

Table S1 190 differentially expressed genes of COVID-19 obtained from data GSE147507

| Gene name | log ₂ FoldChange | P value | Cells |
|-------------------|-----------------------------|-------------|-----------------------|
| <i>ADCY5</i> | -1.538884529 | 0.011786812 | Lung epithelial cells |
| <i>ART5</i> | -1.469169888 | 0.048709343 | Lung epithelial cells |
| <i>BATF2</i> | 1.25134583 | 0.004740059 | Lung epithelial cells |
| <i>BMS1P18</i> | 2.322531015 | 0.001336155 | Lung epithelial cells |
| <i>BST2</i> | 2.688038086 | 0.003444129 | Lung epithelial cells |
| <i>CBSL</i> | -1.570768605 | 0.033887755 | Lung epithelial cells |
| <i>CCL20</i> | 1.201189638 | 8.90E-09 | Lung epithelial cells |
| <i>CFB</i> | 1.118934357 | 1.55E-10 | Lung epithelial cells |
| <i>CILP2</i> | -1.231141746 | 0.029523367 | Lung epithelial cells |
| <i>CITED1</i> | 3.647235842 | 0.000874583 | Lung epithelial cells |
| <i>CLEC18C</i> | -5.202869331 | 0.000370095 | Lung epithelial cells |
| <i>CMPK2</i> | 2.230455467 | 4.77E-05 | Lung epithelial cells |
| <i>COL20A1</i> | -1.114510401 | 0.023853618 | Lung epithelial cells |
| <i>DDX58</i> | 1.881912015 | 3.25E-22 | Lung epithelial cells |
| <i>DDX60</i> | 2.424271232 | 1.15E-28 | Lung epithelial cells |
| <i>DDX60L</i> | 1.132635059 | 5.17E-08 | Lung epithelial cells |
| <i>DENND2A</i> | 2.579693822 | 0.0007558 | Lung epithelial cells |
| <i>DGCR9</i> | -1.07423789 | 0.004327137 | Lung epithelial cells |
| <i>DTX3L</i> | 1.457908246 | 1.27E-24 | Lung epithelial cells |
| <i>EIF2AK2</i> | 1.359437734 | 5.53E-15 | Lung epithelial cells |
| <i>EPST11</i> | 3.464359891 | 0.033099425 | Lung epithelial cells |
| <i>ESPNL</i> | -1.350301798 | 0.043341551 | Lung epithelial cells |
| <i>FAM133B</i> | 1.245720718 | 0.00082513 | Lung epithelial cells |
| <i>FGG</i> | 1.193022738 | 3.19E-05 | Lung epithelial cells |
| <i>FLJ37201</i> | 1.215347117 | 0.040821807 | Lung epithelial cells |
| <i>FOXD4L3</i> | -4.350686608 | 0.02987806 | Lung epithelial cells |
| <i>GBP1</i> | 1.075435778 | 0.000498048 | Lung epithelial cells |
| <i>GOLGA8G</i> | -4.637799257 | 0.03949294 | Lung epithelial cells |
| <i>GUSBP3</i> | -2.297153569 | 0.049442512 | Lung epithelial cells |
| <i>GUSBP9</i> | -3.544638035 | 0.005049032 | Lung epithelial cells |
| <i>HELZ2</i> | 1.379328132 | 4.16E-20 | Lung epithelial cells |
| <i>HERC6</i> | 1.521744227 | 1.21E-16 | Lung epithelial cells |
| <i>HPCA</i> | 3.882945389 | 0.038086905 | Lung epithelial cells |
| <i>HRAT92</i> | -1.255337642 | 0.003489927 | Lung epithelial cells |
| <i>HSD11B1</i> | 1.508991589 | 0.017131263 | Lung epithelial cells |
| <i>HSPE1-MOB4</i> | 1.748666953 | 0.004295511 | Lung epithelial cells |
| <i>IFI16</i> | 1.345276009 | 2.43E-05 | Lung epithelial cells |
| <i>IFI27</i> | 3.544625065 | 1.01E-16 | Lung epithelial cells |
| <i>IFI35</i> | 1.057812426 | 2.83E-11 | Lung epithelial cells |
| <i>IFI44</i> | 4.59043874 | 2.80E-06 | Lung epithelial cells |
| <i>IFI44L</i> | 5.555921616 | 0.00011819 | Lung epithelial cells |
| <i>IFI6</i> | 4.269528311 | 7.41E-150 | Lung epithelial cells |
| <i>IFIH1</i> | 1.878437041 | 4.71E-18 | Lung epithelial cells |
| <i>IFIT1</i> | 4.432525 | 9.07E-100 | Lung epithelial cells |
| <i>IFIT2</i> | 1.251654115 | 0.000124944 | Lung epithelial cells |
| <i>IFIT3</i> | 2.066695433 | 1.80E-24 | Lung epithelial cells |
| <i>IFIT5</i> | 1.087260931 | 9.16E-10 | Lung epithelial cells |
| <i>IFITM1</i> | 4.223116963 | 1.01E-07 | Lung epithelial cells |
| <i>IL1A</i> | 1.282008779 | 0.009120124 | Lung epithelial cells |

Table S1 (continued)

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| Gene name | log ₂ FoldChange | P value | Cells |
|---------------------|-----------------------------|-------------|-----------------------|
| <i>IL6</i> | 1.185126931 | 0.02747011 | Lung epithelial cells |
| <i>IRF7</i> | 3.126454962 | 2.51E-46 | Lung epithelial cells |
| <i>IRF9</i> | 2.110996491 | 3.46E-45 | Lung epithelial cells |
| <i>ISG15</i> | 3.796297697 | 1.83E-88 | Lung epithelial cells |
| <i>KCNH2</i> | 1.047897673 | 0.023044852 | Lung epithelial cells |
| <i>KCNJ2</i> | 1.334256861 | 0.003567896 | Lung epithelial cells |
| <i>KRT222</i> | 1.180994131 | 0.034989105 | Lung epithelial cells |
| <i>KRT4</i> | -1.2253106 | 6.74E-07 | Lung epithelial cells |
| <i>LAMP3</i> | 1.476335124 | 0.041006225 | Lung epithelial cells |
| <i>LAP3</i> | 1.032414387 | 3.93E-16 | Lung epithelial cells |
| <i>LINC-ROR</i> | -4.571630421 | 0.019486433 | Lung epithelial cells |
| <i>LMF1-AS1</i> | -3.688653756 | 0.043304737 | Lung epithelial cells |
| <i>LOC100289230</i> | -1.185589577 | 0.047992834 | Lung epithelial cells |
| <i>LOC158435</i> | -4.205297703 | 0.042424908 | Lung epithelial cells |
| <i>LOC646214</i> | -1.327809075 | 0.042319498 | Lung epithelial cells |
| <i>MAP2</i> | 1.058329818 | 0.005378922 | Lung epithelial cells |
| <i>MMP23B</i> | -3.033822312 | 0.018899884 | Lung epithelial cells |
| <i>MX1</i> | 5.198364313 | 2.56E-97 | Lung epithelial cells |
| <i>MX2</i> | 2.602729088 | 0.036337342 | Lung epithelial cells |
| <i>NECAB2</i> | -1.118957783 | 0.000201977 | Lung epithelial cells |
| <i>NUTM2E</i> | -2.813522829 | 0.006716851 | Lung epithelial cells |
| <i>OAS1</i> | 1.510715603 | 1.58E-36 | Lung epithelial cells |
| <i>OAS2</i> | 4.252750638 | 4.16E-09 | Lung epithelial cells |
| <i>OAS3</i> | 1.350272504 | 2.42E-29 | Lung epithelial cells |
| <i>OASL</i> | 2.529281252 | 2.04E-09 | Lung epithelial cells |
| <i>PARP10</i> | 1.831091423 | 2.40E-09 | Lung epithelial cells |
| <i>PARP9</i> | 2.128709329 | 1.59E-46 | Lung epithelial cells |
| <i>PCOTH</i> | -1.679292834 | 0.035489907 | Lung epithelial cells |
| <i>PHF11</i> | 1.065342106 | 1.41E-05 | Lung epithelial cells |
| <i>PLEKHA4</i> | 1.601151182 | 0.00767375 | Lung epithelial cells |
| <i>PLSCR1</i> | 1.271706457 | 7.01E-16 | Lung epithelial cells |
| <i>PPT2-EGFL8</i> | 1.220982194 | 0.026601906 | Lung epithelial cells |
| <i>PRH1-TAS2R14</i> | 4.070293557 | 0.007033642 | Lung epithelial cells |
| <i>PTGER2</i> | 1.076805309 | 0.036960051 | Lung epithelial cells |
| <i>PTPRE</i> | 3.024730188 | 5.93E-13 | Lung epithelial cells |
| <i>PVRIG2P</i> | -1.268185187 | 0.000652138 | Lung epithelial cells |
| <i>RASSF9</i> | 1.028774542 | 0.036351539 | Lung epithelial cells |
| <i>REC8</i> | 1.51414523 | 6.53E-07 | Lung epithelial cells |
| <i>RNF103-CHMP3</i> | 3.122289421 | 0.007465065 | Lung epithelial cells |
| <i>RNF224</i> | -1.214726256 | 0.042210693 | Lung epithelial cells |
| <i>SAA1</i> | 1.358233481 | 0.025207087 | Lung epithelial cells |
| <i>SAMD9</i> | 1.788578446 | 4.00E-10 | Lung epithelial cells |
| <i>SAMD9L</i> | 1.973531101 | 1.66E-08 | Lung epithelial cells |
| <i>SAMHD1</i> | 1.076422983 | 9.38E-15 | Lung epithelial cells |
| <i>SERPINB3</i> | 2.847372626 | 0.01998061 | Lung epithelial cells |
| <i>SERPINB7</i> | 1.245480761 | 0.002133318 | Lung epithelial cells |
| <i>SMIM11A</i> | 9.659916093 | 0.013421667 | Lung epithelial cells |
| <i>SNAI3</i> | -1.183406369 | 0.030288765 | Lung epithelial cells |
| <i>SP110</i> | 1.233534952 | 1.30E-10 | Lung epithelial cells |

Table S1 (continued)

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| Gene name | log ₂ FoldChange | P value | Cells |
|------------|-----------------------------|-------------|--|
| SSBP3-AS1 | -2.909375834 | 0.032910693 | Lung epithelial cells |
| ST20-MTHFS | 3.79448537 | 0.048940596 | Lung epithelial cells |
| STAT1 | 1.354971312 | 1.25E-31 | Lung epithelial cells |
| TAS2R14 | -2.304388647 | 0.04210149 | Lung epithelial cells |
| TEX15 | 1.582539888 | 0.03755677 | Lung epithelial cells |
| THEMIS2 | 1.707449034 | 0.00293839 | Lung epithelial cells |
| TP53TG3 | 1.791240293 | 0.031333333 | Lung epithelial cells |
| TP53TG3C | -3.749299171 | 0.000212426 | Lung epithelial cells |
| TPTEP1 | -2.14190029 | 0.028754294 | Lung epithelial cells |
| TRABD2B | -1.602654515 | 0.015483989 | Lung epithelial cells |
| TRIM14 | 1.090930843 | 6.70E-14 | Lung epithelial cells |
| TRIM34 | 1.706986691 | 7.75E-07 | Lung epithelial cells |
| UBA7 | 1.825600265 | 0.011283756 | Lung epithelial cells |
| ULK4P1 | 6.398426336 | 1.40E-06 | Lung epithelial cells |
| WDR78 | 1.55209868 | 0.017122709 | Lung epithelial cells |
| XAF1 | 6.138901313 | 8.65E-06 | Lung epithelial cells |
| ZNF519 | 1.193341578 | 0.013641289 | Lung epithelial cells |
| ZNF568 | -1.660695336 | 0.014323786 | Lung epithelial cells |
| ZC3H12A | 1.575296931 | 6.54E-31 | Primary human bronchial epithelial cells |
| PDZK1IP1 | 2.06567839 | 1.84E-24 | Primary human bronchial epithelial cells |
| GBP5 | 1.090523086 | 9.96E-05 | Primary human bronchial epithelial cells |
| SPRR2D | 2.607276492 | 1.55E-43 | Primary human bronchial epithelial cells |
| SPRR2A | 1.558317277 | 2.38E-24 | Primary human bronchial epithelial cells |
| SPRR2E | 2.436744262 | 6.33E-21 | Primary human bronchial epithelial cells |
| PGLYRP4 | 1.810852913 | 4.78E-24 | Primary human bronchial epithelial cells |
| S100A9 | 1.087212237 | 1.78E-41 | Primary human bronchial epithelial cells |
| S100A8 | 1.779103807 | 9.64E-47 | Primary human bronchial epithelial cells |
| S100A7 | 1.48752912 | 1.96E-07 | Primary human bronchial epithelial cells |
| NID1 | -1.012415505 | 3.37E-06 | Primary human bronchial epithelial cells |
| RBM20 | -1.000729651 | 0.000282974 | Primary human bronchial epithelial cells |
| NANOS1 | -1.09955349 | 1.65E-05 | Primary human bronchial epithelial cells |
| IFITM1 | 1.40408582 | 4.81E-13 | Primary human bronchial epithelial cells |
| IRF7 | 1.194364119 | 1.02E-06 | Primary human bronchial epithelial cells |
| IFITM10 | -1.333473291 | 7.14E-11 | Primary human bronchial epithelial cells |
| MRGPRX3 | 1.255137744 | 4.14E-06 | Primary human bronchial epithelial cells |
| SAA2 | 2.333526522 | 3.09E-104 | Primary human bronchial epithelial cells |
| MYEOV | 1.083572932 | 2.50E-07 | Primary human bronchial epithelial cells |
| HEPHL1 | 1.23790801 | 6.11E-21 | Primary human bronchial epithelial cells |
| BIRC3 | 1.538764567 | 1.31E-24 | Primary human bronchial epithelial cells |
| RND1 | 1.207195389 | 1.64E-07 | Primary human bronchial epithelial cells |
| KRT6B | 1.49250346 | 1.08E-42 | Primary human bronchial epithelial cells |
| CYP27B1 | 1.043385414 | 9.66E-08 | Primary human bronchial epithelial cells |
| OAS1 | 1.552803764 | 5.00E-22 | Primary human bronchial epithelial cells |
| OAS3 | 1.243709703 | 9.58E-21 | Primary human bronchial epithelial cells |
| OAS2 | 1.208336071 | 4.61E-23 | Primary human bronchial epithelial cells |
| IRF9 | 1.22262413 | 5.11E-43 | Primary human bronchial epithelial cells |
| TNFAIP2 | 1.442835656 | 6.81E-23 | Primary human bronchial epithelial cells |
| C15orf48 | 1.21122013 | 8.18E-46 | Primary human bronchial epithelial cells |
| HMG2P46 | 1.144519717 | 5.85E-05 | Primary human bronchial epithelial cells |

Table S1 (continued)

Table S1 (continued)

| Gene name | log ₂ FoldChange | P value | Cells |
|----------------|-----------------------------|-------------|--|
| <i>RHCG</i> | 1.298831413 | 7.29E-32 | Primary human bronchial epithelial cells |
| <i>IL32</i> | 1.176252934 | 1.36E-26 | Primary human bronchial epithelial cells |
| <i>CES1P1</i> | 1.070067807 | 0.000157591 | Primary human bronchial epithelial cells |
| <i>CSF3</i> | 2.94921437 | 4.34E-28 | Primary human bronchial epithelial cells |
| <i>KRT24</i> | 1.291563756 | 4.96E-07 | Primary human bronchial epithelial cells |
| <i>ITGB3</i> | 1.052245536 | 2.22E-08 | Primary human bronchial epithelial cells |
| <i>C1QTNF1</i> | 1.608967264 | 4.93E-16 | Primary human bronchial epithelial cells |
| <i>TNFSF14</i> | 1.415264485 | 3.73E-08 | Primary human bronchial epithelial cells |
| <i>C3</i> | 1.455482252 | 1.61E-41 | Primary human bronchial epithelial cells |
| <i>ICAM1</i> | 1.74706735 | 2.27E-36 | Primary human bronchial epithelial cells |
| <i>BST2</i> | 1.028119728 | 9.58E-06 | Primary human bronchial epithelial cells |
| <i>STON1</i> | -1.100809904 | 1.43E-05 | Primary human bronchial epithelial cells |
| <i>IL1B</i> | 1.036837125 | 1.04E-29 | Primary human bronchial epithelial cells |
| <i>IL36G</i> | 2.531248864 | 3.41E-64 | Primary human bronchial epithelial cells |
| <i>CCL20</i> | 2.914188665 | 9.97E-86 | Primary human bronchial epithelial cells |
| <i>PI3</i> | 1.451359283 | 1.38E-10 | Primary human bronchial epithelial cells |
| <i>LIF</i> | 1.267511535 | 4.69E-36 | Primary human bronchial epithelial cells |
| <i>MAFF</i> | 1.085041863 | 2.91E-20 | Primary human bronchial epithelial cells |
| <i>IRAK2</i> | 1.488550403 | 1.14E-23 | Primary human bronchial epithelial cells |
| <i>MYLK</i> | -1.191256114 | 2.08E-08 | Primary human bronchial epithelial cells |
| <i>IL8</i> | 2.261653983 | 9.03E-113 | Primary human bronchial epithelial cells |
| <i>CXCL6</i> | 1.121629566 | 4.07E-05 | Primary human bronchial epithelial cells |
| <i>CXCL1</i> | 1.378954773 | 3.44E-47 | Primary human bronchial epithelial cells |
| <i>CXCL5</i> | 2.798318107 | 2.66E-36 | Primary human bronchial epithelial cells |
| <i>CXCL2</i> | 1.277189249 | 5.64E-16 | Primary human bronchial epithelial cells |
| <i>TRIML2</i> | 1.079128909 | 7.94E-06 | Primary human bronchial epithelial cells |
| <i>CSF2</i> | 2.042961418 | 4.72E-15 | Primary human bronchial epithelial cells |
| <i>CXCL14</i> | -1.174521485 | 1.41E-07 | Primary human bronchial epithelial cells |
| <i>HBEGF</i> | 1.25337841 | 9.85E-36 | Primary human bronchial epithelial cells |
| <i>TNIP1</i> | 1.242469635 | 4.18E-57 | Primary human bronchial epithelial cells |
| <i>TNF</i> | 1.333526922 | 9.99E-08 | Primary human bronchial epithelial cells |
| <i>LTB</i> | 1.121144813 | 2.19E-05 | Primary human bronchial epithelial cells |
| <i>CFB</i> | 1.757975637 | 1.69E-42 | Primary human bronchial epithelial cells |
| <i>VNN1</i> | 1.469698823 | 4.46E-10 | Primary human bronchial epithelial cells |
| <i>VNN3</i> | 1.399832911 | 9.49E-07 | Primary human bronchial epithelial cells |
| <i>TNFAIP3</i> | 1.561229621 | 4.38E-53 | Primary human bronchial epithelial cells |
| <i>SOD2</i> | 1.452555045 | 4.66E-34 | Primary human bronchial epithelial cells |
| <i>IL6</i> | 2.390439927 | 4.53E-28 | Primary human bronchial epithelial cells |
| <i>INHBA</i> | 1.739800468 | 1.75E-48 | Primary human bronchial epithelial cells |
| <i>C8orf4</i> | 1.014015084 | 0.000128312 | Primary human bronchial epithelial cells |
| <i>PLAT</i> | 1.323416016 | 9.17E-25 | Primary human bronchial epithelial cells |
| <i>MAP7D2</i> | -1.129638152 | 4.85E-07 | Primary human bronchial epithelial cells |
| <i>SLC6A14</i> | 1.17937539 | 3.24E-30 | Primary human bronchial epithelial cells |

The differentially expressed gene (DEGs) in lung epithelial cells and primary human bronchial epithelial cells during SARS-CoV-2 infection were extracted from microarray data GSE147507 in the Gene Expression Omnibus (<http://www.ncbi.nlm.nih.gov/geo/>) database with a cutoff value of $P < 0.05$ and $|\text{Log}_2\text{FoldChange}| \geq 1$ (19,20).