**Supplemental Table 2: The Rank of common genes between COVID-19 and LUAD derived by the MCC algorithm.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| node\_name | MCC | BottleNeck | EcCentricity | Closeness | Radiality | Betweenness | Stress | ClusteringCoefficient |
| IL1B | 1001 | 48 | 0.24398 | 56.16667 | 5.23328 | 2207.719 | 6824 | 0.17117 |
| CCL2 | 738 | 2 | 0.24398 | 49.08333 | 4.96491 | 497.5984 | 2292 | 0.24 |
| FOS | 450 | 13 | 0.24398 | 44.58333 | 4.85512 | 426.4037 | 1898 | 0.30147 |
| JUN | 448 | 31 | 0.24398 | 49.41667 | 5.0869 | 1656.707 | 4790 | 0.21344 |
| HBEGF | 288 | 1 | 0.24398 | 38.66667 | 4.61114 | 15.56364 | 88 | 0.63889 |
| PDGFB | 266 | 1 | 0.24398 | 39.75 | 4.68434 | 53.90304 | 354 | 0.58333 |
| PGF | 264 | 1 | 0.24398 | 37.91667 | 4.56235 | 10.66513 | 80 | 0.71429 |
| SPI1 | 255 | 5 | 0.24398 | 46.25 | 4.94051 | 690.9475 | 3026 | 0.27485 |
| MMP1 | 248 | 4 | 0.24398 | 40.33333 | 4.69654 | 112.1339 | 580 | 0.47273 |
| CD34 | 234 | 3 | 0.24398 | 42.83333 | 4.86732 | 260.0954 | 1220 | 0.45455 |
| FCGR3B | 228 | 3 | 0.24398 | 40.66667 | 4.63554 | 230.5446 | 882 | 0.37179 |
| S100A9 | 204 | 1 | 0.19518 | 38.9 | 4.55015 | 41.45021 | 326 | 0.55556 |
| S100A12 | 170 | 1 | 0.19518 | 39.4 | 4.56235 | 65.41026 | 330 | 0.4 |
| DUSP1 | 168 | 1 | 0.24398 | 38.16667 | 4.59895 | 44.47092 | 308 | 0.64286 |
| ENG | 161 | 2 | 0.24398 | 38.66667 | 4.57455 | 223.5116 | 980 | 0.42222 |
| GADD45B | 144 | 1 | 0.19518 | 33.03333 | 4.23298 | 1 | 4 | 0.86667 |
| AQP9 | 138 | 1 | 0.19518 | 38.06667 | 4.55015 | 37.53229 | 180 | 0.57143 |
| FOSB | 126 | 1 | 0.19518 | 34.78333 | 4.36717 | 9.85962 | 72 | 0.8 |
| CLEC4D | 126 | 1 | 0.19518 | 36.06667 | 4.44036 | 4.02653 | 46 | 0.8 |
| NR4A1 | 122 | 1 | 0.19518 | 34.2 | 4.33057 | 18.20087 | 58 | 0.73333 |
| CSF2RB | 94 | 3 | 0.19518 | 40.56667 | 4.63554 | 177.9248 | 980 | 0.36364 |
| FCER1G | 84 | 3 | 0.19518 | 39.78333 | 4.56235 | 272.9277 | 1084 | 0.30769 |
| LCN2 | 80 | 2 | 0.24398 | 37.33333 | 4.48916 | 25.53067 | 146 | 0.5 |
| IRF7 | 80 | 6 | 0.24398 | 39.91667 | 4.70873 | 143.4889 | 534 | 0.47222 |
| SAA1 | 60 | 1 | 0.24398 | 36.16667 | 4.45256 | 6.91502 | 40 | 0.61905 |
| A2M | 58 | 1 | 0.24398 | 36.41667 | 4.44036 | 31.01572 | 168 | 0.46429 |
| ISG15 | 54 | 1 | 0.19518 | 35.23333 | 4.37937 | 26.97307 | 164 | 0.73333 |
| MMP10 | 54 | 1 | 0.24398 | 37.33333 | 4.58675 | 9.42349 | 70 | 0.73333 |
| OASL | 49 | 1 | 0.19518 | 35.56667 | 4.40377 | 43.58142 | 236 | 0.6 |
| OAS1 | 48 | 2 | 0.19518 | 34.56667 | 4.35497 | 16.03539 | 96 | 0.9 |
| MMP14 | 42 | 2 | 0.24398 | 39 | 4.67214 | 69.16413 | 408 | 0.46429 |
| NES | 40 | 9 | 0.24398 | 38.5 | 4.58675 | 526.2956 | 1490 | 0.30556 |
| ALOX5AP | 39 | 1 | 0.19518 | 34.51667 | 4.23298 | 97.37804 | 730 | 0.39286 |
| RGS18 | 36 | 1 | 0.19518 | 33.01667 | 4.18419 | 12.0881 | 60 | 0.66667 |
| BCL2A1 | 35 | 7 | 0.24398 | 41.08333 | 4.78193 | 820.1304 | 1814 | 0.24444 |
| FGF21 | 32 | 1 | 0.24398 | 35.83333 | 4.45256 | 21.91263 | 90 | 0.6 |
| CD53 | 28 | 1 | 0.19518 | 32.35 | 4.12319 | 51.8689 | 462 | 0.53333 |
| MAP2K6 | 26 | 1 | 0.24398 | 33.66667 | 4.34277 | 14.66667 | 42 | 0.7 |
| MMP8 | 26 | 1 | 0.24398 | 38.08333 | 4.62334 | 24.34063 | 154 | 0.47619 |
| C1QC | 25 | 1 | 0.19518 | 31.85 | 4.11099 | 11.37001 | 52 | 0.6 |
| IFITM1 | 24 | 1 | 0.19518 | 28.08333 | 3.80602 | 0 | 0 | 1 |
| CDH2 | 18 | 6 | 0.24398 | 37.91667 | 4.56235 | 674.597 | 2260 | 0.22222 |
| OLR1 | 18 | 1 | 0.24398 | 34.75 | 4.39157 | 2.54762 | 16 | 0.7 |
| CCL7 | 14 | 1 | 0.24398 | 35.75 | 4.41596 | 9.94762 | 58 | 0.33333 |
| CXCL16 | 14 | 1 | 0.19518 | 34.48333 | 4.34277 | 3.48571 | 14 | 0.6 |
| RBP4 | 8 | 1 | 0.19518 | 32.21667 | 4.12319 | 6.76615 | 34 | 0.4 |
| CCL18 | 7 | 2 | 0.19518 | 34.31667 | 4.35497 | 20.2475 | 102 | 0.5 |
| AMBP | 6 | 1 | 0.19518 | 32.4 | 4.15979 | 15.77313 | 70 | 0.3 |
| SST | 5 | 2 | 0.24398 | 36 | 4.52575 | 169.2698 | 368 | 0.33333 |
| GPR65 | 4 | 2 | 0.19518 | 30.85 | 4.0622 | 40.28639 | 392 | 0.16667 |
| NFATC4 | 4 | 3 | 0.19518 | 32.36667 | 4.23298 | 314 | 978 | 0.16667 |
| HCST | 4 | 1 | 0.19518 | 29.41667 | 3.94021 | 1.22468 | 8 | 0.66667 |
| CA2 | 4 | 4 | 0.19518 | 31.95 | 4.19639 | 466 | 928 | 0.16667 |
| CYP1A1 | 4 | 4 | 0.19518 | 34.15 | 4.34277 | 320.4365 | 770 | 0.16667 |
| GPR84 | 3 | 3 | 0.19518 | 33.73333 | 4.34277 | 18.0334 | 120 | 0.33333 |
| CYP19A1 | 3 | 1 | 0.19518 | 32.2 | 4.25738 | 44.41905 | 168 | 0.33333 |
| CNTN2 | 3 | 3 | 0.19518 | 26.66667 | 3.64744 | 314 | 1014 | 0 |
| CRY2 | 3 | 3 | 0.19518 | 28.18333 | 3.86702 | 312 | 612 | 0.33333 |
| EVI2B | 3 | 1 | 0.16265 | 25.08333 | 3.33027 | 2.19048 | 10 | 0.33333 |
| SLAMF7 | 2 | 1 | 0.19518 | 28.75 | 3.91581 | 0 | 0 | 1 |
| PER1 | 2 | 1 | 0.16265 | 21.3 | 2.91551 | 0 | 0 | 1 |
| TEF | 2 | 1 | 0.16265 | 21.3 | 2.91551 | 0 | 0 | 1 |
| HBA1 | 2 | 1 | 0.16265 | 23.2 | 3.24488 | 0 | 0 | 1 |
| HBA2 | 2 | 1 | 0.16265 | 23.2 | 3.24488 | 0 | 0 | 1 |
| DSPP | 2 | 2 | 0.19518 | 26.26667 | 3.64744 | 158 | 416 | 0 |
| GPX2 | 2 | 1 | 0.16265 | 24.28333 | 3.39127 | 0 | 0 | 1 |
| ALDH3A1 | 2 | 1 | 0.16265 | 24.28333 | 3.39127 | 0 | 0 | 1 |
| POU2AF1 | 1 | 1 | 0.19518 | 28.68333 | 3.97681 | 0 | 0 | 0 |
| RCAN1 | 1 | 1 | 0.16265 | 22.91667 | 3.26928 | 0 | 0 | 0 |
| NEUROG2 | 1 | 1 | 0.19518 | 25.6 | 3.62304 | 0 | 0 | 0 |
| NDST1 | 1 | 1 | 0.19518 | 24.76667 | 3.56205 | 0 | 0 | 0 |
| GLDN | 1 | 1 | 0.16265 | 19.9 | 2.68373 | 0 | 0 | 0 |
| CRYAB | 1 | 1 | 0.16265 | 19.9 | 2.68373 | 0 | 0 | 0 |
| TWIST2 | 1 | 1 | 0.19518 | 25.33333 | 3.59864 | 0 | 0 | 0 |
| CDC25A | 1 | 1 | 0.16265 | 22.91667 | 3.26928 | 0 | 0 | 0 |
| CBX4 | 1 | 1 | 0.19518 | 29.95 | 4.12319 | 0 | 0 | 0 |
| SLC4A11 | 1 | 1 | 0.16265 | 22.7 | 3.23268 | 0 | 0 | 0 |
| BCL2L14 | 1 | 1 | 0.19518 | 26.85 | 3.81822 | 0 | 0 | 0 |
| TUBA1A | 1 | 1 | 0.19518 | 26.85 | 3.81822 | 0 | 0 | 0 |
| CDA | 1 | 1 | 0.0241 | 1 | 0.07229 | 0 | 0 | 0 |
| APOBEC3B | 1 | 1 | 0.0241 | 1 | 0.07229 | 0 | 0 | 0 |
| ALPL | 1 | 1 | 0.16265 | 19.8 | 2.68373 | 0 | 0 | 0 |
| ABCB6 | 1 | 1 | 0.19518 | 25.6 | 3.61084 | 0 | 0 | 0 |