|--|---|---|--|--|--|
| 0.388953   | -2.571   | Exp_1Way   | -5.33885   | -1.2381  | -1.36233  | 2.54067                                     | 1.17834                                    | 1.859505   | 0.029776   |
| 0.48628  | -2.05643   | Exp_1Way   | -4.14624   | -1.01994   | -1.04014  | 1.10506                                     | 0.064917                                   | 0.584989   | 0.015969   |
| 0.490043   | -2.04064   | Exp_1Way   | -4.18125   | 1.00409  | -1.02902  | 2.46007                                     | 1.43105                                    | 1.94556  | 0.026224   |
| 0.497649   | -2.00945   | Exp_1Way   | -3.60753   | -1.11929   | -1.0068   | 3.63473                                     | 2.62794                                    | 3.131335   | 0.030261   |
| 0.499556   | -2.00178   | Exp_1Way   | -2.92232   | -1.37121   | -1.00128  | 0.859745                                    | -0.14154                                   | 0.359104   | 0.023992   |
| 0.512401   | -1.9516  | Exp_1Way   | -3.07341   | -1.23925   | -0.96466  | 1.56893                                     | 0.604275                                   | 1.086603   | 0.012122   |
| 0.512998   | -1.94933   | Exp_1Way   | -3.63609   | -1.04504   | -0.96298  | 2.72574                                     | 1.76276                                    | 2.24425  | 0.007118   |
| 0.53295  | -1.87635   | Exp_1Way   | -2.59345   | -1.35753   | -0.90793  | 1.36142                                     | 0.45349                                    | 0.907455   | 0.01737  |
| 0.553833   | -1.8056  | Exp_1Way   | -3.12418   | -1.04353   | -0.85248  | 1.62862                                     | 0.776138                                   | 1.202379   | 0.020352   |
| 0.554312   | -1.80404   | Exp_1Way   | -2.35483   | -1.38207   | -0.85123  | 3.13974                                     | 2.2885                                     | 2.71412  | 0.001127   |
| 0.569076   | -1.75723   | Exp_1Way   | -3.26289   | 1.05668  | -0.81331  | 4.22374                                     | 3.41043                                    | 3.817085   | 0.035719   |
| 0.572242   | -1.74751   | Exp_1Way   | -2.30193   | -1.32663   | -0.8053   | 3.71453                                     | 2.90923                                    | 3.31188  | 0.010017   |
| 0.57556  | -1.73744   | Exp_1Way   | -2.7617  | -1.09306   | -0.79696  | 4.37805                                     | 3.58108                                    | 3.979565   | 0.044075   |
| 0.576619   | -1.73425   | Exp_1Way   | -2.8974  | -1.03804   | -0.79431  | 2.10064                                     | 1.30633                                    | 1.703485   | 0.01836  |
| 0.587895   | -1.70098   | Exp_1Way   | -2.36095   | -1.2255  | -0.76637  | 2.92891                                     | 2.16254                                    | 2.545725   | 0.023581   |
| 0.588012   | -1.70065   | Exp_1Way   | -2.74729   | -1.05275   | -0.76608  | 1.11154                                     | 0.345458                                   | 0.728499   | 0.021688   |
| 0.589073   | -1.69758   | Exp_1Way   | -2.29467   | -1.25586   | -0.76348  | 1.71523                                     | 0.95174                                    | 1.333485   | 0.005285   |
| 0.591964   | -1.68929   | Exp_1Way   | -2.3843  | -1.19687   | -0.75642  | 4.21471                                     | 3.45829                                    | 3.8365   | 0.021491   |
| 0.592218   | -1.68857   | Exp_1Way   | -2.98335   | 1.04633  | -0.7558   | 2.47783                                     | 1.72203                                    | 2.09993  | 0.024563   |
| 0.609097   | -1.64177   | Exp_1Way   | -2.15715   | -1.24953   | -0.71526  | 0.781337                                    | 0.066081                                   | 0.423709   | 0.007131   |
| 0.610299   | -1.63854   | Exp_1Way   | -2.79015   | 1.03923  | -0.71241  | 0.684261                                    | -0.02815                                   | 0.328055   | 0.018516   |
| 0.610648   | -1.63761   | Exp_1Way   | -2.71643   | 1.01293  | -0.71159  | 2.92109                                     | 2.2095                                     | 2.565295   | 0.022373   |
| 0.613116   | -1.63101   | Exp_1Way   | -2.60413   | -1.02153   | -0.70577  | 1.36888                                     | 0.663109                                   | 1.015995   | 0.016285   |
| 0.616566   | -1.62189   | Exp_1Way   | -2.41993   | -1.08702   | -0.69767  | 0.864135                                    | 0.166463                                   | 0.515299   | 0.006038   |
| 0.620073   | -1.61271   | Exp_1Way   | -2.15414   | -1.20737   | -0.68949  | 0.826263                                    | 0.136774                                   | 0.481519   | 0.02032  |
| 0.627068   | -1.59472   | Exp_1Way   | -2.42276   | -1.04969   | -0.67331  | 2.22282                                     | 1.54951                                    | 1.886165   | 0.014234   |
| 0.629495   | -1.58857   | Exp_1Way   | -2.65597   | 1.05247  | -0.66773  | 3.25899                                     | 2.59126                                    | 2.925125   | 0.020224   |
| 0.630167   | -1.58688   | Exp_1Way   | -2.27137   | -1.10867   | -0.66619  | 0.473412                                    | -0.19278                                   | 0.140315   | 0.031525   |
| 0.632639   | -1.58068   | Exp_1Way   | -2.43458   | -1.02627   | -0.66055  | 2.02509                                     | 1.36454                                    | 1.694815   | 0.010417   |
| 0.635114   | -1.57452   | Exp_1Way   | -2.16155   | -1.14691   | -0.65491  | 1.97564                                     | 1.32073                                    | 1.648185   | 0.025754   |
| 0.635883   | -1.57262   | Exp_1Way   | -2.27946   | -1.08496   | -0.65317  | 5.50096                                     | 4.84779                                    | 5.174375   | 0.023543   |
| 0.644095   | -1.55257   | Exp_1Way   | -2.2948  | -1.0504  | -0.63465  | 1.16865                                     | 0.533998                                   | 0.851324   | 0.045915   |
| 0.644259   | -1.55217   | Exp_1Way   | -2.18612   | -1.10206   | -0.63429  | 1.20211                                     | 0.567822                                   | 0.884966   | 0.036136   |
| 0.645218   | -1.54986   | Exp_1Way   | -2.52888   | 1.05279  | -0.63214  | 0.456966                                    | -0.17518                                   | 0.140895   | 0.011578   |
| 0.645429   | -1.54936   | Exp_1Way   | -2.0631  | -1.16354   | -0.63167  | 6.17719                                     | 5.54553                                    | 5.86136  | 0.013011   |
| 0.64671  | -1.54629   | Exp_1Way   | -2.21756   | -1.07822   | -0.62881  | 5.62662                                     | 4.99781                                    | 5.312215   | 0.02879  |
| 0.649667   | -1.53925   | Exp_1Way   | -2.34159   | -1.01183   | -0.62223  | 0.549642                                    | -0.07259                                   | 0.238528   | 0.010313   |
| 0.657558   | -1.52078   | Exp_1Way   | -2.41183   | 1.04283  | -0.60481  | 8.71716                                     | 8.11235                                    | 8.414755   | 0.025628   |
| 0.659988   | -1.51518   | Exp_1Way   | -2.54069   | 1.10668  | -0.59949  | 1.9503                                      | 1.35081                                    | 1.650555   | 0.016676   |
| 0.663962   | -1.50611   | Exp_1Way   | -2.24693   | -1.00954   | -0.59083  | 4.25882                                     | 3.66799                                    | 3.963405   | 0.026653   |
| 0.66878  | -1.49526   | Exp_1Way   | -2.17284   | -1.02898   | -0.5804   | 3.34057                                     | 2.76017                                    | 3.05037  | 0.045172   |

|          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.671857 | -1.48841 | Exp_1Way | -3.13063 | 1.41314  | -0.57377 | 0.554557 | -0.01922 | 0.26767  | 0.014843 |
| 0.680987 | -1.46846 | Exp_1Way | -2.24999 | 1.04342  | -0.5543  | 0.501054 | -0.05325 | 0.223904 | 0.027331 |
| 0.685177 | -1.45948 | Exp_1Way | -2.59319 | 1.21742  | -0.54545 | 2.72819  | 2.18274  | 2.455465 | 0.026776 |
| 0.689543 | -1.45024 | Exp_1Way | -1.94891 | -1.07916 | -0.53629 | 5.36725  | 4.83096  | 5.099105 | 0.003135 |
| 0.690412 | -1.44841 | Exp_1Way | -2.04396 | -1.02639 | -0.53447 | 0.886885 | 0.352413 | 0.619649 | 0.041461 |
| 0.693361 | -1.44225 | Exp_1Way | -2.02391 | -1.02775 | -0.52832 | 6.56055  | 6.03223  | 6.29639  | 0.042878 |
| 0.699581 | -1.42943 | Exp_1Way | -1.74664 | -1.16982 | -0.51544 | 1.83429  | 1.31885  | 1.57657  | 0.014851 |
| 0.701713 | -1.42508 | Exp_1Way | -1.75938 | -1.15431 | -0.51105 | 6.22301  | 5.71197  | 5.96749  | 0.009016 |
| 0.704329 | -1.41979 | Exp_1Way | -1.91261 | -1.05395 | -0.50568 | 0.912166 | 0.406489 | 0.659328 | 0.008263 |
| 0.709532 | -1.40938 | Exp_1Way | -2.11924 | 1.0669   | -0.49506 | 0.762234 | 0.267174 | 0.514704 | 0.043438 |
| 0.711103 | -1.40641 | Exp_1Way | -1.86829 | -1.05872 | -0.49202 | 2.4669   | 1.97488  | 2.22089  | 0.030406 |
| 0.711892 | -1.40471 | Exp_1Way | -2.00581 | 1.01653  | -0.49027 | 0.503239 | 0.012971 | 0.258105 | 0.021601 |
| 0.719314 | -1.39021 | Exp_1Way | -1.65802 | -1.16566 | -0.47531 | 4.50773  | 4.03243  | 4.27008  | 0.000869 |
| 0.721219 | -1.38654 | Exp_1Way | -1.83406 | -1.04822 | -0.47149 | 6.32158  | 5.8501   | 6.08584  | 0.003431 |
| 0.721563 | -1.38588 | Exp_1Way | -1.88494 | -1.01895 | -0.4708  | 3.64907  | 3.17827  | 3.41367  | 0.045321 |
| 0.72222  | -1.38462 | Exp_1Way | -1.93834 | 1.01104  | -0.46949 | 4.34778  | 3.8783   | 4.11304  | 0.018966 |
| 0.722884 | -1.38335 | Exp_1Way | -1.79332 | -1.0671  | -0.46816 | 2.64049  | 2.17232  | 2.406405 | 0.034454 |
| 0.723192 | -1.38276 | Exp_1Way | -1.90147 | -1.00555 | -0.46755 | 0.324462 | -0.14309 | 0.090688 | 0.025127 |
| 0.723458 | -1.38225 | Exp_1Way | -1.66567 | -1.14705 | -0.46702 | 1.08051  | 0.613487 | 0.846999 | 0.021237 |
| 0.723772 | -1.38165 | Exp_1Way | -2.14042 | 1.12125  | -0.46639 | 1.74054  | 1.27414  | 1.50734  | 0.039084 |
| 0.724345 | -1.38056 | Exp_1Way | -1.87953 | -1.01405 | -0.46525 | 4.90977  | 4.44452  | 4.677145 | 0.036842 |
| 0.725767 | -1.37785 | Exp_1Way | -2.05473 | 1.0823   | -0.46242 | 0.844627 | 0.382206 | 0.613417 | 0.022109 |
| 0.725833 | -1.37773 | Exp_1Way | -1.96419 | 1.0348   | -0.46229 | 1.11058  | 0.648286 | 0.879433 | 0.001547 |
| 0.726018 | -1.37738 | Exp_1Way | -2.1704  | 1.14402  | -0.46192 | 1.27265  | 0.810731 | 1.041691 | 0.026017 |
| 0.727943 | -1.37373 | Exp_1Way | -1.91099 | 1.01264  | -0.4581  | 4.24061  | 3.78251  | 4.01156  | 0.00873  |
| 0.728212 | -1.37323 | Exp_1Way | -2.05971 | 1.09225  | -0.45757 | 2.92338  | 2.46581  | 2.694595 | 0.033393 |
| 0.728434 | -1.37281 | Exp_1Way | -1.97723 | 1.04915  | -0.45713 | 1.43121  | 0.974086 | 1.202648 | 0.009059 |
| 0.728497 | -1.37269 | Exp_1Way | -1.89718 | 1.00685  | -0.45701 | 1.69557  | 1.23857  | 1.46707  | 0.005478 |
| 0.729248 | -1.37128 | Exp_1Way | -1.9622  | 1.0435   | -0.45552 | 2.1043   | 1.64878  | 1.87654  | 0.01778  |
| 0.732378 | -1.36541 | Exp_1Way | -1.91417 | 1.02672  | -0.44934 | 4.37628  | 3.92694  | 4.15161  | 0.035632 |
| 0.732806 | -1.36462 | Exp_1Way | -1.90135 | 1.02103  | -0.4485  | 3.71645  | 3.26796  | 3.492205 | 0.032184 |
| 0.734161 | -1.3621  | Exp_1Way | -1.68101 | -1.10369 | -0.44583 | 1.64624  | 1.20041  | 1.423325 | 0.033258 |
| 0.735718 | -1.35922 | Exp_1Way | -1.81242 | -1.01934 | -0.44278 | 7.32156  | 6.87878  | 7.10017  | 0.045899 |
| 0.736057 | -1.35859 | Exp_1Way | -1.69682 | -1.08778 | -0.44211 | 2.18977  | 1.74765  | 1.96871  | 0.000167 |
| 0.742936 | -1.34601 | Exp_1Way | -1.8426  | 1.01703  | -0.42869 | 1.55576  | 1.12708  | 1.34142  | 0.036436 |
| 0.749933 | -1.33345 | Exp_1Way | -1.94096 | 1.09159  | -0.41517 | 0.611695 | 0.196528 | 0.404112 | 0.04926  |
| 0.750905 | -1.33173 | Exp_1Way | -1.69714 | -1.04499 | -0.4133  | 2.85965  | 2.44635  | 2.653    | 0.028158 |
| 0.753528 | -1.32709 | Exp_1Way | -1.84222 | 1.04602  | -0.40827 | 5.23556  | 4.8273   | 5.03143  | 0.026073 |
| 0.754027 | -1.32621 | Exp_1Way | -1.58767 | -1.10782 | -0.40731 | 2.98078  | 2.57346  | 2.77712  | 0.010458 |
| 0.757037 | -1.32094 | Exp_1Way | -1.64068 | -1.06351 | -0.40156 | 2.11741  | 1.71584  | 1.916625 | 0.011794 |
| 0.759369 | -1.31688 | Exp_1Way | -1.63601 | -1.06001 | -0.39713 | 2.04864  | 1.65152  | 1.85008  | 0.033298 |
| 0.759524 | -1.31661 | Exp_1Way | -1.88158 | 1.08544  | -0.39683 | 3.4554   | 3.05856  | 3.25698  | 0.008705 |
| 0.761345 | -1.31347 | Exp_1Way | -2.02708 | 1.17499  | -0.39338 | 0.336524 | -0.05685 | 0.139835 | 0.029986 |
| 0.76335  | -1.31002 | Exp_1Way | -1.61619 | -1.06185 | -0.38958 | 1.59294  | 1.20335  | 1.398145 | 0.031347 |
| 0.764227 | -1.30851 | Exp_1Way | -1.77383 | 1.03599  | -0.38793 | 1.14169  | 0.753766 | 0.947728 | 0.037942 |
| 0.767132 | -1.30356 | Exp_1Way | -1.71124 | 1.00705  | -0.38245 | 3.80479  | 3.42234  | 3.613565 | 0.045198 |
| 0.767693 | -1.3026  | Exp_1Way | -1.69601 | -1.00045 | -0.3814  | 1.67454  | 1.29315  | 1.483845 | 0.043073 |

|          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.769128 | -1.30017 | Exp_1Way | -1.72729 | 1.02179  | -0.3787  | 0.438303 | 0.059599 | 0.248951 | 0.028702 |
| 0.769634 | -1.29932 | Exp_1Way | -1.85317 | 1.0977   | -0.37776 | 0.314796 | -0.06296 | 0.125918 | 0.00165  |
| 0.769849 | -1.29896 | Exp_1Way | -1.62954 | -1.03544 | -0.37735 | 1.08928  | 0.711934 | 0.900607 | 0.007429 |
| 0.771319 | -1.29648 | Exp_1Way | -1.62093 | -1.03697 | -0.3746  | 4.38502  | 4.01042  | 4.19772  | 0.049914 |
| 0.772239 | -1.29494 | Exp_1Way | -1.64869 | -1.01709 | -0.37288 | 4.31795  | 3.94507  | 4.13151  | 0.036563 |
| 0.77266  | -1.29423 | Exp_1Way | -1.5895  | -1.05381 | -0.3721  | 4.17733  | 3.80524  | 3.991285 | 0.028499 |
| 0.772793 | -1.29401 | Exp_1Way | -1.67037 | -1.00245 | -0.37185 | 2.05223  | 1.68039  | 1.86631  | 0.022565 |
| 0.775932 | -1.28877 | Exp_1Way | -1.7007  | 1.02394  | -0.366   | 4.66257  | 4.29658  | 4.479575 | 0.03078  |
| 0.775982 | -1.28869 | Exp_1Way | -1.56063 | -1.06414 | -0.36591 | 5.84775  | 5.48184  | 5.664795 | 0.018147 |
| 0.776121 | -1.28846 | Exp_1Way | -1.68077 | 1.01244  | -0.36565 | 0.822495 | 0.456848 | 0.639672 | 0.047511 |
| 0.776593 | -1.28768 | Exp_1Way | -1.75193 | 1.05658  | -0.36477 | 0.494037 | 0.129268 | 0.311653 | 0.027101 |
| 0.778719 | -1.28416 | Exp_1Way | -1.45566 | -1.13287 | -0.36083 | 2.42779  | 2.06696  | 2.247375 | 0.003909 |
| 0.779579 | -1.28274 | Exp_1Way | -1.7947  | 1.09072  | -0.35923 | 3.76614  | 3.40691  | 3.586525 | 0.04943  |
| 0.779771 | -1.28243 | Exp_1Way | -1.71752 | 1.04433  | -0.35888 | 1.40833  | 1.04946  | 1.228895 | 0.025805 |
| 0.783822 | -1.2758  | Exp_1Way | -1.64794 | 1.01246  | -0.3514  | 3.28034  | 2.92893  | 3.104635 | 0.046226 |
| 0.789882 | -1.26601 | Exp_1Way | -1.9364  | 1.20815  | -0.34029 | 2.89162  | 2.55133  | 2.721475 | 0.03264  |
| 0.790004 | -1.26582 | Exp_1Way | -1.69467 | 1.05766  | -0.34007 | 6.85069  | 6.51062  | 6.680655 | 0.024946 |
| 0.790304 | -1.26534 | Exp_1Way | -1.68953 | 1.05525  | -0.33952 | 5.01127  | 4.67175  | 4.84151  | 0.037219 |
| 0.791502 | -1.26342 | Exp_1Way | -1.43751 | -1.11041 | -0.33733 | 4.15442  | 3.81709  | 3.985755 | 0.02655  |
| 0.792063 | -1.26253 | Exp_1Way | -1.56733 | -1.017   | -0.33631 | 2.35349  | 2.01717  | 2.18533  | 0.03528  |
| 0.793925 | -1.25956 | Exp_1Way | -1.59023 | 1.00235  | -0.33293 | 4.09601  | 3.76308  | 3.929545 | 0.031323 |
| 0.795199 | -1.25755 | Exp_1Way | -1.59267 | 1.00711  | -0.33061 | 4.28444  | 3.95383  | 4.119135 | 0.017537 |
| 0.796051 | -1.2562  | Exp_1Way | -1.55936 | -1.01198 | -0.32907 | 0.926898 | 0.597831 | 0.762365 | 0.040479 |
| 0.796338 | -1.25575 | Exp_1Way | -1.62988 | 1.03359  | -0.32855 | 3.37524  | 3.0467   | 3.21097  | 0.022783 |
| 0.798465 | -1.2524  | Exp_1Way | -1.56033 | -1.00525 | -0.3247  | 3.52495  | 3.20025  | 3.3626   | 0.034798 |
| 0.798931 | -1.25167 | Exp_1Way | -1.57471 | 1.00512  | -0.32386 | 1.52492  | 1.20106  | 1.36299  | 0.020543 |
| 0.799015 | -1.25154 | Exp_1Way | -1.46945 | -1.06595 | -0.32371 | 4.3934   | 4.06969  | 4.231545 | 0.007074 |
| 0.801029 | -1.24839 | Exp_1Way | -1.61366 | 1.0354   | -0.32007 | 1.44512  | 1.12505  | 1.285085 | 0.01293  |
| 0.801392 | -1.24783 | Exp_1Way | -1.52316 | -1.02227 | -0.31942 | 3.55762  | 3.2382   | 3.39791  | 0.00459  |
| 0.802645 | -1.24588 | Exp_1Way | -1.45666 | -1.0656  | -0.31717 | 3.57096  | 3.25379  | 3.412375 | 0.041624 |
| 0.803093 | -1.24519 | Exp_1Way | -1.56875 | 1.01178  | -0.31636 | 3.02212  | 2.70576  | 2.86394  | 0.024405 |
| 0.803608 | -1.24439 | Exp_1Way | -1.5523  | 1.00245  | -0.31544 | 1.39944  | 1.08401  | 1.241725 | 0.026945 |
| 0.804743 | -1.24263 | Exp_1Way | -1.57207 | 1.01809  | -0.3134  | 3.77204  | 3.45863  | 3.615335 | 0.008008 |
| 0.805052 | -1.24216 | Exp_1Way | -1.53499 | -1.00518 | -0.31285 | 3.06393  | 2.75108  | 2.907505 | 0.029899 |
| 0.805637 | -1.24125 | Exp_1Way | -1.61932 | 1.05102  | -0.3118  | 2.36388  | 2.05208  | 2.20798  | 0.03842  |
| 0.80585  | -1.24093 | Exp_1Way | -1.71438 | 1.11331  | -0.31142 | 0.948989 | 0.637573 | 0.793281 | 0.041849 |
| 0.806099 | -1.24054 | Exp_1Way | -1.69365 | 1.10052  | -0.31097 | 6.03059  | 5.71962  | 5.875105 | 0.046062 |
| 0.806155 | -1.24046 | Exp_1Way | -1.75817 | 1.14261  | -0.31087 | 1.56972  | 1.25884  | 1.41428  | 0.037834 |
| 0.806311 | -1.24022 | Exp_1Way | -1.88358 | 1.22458  | -0.31059 | 1.32883  | 1.01824  | 1.173535 | 0.03833  |
| 0.806443 | -1.24001 | Exp_1Way | -1.47407 | -1.04312 | -0.31036 | 6.45057  | 6.14022  | 6.295395 | 0.030066 |
| 0.806453 | -1.24    | Exp_1Way | -1.49924 | -1.02558 | -0.31034 | 3.51692  | 3.20659  | 3.361755 | 0.04085  |
| 0.806753 | -1.23954 | Exp_1Way | -1.53454 | -1.00125 | -0.3098  | 1.93629  | 1.62649  | 1.78139  | 0.022734 |
| 0.807242 | -1.23879 | Exp_1Way | -1.47738 | -1.03872 | -0.30893 | 2.92965  | 2.62072  | 2.775185 | 0.004507 |
| 0.807958 | -1.23769 | Exp_1Way | -1.50289 | -1.01928 | -0.30765 | 5.07838  | 4.77074  | 4.92456  | 0.03168  |
| 0.808693 | -1.23656 | Exp_1Way | -1.59886 | 1.04563  | -0.30634 | 2.24465  | 1.93832  | 2.091485 | 0.015854 |
| 0.808753 | -1.23647 | Exp_1Way | -1.46652 | -1.04251 | -0.30623 | 2.69437  | 2.38815  | 2.54126  | 0.013786 |
| 0.809132 | -1.23589 | Exp_1Way | -1.406   | -1.08637 | -0.30555 | 3.43114  | 3.12559  | 3.278365 | 0.013452 |

|          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.809988 | -1.23459 | Exp_1Way | -1.68607 | 1.1062   | -0.30403 | 0.827376 | 0.523349 | 0.675363 | 0.02436  |
| 0.810987 | -1.23307 | Exp_1Way | -1.59246 | 1.04736  | -0.30225 | 1.94191  | 1.63966  | 1.790785 | 0.025271 |
| 0.813633 | -1.22905 | Exp_1Way | -1.67618 | 1.10963  | -0.29755 | 1.49225  | 1.1947   | 1.343475 | 0.024907 |
| 0.814402 | -1.2279  | Exp_1Way | -1.55837 | 1.03359  | -0.29619 | 6.15844  | 5.86225  | 6.010345 | 0.032242 |
| 0.814609 | -1.22758 | Exp_1Way | -2.04417 | 1.35649  | -0.29582 | 0.798273 | 0.502454 | 0.650364 | 0.042134 |
| 0.815151 | -1.22677 | Exp_1Way | -1.57168 | 1.04434  | -0.29486 | 4.58453  | 4.28967  | 4.4371   | 0.047146 |
| 0.815883 | -1.22567 | Exp_1Way | -1.53405 | 1.02116  | -0.29357 | 1.20992  | 0.916354 | 1.063137 | 0.030902 |
| 0.816691 | -1.22445 | Exp_1Way | -1.56966 | 1.04694  | -0.29214 | 6.61432  | 6.32219  | 6.468255 | 0.049175 |
| 0.816919 | -1.22411 | Exp_1Way | -1.49813 | -1.00021 | -0.29174 | 1.92786  | 1.63612  | 1.78199  | 0.015786 |
| 0.817037 | -1.22393 | Exp_1Way | -1.56656 | 1.04576  | -0.29153 | 5.90214  | 5.61061  | 5.756375 | 0.025653 |
| 0.819793 | -1.21982 | Exp_1Way | -1.4376  | -1.03503 | -0.28667 | 3.32196  | 3.03529  | 3.178625 | 0.007604 |
| 0.820423 | -1.21888 | Exp_1Way | -1.43316 | -1.03664 | -0.28556 | 3.65513  | 3.36957  | 3.51235  | 0.016169 |
| 0.820885 | -1.2182  | Exp_1Way | -1.46911 | -1.01014 | -0.28475 | 6.60358  | 6.31883  | 6.461205 | 0.029983 |
| 0.821061 | -1.21794 | Exp_1Way | -1.47363 | -1.00661 | -0.28444 | 3.95427  | 3.66983  | 3.81205  | 0.018615 |
| 0.82125  | -1.21766 | Exp_1Way | -1.57857 | 1.06467  | -0.28411 | 2.64466  | 2.36055  | 2.502605 | 0.023726 |
| 0.821343 | -1.21752 | Exp_1Way | -1.51163 | 1.01975  | -0.28394 | 4.01887  | 3.73492  | 3.876895 | 0.032145 |
| 0.821966 | -1.21659 | Exp_1Way | -1.55752 | 1.0523   | -0.28285 | 2.7182   | 2.43535  | 2.576775 | 0.032317 |
| 0.821982 | -1.21657 | Exp_1Way | -1.48058 | 1.00036  | -0.28282 | 2.0792   | 1.79638  | 1.93779  | 0.002691 |
| 0.822863 | -1.21527 | Exp_1Way | -1.38144 | -1.06909 | -0.28128 | 2.81494  | 2.53367  | 2.674305 | 0.044896 |
| 0.824145 | -1.21338 | Exp_1Way | -1.36307 | -1.08012 | -0.27903 | 5.28432  | 5.00528  | 5.1448   | 0.006294 |
| 0.824557 | -1.21277 | Exp_1Way | -1.69027 | 1.14921  | -0.27831 | 1.18849  | 0.910185 | 1.049338 | 0.021234 |
| 0.827291 | -1.20876 | Exp_1Way | -1.54096 | 1.05465  | -0.27353 | 3.21792  | 2.94438  | 3.08115  | 0.01682  |
| 0.828236 | -1.20738 | Exp_1Way | -1.4868  | 1.01991  | -0.27189 | 2.06128  | 1.7894   | 1.92534  | 0.01104  |
| 0.828469 | -1.20705 | Exp_1Way | -1.41271 | -1.03133 | -0.27148 | 0.755721 | 0.48424  | 0.619981 | 0.017977 |
| 0.828638 | -1.2068  | Exp_1Way | -1.38312 | -1.05296 | -0.27119 | 2.43223  | 2.16104  | 2.296635 | 0.018251 |
| 0.829098 | -1.20613 | Exp_1Way | -1.50413 | 1.03394  | -0.27039 | 2.38423  | 2.11384  | 2.249035 | 0.029708 |
| 0.829858 | -1.20503 | Exp_1Way | -1.38218 | -1.05057 | -0.26906 | 3.98045  | 3.71139  | 3.84592  | 0.030941 |
| 0.829921 | -1.20493 | Exp_1Way | -1.43579 | -1.01119 | -0.26895 | 4.1864   | 3.91745  | 4.051925 | 0.028659 |
| 0.830177 | -1.20456 | Exp_1Way | -1.68398 | 1.16059  | -0.26851 | 1.82292  | 1.55441  | 1.688665 | 0.046239 |
| 0.830458 | -1.20415 | Exp_1Way | -1.4267  | -1.01632 | -0.26802 | 4.93697  | 4.66895  | 4.80296  | 0.047095 |
| 0.831192 | -1.20309 | Exp_1Way | -1.46107 | 1.00942  | -0.26675 | 1.48951  | 1.22277  | 1.35614  | 0.006252 |
| 0.831295 | -1.20294 | Exp_1Way | -1.45411 | 1.00486  | -0.26657 | 3.50312  | 3.23656  | 3.36984  | 0.022479 |
| 0.831713 | -1.20234 | Exp_1Way | -1.52668 | 1.05608  | -0.26584 | 0.948453 | 0.682611 | 0.815532 | 0.031554 |
| 0.832088 | -1.2018  | Exp_1Way | -1.45023 | 1.0041   | -0.26519 | 1.27702  | 1.01183  | 1.144425 | 0.044977 |
| 0.832194 | -1.20164 | Exp_1Way | -1.47087 | 1.01864  | -0.26501 | 3.95643  | 3.69143  | 3.82393  | 0.047672 |
| 0.832204 | -1.20163 | Exp_1Way | -1.40629 | -1.02675 | -0.26499 | 4.43109  | 4.1661   | 4.298595 | 0.030029 |
| 0.832279 | -1.20152 | Exp_1Way | -1.47814 | 1.02389  | -0.26486 | 3.26099  | 2.99613  | 3.12856  | 0.019961 |
| 0.832609 | -1.20104 | Exp_1Way | -1.45542 | 1.00895  | -0.26429 | 3.71505  | 3.45076  | 3.582905 | 0.041698 |
| 0.832684 | -1.20094 | Exp_1Way | -1.54945 | 1.07433  | -0.26416 | 1.16041  | 0.896248 | 1.028329 | 0.017579 |
| 0.8334   | -1.1999  | Exp_1Way | -1.40792 | -1.02262 | -0.26292 | 1.95709  | 1.69417  | 1.82563  | 0.045814 |
| 0.833493 | -1.19977 | Exp_1Way | -1.45643 | 1.0118   | -0.26276 | 1.23374  | 0.970985 | 1.102363 | 0.012628 |
| 0.835566 | -1.19679 | Exp_1Way | -1.5393  | 1.07469  | -0.25918 | 2.45671  | 2.19753  | 2.32712  | 0.039722 |
| 0.837992 | -1.19333 | Exp_1Way | -1.45164 | 1.01939  | -0.25499 | 0.439559 | 0.184567 | 0.312063 | 0.033738 |
| 0.839334 | -1.19142 | Exp_1Way | -1.53723 | 1.08295  | -0.25268 | 2.62543  | 2.37275  | 2.49909  | 0.017823 |
| 0.839686 | -1.19092 | Exp_1Way | -1.46664 | 1.03409  | -0.25208 | 3.27743  | 3.02535  | 3.15139  | 0.039757 |
| 0.840503 | -1.18976 | Exp_1Way | -1.41833 | 1.00197  | -0.25068 | 7.0811   | 6.83043  | 6.955765 | 0.049033 |
| 0.841188 | -1.1888  | Exp_1Way | -1.42745 | 1.01006  | -0.2495  | 2.76149  | 2.51199  | 2.63674  | 0.043669 |

|          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.842111 | -1.18749 | Exp_1Way | -1.63778 | 1.16143  | -0.24792 | 3.46659  | 3.21867  | 3.34263  | 0.04452  |
| 0.842934 | -1.18633 | Exp_1Way | -1.42517 | 1.01264  | -0.24651 | 2.63608  | 2.38957  | 2.512825 | 0.006238 |
| 0.843059 | -1.18616 | Exp_1Way | -1.3571  | -1.03675 | -0.2463  | 3.09608  | 2.84979  | 2.972935 | 0.033104 |
| 0.843726 | -1.18522 | Exp_1Way | -1.46939 | 1.04602  | -0.24515 | 3.47564  | 3.23049  | 3.353065 | 0.01877  |
| 0.844456 | -1.18419 | Exp_1Way | -1.4586  | 1.04013  | -0.24391 | 2.85462  | 2.61071  | 2.732665 | 0.040914 |
| 0.844518 | -1.18411 | Exp_1Way | -1.51427 | 1.08     | -0.2438  | 5.10939  | 4.86559  | 4.98749  | 0.0467   |
| 1.16917  | 1.16917  | Exp_1Way | -1.08661 | 1.48535  | 0.225483 | 1.34996  | 1.57545  | 1.462705 | 0.018264 |
| 1.16959  | 1.16959  | Exp_1Way | 1.10404  | 1.23903  | 0.226002 | 3.31033  | 3.53633  | 3.42333  | 0.004835 |
| 1.16968  | 1.16968  | Exp_1Way | 1.04668  | 1.30713  | 0.226113 | 2.46227  | 2.68838  | 2.575325 | 0.049698 |
| 1.17016  | 1.17016  | Exp_1Way | 1.07325  | 1.27582  | 0.226706 | 3.91378  | 4.14049  | 4.027135 | 0.018529 |
| 1.17217  | 1.17217  | Exp_1Way | 1.05611  | 1.30098  | 0.22918  | 1.93002  | 2.1592   | 2.04461  | 0.006215 |
| 1.17328  | 1.17328  | Exp_1Way | -1.06071 | 1.46015  | 0.230545 | 2.69984  | 2.93039  | 2.815115 | 0.039122 |
| 1.17422  | 1.17422  | Exp_1Way | 1.02216  | 1.3489   | 0.231701 | 4.48248  | 4.71418  | 4.59833  | 0.037636 |
| 1.17801  | 1.17801  | Exp_1Way | 1.00399  | 1.38221  | 0.236355 | 1.04773  | 1.28409  | 1.16591  | 0.042238 |
| 1.17858  | 1.17858  | Exp_1Way | 1.02952  | 1.34922  | 0.237052 | 4.03155  | 4.2686   | 4.150075 | 0.004162 |
| 1.17878  | 1.17878  | Exp_1Way | 1.02506  | 1.35556  | 0.237298 | 2.36478  | 2.60208  | 2.48343  | 0.026873 |
| 1.17968  | 1.17968  | Exp_1Way | -1.02424 | 1.42538  | 0.238398 | 0.643932 | 0.88233  | 0.763131 | 0.031296 |
| 1.18298  | 1.18298  | Exp_1Way | -1.03494 | 1.44836  | 0.242431 | 2.45366  | 2.69609  | 2.574875 | 0.02763  |
| 1.1877   | 1.1877   | Exp_1Way | 1.04816  | 1.3458   | 0.248166 | 3.53127  | 3.77943  | 3.65535  | 0.017416 |
| 1.19423  | 1.19423  | Exp_1Way | 1.03711  | 1.37516  | 0.256086 | 2.10274  | 2.35883  | 2.230785 | 0.020937 |
| 1.19846  | 1.19846  | Exp_1Way | -1.0388  | 1.49203  | 0.261178 | 1.96713  | 2.22831  | 2.09772  | 0.02691  |
| 1.19896  | 1.19896  | Exp_1Way | -1.12068 | 1.61098  | 0.261782 | 3.16716  | 3.42894  | 3.29805  | 0.040952 |
| 1.19952  | 1.19952  | Exp_1Way | 1.05385  | 1.36533  | 0.262459 | 2.17379  | 2.43625  | 2.30502  | 0.020816 |
| 1.20264  | 1.20264  | Exp_1Way | -1.0086  | 1.45879  | 0.266205 | 2.76391  | 3.03011  | 2.89701  | 0.042369 |
| 1.20621  | 1.20621  | Exp_1Way | 1.02336  | 1.42173  | 0.27048  | 3.59886  | 3.86934  | 3.7341   | 0.004779 |
| 1.20806  | 1.20806  | Exp_1Way | 1.05887  | 1.37826  | 0.272691 | 1.01444  | 1.28713  | 1.150785 | 0.019247 |
| 1.20984  | 1.20984  | Exp_1Way | 1.1036   | 1.3263   | 0.274814 | 3.75236  | 4.02718  | 3.88977  | 0.010387 |
| 1.21327  | 1.21327  | Exp_1Way | 1.04035  | 1.41493  | 0.278901 | 1.53516  | 1.81406  | 1.67461  | 0.021411 |
| 1.21575  | 1.21575  | Exp_1Way | -1.07321 | 1.58626  | 0.281851 | 2.95792  | 3.23977  | 3.098845 | 0.042387 |
| 1.21976  | 1.21976  | Exp_1Way | 1.0649   | 1.39714  | 0.286594 | 0.748549 | 1.03514  | 0.891845 | 0.014901 |
| 1.21976  | 1.21976  | Exp_1Way | 1.01536  | 1.46531  | 0.2866   | 3.06685  | 3.35345  | 3.21015  | 0.036788 |
| 1.22008  | 1.22008  | Exp_1Way | 1.06686  | 1.39529  | 0.286971 | 2.90408  | 3.19105  | 3.047565 | 0.032084 |
| 1.22404  | 1.22404  | Exp_1Way | 1.06775  | 1.4032   | 0.291646 | 1.19824  | 1.48988  | 1.34406  | 0.031908 |
| 1.22782  | 1.22782  | Exp_1Way | 1.07029  | 1.40855  | 0.296105 | 1.5974   | 1.8935   | 1.74545  | 0.032303 |
| 1.22828  | 1.22828  | Exp_1Way | -1.02256 | 1.54271  | 0.296643 | 2.25629  | 2.55294  | 2.404615 | 0.021516 |
| 1.23127  | 1.23127  | Exp_1Way | 1.07521  | 1.40997  | 0.300142 | 0.288559 | 0.588701 | 0.43863  | 0.005279 |
| 1.23507  | 1.23507  | Exp_1Way | 1.01732  | 1.49943  | 0.304595 | 2.84615  | 3.15075  | 2.99845  | 0.037439 |
| 1.23653  | 1.23653  | Exp_1Way | 1.06051  | 1.44177  | 0.3063   | 3.43509  | 3.74139  | 3.58824  | 0.024928 |
| 1.23711  | 1.23711  | Exp_1Way | 1.07293  | 1.42641  | 0.306971 | 0.747053 | 1.05403  | 0.900542 | 0.005957 |
| 1.23773  | 1.23773  | Exp_1Way | -1.00395 | 1.53802  | 0.307692 | 1.81481  | 2.1225   | 1.968655 | 0.021336 |
| 1.2399   | 1.2399   | Exp_1Way | 1.00238  | 1.5337   | 0.310224 | 8.33335  | 8.64357  | 8.48846  | 0.049806 |
| 1.2402   | 1.2402   | Exp_1Way | -1.04898 | 1.61344  | 0.310575 | 2.9851   | 3.29567  | 3.140385 | 0.011427 |
| 1.24785  | 1.24785  | Exp_1Way | -1.00729 | 1.56847  | 0.319439 | 1.79335  | 2.11279  | 1.95307  | 0.026072 |
| 1.24901  | 1.24901  | Exp_1Way | -1.00478 | 1.56748  | 0.320783 | 5.58265  | 5.90343  | 5.74304  | 0.039631 |
| 1.2542   | 1.2542   | Exp_1Way | -1.0062  | 1.58277  | 0.326769 | 1.56213  | 1.8889   | 1.725515 | 0.018171 |
| 1.25644  | 1.25644  | Exp_1Way | 1.1287   | 1.39864  | 0.329343 | 3.65408  | 3.98342  | 3.81875  | 0.013014 |
| 1.25754  | 1.25754  | Exp_1Way | 1.07697  | 1.46838  | 0.3306   | 3.08027  | 3.41087  | 3.24557  | 0.012299 |

|         |         |          |          |         |          |          |          |          |          |
|---------|---------|----------|----------|---------|----------|----------|----------|----------|----------|
| 1.26481 | 1.26481 | Exp_1Way | 1.04946  | 1.52434 | 0.338918 | 3.0183   | 3.35722  | 3.18776  | 0.024656 |
| 1.26487 | 1.26487 | Exp_1Way | 1.05244  | 1.52018 | 0.338994 | 4.959    | 5.29799  | 5.128495 | 0.025112 |
| 1.26595 | 1.26595 | Exp_1Way | 1.00503  | 1.59461 | 0.34022  | 3.0358   | 3.37602  | 3.20591  | 0.01542  |
| 1.27295 | 1.27295 | Exp_1Way | -1.00931 | 1.63551 | 0.348181 | 4.93123  | 5.27941  | 5.10532  | 0.046764 |
| 1.27299 | 1.27299 | Exp_1Way | 1.08527  | 1.49317 | 0.348217 | 3.20854  | 3.55676  | 3.38265  | 0.043554 |
| 1.28047 | 1.28047 | Exp_1Way | 1.05632  | 1.55217 | 0.35667  | 3.3848   | 3.74147  | 3.563135 | 0.038275 |
| 1.28588 | 1.28588 | Exp_1Way | 1.04728  | 1.57885 | 0.36276  | 1.01119  | 1.37395  | 1.19257  | 0.049914 |
| 1.28786 | 1.28786 | Exp_1Way | 1.04169  | 1.59222 | 0.364981 | 3.29156  | 3.65654  | 3.47405  | 0.035071 |
| 1.29021 | 1.29021 | Exp_1Way | 1.01054  | 1.64727 | 0.367601 | 4.12013  | 4.48773  | 4.30393  | 0.048088 |
| 1.2903  | 1.2903  | Exp_1Way | 1.07961  | 1.5421  | 0.367706 | 2.97438  | 3.34209  | 3.158235 | 0.029104 |
| 1.29533 | 1.29533 | Exp_1Way | -1.04637 | 1.75568 | 0.373321 | 2.22288  | 2.59619  | 2.409535 | 0.034033 |
| 1.29613 | 1.29613 | Exp_1Way | -1.00175 | 1.68289 | 0.374212 | 0.15153  | 0.525742 | 0.338636 | 0.049754 |
| 1.29906 | 1.29906 | Exp_1Way | -1.1416  | 1.92651 | 0.377467 | 1.12556  | 1.50303  | 1.314295 | 0.047884 |
| 1.30021 | 1.30021 | Exp_1Way | 1.04782  | 1.61338 | 0.378744 | 1.35416  | 1.73291  | 1.543535 | 0.004137 |
| 1.32358 | 1.32358 | Exp_1Way | 1.13436  | 1.54436 | 0.404445 | 2.88256  | 3.287    | 3.08478  | 0.005564 |
| 1.33278 | 1.33278 | Exp_1Way | 1.01278  | 1.7539  | 0.414444 | 0.476575 | 0.891019 | 0.683797 | 0.028702 |
| 1.34546 | 1.34546 | Exp_1Way | 1.21598  | 1.48874 | 0.428102 | 3.50021  | 3.92831  | 3.71426  | 0.001548 |
| 1.3477  | 1.3477  | Exp_1Way | 1.08077  | 1.68057 | 0.430504 | 1.28509  | 1.71559  | 1.50034  | 0.023505 |
| 1.34855 | 1.34855 | Exp_1Way | 1.09162  | 1.66595 | 0.43141  | 3.00639  | 3.4378   | 3.222095 | 0.009007 |
| 1.35415 | 1.35415 | Exp_1Way | -1.038   | 1.90341 | 0.437388 | 1.78553  | 2.22292  | 2.004225 | 0.020761 |
| 1.35617 | 1.35617 | Exp_1Way | -1.08508 | 1.99567 | 0.439535 | 2.50588  | 2.94542  | 2.72565  | 0.038963 |
| 1.35684 | 1.35684 | Exp_1Way | 1.13393  | 1.62356 | 0.440246 | 1.4609   | 1.90115  | 1.681025 | 0.009277 |
| 1.35688 | 1.35688 | Exp_1Way | -1.01418 | 1.86722 | 0.440292 | 0.374736 | 0.815028 | 0.594882 | 0.010423 |
| 1.35914 | 1.35914 | Exp_1Way | 1.09334  | 1.68956 | 0.442691 | 5.74682  | 6.18951  | 5.968165 | 0.020326 |
| 1.3651  | 1.3651  | Exp_1Way | -1.37949 | 2.57069 | 0.449011 | 0.655691 | 1.1047   | 0.880196 | 0.010845 |
| 1.36879 | 1.36879 | Exp_1Way | 1.00923  | 1.85645 | 0.4529   | 5.09076  | 5.54366  | 5.31721  | 0.03856  |
| 1.37036 | 1.37036 | Exp_1Way | 1.17591  | 1.59696 | 0.454553 | 1.94116  | 2.39572  | 2.16844  | 0.018842 |
| 1.372   | 1.372   | Exp_1Way | 1.07136  | 1.757   | 0.45628  | 1.5921   | 2.04838  | 1.82024  | 0.02806  |
| 1.38113 | 1.38113 | Exp_1Way | 1.0765   | 1.77196 | 0.465846 | 0.87288  | 1.33873  | 1.105805 | 0.003443 |
| 1.39067 | 1.39067 | Exp_1Way | 1.04981  | 1.84221 | 0.47578  | -0.13415 | 0.341628 | 0.103738 | 0.041868 |
| 1.39967 | 1.39967 | Exp_1Way | 1.08969  | 1.79784 | 0.48509  | 5.33205  | 5.81715  | 5.5746   | 0.032093 |
| 1.40525 | 1.40525 | Exp_1Way | 1.0847   | 1.82052 | 0.490823 | 0.43161  | 0.922432 | 0.677021 | 0.038316 |
| 1.40528 | 1.40528 | Exp_1Way | -1.05706 | 2.08749 | 0.490856 | 2.24305  | 2.73391  | 2.48848  | 0.032513 |
| 1.41517 | 1.41517 | Exp_1Way | 1.16677  | 1.71646 | 0.500976 | 0.156777 | 0.657752 | 0.407265 | 0.031399 |
| 1.41752 | 1.41752 | Exp_1Way | 1.07933  | 1.86167 | 0.503369 | 4.1269   | 4.63027  | 4.378585 | 0.042258 |
| 1.43519 | 1.43519 | Exp_1Way | -1.05144 | 2.16573 | 0.521241 | 7.63148  | 8.15272  | 7.8921   | 0.026572 |
| 1.43583 | 1.43583 | Exp_1Way | 1.09881  | 1.87623 | 0.521887 | 0.752021 | 1.27391  | 1.012966 | 0.036016 |
| 1.43591 | 1.43591 | Exp_1Way | 1.1316   | 1.82206 | 0.521968 | -0.15228 | 0.369688 | 0.108704 | 0.025643 |
| 1.44361 | 1.44361 | Exp_1Way | 1.01252  | 2.05825 | 0.529685 | 2.43479  | 2.96447  | 2.69963  | 0.031761 |
| 1.45337 | 1.45337 | Exp_1Way | -1.00849 | 2.13021 | 0.539398 | 5.04904  | 5.58844  | 5.31874  | 0.044633 |
| 1.45448 | 1.45448 | Exp_1Way | 1.01795  | 2.07819 | 0.5405   | 4.12229  | 4.66279  | 4.39254  | 0.039124 |
| 1.45753 | 1.45753 | Exp_1Way | 1.01515  | 2.09267 | 0.543522 | 2.29527  | 2.8388   | 2.567035 | 0.010402 |
| 1.4695  | 1.4695  | Exp_1Way | 1.02754  | 2.10157 | 0.555329 | 0.445795 | 1.00112  | 0.723458 | 0.018276 |
| 1.48299 | 1.48299 | Exp_1Way | 1.04772  | 2.09909 | 0.56851  | 1.50676  | 2.07527  | 1.791015 | 0.021657 |
| 1.50702 | 1.50702 | Exp_1Way | 1.07162  | 2.11931 | 0.591696 | 4.94938  | 5.54108  | 5.24523  | 0.021799 |
| 1.50743 | 1.50743 | Exp_1Way | 1.09326  | 2.0785  | 0.592093 | 0.613544 | 1.20564  | 0.909592 | 0.018803 |
| 1.50925 | 1.50925 | Exp_1Way | -1.03747 | 2.36317 | 0.593828 | -0.05828 | 0.535548 | 0.238634 | 0.046147 |



|         |         |          |          |         |          |          |          |          |          |
|---------|---------|----------|----------|---------|----------|----------|----------|----------|----------|
| 1.51847 | 1.51847 | Exp_1Way | 1.15861  | 1.9901  | 0.602617 | 4.56553  | 5.16815  | 4.86684  | 0.037496 |
| 1.51877 | 1.51877 | Exp_1Way | 1.02085  | 2.25953 | 0.6029   | 2.9952   | 3.5981   | 3.29665  | 0.039734 |
| 1.53285 | 1.53285 | Exp_1Way | 1.11592  | 2.10555 | 0.616216 | 2.44449  | 3.0607   | 2.752595 | 0.010422 |
| 1.54184 | 1.54184 | Exp_1Way | 1.16171  | 2.04636 | 0.624656 | 2.58736  | 3.21201  | 2.899685 | 0.008687 |
| 1.54803 | 1.54803 | Exp_1Way | 1.28058  | 1.87133 | 0.630431 | 0.603261 | 1.23369  | 0.918476 | 0.007328 |
| 1.58125 | 1.58125 | Exp_1Way | 1.0465   | 2.38924 | 0.661064 | 0.669674 | 1.33074  | 1.000207 | 0.048929 |
| 1.58939 | 1.58939 | Exp_1Way | 1.09212  | 2.31307 | 0.668473 | 0.779203 | 1.44768  | 1.113442 | 0.00545  |
| 1.61048 | 1.61048 | Exp_1Way | 1.17249  | 2.21209 | 0.687494 | 3.10953  | 3.79702  | 3.453275 | 0.039531 |
| 1.70491 | 1.70491 | Exp_1Way | 1.25033  | 2.32477 | 0.769697 | 0.104156 | 0.873853 | 0.489005 | 0.010914 |
| 1.74546 | 1.74546 | Exp_1Way | -1.06982 | 3.25936 | 0.80361  | 3.25413  | 4.05774  | 3.655935 | 0.041725 |
| 1.74682 | 1.74682 | Exp_1Way | 1.01229  | 3.01434 | 0.804734 | 0.947363 | 1.7521   | 1.349732 | 0.03851  |
| 1.77403 | 1.77403 | Exp_1Way | 1.0044   | 3.13339 | 0.827029 | -0.01093 | 0.816101 | 0.402587 | 0.004684 |
| 1.80566 | 1.80566 | Exp_1Way | 1.42985  | 2.28024 | 0.852527 | 2.55238  | 3.4049   | 2.97864  | 0.006491 |
| 1.87656 | 1.87656 | Exp_1Way | 1.05511  | 3.33754 | 0.908091 | 2.71736  | 3.62545  | 3.171405 | 0.006058 |
| 2.01666 | 2.01666 | Exp_1Way | -1.03872 | 4.2244  | 1.01197  | 2.27628  | 3.28825  | 2.782265 | 0.046043 |
| 2.01844 | 2.01844 | Exp_1Way | 1.28729  | 3.16489 | 1.01324  | 1.56918  | 2.58242  | 2.0758   | 0.023282 |
| 2.0453  | 2.0453  | Exp_1Way | 1.33196  | 3.14067 | 1.03231  | 2.53058  | 3.56289  | 3.046735 | 0.040409 |
| 2.06604 | 2.06604 | Exp_1Way | 1.38376  | 3.08471 | 1.04687  | 2.16992  | 3.21678  | 2.69335  | 0.004584 |
| 2.08784 | 2.08784 | Exp_1Way | 1.06243  | 4.10292 | 1.06201  | 5.44301  | 6.50502  | 5.974015 | 0.039498 |
| 2.09631 | 2.09631 | Exp_1Way | 1.47985  | 2.96955 | 1.06785  | 1.28414  | 2.35199  | 1.818065 | 0.00324  |
| 2.116   | 2.116   | Exp_1Way | -1.08242 | 4.84649 | 1.08134  | 0.770828 | 1.85217  | 1.311499 | 0.015066 |
| 2.16083 | 2.16083 | Exp_1Way | 1.1736   | 3.97852 | 1.11159  | 1.63723  | 2.74882  | 2.193025 | 0.032076 |
| 2.1673  | 2.1673  | Exp_1Way | 1.23874  | 3.79188 | 1.1159   | 3.56074  | 4.67664  | 4.11869  | 0.008676 |
| 2.22769 | 2.22769 | Exp_1Way | 1.48291  | 3.34652 | 1.15555  | 2.82606  | 3.98161  | 3.403835 | 0.022107 |
| 2.23166 | 2.23166 | Exp_1Way | 1.17344  | 4.2442  | 1.15812  | 0.301505 | 1.45962  | 0.880563 | 0.034947 |
| 2.6712  | 2.6712  | Exp_1Way | 1.57521  | 4.52976 | 1.41749  | 0.001767 | 1.41925  | 0.710509 | 0.002971 |

| <b>Exp_Paired-2Way vs. Cont (ratio)</b> | <b>Exp_Paired-2Way vs. Cont Lin(FC)</b> | <b>Exp_Paired-2Way vs. Cont (Description)</b> | <b>Exp_Paired-2Way vs. Cont 95% lower limit</b> | <b>Exp_Paired-2Way vs. Cont 95% upper limit</b> | <b>Exp_Paired-2Way vs. Cont Log2(FC)</b> | <b>Symbol (original)</b> | <b>Gene Symbol (consensus Apr-17)</b> | <b>Gene Name (consensus Apr-17)</b> | <b>Entrez GeneID (updated April-17)</b> |
|---|---|---|---|---|--|--------------------------|---------------------------------------|-------------------------------------|---|
| 0.388954                                | -2.571                                  | Exp_Paired                                    | -5.68268  | -1.16319  | -1.36233                                 | LOC38933                 | LOC38933                              | uncharacte                          | 389332                                  |
| 0.48628                                 | -2.05643                                | Exp_Paired                                    | -3.38684  | -1.24863  | -1.04014                                 | CORO2B                   | CORO2B                                | coronin 2E                          | 10391                                   |
| 0.490042                                | -2.04064                                | Exp_Paired                                    | -3.6272   | -1.14805  | -1.02902                                 | PRUNE2                   | PRUNE2                                | prune hor                           | 158471                                  |
| 0.49765                                 | -2.00945                                | Exp_Paired                                    | -3.62216  | -1.11477  | -1.0068                                  | COLEC12                  | COLEC12                               | collectin s                         | 81035                                   |
| 0.499556                                | -2.00178                                | Exp_Paired                                    | -3.44946  | -1.16166  | -1.00128                                 | SLC6A4                   | SLC6A4                                | solute carr                         | 6532                                    |
| 0.512401                                | -1.9516                                 | Exp_Paired                                    | -2.98937  | -1.27409  | -0.96466                                 | CENPA                    | CENPA                                 | centromer                           | 1058                                    |
| 0.512997                                | -1.94933                                | Exp_Paired                                    | -2.80904  | -1.35274  | -0.96298                                 | SYNE1                    | SYNE1                                 | spectrin re                         | 23345                                   |
| 0.53295                                 | -1.87635                                | Exp_Paired                                    | -2.93298  | -1.20038  | -0.90793                                 | MCAM                     | MCAM                                  | melanoma                            | 4162                                    |
| 0.553832                                | -1.8056                                 | Exp_Paired                                    | -2.80414  | -1.16264  | -0.85248                                 | LOC72855                 | LOC72855                              | THO comp                            | 728554                                  |
| 0.554311                                | -1.80404                                | Exp_Paired                                    | -2.19537  | -1.48247  | -0.85123                                 | TRIM16L                  | TRIM16L                               | tripartite r                        | 147166                                  |
| 0.569076                                | -1.75723                                | Exp_Paired                                    | -2.90463  | -1.06308  | -0.81331                                 | NBEA                     | NBEA                                  | neurobeac                           | 26960                                   |
| 0.572241                                | -1.74751                                | Exp_Paired                                    | -2.44726  | -1.24785  | -0.8053                                  | BASP1                    | BASP1                                 | brain abun                          | 10409                                   |
| 0.575559                                | -1.73744                                | Exp_Paired                                    | -2.94797  | -1.02399  | -0.79696                                 | HIST2H3D                 | HIST2H3D                              | histone cl                          | 653604                                  |
| 0.576619                                | -1.73425                                | Exp_Paired                                    | -2.58055  | -1.16549  | -0.79431                                 | ZNF124                   | ZNF124                                | zinc finger                         | 7678                                    |
| 0.587896                                | -1.70098                                | Exp_Paired                                    | -2.57401  | -1.12406  | -0.76637                                 | SIAH3                    | SIAH3                                 | siah E3 ubi                         | 283514                                  |
| 0.588012                                | -1.70065                                | Exp_Paired                                    | -2.54581  | -1.13606  | -0.76608                                 | BEND5                    | BEND5                                 | BEN doma                            | 79656                                   |
| 0.589071                                | -1.69759                                | Exp_Paired                                    | -2.21612  | -1.30038  | -0.76349                                 | ITGB3BP                  | ITGB3BP                               | integrin su                         | 23421                                   |
| 0.591963                                | -1.68929                                | Exp_Paired                                    | -2.51315  | -1.13551  | -0.75642                                 | WNT10A                   | WNT10A                                | Wnt family                          | 80326                                   |
| 0.592219                                | -1.68857                                | Exp_Paired                                    | -2.55409  | -1.11635  | -0.7558                                  | COL12A1                  | COL12A1                               | collagen ty                         | 1303                                    |
| 0.609097                                | -1.64177                                | Exp_Paired                                    | -2.15391  | -1.25141  | -0.71526                                 | APBA1                    | APBA1                                 | amyloid be                          | 320                                     |
| 0.610299                                | -1.63854                                | Exp_Paired                                    | -2.34241  | -1.14618  | -0.71241                                 | LOC10537                 | LOC10537                              | translator                          | 1.05E+08                                |
| 0.610647                                | -1.63761                                | Exp_Paired                                    | -2.39077  | -1.12171  | -0.71159                                 | TRNL1                    | TRNL1                                 | tRNA                                | 4567                                    |
| 0.613115                                | -1.63101                                | Exp_Paired                                    | -2.29272  | -1.16028  | -0.70577                                 | LOC10537                 | LOC10537                              | uncharacte                          | 1.05E+08                                |
| 0.616566                                | -1.62189                                | Exp_Paired                                    | -2.08829  | -1.25965  | -0.69767                                 | CIT                      | CIT                                   | citron rho-                         | 11113                                   |
| 0.620073                                | -1.61271                                | Exp_Paired                                    | -2.30202  | -1.12981  | -0.68949                                 | LINC00235                | LINC00235                             | long interg                         | 64493                                   |
| 0.627069                                | -1.59472                                | Exp_Paired                                    | -2.17877  | -1.16724  | -0.6733                                  | DLX3                     | DLX3                                  | distal-less                         | 1747                                    |
| 0.629495                                | -1.58858                                | Exp_Paired                                    | -2.24111  | -1.12604  | -0.66773                                 | TRNG                     | TRNG                                  | tRNA                                | 4563                                    |
| 0.630167                                | -1.58688                                | Exp_Paired                                    | -2.35577  | -1.06895  | -0.66619                                 | CD83                     | CD83                                  | CD83 mole                           | 9308                                    |
| 0.63264                                 | -1.58068                                | Exp_Paired                                    | -2.09015  | -1.19539  | -0.66054                                 | ME1                      | ME1                                   | malic enzy                          | 4199                                    |
| 0.635115                                | -1.57452                                | Exp_Paired                                    | -2.2658   | -1.09414  | -0.65491                                 | RAI2                     | RAI2                                  | retinoic ac                         | 10742                                   |
| 0.635884                                | -1.57261                                | Exp_Paired                                    | -2.2381   | -1.10501  | -0.65316                                 | CPVL                     | CPVL                                  | carboxype                           | 54504                                   |
| 0.644096                                | -1.55256                                | Exp_Paired                                    | -2.37956  | -1.01298  | -0.63465                                 | MIR4523                  | MIR4523                               | microRNA                            | 1.01E+08                                |
| 0.644258                                | -1.55217                                | Exp_Paired                                    | -2.30048  | -1.04728  | -0.63429                                 | CDC42EP3                 | CDC42EP3                              | CDC42 effe                          | 10602                                   |
| 0.645218                                | -1.54986                                | Exp_Paired                                    | -2.04188  | -1.17641  | -0.63214                                 | CAP2                     | CAP2                                  | CAP, aden'                          | 10486                                   |
| 0.645432                                | -1.54935                                | Exp_Paired                                    | -2.06044  | -1.16504  | -0.63166                                 | ND4L                     | ND4L                                  | NADH deh                            | 4539                                    |
| 0.646709                                | -1.54629                                | Exp_Paired                                    | -2.22107  | -1.07652  | -0.62881                                 | RCBTB1                   | RCBTB1                                | RCC1 and I                          | 55213                                   |
| 0.649667                                | -1.53925                                | Exp_Paired                                    | -2.00112  | -1.18398  | -0.62223                                 | TRAM2-AS                 | TRAM2-AS                              | TRAM2 an                            | 401264                                  |
| 0.65756                                 | -1.52077                                | Exp_Paired                                    | -2.12725  | -1.0872   | -0.60481                                 | CXCL14                   | CXCL14                                | C-X-C moti                          | 9547                                    |
| 0.659989                                | -1.51518                                | Exp_Paired                                    | -2.02762  | -1.13224  | -0.59949                                 | FAM171A1                 | FAM171A1                              | family with                         | 221061                                  |
| 0.663962                                | -1.50611                                | Exp_Paired                                    | -2.09907  | -1.08065  | -0.59083                                 | SLC7A8                   | SLC7A8                                | solute carr                         | 23428                                   |
| 0.668779                                | -1.49526                                | Exp_Paired                                    | -2.20474  | -1.01409  | -0.5804                                  | NREP                     | NREP                                  | neuronal r                          | 9315                                    |

|          |          |            |          |          |          |           |           |              |          |
|----------|----------|------------|----------|----------|----------|-----------|-----------|--------------|----------|
| 0.671857 | -1.48841 | Exp_Paired | -1.94834 | -1.13705 | -0.57377 | RPL7AP45  | RPL7AP45  | ribosomal    | 1E+08    |
| 0.680987 | -1.46846 | Exp_Paired | -2.01004 | -1.0728  | -0.5543  | TRPM6     | TRPM6     | transient r  | 140803   |
| 0.685178 | -1.45948 | Exp_Paired | -1.98376 | -1.07375 | -0.54545 | SLC16A12  | SLC16A12  | solute carr  | 387700   |
| 0.689544 | -1.45023 | Exp_Paired | -1.7058  | -1.23296 | -0.53629 | NUP93     | NUP93     | nucleopori   | 9688     |
| 0.690411 | -1.44841 | Exp_Paired | -2.04971 | -1.02351 | -0.53447 | JAZF1     | JAZF1     | JAZF zinc fi | 221895   |
| 0.69336  | -1.44225 | Exp_Paired | -2.04091 | -1.0192  | -0.52832 | SPARC     | SPARC     | secreted p   | 6678     |
| 0.699581 | -1.42943 | Exp_Paired | -1.82067 | -1.12226 | -0.51544 | OPN3      | OPN3      | opsin 3      | 23596    |
| 0.701713 | -1.42508 | Exp_Paired | -1.75344 | -1.15821 | -0.51105 | THOC3     | THOC3     | THO comp     | 84321    |
| 0.70433  | -1.41979 | Exp_Paired | -1.73436 | -1.16227 | -0.50568 | LOC10798  | LOC10798  | uncharacte   | 1.08E+08 |
| 0.709532 | -1.40938 | Exp_Paired | -1.9541  | -1.0165  | -0.49506 | LOC10065  | LOC10065  | uncharacte   | 1.01E+08 |
| 0.71103  | -1.40641 | Exp_Paired | -1.87655 | -1.05406 | -0.49202 | SHISA4    | SHISA4    | shisa famil  | 149345   |
| 0.711892 | -1.40471 | Exp_Paired | -1.81792 | -1.08541 | -0.49027 | C9orf40   | C9orf40   | chromosol    | 55071    |
| 0.719314 | -1.39021 | Exp_Paired | -1.54013 | -1.25489 | -0.47531 | IPO5      | IPO5      | importin 5   | 3843     |
| 0.72122  | -1.38654 | Exp_Paired | -1.60486 | -1.19792 | -0.47149 | HOMER3    | HOMER3    | homer sca    | 9454     |
| 0.721564 | -1.38588 | Exp_Paired | -1.89966 | -1.01105 | -0.4708  | POLR2A    | POLR2A    | RNA polyr    | 5430     |
| 0.722221 | -1.38462 | Exp_Paired | -1.75535 | -1.09219 | -0.46949 | CCNB1IP1  | CCNB1IP1  | cyclin B1 ir | 57820    |
| 0.722883 | -1.38335 | Exp_Paired | -1.84111 | -1.0394  | -0.46817 | NEIL2     | NEIL2     | nei like DN  | 252969   |
| 0.723192 | -1.38276 | Exp_Paired | -1.78946 | -1.06849 | -0.46755 | ESRRG     | ESRRG     | estrogen r   | 2104     |
| 0.723458 | -1.38225 | Exp_Paired | -1.76484 | -1.0826  | -0.46702 | C1orf53   | C1orf53   | chromosol    | 388722   |
| 0.723771 | -1.38165 | Exp_Paired | -1.85946 | -1.02662 | -0.46639 | HENMT1    | HENMT1    | HEN1 metl    | 113802   |
| 0.724345 | -1.38056 | Exp_Paired | -1.84588 | -1.03254 | -0.46525 | MAB21L1   | MAB21L1   | mab-21 lik   | 4081     |
| 0.725767 | -1.37785 | Exp_Paired | -1.76034 | -1.07847 | -0.46242 | MAN1C1    | MAN1C1    | mannosida    | 57134    |
| 0.725833 | -1.37773 | Exp_Paired | -1.54699 | -1.22699 | -0.46229 | CDNF      | CDNF      | cerebral de  | 441549   |
| 0.726018 | -1.37738 | Exp_Paired | -1.78199 | -1.06463 | -0.46192 | PHLPP2    | PHLPP2    | PH domair    | 23035    |
| 0.727942 | -1.37374 | Exp_Paired | -1.65153 | -1.14267 | -0.4581  | WNK1      | WNK1      | WNK lysini   | 65125    |
| 0.728213 | -1.37322 | Exp_Paired | -1.81065 | -1.04147 | -0.45757 | GNB5      | GNB5      | G protein s  | 10681    |
| 0.728435 | -1.37281 | Exp_Paired | -1.65299 | -1.14012 | -0.45713 | SLC6A17   | SLC6A17   | solute carr  | 388662   |
| 0.728496 | -1.37269 | Exp_Paired | -1.61271 | -1.16839 | -0.45701 | SLC38A4   | SLC38A4   | solute carr  | 55089    |
| 0.729247 | -1.37128 | Exp_Paired | -1.71849 | -1.09422 | -0.45552 | WASF3     | WASF3     | WAS prote    | 10810    |
| 0.732378 | -1.36542 | Exp_Paired | -1.80199 | -1.03461 | -0.44934 | LFNG      | LFNG      | LFNG O-fu    | 3955     |
| 0.732806 | -1.36462 | Exp_Paired | -1.78365 | -1.04403 | -0.4485  | ND6       | ND6       | NADH deh     | 4541     |
| 0.734161 | -1.3621  | Exp_Paired | -1.78265 | -1.04076 | -0.44583 | DOCK8     | DOCK8     | dedicator    | 81704    |
| 0.735717 | -1.35922 | Exp_Paired | -1.83086 | -1.00908 | -0.44278 | HIST1H2BC | HIST1H2BC | histone clu  | 8347     |
| 0.736056 | -1.35859 | Exp_Paired | -1.44603 | -1.27644 | -0.44211 | MN1       | MN1       | MN1 protc    | 4330     |
| 0.742939 | -1.34601 | Exp_Paired | -1.75733 | -1.03096 | -0.42869 | FJX1      | FJX1      | four jointe  | 24147    |
| 0.749933 | -1.33345 | Exp_Paired | -1.77542 | -1.00151 | -0.41517 | TP53TG1   | TP53TG1   | TP53 targe   | 11257    |
| 0.750905 | -1.33173 | Exp_Paired | -1.68675 | -1.05143 | -0.4133  | LAGE3     | LAGE3     | L antigen f  | 8270     |
| 0.753529 | -1.32709 | Exp_Paired | -1.66659 | -1.05675 | -0.40827 | COPS8     | COPS8     | COP9 signa   | 10920    |
| 0.754026 | -1.32621 | Exp_Paired | -1.57586 | -1.11612 | -0.40731 | LOC10028  | LOC10028  | uncharacte   | 1E+08    |
| 0.757037 | -1.32094 | Exp_Paired | -1.57528 | -1.10766 | -0.40156 | QSER1     | QSER1     | glutamine    | 79832    |
| 0.75937  | -1.31688 | Exp_Paired | -1.67371 | -1.03613 | -0.39713 | ENDOG     | ENDOG     | endonucle    | 2021     |
| 0.759523 | -1.31662 | Exp_Paired | -1.54414 | -1.12262 | -0.39683 | GCSH      | GCSH      | glycine cle  | 2653     |
| 0.761344 | -1.31347 | Exp_Paired | -1.65237 | -1.04407 | -0.39338 | APOM      | APOM      | apolipoprc   | 55937    |
| 0.76335  | -1.31002 | Exp_Paired | -1.64981 | -1.0402  | -0.38958 | PDS5B     | PDS5B     | PDS5 cohe    | 23047    |
| 0.764228 | -1.30851 | Exp_Paired | -1.67109 | -1.0246  | -0.38793 | ZNF501    | ZNF501    | zinc finger  | 115560   |
| 0.767132 | -1.30356 | Exp_Paired | -1.68375 | -1.00921 | -0.38245 | CCDC109B  | MCUB      | mitochonc    | 55013    |
| 0.767693 | -1.3026  | Exp_Paired | -1.67429 | -1.01343 | -0.3814  | ZNF181    | ZNF181    | zinc finger  | 339318   |

|          |          |            |          |          |          |          |          |             |          |
|----------|----------|------------|----------|----------|----------|----------|----------|-------------|----------|
| 0.769128 | -1.30017 | Exp_Paired | -1.61669 | -1.04563 | -0.3787  | ATF7IP2  | ATF7IP2  | activating  | 80063    |
| 0.769634 | -1.29932 | Exp_Paired | -1.43067 | -1.18002 | -0.37776 | LOC10537 | LOC10537 | uncharacter | 1.05E+08 |
| 0.76985  | -1.29895 | Exp_Paired | -1.5015  | -1.12373 | -0.37735 | TLN2     | TLN2     | talin 2     | 83660    |
| 0.77132  | -1.29648 | Exp_Paired | -1.68059 | -1.00016 | -0.3746  | NENF     | NENF     | neudesin r  | 29937    |
| 0.77224  | -1.29493 | Exp_Paired | -1.63341 | -1.0266  | -0.37288 | ADI1     | ADI1     | acireducto  | 55256    |
| 0.772661 | -1.29423 | Exp_Paired | -1.6024  | -1.04532 | -0.37209 | G6PD     | G6PD     | glucose-6-  | 2539     |
| 0.772793 | -1.29401 | Exp_Paired | -1.57775 | -1.06129 | -0.37185 | HEG1     | HEG1     | heart deve  | 57493    |
| 0.775932 | -1.28877 | Exp_Paired | -1.5985  | -1.03906 | -0.366   | MACF1    | MACF1    | microtubu   | 23499    |
| 0.775982 | -1.28869 | Exp_Paired | -1.54659 | -1.07379 | -0.3659  | GSTA4    | GSTA4    | glutathion  | 2941     |
| 0.776121 | -1.28846 | Exp_Paired | -1.65269 | -1.0045  | -0.36565 | TBC1D31  | TBC1D31  | TBC1 dom    | 93594    |
| 0.776593 | -1.28768 | Exp_Paired | -1.5823  | -1.04791 | -0.36477 | DFFB     | DFFB     | DNA fragm   | 1677     |
| 0.778719 | -1.28416 | Exp_Paired | -1.44203 | -1.14357 | -0.36083 | DOCK5    | DOCK5    | dedicator   | 80005    |
| 0.779581 | -1.28274 | Exp_Paired | -1.64378 | -1.001   | -0.35923 | BOC      | BOC      | BOC cell ac | 91653    |
| 0.779773 | -1.28243 | Exp_Paired | -1.5657  | -1.0504  | -0.35888 | DGKH     | DGKH     | diacylglyce | 160851   |
| 0.783821 | -1.2758  | Exp_Paired | -1.61698 | -1.00661 | -0.3514  | MPP6     | MPP6     | membrane    | 51678    |
| 0.789881 | -1.26601 | Exp_Paired | -1.55269 | -1.03226 | -0.34029 | TSPAN15  | TSPAN15  | tetraspanin | 23555    |
| 0.790002 | -1.26582 | Exp_Paired | -1.52627 | -1.04981 | -0.34007 | C1QBP    | C1QBP    | compleme    | 708      |
| 0.790304 | -1.26534 | Exp_Paired | -1.56523 | -1.0229  | -0.33952 | COMMD3   | COMMD3   | COMM do     | 23412    |
| 0.791502 | -1.26342 | Exp_Paired | -1.52673 | -1.04553 | -0.33734 | MTATP6P1 | MTATP6P1 | mitochonc   | 1.06E+08 |
| 0.792063 | -1.26253 | Exp_Paired | -1.55283 | -1.02649 | -0.33631 | ACOT2    | ACOT2    | acyl-CoA tl | 10965    |
| 0.793926 | -1.25956 | Exp_Paired | -1.53388 | -1.03431 | -0.33292 | ACAT2    | ACAT2    | acetyl-CoA  | 39       |
| 0.795198 | -1.25755 | Exp_Paired | -1.48038 | -1.06826 | -0.33061 | RPA3     | RPA3     | replication | 6119     |
| 0.796051 | -1.2562  | Exp_Paired | -1.55293 | -1.01617 | -0.32907 | TMEM231  | TMEM231  | transmem    | 79583    |
| 0.796339 | -1.25575 | Exp_Paired | -1.49694 | -1.05342 | -0.32855 | HUWE1    | HUWE1    | HECT, UBA   | 10075    |
| 0.798464 | -1.2524  | Exp_Paired | -1.52803 | -1.0265  | -0.3247  | AP2B1    | AP2B1    | adaptor re  | 163      |
| 0.798931 | -1.25167 | Exp_Paired | -1.48023 | -1.05841 | -0.32386 | ALMS1    | ALMS1    | ALMS1, ce   | 7840     |
| 0.799014 | -1.25154 | Exp_Paired | -1.41479 | -1.10714 | -0.32371 | SRXN1    | SRXN1    | sulfiredoxi | 140809   |
| 0.80103  | -1.24839 | Exp_Paired | -1.44202 | -1.08076 | -0.32007 | AGAP1    | AGAP1    | ArfGAP wit  | 116987   |
| 0.801392 | -1.24783 | Exp_Paired | -1.38911 | -1.12091 | -0.31942 | NDN      | NDN      | necdin, M   | 4692     |
| 0.802644 | -1.24588 | Exp_Paired | -1.53139 | -1.01361 | -0.31717 | ARL16    | ARL16    | ADP ribosy  | 339231   |
| 0.803094 | -1.24518 | Exp_Paired | -1.48015 | -1.04752 | -0.31636 | FOCAD    | FOCAD    | focadhesir  | 54914    |
| 0.803609 | -1.24439 | Exp_Paired | -1.4866  | -1.04164 | -0.31543 | ZNF688   | ZNF688   | zinc finger | 146542   |
| 0.804741 | -1.24264 | Exp_Paired | -1.40518 | -1.09889 | -0.3134  | TLN1     | TLN1     | talin 1     | 7094     |
| 0.805052 | -1.24216 | Exp_Paired | -1.49067 | -1.03507 | -0.31285 | PROSC    | PLPBP    | pyridoxal p | 11212    |
| 0.805637 | -1.24125 | Exp_Paired | -1.51216 | -1.01888 | -0.3118  | ANAPC15  | ANAPC15  | anaphase    | 25906    |
| 0.805851 | -1.24092 | Exp_Paired | -1.52016 | -1.01298 | -0.31142 | F8       | F8       | coagulatio  | 2157     |
| 0.806098 | -1.24054 | Exp_Paired | -1.52961 | -1.00611 | -0.31097 | YBX1     | YBX1     | Y-box bind  | 4904     |
| 0.806154 | -1.24046 | Exp_Paired | -1.50877 | -1.01986 | -0.31087 | GS1-259H | TMEM225  | transmem    | 1E+08    |
| 0.806311 | -1.24022 | Exp_Paired | -1.50951 | -1.01897 | -0.31059 | NAP1L2   | NAP1L2   | nucleosom   | 4674     |
| 0.806443 | -1.24001 | Exp_Paired | -1.48643 | -1.03445 | -0.31036 | ATP6     | ATP6     | ATP syntha  | 4508     |
| 0.806453 | -1.24    | Exp_Paired | -1.51545 | -1.01461 | -0.31034 | TYW3     | TYW3     | tRNA-yW s   | 127253   |
| 0.806752 | -1.23954 | Exp_Paired | -1.46272 | -1.05041 | -0.3098  | TRRAP    | TRRAP    | transforma  | 8295     |
| 0.807242 | -1.23879 | Exp_Paired | -1.37348 | -1.1173  | -0.30893 | RFWD3    | RFWD3    | ring finger | 55159    |
| 0.807958 | -1.23769 | Exp_Paired | -1.48586 | -1.03097 | -0.30765 | MRPL54   | MRPL54   | mitochonc   | 116541   |
| 0.808693 | -1.23656 | Exp_Paired | -1.43184 | -1.06792 | -0.30634 | EHBP1    | EHBP1    | EH domair   | 23301    |
| 0.808754 | -1.23647 | Exp_Paired | -1.42312 | -1.0743  | -0.30623 | NF1      | NF1      | neurofibro  | 4763     |
| 0.809131 | -1.23589 | Exp_Paired | -1.42057 | -1.07522 | -0.30555 | KIF22    | KIF22    | kinesin fan | 3835     |

|          |          |            |          |          |          |          |          |              |        |
|----------|----------|------------|----------|----------|----------|----------|----------|--------------|--------|
| 0.809989 | -1.23459 | Exp_Paired | -1.45756 | -1.04572 | -0.30403 | PTRH1    | PTRH1    | peptidyl-tf  | 138428 |
| 0.810987 | -1.23307 | Exp_Paired | -1.45715 | -1.04344 | -0.30225 | C5orf42  | C5orf42  | chromosom    | 65250  |
| 0.813632 | -1.22906 | Exp_Paired | -1.44756 | -1.04354 | -0.29755 | CREB3L4  | CREB3L4  | cAMP resp    | 148327 |
| 0.814403 | -1.22789 | Exp_Paired | -1.46558 | -1.02875 | -0.29619 | CDV3     | CDV3     | CDV3 hom     | 55573  |
| 0.81461  | -1.22758 | Exp_Paired | -1.48927 | -1.01188 | -0.29582 | SGTB     | SGTB     | small gluta  | 54557  |
| 0.815153 | -1.22676 | Exp_Paired | -1.4987  | -1.00417 | -0.29486 | SNRPG    | SNRPG    | small nucle  | 6637   |
| 0.815884 | -1.22567 | Exp_Paired | -1.45712 | -1.03098 | -0.29357 | TANC2    | TANC2    | tetratricop  | 26115  |
| 0.816692 | -1.22445 | Exp_Paired | -1.49751 | -1.00118 | -0.29214 | H2AFZ    | H2AFZ    | H2A histor   | 3015   |
| 0.81692  | -1.22411 | Exp_Paired | -1.40729 | -1.06477 | -0.29173 | PKD2     | PKD2     | polycystin   | 5311   |
| 0.817036 | -1.22394 | Exp_Paired | -1.43892 | -1.04107 | -0.29153 | HIST4H4  | HIST4H4  | histone cl   | 121504 |
| 0.819793 | -1.21982 | Exp_Paired | -1.36276 | -1.09187 | -0.28667 | BOD1     | BOD1     | biorientati  | 91272  |
| 0.820424 | -1.21888 | Exp_Paired | -1.39853 | -1.06231 | -0.28556 | ALKBH7   | ALKBH7   | alkB homo    | 84266  |
| 0.820885 | -1.2182  | Exp_Paired | -1.43838 | -1.03172 | -0.28475 | YBX3     | YBX3     | Y-box bind   | 8531   |
| 0.821063 | -1.21793 | Exp_Paired | -1.40505 | -1.05574 | -0.28444 | FDFT1    | FDFT1    | farnesyl-di  | 2222   |
| 0.821251 | -1.21765 | Exp_Paired | -1.4202  | -1.044   | -0.2841  | SLC25A33 | SLC25A33 | solute carr  | 84275  |
| 0.821344 | -1.21752 | Exp_Paired | -1.44236 | -1.02772 | -0.28394 | SIVA1    | SIVA1    | SIVA1 apo    | 10572  |
| 0.821966 | -1.2166  | Exp_Paired | -1.44076 | -1.02731 | -0.28285 | SDF2L1   | SDF2L1   | stromal ce   | 23753  |
| 0.821983 | -1.21657 | Exp_Paired | -1.32072 | -1.12063 | -0.28282 | SNX29    | SNX29    | sorting ne   | 92017  |
| 0.822863 | -1.21527 | Exp_Paired | -1.46631 | -1.0072  | -0.28128 | MAPKBP1  | MAPKBP1  | mitogen-a    | 23005  |
| 0.824144 | -1.21338 | Exp_Paired | -1.34404 | -1.09543 | -0.27903 | PYCR2    | PYCR2    | pyrroline-ε  | 29920  |
| 0.824557 | -1.21277 | Exp_Paired | -1.40286 | -1.04844 | -0.27831 | NFIB     | NFIB     | nuclear fac  | 4781   |
| 0.827289 | -1.20877 | Exp_Paired | -1.38109 | -1.05794 | -0.27354 | UTRN     | UTRN     | utrophin     | 7402   |
| 0.828237 | -1.20738 | Exp_Paired | -1.35717 | -1.07413 | -0.27188 | ZNF496   | ZNF496   | zinc finger  | 84838  |
| 0.828469 | -1.20705 | Exp_Paired | -1.38146 | -1.05465 | -0.27148 | P3H1     | P3H1     | prolyl 3-hy  | 64175  |
| 0.828638 | -1.2068  | Exp_Paired | -1.38184 | -1.05394 | -0.27119 | ABHD17B  | ABHD17B  | abhydrola    | 51104  |
| 0.829099 | -1.20613 | Exp_Paired | -1.41158 | -1.03058 | -0.27038 | ZNF14    | ZNF14    | zinc finger  | 7561   |
| 0.829858 | -1.20503 | Exp_Paired | -1.41214 | -1.02829 | -0.26906 | SMU1     | SMU1     | DNA replic   | 55234  |
| 0.829922 | -1.20493 | Exp_Paired | -1.40647 | -1.03227 | -0.26895 | PSME4    | PSME4    | proteasom    | 23198  |
| 0.830179 | -1.20456 | Exp_Paired | -1.4437  | -1.00503 | -0.26851 | TENM4    | TENM4    | teneurin tr  | 26011  |
| 0.830457 | -1.20416 | Exp_Paired | -1.44442 | -1.00386 | -0.26802 | LSM4     | LSM4     | LSM4 hom     | 25804  |
| 0.831191 | -1.20309 | Exp_Paired | -1.32642 | -1.09124 | -0.26675 | UGGT2    | UGGT2    | UDP-gluco    | 55757  |
| 0.831295 | -1.20294 | Exp_Paired | -1.38642 | -1.04375 | -0.26657 | MALSU1   | MALSU1   | mitochond    | 115416 |
| 0.831713 | -1.20234 | Exp_Paired | -1.40773 | -1.02691 | -0.26584 | CARF     | CARF     | calcium re   | 79800  |
| 0.832088 | -1.2018  | Exp_Paired | -1.43473 | -1.00668 | -0.26519 | ZNF514   | ZNF514   | zinc finger  | 84874  |
| 0.832194 | -1.20164 | Exp_Paired | -1.43956 | -1.00305 | -0.26501 | POLD2    | POLD2    | DNA polyn    | 5425   |
| 0.832203 | -1.20163 | Exp_Paired | -1.40267 | -1.02941 | -0.26499 | HINT2    | HINT2    | histidine tr | 84681  |
| 0.832279 | -1.20152 | Exp_Paired | -1.37649 | -1.04879 | -0.26486 | MPC1     | MPC1     | mitochond    | 51660  |
| 0.832608 | -1.20104 | Exp_Paired | -1.4265  | -1.01122 | -0.26429 | MSX2     | MSX2     | msh home     | 4488   |
| 0.832684 | -1.20094 | Exp_Paired | -1.36826 | -1.05408 | -0.26416 | PCNX2    | PCNX2    | pecanex h    | 80003  |
| 0.833401 | -1.1999  | Exp_Paired | -1.4319  | -1.00549 | -0.26292 | ZNF420   | ZNF420   | zinc finger  | 147923 |
| 0.833493 | -1.19977 | Exp_Paired | -1.34943 | -1.06671 | -0.26276 | HSD17B1  | HSD17B1  | hydroxyste   | 3292   |
| 0.835565 | -1.19679 | Exp_Paired | -1.41283 | -1.01379 | -0.25918 | PRUNE    | PRUNE1   | prune exo    | 58497  |
| 0.837992 | -1.19333 | Exp_Paired | -1.39288 | -1.02237 | -0.25499 | PSMG4    | PSMG4    | proteasom    | 389362 |
| 0.839333 | -1.19142 | Exp_Paired | -1.35045 | -1.05112 | -0.25268 | ZNF658   | ZNF658   | zinc finger  | 26149  |
| 0.839686 | -1.19092 | Exp_Paired | -1.39959 | -1.01336 | -0.25208 | ANKRD46  | ANKRD46  | ankyrin rej  | 157567 |
| 0.840502 | -1.18976 | Exp_Paired | -1.41386 | -1.00119 | -0.25068 | HIST2H2A | HIST2H2A | histone cl   | 8338   |
| 0.841187 | -1.1888  | Exp_Paired | -1.40205 | -1.00798 | -0.2495  | IFT27    | IFT27    | intraflagell | 11020  |

|          |          |            |          |          |          |           |           |              |        |
|----------|----------|------------|----------|----------|----------|-----------|-----------|--------------|--------|
| 0.842108 | -1.1875  | Exp_Paired | -1.40058 | -1.00683 | -0.24792 | BEX2      | BEX2      | brain expri  | 84707  |
| 0.842932 | -1.18634 | Exp_Paired | -1.29822 | -1.0841  | -0.24651 | CYB5D2    | CYB5D2    | cytochrom    | 124936 |
| 0.84306  | -1.18615 | Exp_Paired | -1.37594 | -1.02255 | -0.24629 | PCBD1     | PCBD1     | pterin-4 al  | 5092   |
| 0.843728 | -1.18522 | Exp_Paired | -1.341   | -1.04753 | -0.24515 | PEX2      | PEX2      | peroxisom    | 5828   |
| 0.844456 | -1.18419 | Exp_Paired | -1.38653 | -1.01138 | -0.24391 | ADNP      | ADNP      | activity de  | 23394  |
| 0.844518 | -1.18411 | Exp_Paired | -1.39653 | -1.004   | -0.2438  | ATP5G1    | ATP5G1    | ATP syntha   | 516    |
| 1.16917  | 1.16917  | Exp_Paired | 1.04462  | 1.30857  | 0.225484 | N6AMT1    | N6AMT1    | N-6 adenir   | 29104  |
| 1.16959  | 1.16959  | Exp_Paired | 1.08293  | 1.26319  | 0.226002 | LIMS1     | LIMS1     | LIM zinc fi  | 3987   |
| 1.16968  | 1.16968  | Exp_Paired | 1.00033  | 1.36769  | 0.226112 | SMC6      | SMC6      | structural   | 79677  |
| 1.17016  | 1.17016  | Exp_Paired | 1.04435  | 1.31113  | 0.226706 | FAM135A   | FAM135A   | family with  | 57579  |
| 1.17217  | 1.17217  | Exp_Paired | 1.07805  | 1.2745   | 0.22918  | ZNF513    | ZNF513    | zinc finger  | 130557 |
| 1.17328  | 1.17328  | Exp_Paired | 1.01302  | 1.35889  | 0.230548 | ARFGAP1   | ARFGAP1   | ADP ribosy   | 55738  |
| 1.17422  | 1.17422  | Exp_Paired | 1.01502  | 1.35838  | 0.2317   | BRD2      | BRD2      | bromodon     | 6046   |
| 1.17801  | 1.17801  | Exp_Paired | 1.00935  | 1.37486  | 0.236355 | ZFP1      | ZFP1      | ZFP1 zinc f  | 162239 |
| 1.17858  | 1.17858  | Exp_Paired | 1.0907   | 1.27354  | 0.23705  | FZD6      | FZD6      | frizzled cla | 8323   |
| 1.17878  | 1.17878  | Exp_Paired | 1.03128  | 1.34738  | 0.237298 | GCC2      | GCC2      | GRIP and c   | 9648   |
| 1.17968  | 1.17968  | Exp_Paired | 1.02449  | 1.35838  | 0.238398 | TVP23C    | TVP23C    | trans-golgi  | 201158 |
| 1.18299  | 1.18299  | Exp_Paired | 1.03072  | 1.35775  | 0.242434 | TPST2     | TPST2     | tyrosylpro   | 8459   |
| 1.1877   | 1.1877   | Exp_Paired | 1.05108  | 1.34206  | 0.248166 | MET       | MET       | MET proto    | 4233   |
| 1.19423  | 1.19423  | Exp_Paired | 1.04509  | 1.36466  | 0.256086 | FAM83H-A  | FAM83H-A  | FAM83H a     | 1E+08  |
| 1.19846  | 1.19846  | Exp_Paired | 1.03442  | 1.38851  | 0.261178 | FAM156B   | FAM156B   | family with  | 727866 |
| 1.19896  | 1.19896  | Exp_Paired | 1.01217  | 1.42023  | 0.261786 | DAPK1     | DAPK1     | death assc   | 1612   |
| 1.19952  | 1.19952  | Exp_Paired | 1.0465   | 1.37493  | 0.262462 | PDDC1     | GATD1     | glutamine    | 347862 |
| 1.20264  | 1.20264  | Exp_Paired | 1.01035  | 1.43153  | 0.266204 | NOTCH2    | NOTCH2    | notch 2      | 4853   |
| 1.20621  | 1.20621  | Exp_Paired | 1.10037  | 1.32224  | 0.270482 | NUCB1     | NUCB1     | nucleobinc   | 4924   |
| 1.20806  | 1.20806  | Exp_Paired | 1.0519   | 1.3874   | 0.272691 | FCHSD1    | FCHSD1    | FCH and de   | 89848  |
| 1.20984  | 1.20984  | Exp_Paired | 1.07718  | 1.35883  | 0.274816 | ATP8B1    | ATP8B1    | ATPase ph    | 5205   |
| 1.21327  | 1.21327  | Exp_Paired | 1.04815  | 1.40441  | 0.278904 | LRSAM1    | LRSAM1    | leucine ricl | 90678  |
| 1.21575  | 1.21575  | Exp_Paired | 1.01093  | 1.46207  | 0.28185  | TCEA3     | TCEA3     | transcripti  | 6920   |
| 1.21976  | 1.21976  | Exp_Paired | 1.06609  | 1.39557  | 0.286592 | SPIN3     | SPIN3     | spindlin fa  | 169981 |
| 1.21976  | 1.21976  | Exp_Paired | 1.02001  | 1.45864  | 0.286602 | CHPF2     | CHPF2     | chondroiti   | 54480  |
| 1.22008  | 1.22008  | Exp_Paired | 1.02813  | 1.44785  | 0.28697  | CADM4     | CADM4     | cell adhesi  | 199731 |
| 1.22403  | 1.22403  | Exp_Paired | 1.02892  | 1.45615  | 0.291644 | ALG1      | ALG1      | ALG1, chit   | 56052  |
| 1.22782  | 1.22782  | Exp_Paired | 1.02863  | 1.46559  | 0.296104 | PPFIBP2   | PPFIBP2   | PPFIA bind   | 8495   |
| 1.22828  | 1.22828  | Exp_Paired | 1.05104  | 1.43541  | 0.296642 | ST3GAL1   | ST3GAL1   | ST3 beta-g   | 6482   |
| 1.23127  | 1.23127  | Exp_Paired | 1.10881  | 1.36724  | 0.300142 | GALNS     | GALNS     | galactosan   | 2588   |
| 1.23507  | 1.23507  | Exp_Paired | 1.02014  | 1.49529  | 0.304596 | LMF2      | LMF2      | lipase mat   | 91289  |
| 1.23653  | 1.23653  | Exp_Paired | 1.0448   | 1.46345  | 0.306296 | PNN       | PNN       | pinin, desr  | 5411   |
| 1.23711  | 1.23711  | Exp_Paired | 1.10736  | 1.38206  | 0.306972 | FAM109A   | FAM109A   | family with  | 144717 |
| 1.23773  | 1.23773  | Exp_Paired | 1.05343  | 1.45426  | 0.307692 | LZTR1     | LZTR1     | leucine zip  | 8216   |
| 1.2399   | 1.2399   | Exp_Paired | 1.00029  | 1.53691  | 0.310226 | FABP5     | FABP5     | fatty acid t | 2171   |
| 1.2402   | 1.2402   | Exp_Paired | 1.08365  | 1.41937  | 0.310576 | TTC22     | TTC22     | tetratricop  | 55001  |
| 1.24785  | 1.24785  | Exp_Paired | 1.04414  | 1.4913   | 0.31944  | NDOR1     | NDOR1     | NADPH de     | 27158  |
| 1.24901  | 1.24901  | Exp_Paired | 1.01726  | 1.53355  | 0.32078  | EHF       | EHF       | ETS homol    | 26298  |
| 1.2542   | 1.2542   | Exp_Paired | 1.06558  | 1.47622  | 0.326772 | KIAA0895L | KIAA0895L | KIAA0895     | 653319 |
| 1.25644  | 1.25644  | Exp_Paired | 1.08289  | 1.4578   | 0.329342 | CD2AP     | CD2AP     | CD2 associ   | 23607  |
| 1.25753  | 1.25753  | Exp_Paired | 1.08588  | 1.45632  | 0.330598 | ABLIM1    | ABLIM1    | actin bindi  | 3983   |

|         |         |            |         |         |          |           |           |               |          |
|---------|---------|------------|---------|---------|----------|-----------|-----------|---------------|----------|
| 1.26481 | 1.26481 | Exp_Paired | 1.05036 | 1.52304 | 0.338918 | TGFA      | TGFA      | transformi    | 7039     |
| 1.26487 | 1.26487 | Exp_Paired | 1.04924 | 1.52482 | 0.338992 | MKNK2     | MKNK2     | MAP kinas     | 2872     |
| 1.26595 | 1.26595 | Exp_Paired | 1.07716 | 1.48783 | 0.340222 | QSOX1     | QSOX1     | quiescin su   | 5768     |
| 1.27296 | 1.27296 | Exp_Paired | 1.0056  | 1.6114  | 0.348184 | ZNF185    | ZNF185    | zinc finger   | 7739     |
| 1.27299 | 1.27299 | Exp_Paired | 1.01137 | 1.60229 | 0.34822  | CERS6     | CERS6     | ceramide s    | 253782   |
| 1.28047 | 1.28047 | Exp_Paired | 1.02192 | 1.60442 | 0.35667  | IL6ST     | IL6ST     | interleukin   | 3572     |
| 1.28588 | 1.28588 | Exp_Paired | 1.00015 | 1.65324 | 0.362759 | RN7SL737I | RN7SL737I | RNA, 7SL, c   | 1.06E+08 |
| 1.28787 | 1.28787 | Exp_Paired | 1.02924 | 1.61148 | 0.364982 | ARHGEF16  | ARHGEF16  | Rho guanir    | 27237    |
| 1.2902  | 1.2902  | Exp_Paired | 1.00347 | 1.65888 | 0.3676   | SEMA3F    | SEMA3F    | semaphori     | 6405     |
| 1.2903  | 1.2903  | Exp_Paired | 1.04328 | 1.5958  | 0.367706 | SPTLC2    | SPTLC2    | serine palr   | 9517     |
| 1.29533 | 1.29533 | Exp_Paired | 1.03225 | 1.62546 | 0.373318 | RECQL5    | RECQL5    | RecQ like f   | 9400     |
| 1.29613 | 1.29613 | Exp_Paired | 1.00045 | 1.6792  | 0.374212 | LRRC56    | LRRC56    | leucine ricl  | 115399   |
| 1.29906 | 1.29906 | Exp_Paired | 1.00394 | 1.68093 | 0.377467 | ATG16L2   | ATG16L2   | autophagy     | 89849    |
| 1.30021 | 1.30021 | Exp_Paired | 1.14903 | 1.47129 | 0.378746 | FBXO44    | FBXO44    | F-box prot    | 93611    |
| 1.32358 | 1.32358 | Exp_Paired | 1.14696 | 1.52739 | 0.404442 | GRAMD4    | GRAMD4    | GRAM dor      | 23151    |
| 1.33278 | 1.33278 | Exp_Paired | 1.05004 | 1.69166 | 0.414444 | STAT5A    | STAT5A    | signal tran   | 6776     |
| 1.34546 | 1.34546 | Exp_Paired | 1.20856 | 1.49787 | 0.428102 | TMEM87B   | TMEM87B   | transmem      | 84910    |
| 1.34771 | 1.34771 | Exp_Paired | 1.06815 | 1.70043 | 0.430506 | RIPK3     | RIPK3     | receptor ir   | 11035    |
| 1.34855 | 1.34855 | Exp_Paired | 1.13206 | 1.60643 | 0.431408 | CXXC5     | CXXC5     | CXXC finge    | 51523    |
| 1.35415 | 1.35415 | Exp_Paired | 1.07888 | 1.69965 | 0.437386 | ADSSL1    | ADSSL1    | adenylosu     | 122622   |
| 1.35617 | 1.35617 | Exp_Paired | 1.02537 | 1.79369 | 0.439536 | PLEKHG5   | PLEKHG5   | pleckstrin    | 57449    |
| 1.35684 | 1.35684 | Exp_Paired | 1.13322 | 1.62458 | 0.440246 | TMTC2     | TMTC2     | transmem      | 160335   |
| 1.35688 | 1.35688 | Exp_Paired | 1.12629 | 1.63467 | 0.440292 | KLHL17    | KLHL17    | kelch like f  | 339451   |
| 1.35914 | 1.35914 | Exp_Paired | 1.0815  | 1.70806 | 0.442692 | CTSB      | CTSB      | cathepsin     | 1508     |
| 1.3651  | 1.3651  | Exp_Paired | 1.12647 | 1.65429 | 0.44901  | ADCY7     | ADCY7     | adenylate     | 113      |
| 1.36879 | 1.36879 | Exp_Paired | 1.02718 | 1.82401 | 0.452902 | MVP       | MVP       | major vault   | 9961     |
| 1.37036 | 1.37036 | Exp_Paired | 1.08963 | 1.72342 | 0.454554 | OGFRL1    | OGFRL1    | opioid gro    | 79627    |
| 1.372   | 1.372   | Exp_Paired | 1.05723 | 1.78048 | 0.456278 | RAB11FIP4 | RAB11FIP4 | RAB11 farr    | 84440    |
| 1.38113 | 1.38113 | Exp_Paired | 1.19516 | 1.59603 | 0.465846 | SLC12A7   | SLC12A7   | solute carr   | 10723    |
| 1.39067 | 1.39067 | Exp_Paired | 1.01985 | 1.89632 | 0.475781 | MID2      | MID2      | midline 2     | 11043    |
| 1.39968 | 1.39968 | Exp_Paired | 1.04798 | 1.86939 | 0.485092 | GRN       | GRN       | granulin pr   | 2896     |
| 1.40525 | 1.40525 | Exp_Paired | 1.03017 | 1.91687 | 0.490822 | RALGAPA2  | RALGAPA2  | Ral GTPase    | 57186    |
| 1.40528 | 1.40528 | Exp_Paired | 1.04726 | 1.88569 | 0.490856 | LYNX1     | LYNX1     | Ly6/neuro     | 66004    |
| 1.41517 | 1.41517 | Exp_Paired | 1.05183 | 1.90403 | 0.500976 | TLR5      | TLR5      | toll like rec | 7100     |
| 1.41752 | 1.41752 | Exp_Paired | 1.01995 | 1.97005 | 0.503368 | SCARNA17  | SCARNA17  | small Cajal   | 677769   |
| 1.43519 | 1.43519 | Exp_Paired | 1.07113 | 1.92299 | 0.521242 | MALAT1    | MALAT1    | metastasis    | 378938   |
| 1.43583 | 1.43583 | Exp_Paired | 1.03911 | 1.98401 | 0.521886 | SIAE      | SIAE      | sialic acid   | 54414    |
| 1.43591 | 1.43591 | Exp_Paired | 1.07477 | 1.91841 | 0.521968 | TBC1D8    | TBC1D8    | TBC1 domi     | 11138    |
| 1.44361 | 1.44361 | Exp_Paired | 1.05364 | 1.97793 | 0.529686 | CLDN12    | CLDN12    | claudin 12    | 9069     |
| 1.45337 | 1.45337 | Exp_Paired | 1.0146  | 2.08188 | 0.5394   | GPC1      | GPC1      | glypican 1    | 2817     |
| 1.45447 | 1.45447 | Exp_Paired | 1.03079 | 2.0523  | 0.540498 | GGT6      | GGT6      | gamma-glu     | 124975   |
| 1.45753 | 1.45753 | Exp_Paired | 1.1583  | 1.83406 | 0.543524 | TCIRG1    | TCIRG1    | T-cell imm    | 10312    |
| 1.4695  | 1.4695  | Exp_Paired | 1.11345 | 1.93942 | 0.555329 | ZNF662    | ZNF662    | zinc finger   | 389114   |
| 1.48299 | 1.48299 | Exp_Paired | 1.09944 | 2.00034 | 0.568509 | MAPK11    | MAPK11    | mitogen-a     | 5600     |
| 1.50702 | 1.50702 | Exp_Paired | 1.103   | 2.05902 | 0.591696 | TNFSF10   | TNFSF10   | TNF superl    | 8743     |
| 1.50743 | 1.50743 | Exp_Paired | 1.11851 | 2.03159 | 0.592092 | ZNF276    | ZNF276    | zinc finger   | 92822    |
| 1.50925 | 1.50925 | Exp_Paired | 1.01144 | 2.25207 | 0.593828 | ANKRD22   | ANKRD22   | ankyrin rej   | 118932   |

|         |         |            |         |         |          |         |         |             |        |
|---------|---------|------------|---------|---------|----------|---------|---------|-------------|--------|
| 1.51847 | 1.51847 | Exp_Paired | 1.04004 | 2.21699 | 0.602618 | RHOV    | RHOV    | ras homolo  | 171177 |
| 1.51877 | 1.51877 | Exp_Paired | 1.03233 | 2.2344  | 0.6029   | RAB27B  | RAB27B  | RAB27B, m   | 5874   |
| 1.53285 | 1.53285 | Exp_Paired | 1.18112 | 1.98932 | 0.616216 | SH3BP2  | SH3BP2  | SH3 domai   | 6452   |
| 1.54184 | 1.54184 | Exp_Paired | 1.19986 | 1.98129 | 0.624654 | ABCG1   | ABCG1   | ATP bindin  | 9619   |
| 1.54803 | 1.54803 | Exp_Paired | 1.21632 | 1.97019 | 0.630429 | SLC2A12 | SLC2A12 | solute carr | 154091 |
| 1.58125 | 1.58125 | Exp_Paired | 1.00348 | 2.49168 | 0.661065 | NABP1   | NABP1   | nucleic aci | 64859  |
| 1.58939 | 1.58939 | Exp_Paired | 1.25606 | 2.01118 | 0.668473 | PLA2G4F | PLA2G4F | phospholip  | 255189 |
| 1.61048 | 1.61048 | Exp_Paired | 1.03774 | 2.49933 | 0.687494 | CTSC    | CTSC    | cathepsin   | 1075   |
| 1.70491 | 1.70491 | Exp_Paired | 1.22574 | 2.37141 | 0.769697 | AGPAT4  | AGPAT4  | 1-acylglyce | 56895  |
| 1.74547 | 1.74547 | Exp_Paired | 1.03439 | 2.94535 | 0.803612 | TMEM184 | TMEM184 | transmem    | 202915 |
| 1.74682 | 1.74682 | Exp_Paired | 1.04904 | 2.90873 | 0.804734 | DUOXA1  | DUOXA1  | dual oxida  | 90527  |
| 1.77403 | 1.77403 | Exp_Paired | 1.34177 | 2.34554 | 0.827028 | CCDC88B | CCDC88B | coiled-coil | 283234 |
| 1.80566 | 1.80566 | Exp_Paired | 1.31752 | 2.47465 | 0.852526 | RAET1E  | RAET1E  | retinoic ac | 135250 |
| 1.87656 | 1.87656 | Exp_Paired | 1.35005 | 2.6084  | 0.90809  | GPNMB   | GPNMB   | glycoprote  | 10457  |
| 2.01667 | 2.01667 | Exp_Paired | 1.02011 | 3.98677 | 1.01197  | CHST2   | CHST2   | carbohydr   | 9435   |
| 2.01844 | 2.01844 | Exp_Paired | 1.16976 | 3.48286 | 1.01324  | SLC16A3 | SLC16A3 | solute carr | 9123   |
| 2.0453  | 2.0453  | Exp_Paired | 1.05202 | 3.97639 | 1.03231  | NRARP   | NRARP   | NOTCH-reg   | 441478 |
| 2.06604 | 2.06604 | Exp_Paired | 1.45386 | 2.93599 | 1.04687  | TMEM45B | TMEM45B | transmem    | 120224 |
| 2.08784 | 2.08784 | Exp_Paired | 1.0591  | 4.11582 | 1.06201  | AQP3    | AQP3    | aquaporin   | 360    |
| 2.09631 | 2.09631 | Exp_Paired | 1.51301 | 2.90448 | 1.06785  | EMB     | EMB     | embigin     | 133418 |
| 2.116   | 2.116   | Exp_Paired | 1.271   | 3.5228  | 1.08134  | UNC93A  | UNC93A  | unc-93 ho   | 54346  |
| 2.16083 | 2.16083 | Exp_Paired | 1.11351 | 4.19322 | 1.11159  | ADAM8   | ADAM8   | ADAM me     | 101    |
| 2.1673  | 2.1673  | Exp_Paired | 1.38496 | 3.39157 | 1.1159   | NEAT1   | NEAT1   | nuclear pa  | 283131 |
| 2.22769 | 2.22769 | Exp_Paired | 1.20779 | 4.10882 | 1.15555  | TIMP3   | TIMP3   | TIMP meta   | 7078   |
| 2.23166 | 2.23166 | Exp_Paired | 1.09667 | 4.54132 | 1.15812  | FAM83E  | FAM83E  | family with | 54854  |
| 2.6712  | 2.6712  | Exp_Paired | 1.75017 | 4.07693 | 1.41749  | MEGF6   | MEGF6   | multiple E  | 1953   |



| <b>CytoLoc</b> | <b>type_of_gene</b> | <b>Obs (Exp)</b> | <b>Obs (Cont)</b> | <b>Sum 1Way Obs (Exp + Cont)</b> | <b>Min 1Way (Exp + Cont) (2)</b> | <b>Min 2Way (Exp + Cont)</b> | <b>Min &gt; -0.2 Keeper Hits</b> | <b>2SD Paired Log2(FC) Keeper Hits</b> | <b>2SD &gt; -.2 Exp_Paired-2Way vs. Cont Log2(FC)</b> |
|----------------|---------------------|------------------|-------------------|----------------------------------|----------------------------------|------------------------------|----------------------------------|--|---|
| 5q31.1         | ncRNA               | 5                | 5                 | 10                               | 1.17834                          | 1.17834                      | Yes                              | Yes                                    | -6σ   |
| 15q23          | protein-co          | 5                | 5                 | 10                               | 0.064917                         | 0.064917                     | Yes                              | Yes                                    | -6σ   |
| 9q21.2         | protein-co          | 5                | 5                 | 10                               | 1.43105                          | 1.43105                      | Yes                              | Yes                                    | -6σ   |
| 18p11.32       | protein-co          | 5                | 5                 | 10                               | 2.62794                          | 2.62794                      | Yes                              | Yes                                    | -6σ   |
| 17q11.2        | protein-co          | 5                | 5                 | 10                               | -0.14154                         | -0.14154                     | Yes                              | Yes                                    | -6σ   |
| 2p23.3         | protein-co          | 5                | 5                 | 10                               | 0.604275                         | 0.604275                     | Yes                              | Yes                                    | -6σ   |
| 6q25.2         | protein-co          | 5                | 5                 | 10                               | 1.76276                          | 1.76276                      | Yes                              | Yes                                    | -6σ   |
| 11q23.3        | protein-co          | 5                | 5                 | 10                               | 0.45349                          | 0.45349                      | Yes                              | Yes                                    | -6σ   |
| 5q35.3         | pseudo              | 5                | 5                 | 10                               | 0.776138                         | 0.776138                     | Yes                              | Yes                                    | -6σ   |
| 17p11.2        | protein-co          | 5                | 5                 | 10                               | 2.2885                           | 2.2885                       | Yes                              | Yes                                    | -6σ   |
| 13q13.3        | protein-co          | 5                | 5                 | 10                               | 3.41043                          | 3.41043                      | Yes                              | Yes                                    | -6σ   |
| 5p15.1         | protein-co          | 5                | 5                 | 10                               | 2.90923                          | 2.90923                      | Yes                              | Yes                                    | -6σ   |
| 1q21.2         | protein-co          | 5                | 5                 | 10                               | 3.58108                          | 3.58108                      | Yes                              | Yes                                    | -6σ   |
| 1q44           | protein-co          | 5                | 5                 | 10                               | 1.30633                          | 1.30633                      | Yes                              | Yes                                    | -6σ   |
| 13q14.13       | protein-co          | 5                | 5                 | 10                               | 2.16254                          | 2.16254                      | Yes                              | Yes                                    | -6σ   |
| 1p33           | protein-co          | 5                | 5                 | 10                               | 0.345458                         | 0.345458                     | Yes                              | Yes                                    | -6σ   |
| 1p31.3         | protein-co          | 5                | 5                 | 10                               | 0.95174                          | 0.95174                      | Yes                              | Yes                                    | -6σ   |
| 2q35           | protein-co          | 5                | 5                 | 10                               | 3.45829                          | 3.45829                      | Yes                              | Yes                                    | -6σ   |
| 6q13-q14.      | protein-co          | 5                | 5                 | 10                               | 1.72203                          | 1.72203                      | Yes                              | Yes                                    | -6σ   |
| 9q21.12        | protein-co          | 5                | 5                 | 10                               | 0.066081                         | 0.066081                     | Yes                              | Yes                                    | -6σ   |
| 2q37.2         | protein-co          | 5                | 5                 | 10                               | -0.02815                         | -0.02815                     | Yes                              | Yes                                    | -6σ   |
| -              | tRNA                | 5                | 5                 | 10                               | 2.2095                           | 2.2095                       | Yes                              | Yes                                    | -6σ   |
| 15q26.2        | ncRNA               | 5                | 5                 | 10                               | 0.663109                         | 0.663109                     | Yes                              | Yes                                    | -3σ   |
| 12q24.23       | protein-co          | 5                | 5                 | 10                               | 0.166463                         | 0.166463                     | Yes                              | Yes                                    | -3σ   |
| 16p13.3        | ncRNA               | 5                | 5                 | 10                               | 0.136774                         | 0.136774                     | Yes                              | Yes                                    | -3σ   |
| 17q21.33       | protein-co          | 5                | 5                 | 10                               | 1.54951                          | 1.54951                      | Yes                              | Yes                                    | -3σ   |
| -              | tRNA                | 5                | 5                 | 10                               | 2.59126                          | 2.59126                      | Yes                              | Yes                                    | -3σ   |
| 6p23           | protein-co          | 5                | 5                 | 10                               | -0.19278                         | -0.19278                     | Yes                              | Yes                                    | -3σ   |
| 6q14.2         | protein-co          | 5                | 5                 | 10                               | 1.36454                          | 1.36454                      | Yes                              | Yes                                    | -3σ   |
| Xp22.13        | protein-co          | 5                | 5                 | 10                               | 1.32073                          | 1.32073                      | Yes                              | Yes                                    | -3σ   |
| 7p14.3         | protein-co          | 5                | 5                 | 10                               | 4.84779                          | 4.84779                      | Yes                              | Yes                                    | -3σ   |
| 17q11.2        | ncRNA               | 5                | 5                 | 10                               | 0.533998                         | 0.533998                     | Yes                              | Yes                                    | -3σ   |
| 2p22.2         | protein-co          | 5                | 5                 | 10                               | 0.567822                         | 0.567822                     | Yes                              | Yes                                    | -3σ   |
| 6p22.3         | protein-co          | 5                | 5                 | 10                               | -0.17518                         | -0.17518                     | Yes                              | Yes                                    | -3σ   |
| -              | protein-co          | 5                | 5                 | 10                               | 5.54553                          | 5.54553                      | Yes                              | Yes                                    | -3σ   |
| 13q14.2        | protein-co          | 5                | 5                 | 10                               | 4.99781                          | 4.99781                      | Yes                              | Yes                                    | -3σ   |
| 6p12.2         | ncRNA               | 5                | 5                 | 10                               | -0.07259                         | -0.07259                     | Yes                              | Yes                                    | -3σ   |
| 5q31.1         | protein-co          | 5                | 5                 | 10                               | 8.11235                          | 8.11235                      | Yes                              | Yes                                    | -3σ   |
| 10p13          | protein-co          | 5                | 5                 | 10                               | 1.35081                          | 1.35081                      | Yes                              | Yes                                    | -3σ   |
| 14q11.2        | protein-co          | 5                | 5                 | 10                               | 3.66799                          | 3.66799                      | Yes                              | Yes                                    | -3σ   |
| 5q22.1         | protein-co          | 5                | 5                 | 10                               | 2.76017                          | 2.76017                      | Yes                              | Yes                                    | -3σ   |

|               |            |   |   |    |          |          |     |     |             |
|---------------|------------|---|---|----|----------|----------|-----|-----|-------------|
| 9p11.2        | pseudo     | 5 | 5 | 10 | -0.01922 | -0.01922 | Yes | Yes | -3 $\sigma$ |
| 9q21.13       | protein-co | 5 | 5 | 10 | -0.05325 | -0.05325 | Yes | Yes | -3 $\sigma$ |
| 10q23.31      | protein-co | 5 | 5 | 10 | 2.18274  | 2.18274  | Yes | Yes | -3 $\sigma$ |
| 16q13         | protein-co | 5 | 5 | 10 | 4.83096  | 4.83096  | Yes | Yes | -3 $\sigma$ |
| 7p15.2-p15.31 | protein-co | 5 | 5 | 10 | 0.352413 | 0.352413 | Yes | Yes | -3 $\sigma$ |
| 5q33.1        | protein-co | 5 | 5 | 10 | 6.03223  | 6.03223  | Yes | Yes | -3 $\sigma$ |
| 1q43          | protein-co | 5 | 5 | 10 | 1.31885  | 1.31885  | Yes | Yes | -3 $\sigma$ |
| 5q35.2        | protein-co | 5 | 5 | 10 | 5.71197  | 5.71197  | Yes | Yes | -3 $\sigma$ |
| 6p24.1        | ncRNA      | 5 | 5 | 10 | 0.406489 | 0.406489 | Yes | Yes | -3 $\sigma$ |
| 5q33.1        | ncRNA      | 5 | 5 | 10 | 0.267174 | 0.267174 | Yes | Yes | -3 $\sigma$ |
| 1q32.1        | protein-co | 5 | 5 | 10 | 1.97488  | 1.97488  | Yes | Yes | -3 $\sigma$ |
| 9q21.13       | protein-co | 5 | 5 | 10 | 0.012971 | 0.012971 | Yes | Yes | -3 $\sigma$ |
| 13q32.2       | protein-co | 5 | 5 | 10 | 4.03243  | 4.03243  | Yes | No  | -2 $\sigma$ |
| 19p13.11      | protein-co | 5 | 5 | 10 | 5.8501   | 5.8501   | Yes | No  | -2 $\sigma$ |
| 17p13.1       | protein-co | 5 | 5 | 10 | 3.17827  | 3.17827  | Yes | No  | -2 $\sigma$ |
| 14q11.2       | protein-co | 5 | 5 | 10 | 3.8783   | 3.8783   | Yes | No  | -2 $\sigma$ |
| 8p23.1        | protein-co | 5 | 5 | 10 | 2.17232  | 2.17232  | Yes | No  | -2 $\sigma$ |
| 1q41          | protein-co | 5 | 5 | 10 | -0.14309 | -0.14309 | Yes | No  | -2 $\sigma$ |
| 1q31.3        | protein-co | 5 | 5 | 10 | 0.613487 | 0.613487 | Yes | No  | -2 $\sigma$ |
| 1p13.3        | protein-co | 5 | 5 | 10 | 1.27414  | 1.27414  | Yes | No  | -2 $\sigma$ |
| 13q13.3       | protein-co | 5 | 5 | 10 | 4.44452  | 4.44452  | Yes | No  | -2 $\sigma$ |
| 1p36.11       | protein-co | 5 | 5 | 10 | 0.382206 | 0.382206 | Yes | No  | -2 $\sigma$ |
| 10p13         | protein-co | 5 | 5 | 10 | 0.648286 | 0.648286 | Yes | No  | -2 $\sigma$ |
| 16q22.2       | protein-co | 5 | 5 | 10 | 0.810731 | 0.810731 | Yes | No  | -2 $\sigma$ |
| 12p13.33      | protein-co | 5 | 5 | 10 | 3.78251  | 3.78251  | Yes | No  | -2 $\sigma$ |
| 15q21.2       | protein-co | 5 | 5 | 10 | 2.46581  | 2.46581  | Yes | No  | -2 $\sigma$ |
| 1p13.3        | protein-co | 5 | 5 | 10 | 0.974086 | 0.974086 | Yes | No  | -2 $\sigma$ |
| 12q13.11      | protein-co | 5 | 5 | 10 | 1.23857  | 1.23857  | Yes | No  | -2 $\sigma$ |
| 13q12.13      | protein-co | 5 | 5 | 10 | 1.64878  | 1.64878  | Yes | No  | -2 $\sigma$ |
| 7p22.3        | protein-co | 5 | 5 | 10 | 3.92694  | 3.92694  | Yes | No  | -2 $\sigma$ |
| -             | protein-co | 5 | 5 | 10 | 3.26796  | 3.26796  | Yes | No  | -2 $\sigma$ |
| 9p24.3        | protein-co | 5 | 5 | 10 | 1.20041  | 1.20041  | Yes | No  | -2 $\sigma$ |
| 6p22.2        | protein-co | 5 | 5 | 10 | 6.87878  | 6.87878  | Yes | No  | -2 $\sigma$ |
| 22q12.1       | protein-co | 5 | 5 | 10 | 1.74765  | 1.74765  | Yes | No  | -2 $\sigma$ |
| 11p13         | protein-co | 5 | 5 | 10 | 1.12708  | 1.12708  | Yes | No  | -2 $\sigma$ |
| 7q21.12       | ncRNA      | 5 | 5 | 10 | 0.196528 | 0.196528 | Yes | No  | -2 $\sigma$ |
| Xq28          | protein-co | 5 | 5 | 10 | 2.44635  | 2.44635  | Yes | No  | -2 $\sigma$ |
| 2q37.3        | protein-co | 5 | 5 | 10 | 4.8273   | 4.8273   | Yes | No  | -2 $\sigma$ |
| 2p22.2        | ncRNA      | 5 | 5 | 10 | 2.57346  | 2.57346  | Yes | No  | -2 $\sigma$ |
| 11p13         | protein-co | 5 | 5 | 10 | 1.71584  | 1.71584  | Yes | No  | -2 $\sigma$ |
| 9q34.11       | protein-co | 5 | 5 | 10 | 1.65152  | 1.65152  | Yes | No  | -2 $\sigma$ |
| 16q23.2       | protein-co | 5 | 5 | 10 | 3.05856  | 3.05856  | Yes | No  | -2 $\sigma$ |
| 6p21.33       | protein-co | 5 | 5 | 10 | -0.05685 | -0.05685 | Yes | No  | -2 $\sigma$ |
| 13q13.1       | protein-co | 5 | 5 | 10 | 1.20335  | 1.20335  | Yes | No  | -2 $\sigma$ |
| 3p21.31       | protein-co | 5 | 5 | 10 | 0.753766 | 0.753766 | Yes | No  | -2 $\sigma$ |
| 4q25          | protein-co | 5 | 5 | 10 | 3.42234  | 3.42234  | Yes | No  | -2 $\sigma$ |
| 19q13.11      | protein-co | 5 | 5 | 10 | 1.29315  | 1.29315  | Yes | No  | -2 $\sigma$ |

|           |            |   |   |    |          |          |     |    |     |
|-----------|------------|---|---|----|----------|----------|-----|----|-----|
| 16p13.2-p | protein-co | 5 | 5 | 10 | 0.059599 | 0.059599 | Yes | No | -2σ |
| 10p11.22  | ncRNA      | 5 | 5 | 10 | -0.06296 | -0.06296 | Yes | No | -2σ |
| 15q22.2   | protein-co | 5 | 5 | 10 | 0.711934 | 0.711934 | Yes | No | -2σ |
| 1q32.3    | protein-co | 5 | 5 | 10 | 4.01042  | 4.01042  | Yes | No | -2σ |
| 2p25.3    | protein-co | 5 | 5 | 10 | 3.94507  | 3.94507  | Yes | No | -2σ |
| Xq28      | protein-co | 5 | 5 | 10 | 3.80524  | 3.80524  | Yes | No | -2σ |
| 3q21.2    | protein-co | 5 | 5 | 10 | 1.68039  | 1.68039  | Yes | No | -2σ |
| 1p34.3    | protein-co | 5 | 5 | 10 | 4.29658  | 4.29658  | Yes | No | -2σ |
| 6p12.2    | protein-co | 5 | 5 | 10 | 5.48184  | 5.48184  | Yes | No | -2σ |
| 8q24.13   | protein-co | 5 | 5 | 10 | 0.456848 | 0.456848 | Yes | No | -2σ |
| 1p36.32   | protein-co | 5 | 5 | 10 | 0.129268 | 0.129268 | Yes | No | -2σ |
| 8p21.2    | protein-co | 5 | 5 | 10 | 2.06696  | 2.06696  | Yes | No | -2σ |
| 3q13.2    | protein-co | 5 | 5 | 10 | 3.40691  | 3.40691  | Yes | No | -2σ |
| 13q14.11  | protein-co | 5 | 5 | 10 | 1.04946  | 1.04946  | Yes | No | -2σ |
| 7p15.3    | protein-co | 5 | 5 | 10 | 2.92893  | 2.92893  | Yes | No | -2σ |
| 10q22.1   | protein-co | 5 | 5 | 10 | 2.55133  | 2.55133  | Yes | No | -2σ |
| 17p13.2   | protein-co | 5 | 5 | 10 | 6.51062  | 6.51062  | Yes | No | -2σ |
| 10p12.2   | protein-co | 5 | 5 | 10 | 4.67175  | 4.67175  | Yes | No | -2σ |
| 1p36.33   | pseudo     | 5 | 5 | 10 | 3.81709  | 3.81709  | Yes | No | -2σ |
| 14q24.3   | protein-co | 5 | 5 | 10 | 2.01717  | 2.01717  | Yes | No | -2σ |
| 6q25.3    | protein-co | 5 | 5 | 10 | 3.76308  | 3.76308  | Yes | No | -2σ |
| 7p21.3    | protein-co | 5 | 5 | 10 | 3.95383  | 3.95383  | Yes | No | -2σ |
| 16q23.1   | protein-co | 5 | 5 | 10 | 0.597831 | 0.597831 | Yes | No | -2σ |
| Xp11.22   | protein-co | 5 | 5 | 10 | 3.0467   | 3.0467   | Yes | No | -2σ |
| 17q12     | protein-co | 5 | 5 | 10 | 3.20025  | 3.20025  | Yes | No | -2σ |
| 2p13.1    | protein-co | 5 | 5 | 10 | 1.20106  | 1.20106  | Yes | No | -2σ |
| 20p13     | protein-co | 5 | 5 | 10 | 4.06969  | 4.06969  | Yes | No | -2σ |
| 2q37.2    | protein-co | 5 | 5 | 10 | 1.12505  | 1.12505  | Yes | No | -2σ |
| 15q11.2   | protein-co | 5 | 5 | 10 | 3.2382   | 3.2382   | Yes | No | -2σ |
| 17q25.3   | protein-co | 5 | 5 | 10 | 3.25379  | 3.25379  | Yes | No | -2σ |
| 9p21.3    | protein-co | 5 | 5 | 10 | 2.70576  | 2.70576  | Yes | No | -2σ |
| 16p11.2   | protein-co | 5 | 5 | 10 | 1.08401  | 1.08401  | Yes | No | -2σ |
| 9p13.3    | protein-co | 5 | 5 | 10 | 3.45863  | 3.45863  | Yes | No | -2σ |
| 8p11.23   | protein-co | 5 | 5 | 10 | 2.75108  | 2.75108  | Yes | No | -2σ |
| 11q13.4   | protein-co | 5 | 5 | 10 | 2.05208  | 2.05208  | Yes | No | -2σ |
| Xq28      | protein-co | 5 | 5 | 10 | 0.637573 | 0.637573 | Yes | No | -2σ |
| 1p34.2    | protein-co | 5 | 5 | 10 | 5.71962  | 5.71962  | Yes | No | -2σ |
| 7q22.1    | protein-co | 5 | 5 | 10 | 1.25884  | 1.25884  | Yes | No | -2σ |
| Xq13.2    | protein-co | 5 | 5 | 10 | 1.01824  | 1.01824  | Yes | No | -2σ |
| -         | protein-co | 5 | 5 | 10 | 6.14022  | 6.14022  | Yes | No | -2σ |
| 1p31.1    | protein-co | 5 | 5 | 10 | 3.20659  | 3.20659  | Yes | No | -2σ |
| 7q22.1    | protein-co | 5 | 5 | 10 | 1.62649  | 1.62649  | Yes | No | -2σ |
| 16q23.1   | protein-co | 5 | 5 | 10 | 2.62072  | 2.62072  | Yes | No | -2σ |
| 19p13.3   | protein-co | 5 | 5 | 10 | 4.77074  | 4.77074  | Yes | No | -2σ |
| 2p15      | protein-co | 5 | 5 | 10 | 1.93832  | 1.93832  | Yes | No | -2σ |
| 17q11.2   | protein-co | 5 | 5 | 10 | 2.38815  | 2.38815  | Yes | No | -2σ |
| 16p11.2   | protein-co | 5 | 5 | 10 | 3.12559  | 3.12559  | Yes | No | -2σ |

|            |            |   |   |    |          |          |     |    |     |
|------------|------------|---|---|----|----------|----------|-----|----|-----|
| 9q34.11    | protein-co | 5 | 5 | 10 | 0.523349 | 0.523349 | Yes | No | -2σ |
| 5p13.2     | protein-co | 5 | 5 | 10 | 1.63966  | 1.63966  | Yes | No | -2σ |
| 1q21.3     | protein-co | 5 | 5 | 10 | 1.1947   | 1.1947   | Yes | No | -2σ |
| 3q22.1     | protein-co | 5 | 5 | 10 | 5.86225  | 5.86225  | Yes | No | -2σ |
| 5q12.3     | protein-co | 5 | 5 | 10 | 0.502454 | 0.502454 | Yes | No | -2σ |
| 2p13.3     | protein-co | 5 | 5 | 10 | 4.28967  | 4.28967  | Yes | No | -2σ |
| 17q23.2-q  | protein-co | 5 | 5 | 10 | 0.916354 | 0.916354 | Yes | No | -2σ |
| 4q23       | protein-co | 5 | 5 | 10 | 6.32219  | 6.32219  | Yes | No | -2σ |
| 4q22.1     | protein-co | 5 | 5 | 10 | 1.63612  | 1.63612  | Yes | No | -2σ |
| 12p12.3    | protein-co | 5 | 5 | 10 | 5.61061  | 5.61061  | Yes | No | -2σ |
| 5q35.2     | protein-co | 5 | 5 | 10 | 3.03529  | 3.03529  | Yes | No | -2σ |
| 19p13.3    | protein-co | 5 | 5 | 10 | 3.36957  | 3.36957  | Yes | No | -2σ |
| 12p13.2    | protein-co | 5 | 5 | 10 | 6.31883  | 6.31883  | Yes | No | -2σ |
| 8p23.1     | protein-co | 5 | 5 | 10 | 3.66983  | 3.66983  | Yes | No | -2σ |
| 1p36.22    | protein-co | 5 | 5 | 10 | 2.36055  | 2.36055  | Yes | No | -2σ |
| 14q32.33   | protein-co | 5 | 5 | 10 | 3.73492  | 3.73492  | Yes | No | -2σ |
| 22q11.21   | protein-co | 5 | 5 | 10 | 2.43535  | 2.43535  | Yes | No | -2σ |
| 16p13.13-  | protein-co | 5 | 5 | 10 | 1.79638  | 1.79638  | Yes | No | -2σ |
| 15q15.1    | protein-co | 5 | 5 | 10 | 2.53367  | 2.53367  | Yes | No | -2σ |
| 1q42.12    | protein-co | 5 | 5 | 10 | 5.00528  | 5.00528  | Yes | No | -2σ |
| 9p23-p22.. | protein-co | 5 | 5 | 10 | 0.910185 | 0.910185 | Yes | No | -2σ |
| 6q24.2     | protein-co | 5 | 5 | 10 | 2.94438  | 2.94438  | Yes | No | -2σ |
| 1q44       | protein-co | 5 | 5 | 10 | 1.7894   | 1.7894   | Yes | No | -2σ |
| 1p34.2     | protein-co | 5 | 5 | 10 | 0.48424  | 0.48424  | Yes | No | -2σ |
| 9q21.13    | protein-co | 5 | 5 | 10 | 2.16104  | 2.16104  | Yes | No | -2σ |
| 19p13.11   | protein-co | 5 | 5 | 10 | 2.11384  | 2.11384  | Yes | No | -2σ |
| 9p21.1     | protein-co | 5 | 5 | 10 | 3.71139  | 3.71139  | Yes | No | -2σ |
| 2p16.2     | protein-co | 5 | 5 | 10 | 3.91745  | 3.91745  | Yes | No | -2σ |
| 11q14.1    | protein-co | 5 | 5 | 10 | 1.55441  | 1.55441  | Yes | No | -2σ |
| 19p13.11   | protein-co | 5 | 5 | 10 | 4.66895  | 4.66895  | Yes | No | -2σ |
| 13q32.1    | protein-co | 5 | 5 | 10 | 1.22277  | 1.22277  | Yes | No | -2σ |
| 7p15.3     | protein-co | 5 | 5 | 10 | 3.23656  | 3.23656  | Yes | No | -2σ |
| 2q33.2     | protein-co | 5 | 5 | 10 | 0.682611 | 0.682611 | Yes | No | -2σ |
| 2q11.1     | protein-co | 5 | 5 | 10 | 1.01183  | 1.01183  | Yes | No | -2σ |
| 7p13       | protein-co | 5 | 5 | 10 | 3.69143  | 3.69143  | Yes | No | -2σ |
| 9p13.3     | protein-co | 5 | 5 | 10 | 4.1661   | 4.1661   | Yes | No | -2σ |
| 6q27       | protein-co | 5 | 5 | 10 | 2.99613  | 2.99613  | Yes | No | -2σ |
| 5q35.2     | protein-co | 5 | 5 | 10 | 3.45076  | 3.45076  | Yes | No | -2σ |
| 1q42.2     | protein-co | 5 | 5 | 10 | 0.896248 | 0.896248 | Yes | No | -2σ |
| 19q13.12   | protein-co | 5 | 5 | 10 | 1.69417  | 1.69417  | Yes | No | -2σ |
| 17q21.2    | protein-co | 5 | 5 | 10 | 0.970985 | 0.970985 | Yes | No | -2σ |
| 1q21.3     | protein-co | 5 | 5 | 10 | 2.19753  | 2.19753  | Yes | No | -2σ |
| 6p25.2     | protein-co | 5 | 5 | 10 | 0.184567 | 0.184567 | Yes | No | -2σ |
| 9q21.11    | protein-co | 5 | 5 | 10 | 2.37275  | 2.37275  | Yes | No | -2σ |
| 8q22.3     | protein-co | 5 | 5 | 10 | 3.02535  | 3.02535  | Yes | No | -2σ |
| 1q21.2     | protein-co | 5 | 5 | 10 | 6.83043  | 6.83043  | Yes | No | -2σ |
| 22q12.3    | protein-co | 5 | 5 | 10 | 2.51199  | 2.51199  | Yes | No | -2σ |

|           |            |   |   |    |          |          |     |    |     |
|-----------|------------|---|---|----|----------|----------|-----|----|-----|
| Xq22.2    | protein-co | 5 | 5 | 10 | 3.21867  | 3.21867  | Yes | No | -2σ |
| 17p13.2   | protein-co | 5 | 5 | 10 | 2.38957  | 2.38957  | Yes | No | -2σ |
| 10q22.1   | protein-co | 5 | 5 | 10 | 2.84979  | 2.84979  | Yes | No | -2σ |
| 8q21.13   | protein-co | 5 | 5 | 10 | 3.23049  | 3.23049  | Yes | No | -2σ |
| 20q13.13  | protein-co | 5 | 5 | 10 | 2.61071  | 2.61071  | Yes | No | -2σ |
| 17q21.32  | protein-co | 5 | 5 | 10 | 4.86559  | 4.86559  | Yes | No | -2σ |
| 21q21.3   | protein-co | 5 | 5 | 10 | 1.34996  | 1.34996  | Yes | No | +2σ |
| 2q12.3    | protein-co | 5 | 5 | 10 | 3.31033  | 3.31033  | Yes | No | +2σ |
| 2p24.2    | protein-co | 5 | 5 | 10 | 2.46227  | 2.46227  | Yes | No | +2σ |
| 6q13      | protein-co | 5 | 5 | 10 | 3.91378  | 3.91378  | Yes | No | +2σ |
| 2p23.3    | protein-co | 5 | 5 | 10 | 1.93002  | 1.93002  | Yes | No | +2σ |
| 20q13.33  | protein-co | 5 | 5 | 10 | 2.69984  | 2.69984  | Yes | No | +2σ |
| 6p21.32   | protein-co | 5 | 5 | 10 | 4.48248  | 4.48248  | Yes | No | +2σ |
| 16q23.1   | protein-co | 5 | 5 | 10 | 1.04773  | 1.04773  | Yes | No | +2σ |
| 8q22.3    | protein-co | 5 | 5 | 10 | 4.03155  | 4.03155  | Yes | No | +2σ |
| 2q12.3    | protein-co | 5 | 5 | 10 | 2.36478  | 2.36478  | Yes | No | +2σ |
| 17p12     | protein-co | 5 | 5 | 10 | 0.643932 | 0.643932 | Yes | No | +2σ |
| 22q12.1   | protein-co | 5 | 5 | 10 | 2.45366  | 2.45366  | Yes | No | +2σ |
| 7q31.2    | protein-co | 5 | 5 | 10 | 3.53127  | 3.53127  | Yes | No | +2σ |
| 8q24.3    | ncRNA      | 5 | 5 | 10 | 2.10274  | 2.10274  | Yes | No | +2σ |
| Xp11.22   | protein-co | 5 | 5 | 10 | 1.96713  | 1.96713  | Yes | No | +2σ |
| 9q21.33   | protein-co | 5 | 5 | 10 | 3.16716  | 3.16716  | Yes | No | +2σ |
| 11p15.5   | protein-co | 5 | 5 | 10 | 2.17379  | 2.17379  | Yes | No | +2σ |
| 1p12      | protein-co | 5 | 5 | 10 | 2.76391  | 2.76391  | Yes | No | +2σ |
| 19q13.33  | protein-co | 5 | 5 | 10 | 3.59886  | 3.59886  | Yes | No | +2σ |
| 5q31.3    | protein-co | 5 | 5 | 10 | 1.01444  | 1.01444  | Yes | No | +2σ |
| 18q21.31  | protein-co | 5 | 5 | 10 | 3.75236  | 3.75236  | Yes | No | +2σ |
| 9q33.3-q3 | protein-co | 5 | 5 | 10 | 1.53516  | 1.53516  | Yes | No | +2σ |
| 1p36.12   | protein-co | 5 | 5 | 10 | 2.95792  | 2.95792  | Yes | No | +2σ |
| Xp11.21   | protein-co | 5 | 5 | 10 | 0.748549 | 0.748549 | Yes | No | +2σ |
| 7q36.1    | protein-co | 5 | 5 | 10 | 3.06685  | 3.06685  | Yes | No | +2σ |
| 19q13.31  | protein-co | 5 | 5 | 10 | 2.90408  | 2.90408  | Yes | No | +2σ |
| 16p13.3   | protein-co | 5 | 5 | 10 | 1.19824  | 1.19824  | Yes | No | +2σ |
| 11p15.4   | protein-co | 5 | 5 | 10 | 1.5974   | 1.5974   | Yes | No | +2σ |
| 8q24.22   | protein-co | 5 | 5 | 10 | 2.25629  | 2.25629  | Yes | No | +2σ |
| 16q24.3   | protein-co | 5 | 5 | 10 | 0.288559 | 0.288559 | Yes | No | +2σ |
| 22q13.33  | protein-co | 5 | 5 | 10 | 2.84615  | 2.84615  | Yes | No | +2σ |
| 14q21.1   | protein-co | 5 | 5 | 10 | 3.43509  | 3.43509  | Yes | No | +2σ |
| 12q24.12  | protein-co | 5 | 5 | 10 | 0.747053 | 0.747053 | Yes | No | +2σ |
| 22q11.21  | protein-co | 5 | 5 | 10 | 1.81481  | 1.81481  | Yes | No | +2σ |
| 8q21.13   | protein-co | 5 | 5 | 10 | 8.33335  | 8.33335  | Yes | No | +2σ |
| 1p32.3    | protein-co | 5 | 5 | 10 | 2.9851   | 2.9851   | Yes | No | +2σ |
| 9q34.3    | protein-co | 5 | 5 | 10 | 1.79335  | 1.79335  | Yes | No | +2σ |
| 11p13     | protein-co | 5 | 5 | 10 | 5.58265  | 5.58265  | Yes | No | +2σ |
| 16q22.1   | protein-co | 5 | 5 | 10 | 1.56213  | 1.56213  | Yes | No | +2σ |
| 6p12.3    | protein-co | 5 | 5 | 10 | 3.65408  | 3.65408  | Yes | No | +2σ |
| 10q25.3   | protein-co | 5 | 5 | 10 | 3.08027  | 3.08027  | Yes | No | +2σ |

|          |            |   |   |    |          |          |     |     |     |
|----------|------------|---|---|----|----------|----------|-----|-----|-----|
| 2p13.3   | protein-co | 5 | 5 | 10 | 3.0183   | 3.0183   | Yes | No  | +2σ |
| 19p13.3  | protein-co | 5 | 5 | 10 | 4.959    | 4.959    | Yes | No  | +2σ |
| 1q25.2   | protein-co | 5 | 5 | 10 | 3.0358   | 3.0358   | Yes | No  | +2σ |
| Xq28     | protein-co | 5 | 5 | 10 | 4.93123  | 4.93123  | Yes | No  | +2σ |
| 2q24.3   | protein-co | 5 | 5 | 10 | 3.20854  | 3.20854  | Yes | No  | +2σ |
| 5q11.2   | protein-co | 5 | 5 | 10 | 3.3848   | 3.3848   | Yes | No  | +2σ |
| 12q22    | pseudo     | 5 | 5 | 10 | 1.01119  | 1.01119  | Yes | No  | +2σ |
| 1p36.32  | protein-co | 5 | 5 | 10 | 3.29156  | 3.29156  | Yes | No  | +2σ |
| 3p21.31  | protein-co | 5 | 5 | 10 | 4.12013  | 4.12013  | Yes | No  | +2σ |
| 14q24.3  | protein-co | 5 | 5 | 10 | 2.97438  | 2.97438  | Yes | No  | +2σ |
| 17q25.1  | protein-co | 5 | 5 | 10 | 2.22288  | 2.22288  | Yes | No  | +2σ |
| 11p15.5  | protein-co | 5 | 5 | 10 | 0.15153  | 0.15153  | Yes | No  | +2σ |
| 11q13.4  | protein-co | 5 | 5 | 10 | 1.12556  | 1.12556  | Yes | No  | +2σ |
| 1p36.22  | protein-co | 5 | 5 | 10 | 1.35416  | 1.35416  | Yes | No  | +2σ |
| 22q13.31 | protein-co | 5 | 5 | 10 | 2.88256  | 2.88256  | Yes | No  | +2σ |
| 17q21.2  | protein-co | 5 | 5 | 10 | 0.476575 | 0.476575 | Yes | No  | +2σ |
| 2q13     | protein-co | 5 | 5 | 10 | 3.50021  | 3.50021  | Yes | No  | +2σ |
| 14q12    | protein-co | 5 | 5 | 10 | 1.28509  | 1.28509  | Yes | No  | +2σ |
| 5q31.2   | protein-co | 5 | 5 | 10 | 3.00639  | 3.00639  | Yes | No  | +2σ |
| 14q32.33 | protein-co | 5 | 5 | 10 | 1.78553  | 1.78553  | Yes | No  | +2σ |
| 1p36.31  | protein-co | 5 | 5 | 10 | 2.50588  | 2.50588  | Yes | No  | +2σ |
| 12q21.31 | protein-co | 5 | 5 | 10 | 1.4609   | 1.4609   | Yes | No  | +2σ |
| 1p36.33  | protein-co | 5 | 5 | 10 | 0.374736 | 0.374736 | Yes | No  | +2σ |
| 8p23.1   | protein-co | 5 | 5 | 10 | 5.74682  | 5.74682  | Yes | No  | +2σ |
| 16q12.1  | protein-co | 5 | 5 | 10 | 0.655691 | 0.655691 | Yes | No  | +2σ |
| 16p11.2  | protein-co | 5 | 5 | 10 | 5.09076  | 5.09076  | Yes | No  | +2σ |
| 6q13     | protein-co | 5 | 5 | 10 | 1.94116  | 1.94116  | Yes | No  | +2σ |
| 17q11.2  | protein-co | 5 | 5 | 10 | 1.5921   | 1.5921   | Yes | No  | +2σ |
| 5p15.33  | protein-co | 5 | 5 | 10 | 0.87288  | 0.87288  | Yes | Yes | +3σ |
| Xq22.3   | protein-co | 5 | 5 | 10 | -0.13415 | -0.13415 | Yes | Yes | +3σ |
| 17q21.31 | protein-co | 5 | 5 | 10 | 5.33205  | 5.33205  | Yes | Yes | +3σ |
| 20p11.23 | protein-co | 5 | 5 | 10 | 0.43161  | 0.43161  | Yes | Yes | +3σ |
| 8q24.3   | protein-co | 5 | 5 | 10 | 2.24305  | 2.24305  | Yes | Yes | +3σ |
| 1q41     | protein-co | 5 | 5 | 10 | 0.156777 | 0.156777 | Yes | Yes | +3σ |
| 18q21.1  | ncRNA      | 5 | 5 | 10 | 4.1269   | 4.1269   | Yes | Yes | +3σ |
| 11q13.1  | ncRNA      | 5 | 5 | 10 | 7.63148  | 7.63148  | Yes | Yes | +3σ |
| 11q24.2  | protein-co | 5 | 5 | 10 | 0.752021 | 0.752021 | Yes | Yes | +3σ |
| 2q11.2   | protein-co | 5 | 5 | 10 | -0.15228 | -0.15228 | Yes | Yes | +3σ |
| 7q21.13  | protein-co | 5 | 5 | 10 | 2.43479  | 2.43479  | Yes | Yes | +3σ |
| 2q37.3   | protein-co | 5 | 5 | 10 | 5.04904  | 5.04904  | Yes | Yes | +3σ |
| 17p13.2  | protein-co | 5 | 5 | 10 | 4.12229  | 4.12229  | Yes | Yes | +3σ |
| 11q13.2  | protein-co | 5 | 5 | 10 | 2.29527  | 2.29527  | Yes | Yes | +3σ |
| 3p22.1   | protein-co | 5 | 5 | 10 | 0.445795 | 0.445795 | Yes | Yes | +3σ |
| 22q13.33 | protein-co | 5 | 5 | 10 | 1.50676  | 1.50676  | Yes | Yes | +3σ |
| 3q26.31  | protein-co | 5 | 5 | 10 | 4.94938  | 4.94938  | Yes | Yes | +3σ |
| 16q24.3  | protein-co | 5 | 5 | 10 | 0.613544 | 0.613544 | Yes | Yes | +3σ |
| 10q23.31 | protein-co | 5 | 5 | 10 | -0.05828 | -0.05828 | Yes | Yes | +3σ |

|          |            |   |   |    |          |          |     |     |       |
|----------|------------|---|---|----|----------|----------|-----|-----|-------|
| 15q15.1  | protein-co | 5 | 5 | 10 | 4.56553  | 4.56553  | Yes | Yes | +3σ   |
| 18q21.2  | protein-co | 5 | 5 | 10 | 2.9952   | 2.9952   | Yes | Yes | +3σ   |
| 4p16.3   | protein-co | 5 | 5 | 10 | 2.44449  | 2.44449  | Yes | Yes | +3σ   |
| 21q22.3  | protein-co | 5 | 5 | 10 | 2.58736  | 2.58736  | Yes | Yes | +3σ   |
| 6q23.2   | protein-co | 5 | 5 | 10 | 0.603261 | 0.603261 | Yes | Yes | +3σ   |
| 2q32.3   | protein-co | 5 | 5 | 10 | 0.669674 | 0.669674 | Yes | Yes | +3σ   |
| 15q15.1  | protein-co | 5 | 5 | 10 | 0.779203 | 0.779203 | Yes | Yes | +3σ   |
| 11q14.2  | protein-co | 5 | 5 | 10 | 3.10953  | 3.10953  | Yes | Yes | +3σ   |
| 6q26     | protein-co | 5 | 5 | 10 | 0.104156 | 0.104156 | Yes | Yes | +6σ   |
| 7p22.3   | protein-co | 5 | 5 | 10 | 3.25413  | 3.25413  | Yes | Yes | +6σ   |
| 15q21.1  | protein-co | 5 | 5 | 10 | 0.947363 | 0.947363 | Yes | Yes | +6σ   |
| 11q13.1  | protein-co | 5 | 5 | 10 | -0.01093 | -0.01093 | Yes | Yes | +6σ   |
| 6q25.1   | protein-co | 5 | 5 | 10 | 2.55238  | 2.55238  | Yes | Yes | +6σ   |
| 7p15.3   | protein-co | 5 | 5 | 10 | 2.71736  | 2.71736  | Yes | Yes | +6σ   |
| 3q24     | protein-co | 5 | 5 | 10 | 2.27628  | 2.27628  | Yes | Yes | +6σ   |
| 17q25.3  | protein-co | 5 | 5 | 10 | 1.56918  | 1.56918  | Yes | Yes | +6σ   |
| 9q34.3   | protein-co | 5 | 5 | 10 | 2.53058  | 2.53058  | Yes | Yes | +6σ   |
| 11q24.3  | protein-co | 5 | 5 | 10 | 2.16992  | 2.16992  | Yes | Yes | +6σ   |
| 9p13.3   | protein-co | 5 | 5 | 10 | 5.44301  | 5.44301  | Yes | Yes | +6σ   |
| 5q11.1   | protein-co | 5 | 5 | 10 | 1.28414  | 1.28414  | Yes | Yes | +6σ   |
| 6q27     | protein-co | 5 | 5 | 10 | 0.770828 | 0.770828 | Yes | Yes | +6σ   |
| 10q26.3  | protein-co | 5 | 5 | 10 | 1.63723  | 1.63723  | Yes | Yes | +6σ   |
| 11q13.1  | ncRNA      | 5 | 5 | 10 | 3.56074  | 3.56074  | Yes | Yes | +6σ   |
| 22q12.3  | protein-co | 5 | 5 | 10 | 2.82606  | 2.82606  | Yes | Yes | +6σ   |
| 19q13.33 | protein-co | 5 | 5 | 10 | 0.301505 | 0.301505 | Yes | Yes | +6σ   |
| 1p36.32  | protein-co | 5 | 5 | 10 | 0.001767 | 0.001767 | Yes | Yes | > +6σ |