**Table 1(a)** Differentially Expressed Genes (DEGs) (|Log2FoldChange| > 1 and *P-value* < 0.05) of delta11 vs mock.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Log2FoldChange | Average Expression | *P-value* |
| Downregulated | SLC35F3 | -5.377 | 4.589 | 0.000 |
|  | LRRC4 | -4.316 | 2.052 | 0.009 |
|  | CTSL | -3.787 | 3.745 | 0.003 |
|  | DCAF4L1 | -3.707 | 2.326 | 0.012 |
|  | S1PR3 | -3.671 | 2.035 | 0.031 |
|  | TNR | -3.665 | 2.189 | 0.002 |
|  | TRGC1 | -3.607 | 4.035 | 0.007 |
|  | PADI2 | -3.561 | 2.632 | 0.007 |
|  | AP000880.1 | -3.425 | 2.736 | 0.036 |
|  | HNRNPA1P21 | -3.392 | 2.664 | 0.020 |
|  | MYT1 | -3.365 | 2.510 | 0.022 |
|  | TNFRSF11A | -3.325 | 3.808 | 0.016 |
|  | DNAJC6 | -3.310 | 2.652 | 0.016 |
|  | PRKG1 | -3.235 | 1.095 | 0.006 |
|  | LTBR | -3.168 | 3.292 | 0.015 |
|  | HOXA-AS3 | -3.136 | 0.692 | 0.032 |
|  | H3P43 | -3.107 | 1.832 | 0.010 |
|  | OXT | -3.105 | 0.999 | 0.026 |
|  | AC013403.2 | -3.094 | 1.067 | 0.042 |
|  | LYPD6B | -3.007 | 3.381 | 0.014 |
|  | TRAV21 | -2.929 | 3.493 | 0.028 |
|  | PDK4 | -2.850 | 3.174 | 0.049 |
|  | MYH2 | -2.752 | 0.839 | 0.042 |
|  | AL365203.2 | -2.737 | 2.138 | 0.034 |
|  | DAB1 | -2.703 | 0.694 | 0.043 |
|  | SLC7A5P1 | -2.506 | 3.331 | 0.032 |
|  | GPNMB | -2.457 | 2.001 | 0.042 |
|  | NPDC1 | -2.422 | 6.071 | 0.045 |
|  | AP001767.3 | -2.422 | 3.686 | 0.024 |
|  | CHI3L1 | -2.415 | 8.549 | 0.040 |
|  | SPP1 | -2.314 | 2.034 | 0.028 |
|  | ABCA1 | -2.202 | 7.748 | 0.020 |
|  | GLT8D2 | -2.201 | 1.888 | 0.003 |
|  | NRXN1 | -2.121 | 2.138 | 0.045 |
|  | PPIAP13 | -2.066 | 3.328 | 0.028 |
|  | AC009075.2 | -1.999 | 1.497 | 0.027 |
|  | CELF5 | -1.957 | 4.880 | 0.005 |
|  | SLC7A8 | -1.878 | 13.968 | 0.005 |
|  | HLF | -1.790 | 7.117 | 0.001 |
|  | LRRN3 | -1.721 | 11.592 | 0.048 |
|  | KIRREL3 | -1.620 | 19.417 | 0.035 |
|  | COL6A3 | -1.600 | 4.727 | 0.013 |
|  | DUSP6 | -1.555 | 12.342 | 0.005 |
|  | SLC4A4 | -1.512 | 2.540 | 0.024 |
|  | ANKS1B | -1.510 | 3.972 | 0.032 |
|  | HNRNPA1P61 | -1.477 | 4.641 | 0.020 |
|  | RPL12P2 | -1.476 | 5.122 | 0.039 |
|  | LRRC49 | -1.425 | 3.353 | 0.022 |
|  | ADAM11 | -1.329 | 4.397 | 0.046 |
|  | YWHAZP2 | -1.251 | 9.821 | 0.023 |
|  | CCN1 | -1.236 | 634.600 | 0.009 |
|  | MAP1A | -1.222 | 19.997 | 0.009 |
|  | AC022149.1 | -1.148 | 10.295 | 0.044 |
|  | RORA | -1.142 | 17.526 | 0.010 |
|  | RORC | -1.071 | 18.805 | 0.035 |
|  | GOLGA7B | -1.068 | 5.214 | 0.047 |
|  | NR6A1 | -1.055 | 18.622 | 0.021 |
|  | ID2 | -1.044 | 378.771 | 0.029 |
|  | KRT8P10 | -1.013 | 42.506 | 0.031 |
|  | RDH10 | -1.009 | 40.003 | 0.007 |
|  |  |  |  |  |
| Upregulated | ZNF629 | 1.070 | 15.835 | 0.043 |
|  | POLR2G | 1.089 | 81.951 | 0.037 |
|  | NFATC4 | 1.148 | 16.395 | 0.021 |
|  | DUS2 | 1.148 | 85.158 | 0.024 |
|  | RCE1 | 1.168 | 33.191 | 0.040 |
|  | POU2F2 | 1.175 | 678.860 | 0.020 |
|  | DTX1 | 1.193 | 251.260 | 0.035 |
|  | EPB41L5 | 1.233 | 16.008 | 0.026 |
|  | CTNNBL1 | 1.299 | 101.142 | 0.033 |
|  | SH3BP5 | 1.304 | 34.544 | 0.048 |
|  | ZHX3 | 1.353 | 26.200 | 0.049 |
|  | JADE3 | 1.364 | 31.897 | 0.021 |
|  | DTNBP1 | 1.380 | 69.118 | 0.031 |
|  | ZKSCAN3 | 1.387 | 8.924 | 0.040 |
|  | PIP5K1B | 1.395 | 20.349 | 0.033 |
|  | ZC3HC1 | 1.419 | 20.588 | 0.041 |
|  | PHF7 | 1.422 | 8.004 | 0.049 |
|  | SLC24A1 | 1.435 | 11.291 | 0.039 |
|  | RAB30-DT | 1.453 | 8.786 | 0.049 |
|  | TCEAL4 | 1.483 | 15.796 | 0.049 |
|  | C17orf113 | 1.492 | 4.548 | 0.050 |
|  | ALKBH8 | 1.507 | 11.339 | 0.048 |
|  | BCL2A1 | 1.512 | 58.732 | 0.031 |
|  | MTND2P28 | 1.513 | 15.184 | 0.041 |
|  | ALKBH2 | 1.513 | 14.118 | 0.047 |
|  | NRDE2 | 1.514 | 26.947 | 0.045 |
|  | CHST10 | 1.515 | 10.098 | 0.050 |
|  | CEP135 | 1.517 | 26.610 | 0.039 |
|  | ZNF234 | 1.554 | 17.665 | 0.037 |
|  | H2BC20P | 1.568 | 5.671 | 0.046 |
|  | RRP9 | 1.601 | 42.395 | 0.027 |
|  | ZSWIM7 | 1.603 | 21.540 | 0.020 |
|  | BCAR3 | 1.604 | 35.777 | 0.029 |
|  | AC005674.2 | 1.640 | 8.683 | 0.047 |
|  | P2RX5 | 1.652 | 149.256 | 0.046 |
|  | S100A13 | 1.663 | 4.082 | 0.050 |
|  | RPP25L | 1.669 | 26.791 | 0.030 |
|  | MTERF2 | 1.676 | 5.788 | 0.050 |
|  | N4BP2L2-IT2 | 1.687 | 6.748 | 0.043 |
|  | ENDOV | 1.689 | 17.946 | 0.028 |
|  | RMDN2 | 1.717 | 4.371 | 0.035 |
|  | GSDME | 1.717 | 9.340 | 0.017 |
|  | MACC1 | 1.724 | 17.403 | 0.031 |
|  | IGLC6 | 1.732 | 10.772 | 0.041 |
|  | TUBBP1 | 1.739 | 5.112 | 0.049 |
|  | RPS20P14 | 1.748 | 6.446 | 0.049 |
|  | AIFM2 | 1.749 | 28.059 | 0.048 |
|  | PLD4 | 1.753 | 134.160 | 0.035 |
|  | SYNGR3 | 1.757 | 20.983 | 0.031 |
|  | GAS7 | 1.792 | 17.936 | 0.009 |
|  | ANXA4 | 1.793 | 48.441 | 0.036 |
|  | ZNF846 | 1.795 | 7.554 | 0.016 |
|  | VPS33B | 1.797 | 6.953 | 0.048 |
|  | LINC01004 | 1.798 | 2.248 | 0.034 |
|  | ZSCAN16-AS1 | 1.805 | 6.306 | 0.046 |
|  | GPAT2 | 1.817 | 9.021 | 0.026 |
|  | ZNF432 | 1.817 | 16.324 | 0.015 |
|  | MRPL27 | 1.827 | 40.033 | 0.032 |
|  | SAMD12 | 1.831 | 6.342 | 0.048 |
|  | ZNF572 | 1.872 | 5.540 | 0.030 |
|  | NRSN2 | 1.877 | 15.261 | 0.026 |
|  | ZCCHC18 | 1.880 | 7.773 | 0.036 |
|  | THTPA | 1.885 | 5.185 | 0.049 |
|  | LBHD1 | 1.888 | 7.474 | 0.035 |
|  | ASIC3 | 1.893 | 4.828 | 0.017 |
|  | BCL2L15 | 1.912 | 2.109 | 0.018 |
|  | POLR2I | 1.927 | 8.498 | 0.045 |
|  | FOXN3-AS1 | 1.936 | 2.838 | 0.047 |
|  | AL691432.1 | 1.937 | 5.283 | 0.044 |
|  | RPS6P25 | 1.961 | 2.250 | 0.025 |
|  | IRAK3 | 1.975 | 15.155 | 0.017 |
|  | DACT1 | 1.978 | 6.933 | 0.023 |
|  | CD1A | 1.981 | 2.581 | 0.039 |
|  | HDX | 1.984 | 1.886 | 0.023 |
|  | MICOS10 | 1.993 | 3.390 | 0.043 |
|  | AC023908.3 | 1.998 | 1.380 | 0.049 |
|  | ZFP28 | 2.020 | 9.447 | 0.021 |
|  | STEAP3 | 2.028 | 1.961 | 0.046 |
|  | RPSAP54 | 2.030 | 2.094 | 0.045 |
|  | ECHDC3 | 2.043 | 8.720 | 0.037 |
|  | AC243960.2 | 2.057 | 1.195 | 0.043 |
|  | AC018755.3 | 2.076 | 8.313 | 0.035 |
|  | RPL18AP3 | 2.083 | 40.279 | 0.009 |
|  | C19orf18 | 2.089 | 1.480 | 0.038 |
|  | ROGDI | 2.100 | 9.470 | 0.024 |
|  | MYBPC2 | 2.102 | 4.078 | 0.028 |
|  | AC002091.1 | 2.106 | 3.088 | 0.034 |
|  | TEX52 | 2.139 | 1.042 | 0.047 |
|  | ADAP2 | 2.139 | 12.981 | 0.046 |
|  | GPRC5C | 2.146 | 1.678 | 0.030 |
|  | FRMPD3 | 2.159 | 1.957 | 0.023 |
|  | CBWD4P | 2.164 | 1.723 | 0.036 |
|  | PXMP2 | 2.181 | 6.057 | 0.026 |
|  | NRGN | 2.195 | 11.915 | 0.027 |
|  | ELOA-AS1 | 2.209 | 3.838 | 0.033 |
|  | RPL7AP50 | 2.240 | 1.617 | 0.034 |
|  | RPL23P8 | 2.243 | 1.497 | 0.047 |
|  | MECR | 2.248 | 23.870 | 0.029 |
|  | IGKV1D-43 | 2.262 | 2.191 | 0.023 |
|  | MEF2B | 2.272 | 2.170 | 0.039 |
|  | AC097263.1 | 2.284 | 2.561 | 0.027 |
|  | SPOUT1 | 2.290 | 1.284 | 0.022 |
|  | Z97634.1 | 2.292 | 1.845 | 0.029 |
|  | AL162427.1 | 2.292 | 1.675 | 0.021 |
|  | ATP8B1 | 2.308 | 4.739 | 0.010 |
|  | IGKV1D-33 | 2.310 | 1.471 | 0.021 |
|  | ZNF100 | 2.314 | 3.013 | 0.013 |
|  | CKMT2-AS1 | 2.315 | 7.072 | 0.024 |
|  | AC008026.1 | 2.317 | 1.109 | 0.042 |
|  | ZNF285 | 2.332 | 6.534 | 0.013 |
|  | IL10 | 2.334 | 7.470 | 0.011 |
|  | AP002840.2 | 2.363 | 1.301 | 0.049 |
|  | FMO5 | 2.375 | 3.935 | 0.015 |
|  | AC007114.1 | 2.381 | 7.090 | 0.018 |
|  | AC099568.2 | 2.382 | 2.674 | 0.044 |
|  | RN7SL842P | 2.391 | 1.639 | 0.043 |
|  | CYS1 | 2.399 | 3.945 | 0.032 |
|  | AC093110.1 | 2.404 | 1.160 | 0.045 |
|  | HNF1B | 2.410 | 11.422 | 0.002 |
|  | AC092868.1 | 2.443 | 21.524 | 0.004 |
|  | ANKRD50 | 2.457 | 1.323 | 0.038 |
|  | BAIAP2L1 | 2.472 | 3.248 | 0.025 |
|  | LINC01619 | 2.483 | 3.501 | 0.004 |
|  | IGHV4-4 | 2.484 | 7.221 | 0.003 |
|  | CYP51A1 | 2.493 | 3.721 | 0.024 |
|  | EFCAB2 | 2.500 | 4.038 | 0.020 |
|  | SLC9B1 | 2.500 | 0.895 | 0.039 |
|  | AC245140.2 | 2.522 | 3.767 | 0.022 |
|  | RBMS1P1 | 2.529 | 2.629 | 0.022 |
|  | MTND1P23 | 2.543 | 14.205 | 0.003 |
|  | SMIM1 | 2.564 | 2.810 | 0.044 |
|  | BRSK2 | 2.610 | 0.905 | 0.042 |
|  | IGLV10-54 | 2.616 | 4.903 | 0.020 |
|  | SPHK1 | 2.616 | 5.528 | 0.040 |
|  | AC091849.1 | 2.639 | 1.453 | 0.016 |
|  | PLEKHH1 | 2.643 | 3.639 | 0.030 |
|  | TNS1 | 2.650 | 5.068 | 0.032 |
|  | AC004381.3 | 2.677 | 0.917 | 0.050 |
|  | AC079921.2 | 2.683 | 4.155 | 0.030 |
|  | AL161756.3 | 2.690 | 1.180 | 0.039 |
|  | KTN1-AS1 | 2.697 | 2.003 | 0.023 |
|  | CFAP73 | 2.710 | 2.625 | 0.006 |
|  | FAM209A | 2.743 | 0.958 | 0.047 |
|  | AC022400.4 | 2.785 | 5.251 | 0.030 |
|  | AL355032.1 | 2.788 | 3.161 | 0.007 |
|  | MYO18B | 2.796 | 4.391 | 0.018 |
|  | AC010618.2 | 2.797 | 2.061 | 0.044 |
|  | GJB6 | 2.801 | 2.665 | 0.040 |
|  | STRIP2 | 2.808 | 2.013 | 0.031 |
|  | ZNF69 | 2.843 | 5.163 | 0.002 |
|  | AL355574.1 | 2.848 | 1.475 | 0.011 |
|  | TG | 2.877 | 3.839 | 0.012 |
|  | TNKS2-AS1 | 2.885 | 1.461 | 0.013 |
|  | ALDH8A1 | 2.887 | 3.224 | 0.049 |
|  | AC011005.1 | 2.888 | 2.728 | 0.041 |
|  | AL662907.1 | 2.895 | 3.173 | 0.020 |
|  | AC008537.4 | 2.898 | 1.070 | 0.031 |
|  | AP000346.2 | 2.934 | 3.109 | 0.010 |
|  | RPS3P6 | 2.940 | 1.258 | 0.017 |
|  | AC008735.4 | 2.950 | 1.438 | 0.011 |
|  | TMEM237 | 3.012 | 5.050 | 0.003 |
|  | TNS4 | 3.013 | 4.501 | 0.019 |
|  | AC130650.2 | 3.026 | 2.957 | 0.008 |
|  | ZNF112 | 3.027 | 3.070 | 0.011 |
|  | AL358472.3 | 3.088 | 3.752 | 0.024 |
|  | AP000251.1 | 3.102 | 2.801 | 0.028 |
|  | AC007390.1 | 3.122 | 1.234 | 0.042 |
|  | AC007220.1 | 3.150 | 2.459 | 0.037 |
|  | AC127496.7 | 3.230 | 4.366 | 0.007 |
|  | AC119673.1 | 3.273 | 1.015 | 0.040 |
|  | BOLA2-SMG1P6 | 3.284 | 2.730 | 0.038 |
|  | AL031595.3 | 3.318 | 3.794 | 0.008 |
|  | AC006160.1 | 3.322 | 2.746 | 0.049 |
|  | CD44-AS1 | 3.437 | 2.560 | 0.021 |
|  | ALDH1L2 | 3.448 | 1.736 | 0.008 |
|  | FMO1 | 3.468 | 3.668 | 0.004 |
|  | ITPKB-IT1 | 3.494 | 4.330 | 0.002 |
|  | GUCY1A1 | 3.584 | 2.576 | 0.019 |
|  | CD109 | 3.604 | 7.565 | 0.003 |
|  | LRRC31 | 3.639 | 2.497 | 0.011 |
|  | SPDYE2B | 3.841 | 2.511 | 0.006 |
|  | COX5BP6 | 3.997 | 2.574 | 0.013 |
|  | AC097534.1 | 4.053 | 3.361 | 0.011 |
|  | AC135721.1 | 4.222 | 2.636 | 0.006 |

**Table 1(b)** Differentially Expressed Genes (DEGs) (|Log2FoldChange| > 1 and *P-value* < 0.05) of delta11 vs wildtype.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Log2FoldChange | Average Expression | *P-value* |
| Downregulated | IGHA2 | -4.326 | 11.965 | 0.000 |
|  | TP53TG5 | -3.978 | 3.927 | 0.004 |
|  | RPS20P33 | -3.603 | 2.409 | 0.021 |
|  | FAM185BP | -3.564 | 3.516 | 0.002 |
|  | IRF9 | -3.470 | 3.128 | 0.004 |
|  | AC008735.1 | -3.407 | 0.996 | 0.003 |
|  | CSF2 | -3.293 | 7.251 | 0.009 |
|  | MUC16 | -3.217 | 1.041 | 0.040 |
|  | GTF2IRD1P1 | -3.192 | 2.057 | 0.049 |
|  | TNR | -3.168 | 1.792 | 0.010 |
|  | DLEU2L | -3.152 | 1.851 | 0.038 |
|  | AL033527.3 | -3.134 | 2.570 | 0.033 |
|  | AC011481.1 | -3.114 | 3.441 | 0.033 |
|  | AL359513.1 | -3.081 | 3.784 | 0.015 |
|  | AL139260.1 | -2.990 | 3.051 | 0.042 |
|  | AHRR | -2.974 | 3.356 | 0.022 |
|  | AC122718.1 | -2.927 | 1.230 | 0.019 |
|  | AC117503.4 | -2.733 | 1.269 | 0.038 |
|  | AC010624.3 | -2.722 | 0.670 | 0.047 |
|  | IL12RB2 | -2.616 | 11.247 | 0.033 |
|  | COL5A2 | -2.527 | 2.824 | 0.036 |
|  | PRRT2 | -2.443 | 3.673 | 0.036 |
|  | SNORA26 | -2.440 | 2.778 | 0.026 |
|  | CEP295NL | -2.428 | 3.473 | 0.047 |
|  | IGKV6-21 | -2.407 | 3.883 | 0.046 |
|  | MAP3K20-AS1 | -2.335 | 1.269 | 0.046 |
|  | AC046134.2 | -2.326 | 5.281 | 0.045 |
|  | PLS3 | -2.303 | 4.580 | 0.025 |
|  | ONECUT2 | -2.257 | 3.455 | 0.026 |
|  | SMOC1 | -2.228 | 6.557 | 0.031 |
|  | LINC02728 | -2.212 | 2.632 | 0.044 |
|  | MANEA-DT | -2.207 | 2.873 | 0.037 |
|  | ARL2BP | -2.207 | 3.871 | 0.030 |
|  | ETV7 | -2.111 | 9.989 | 0.021 |
|  | HLF | -1.919 | 8.410 | 0.000 |
|  | GLT8D2 | -1.842 | 1.710 | 0.037 |
|  | LRRC49 | -1.668 | 4.297 | 0.015 |
|  | ADAM11 | -1.488 | 5.476 | 0.023 |
|  | HMGN2P6 | -1.381 | 2.541 | 0.048 |
|  | TNIK | -1.317 | 29.061 | 0.036 |
|  | NMD3P1 | -1.280 | 7.736 | 0.024 |
|  | UBE2L4 | -1.235 | 9.303 | 0.027 |
|  | JAG2 | -1.142 | 5.660 | 0.045 |
|  | FP671120.7 | -1.132 | 65.697 | 0.030 |
|  | MAP1A | -1.123 | 20.673 | 0.037 |
|  | CCN1 | -1.058 | 607.559 | 0.043 |
|  | HNRNPA3P3 | -1.016 | 87.229 | 0.039 |
|  | HNRNPA1P4 | -1.013 | 15.676 | 0.044 |
|  |  |  |  |  |
| Upregulated | WDR77 | 1.124 | 32.847 | 0.048 |
|  | DTX1 | 1.180 | 245.834 | 0.038 |
|  | WDR4 | 1.189 | 21.479 | 0.043 |
|  | MRM3 | 1.232 | 22.242 | 0.039 |
|  | ELOB | 1.273 | 113.461 | 0.047 |
|  | DTNBP1 | 1.337 | 67.213 | 0.030 |
|  | CENPV | 1.373 | 17.525 | 0.047 |
|  | SCX | 1.398 | 4.172 | 0.031 |
|  | EIF3FP3 | 1.413 | 5.323 | 0.036 |
|  | LMO2 | 1.457 | 39.393 | 0.024 |
|  | AL049873.1 | 1.498 | 2.972 | 0.049 |
|  | C5 | 1.507 | 7.383 | 0.046 |
|  | ALYREF | 1.508 | 103.828 | 0.037 |
|  | BX255925.3 | 1.524 | 46.727 | 0.031 |
|  | CEP170B | 1.527 | 12.306 | 0.032 |
|  | GADD45GIP1 | 1.572 | 97.587 | 0.036 |
|  | RRAGD | 1.612 | 9.386 | 0.048 |
|  | ZSCAN16-AS1 | 1.653 | 6.161 | 0.046 |
|  | RPSAP47 | 1.653 | 7.337 | 0.050 |
|  | EEF1AKMT2 | 1.679 | 6.585 | 0.037 |
|  | ECSIT | 1.680 | 47.080 | 0.050 |
|  | NPM3 | 1.689 | 31.307 | 0.041 |
|  | TUBBP1 | 1.728 | 4.868 | 0.048 |
|  | VPS28 | 1.732 | 32.730 | 0.032 |
|  | MRPL27 | 1.789 | 38.393 | 0.031 |
|  | POU3F1 | 1.844 | 2.854 | 0.041 |
|  | LINC02693 | 1.850 | 8.463 | 0.028 |
|  | NRSN2 | 1.854 | 14.590 | 0.024 |
|  | BEX3 | 1.894 | 2.921 | 0.046 |
|  | MRPL45P2 | 1.895 | 3.402 | 0.029 |
|  | AL691432.1 | 1.895 | 5.083 | 0.039 |
|  | SDCBP2 | 1.926 | 3.556 | 0.050 |
|  | RPL34P18 | 1.982 | 3.354 | 0.039 |
|  | RPL13P5 | 1.987 | 4.248 | 0.030 |
|  | ITPKB-IT1 | 2.012 | 4.576 | 0.038 |
|  | FMO1 | 2.030 | 4.035 | 0.048 |
|  | DDN | 2.055 | 1.113 | 0.049 |
|  | FOSL1 | 2.056 | 4.160 | 0.040 |
|  | LINC01004 | 2.057 | 2.008 | 0.025 |
|  | AL031595.3 | 2.062 | 3.819 | 0.046 |
|  | GPAT2 | 2.063 | 8.345 | 0.031 |
|  | ADAP2 | 2.063 | 12.469 | 0.030 |
|  | AC018755.3 | 2.069 | 7.837 | 0.035 |
|  | ATP5ME | 2.071 | 11.916 | 0.031 |
|  | AL118558.3 | 2.083 | 1.218 | 0.040 |
|  | ELOA-AS1 | 2.085 | 3.608 | 0.027 |
|  | AL031733.2 | 2.087 | 6.055 | 0.032 |
|  | PEAK3 | 2.155 | 1.863 | 0.034 |
|  | AC127496.7 | 2.173 | 4.430 | 0.025 |
|  | ZFP2 | 2.236 | 1.049 | 0.021 |
|  | AC130650.2 | 2.271 | 2.929 | 0.031 |
|  | KCNS1 | 2.316 | 3.190 | 0.016 |
|  | CFAP73 | 2.321 | 2.555 | 0.008 |
|  | CFAP70 | 2.361 | 4.918 | 0.037 |
|  | RHBDL3 | 2.375 | 1.159 | 0.015 |
|  | AC007114.1 | 2.387 | 6.666 | 0.022 |
|  | AC092821.3 | 2.401 | 3.301 | 0.043 |
|  | CCDC183 | 2.408 | 4.205 | 0.047 |
|  | USP50 | 2.429 | 1.170 | 0.043 |
|  | ZNF763 | 2.446 | 5.224 | 0.002 |
|  | AL358472.1 | 2.521 | 1.667 | 0.047 |
|  | GNG8 | 2.528 | 7.363 | 0.001 |
|  | STEAP3 | 2.600 | 1.768 | 0.010 |
|  | SPHK1 | 2.608 | 5.209 | 0.023 |
|  | MYO18B | 2.609 | 4.184 | 0.023 |
|  | TNKS2-AS1 | 2.621 | 1.392 | 0.019 |
|  | WFDC21P | 2.624 | 2.092 | 0.023 |
|  | KTN1-AS1 | 2.643 | 1.879 | 0.024 |
|  | TNS4 | 2.755 | 4.277 | 0.014 |
|  | FNDC5 | 2.770 | 1.033 | 0.035 |
|  | AC011005.1 | 2.793 | 2.291 | 0.032 |
|  | AC087239.1 | 2.822 | 2.723 | 0.040 |
|  | AL009179.1 | 2.923 | 2.668 | 0.017 |
|  | UNQ6494 | 2.983 | 4.768 | 0.018 |
|  | SPDYE2B | 3.020 | 2.460 | 0.020 |
|  | AC091849.1 | 3.047 | 1.321 | 0.005 |
|  | COX5BP6 | 3.086 | 2.509 | 0.038 |
|  | KDF1 | 3.108 | 1.509 | 0.004 |
|  | LRRC31 | 3.155 | 2.370 | 0.012 |
|  | AC021752.1 | 3.204 | 0.969 | 0.050 |
|  | UTS2 | 3.237 | 1.156 | 0.026 |
|  | LOXL1-AS1 | 3.297 | 3.250 | 0.020 |
|  | TNS1 | 3.360 | 4.541 | 0.010 |
|  | CD44-AS1 | 3.387 | 2.378 | 0.015 |
|  | ALDH8A1 | 3.389 | 2.927 | 0.018 |
|  | SLC45A1 | 3.518 | 1.638 | 0.016 |
|  | GJB6 | 3.561 | 2.365 | 0.006 |
|  | BOLA2-SMG1P6 | 3.738 | 2.509 | 0.013 |
|  | AL358472.3 | 3.765 | 3.384 | 0.004 |
|  | CDC20P1 | 3.996 | 3.119 | 0.008 |
|  | AC097534.1 | 4.520 | 3.087 | 0.030 |

**Table 1(c)** Differentially Expressed Genes (DEGs) (|Log2FoldChange| > 1 and *P-value* < 0.05) of mock vs wildtype.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Log2FoldChange | Average Expression | *P-value* |
| Downregulated | DNAH11 | -4.264 | 2.654 | 0.006 |
|  | TP53TG5 | -4.256 | 3.682 | 0.006 |
|  | AL359513.1 | -4.128 | 3.424 | 0.006 |
|  | RPS20P33 | -3.819 | 2.254 | 0.032 |
|  | AL033527.3 | -3.702 | 2.362 | 0.024 |
|  | MYZAP | -3.636 | 2.041 | 0.041 |
|  | AC011481.1 | -3.598 | 3.264 | 0.026 |
|  | AC016355.1 | -3.534 | 2.320 | 0.036 |
|  | RAP2C-AS1 | -3.506 | 2.800 | 0.034 |
|  | AC009107.2 | -3.322 | 2.738 | 0.018 |
|  | BRSK2 | -3.262 | 1.319 | 0.025 |
|  | RIMKLBP2 | -3.257 | 1.904 | 0.021 |
|  | AL662907.2 | -3.197 | 2.001 | 0.040 |
|  | LINC02210 | -3.132 | 2.706 | 0.033 |
|  | AC046134.2 | -3.115 | 4.678 | 0.019 |
|  | ILDR2 | -3.067 | 3.029 | 0.027 |
|  | FAM185BP | -3.023 | 3.387 | 0.009 |
|  | CATSPERG | -3.005 | 1.947 | 0.028 |
|  | AC009951.6 | -2.880 | 1.030 | 0.046 |
|  | MANEA-DT | -2.870 | 2.503 | 0.018 |
|  | MKNK1-AS1 | -2.815 | 2.247 | 0.049 |
|  | IRF9 | -2.809 | 3.081 | 0.018 |
|  | FRMPD3 | -2.792 | 2.613 | 0.031 |
|  | IL12RB2 | -2.723 | 10.279 | 0.039 |
|  | TEX52 | -2.642 | 1.479 | 0.028 |
|  | MTND1P23 | -2.560 | 12.660 | 0.004 |
|  | RGL4 | -2.540 | 3.511 | 0.018 |
|  | CSF2 | -2.536 | 4.753 | 0.045 |
|  | RBMS1P1 | -2.516 | 1.923 | 0.005 |
|  | CISD3 | -2.503 | 6.771 | 0.046 |
|  | HERC2P3 | -2.496 | 5.861 | 0.045 |
|  | UCKL1-AS1 | -2.485 | 1.670 | 0.041 |
|  | MTCO2P2 | -2.474 | 4.876 | 0.026 |
|  | AC007881.4 | -2.409 | 1.115 | 0.037 |
|  | AL031432.4 | -2.355 | 3.022 | 0.011 |
|  | NONOP2 | -2.326 | 8.141 | 0.028 |
|  | AL589880.1 | -2.245 | 5.029 | 0.044 |
|  | PLCE1 | -2.222 | 4.963 | 0.038 |
|  | ZNF229 | -2.149 | 4.484 | 0.040 |
|  | H2BC20P | -2.146 | 7.566 | 0.020 |
|  | IRAK3 | -2.056 | 13.553 | 0.019 |
|  | MIGA1 | -1.937 | 11.100 | 0.045 |
|  | AC005674.2 | -1.882 | 8.308 | 0.026 |
|  | PHF7 | -1.878 | 9.408 | 0.024 |
|  | ZNF285 | -1.848 | 3.862 | 0.046 |
|  | ACRBP | -1.798 | 6.469 | 0.026 |
|  | HSP90AA2P | -1.730 | 4.856 | 0.038 |
|  | BRAFP1 | -1.709 | 5.047 | 0.029 |
|  | ADO | -1.035 | 32.803 | 0.039 |
|  | U2AF1L5 | -1.005 | 24.410 | 0.048 |
|  |  |  |  |  |
| Upregulated | SLC12A8 | 1.185 | 9.770 | 0.030 |
|  | ATL1 | 1.298 | 7.700 | 0.015 |
|  | CYP46A1 | 1.364 | 5.726 | 0.039 |
|  | SLC7A8 | 1.914 | 12.281 | 0.015 |
|  | PPIAP13 | 1.919 | 3.619 | 0.045 |
|  | PLEKHG3 | 1.973 | 3.677 | 0.024 |
|  | AC142381.3 | 1.980 | 1.892 | 0.029 |
|  | IGKV2-24 | 1.986 | 5.153 | 0.033 |
|  | JCHAIN | 2.112 | 131.244 | 0.016 |
|  | BEGAIN | 2.149 | 4.257 | 0.048 |
|  | AL117332.1 | 2.290 | 2.149 | 0.042 |
|  | GALNT8 | 2.404 | 3.333 | 0.018 |
|  | CLIP3 | 2.409 | 2.689 | 0.049 |
|  | AP003084.1 | 2.518 | 2.662 | 0.019 |
|  | AC008610.1 | 2.576 | 2.352 | 0.031 |
|  | WASIR2 | 2.657 | 3.533 | 0.043 |
|  | AP001767.3 | 2.692 | 3.153 | 0.012 |
|  | TRGV3 | 2.719 | 2.819 | 0.049 |
|  | HSD52 | 2.793 | 0.647 | 0.049 |
|  | TRAV21 | 2.821 | 3.056 | 0.025 |
|  | HNRNPA1P21 | 2.881 | 2.399 | 0.038 |
|  | H3P43 | 2.882 | 1.613 | 0.020 |
|  | AC096642.1 | 2.960 | 1.590 | 0.047 |
|  | AC023355.1 | 2.999 | 2.669 | 0.031 |
|  | AC021205.3 | 3.056 | 2.811 | 0.036 |
|  | MEOX1 | 3.109 | 3.559 | 0.022 |
|  | VWA5B2 | 3.137 | 1.914 | 0.030 |
|  | GRIK2 | 3.172 | 2.223 | 0.039 |
|  | LILRP2 | 3.223 | 2.294 | 0.044 |
|  | PADI2 | 3.279 | 2.317 | 0.026 |
|  | PRELID2 | 3.345 | 2.742 | 0.021 |
|  | C16orf71 | 3.497 | 2.113 | 0.030 |
|  | SIGLEC7 | 3.506 | 2.065 | 0.050 |
|  | AL009179.1 | 3.537 | 3.479 | 0.008 |
|  | AC010809.2 | 3.610 | 2.355 | 0.019 |
|  | TRGC1 | 3.771 | 3.477 | 0.004 |
|  | SUMO4 | 4.055 | 1.901 | 0.010 |
|  | LYPD6B | 4.179 | 2.769 | 0.002 |
|  | SLC32A1 | 4.187 | 2.002 | 0.013 |
|  | SLC35F3 | 5.528 | 3.952 | 0.013 |