**Supplementary Table 2**: PCA\_fourfold\_gene\_expression.xlsx (Master Sheet for Exploratory Data Analysis). 0 as coding transcript and 1 as non-coding transcript.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Gene\_ID** | **Group** | **C\_vs\_R\_FC** | **C\_vs\_T2a\_b\_c\_FC** | **C\_vs\_T3a\_FC** | **C\_vs\_T3b\_4FC** |
| SFN | 0 | 23.22 | 5.46 | 4.9 | 4.25 |
| MIR205HG; MIR205 | 0 | 49.93 | 5.56 | 10.19 | 10.77 |
| GSTM3 | 0 | 5.98 | 4.31 | 5.54 | 7.08 |
| DPT | 0 | 9.18 | 4.66 | 6.01 | 10.34 |
| LMOD1 | 0 | 7.71 | 4.91 | 5.95 | 5 |
| GSTM4 | 1 | 8.78 | 5.13 | 7.24 | 6.87 |
| MIR205HG | 1 | 59.54 | 5.78 | 11.29 | 11.51 |
| SLC2A5 | 1 | 6.66 | 4.9 | 6.2 | 6.38 |
| GSTM3 | 1 | 6.57 | 4.76 | 6.34 | 8.51 |
| GSTM1 | 0 | 9.49 | 5.97 | 8.02 | 7.71 |
| AOX1 | 0 | 11.79 | 5.48 | 7.01 | 9.14 |
| PDE11A | 1 | 13.72 | 5.65 | 6.92 | 7.11 |
| TGM4 | 0 | 58.87 | 12.2 | 47.14 | 9.13 |
| TIMP4 | 0 | 7.21 | 4.35 | 4.64 | 5.82 |
| LSAMP | 0 | 13.07 | 5.81 | 8.11 | 9.01 |
| P3H2 | 0 | 19.44 | 6.24 | 8.17 | 14.25 |
| STAC | 1 | 4.03 | 4.01 | 4.44 | 4.86 |
| MYLK | 1 | 56.28 | 6.22 | 9.7 | 15.65 |
| MASP1 | 1 | 5.92 | 8.47 | 7.27 | 4.42 |
| MUC4 | 1 | 24.36 | 11.43 | 21.13 | 14.51 |
| MUC4 | 1 | 33.95 | 13.03 | 28.15 | 18.26 |
| CXCL13 | 0 | 5.15 | 5.32 | 5.58 | 4.27 |
| PCAT4 | 0 | 275.55 | 10.25 | 13.7 | 53.87 |
| HSD17B13 | 0 | 18.16 | 14.4 | 15.42 | 10.91 |
| SNORD123 | 0 | 7.68 | 4.94 | 7.6 | 8.02 |
| VTRNA1-2 | 0 | 6.02 | 6.47 | 4.92 | 6.78 |
| AMACR | 0 | -9.07 | -31.48 | -29.09 | -13.74 |
| LOC101929770 | 0 | 18.05 | 5.28 | 10.89 | 16.99 |
| FAM83B | 0 | 11.18 | 5.87 | 6.39 | 7.8 |
| PLN | 0 | 11.88 | 5.35 | 5.63 | 6.3 |
| PLA2G7 | 0 | -4.41 | -4.17 | -4.27 | -4.29 |
| GSTA1 | 0 | 6.69 | 4.47 | 4.59 | 5.29 |
| PLN | 1 | 16.47 | 6.57 | 6.78 | 7.95 |
| CYP3A5 | 1 | 23.19 | 8.91 | 14.7 | 21.2 |
| CYP3A5 | 0 | 20.52 | 9.32 | 14.56 | 19 |
| LOC100507516 | 0 | 30.92 | 6 | 5.76 | 10.69 |
| CPA6 | 0 | 6.73 | 7.33 | 9.04 | 11.28 |
| ANGPT1 | 0 | 8.76 | 4 | 5.05 | 6.2 |
| PSCA | 1 | 13.6 | 4.82 | 7.93 | 10.55 |
| LOC100507516 | 1 | 33.79 | 5.79 | 5.48 | 10.45 |
| RP11-58A12.3 | 0 | 7.67 | 4.05 | 5.71 | 6.87 |
| PGM5 | 0 | 15.23 | 5.33 | 8.6 | 10.68 |
| PCA3 | 0 | 8.42 | -272.21 | -178.35 | -28.2 |
| PGM5-AS1 | 0 | 32.37 | 9.66 | 17.8 | 28.52 |
| PCA3 | 1 | 9.58 | -539.89 | -332.5 | -35.98 |
| TMEM246 | 1 | 10.71 | 4.68 | 6.25 | 8.75 |
| ARMCX1 | 0 | 10.79 | 4.44 | 5.44 | 5.65 |
| FHL1 | 1 | 13.47 | 7.52 | 7.33 | 4.91 |
| TDRD1 | 0 | -10.27 | -42.72 | -21.34 | -22.67 |
| SLC18A2 | 0 | 12.68 | 5.69 | 8.42 | 10.49 |
| MYOF | 0 | 6.28 | 4.38 | 5.75 | 5.89 |
| SCGB1A1 | 0 | 22.07 | 9.67 | 14.05 | 12.01 |
| OR51C1P | 0 | -9.42 | -167.22 | -152.02 | -101.87 |
| FOLH1; FOLH1B | 0 | -4.18 | -4.99 | -5.42 | -5.54 |
| EFEMP2 | 0 | 5 | 4.51 | 4.48 | 4.05 |
| EFEMP2 | 1 | 9.01 | 6.92 | 6.89 | 6.09 |
| VSIG2 | 0 | 25.03 | 4.53 | 6 | 6.42 |
| C12orf75 | 0 | 5.59 | 4.8 | 5.45 | 5.62 |
| KRT5 | 0 | 45.35 | 9.08 | 15.45 | 16.74 |
| WIF1 | 0 | 5.26 | 4.5 | 5.15 | 4.69 |
| CSRP2 | 0 | 9.16 | 6.46 | 5.94 | 5.67 |
| KRT5 | 1 | 17.64 | 6.75 | 11.09 | 11.62 |
| OLFM4 | 0 | 173.25 | 5.23 | 10.47 | 21.14 |
| SNORD114-3 | 0 | 6.29 | 4.67 | 5.73 | 5.16 |
| SNORD114-22 | 0 | 4.42 | 4.01 | 5.26 | 4.7 |
| TGFB3 | 0 | 6.66 | 5.77 | 6.39 | 8.33 |
| LGALS3 | 1 | 17.5 | 7.33 | 7.49 | 6.83 |
| WFDC1 | 0 | 5.08 | 7.18 | 6.96 | 5.67 |
| NETO2 | 0 | -16.84 | -4.36 | -4.93 | -7.11 |
| KRT13 | 0 | 5.58 | 6.53 | 6.65 | 6.68 |
| SLC14A1 | 0 | 48.51 | 24.31 | 37.19 | 37.17 |
| CNN1 | 0 | 10.79 | 4.29 | 5.28 | 4.94 |
| UPK1A | 0 | 18.2 | 21.51 | 34.78 | 23.63 |
| CD177 | 0 | 46.77 | 6.7 | 11.22 | 28.02 |
| HSPB6 | 0 | 6.94 | 5.22 | 6.69 | 5.74 |
| CD177P1 | 0 | 89.24 | 7.87 | 15.13 | 38.48 |
| RRAS | 0 | 11.46 | 4.66 | 4.54 | 4.9 |
| DMKN | 1 | 6.4 | 4.46 | 5.93 | 5.05 |
| HSPB6 | 1 | 8.37 | 4.98 | 6.84 | 5.93 |
| ID1 | 0 | 10.83 | 10.66 | 13.94 | 9.27 |
| MYL9 | 0 | 5.77 | 4.73 | 5.61 | 5.43 |
| FLRT3 | 0 | 14.81 | 4.25 | 5.54 | 5.07 |
| MYL9 | 1 | 8.07 | 5.23 | 6.32 | 5.96 |
| SIM2 | 0 | -5.66 | -5.54 | -6.53 | -7.32 |
|  |  |  |  |  |  |