

Table S2. Epithelial Cell Subcluster Markers, Related to Fig. 3

| Gene                 | p_val | avg_log2FC  | pct.1 | pct.2 | p_val_adj | cluster |
|----------------------|-------|-------------|-------|-------|-----------|---------|
| <i>Slc35f1</i>       | 0     | 1.481158587 | 0.982 | 0.431 | 0         | 0       |
| <i>Mecom</i>         | 0     | 1.325932778 | 0.997 | 0.792 | 0         | 0       |
| <i>RP23-474J16.2</i> | 0     | 1.280422844 | 0.75  | 0.072 | 0         | 0       |
| <i>Nyap2</i>         | 0     | 1.051909678 | 0.536 | 0.049 | 0         | 0       |
| <i>Cacna2d3</i>      | 0     | 0.951420725 | 0.938 | 0.418 | 0         | 0       |
| <i>Car10</i>         | 0     | 0.946418067 | 1     | 0.994 | 0         | 0       |
| <i>Dmrt3</i>         | 0     | 0.840559255 | 0.335 | 0     | 0         | 0       |
| <i>A830018L16Rik</i> | 0     | 0.804642558 | 0.986 | 0.883 | 0         | 0       |
| <i>Immp2l</i>        | 0     | 0.745144857 | 0.992 | 0.894 | 0         | 0       |
| <i>Sema6d</i>        | 0     | 0.720575476 | 0.988 | 0.852 | 0         | 0       |
| <i>Asic2</i>         | 0     | 0.705794419 | 0.988 | 0.845 | 0         | 0       |
| <i>Sptlc3</i>        | 0     | 0.703217412 | 0.395 | 0.076 | 0         | 0       |
| <i>Cacnb2</i>        | 0     | 0.692929553 | 0.804 | 0.365 | 0         | 0       |
| <i>Slit3</i>         | 0     | 0.669559965 | 0.352 | 0.065 | 0         | 0       |
| <i>Npas2</i>         | 0     | 0.663737248 | 0.591 | 0.232 | 0         | 0       |
| <i>Iqgap2</i>        | 0     | 0.654981532 | 0.854 | 0.462 | 0         | 0       |
| <i>Gabrb1</i>        | 0     | 0.644863332 | 0.985 | 0.841 | 0         | 0       |
| <i>Ank3</i>          | 0     | 0.641802849 | 0.891 | 0.538 | 0         | 0       |
| <i>Gm3764</i>        | 0     | 0.60482344  | 0.237 | 0.007 | 0         | 0       |
| <i>Zfp462</i>        | 0     | 0.598222082 | 0.875 | 0.542 | 0         | 0       |
| <i>Vcam1</i>         | 0     | 0.579759899 | 0.659 | 0.336 | 0         | 0       |
| <i>Arhgap28</i>      | 0     | 0.578856439 | 0.885 | 0.584 | 0         | 0       |
| <i>Nr2f2</i>         | 0     | 0.561020518 | 0.749 | 0.38  | 0         | 0       |
| <i>Gm11417</i>       | 0     | 0.558541141 | 0.398 | 0.127 | 0         | 0       |
| <i>Ccbe1</i>         | 0     | 0.544547149 | 0.991 | 0.885 | 0         | 0       |
| <i>Dmrta2os</i>      | 0     | 0.54062643  | 0.196 | 0.002 | 0         | 0       |
| <i>Defb9</i>         | 0     | 0.53850673  | 0.614 | 0.321 | 0         | 0       |
| <i>Zcchc16</i>       | 0     | 0.531815414 | 0.918 | 0.63  | 0         | 0       |
| <i>Cadm2</i>         | 0     | 0.528977877 | 1     | 1     | 0         | 0       |

|                          |   |             |       |       |   |   |
|--------------------------|---|-------------|-------|-------|---|---|
| <b><i>Tbc1d1</i></b>     | 0 | 1.540427796 | 0.97  | 0.305 | 0 | 1 |
| <b><i>AY036118</i></b>   | 0 | 1.481143801 | 1     | 0.997 | 0 | 1 |
| <b><i>Dclk2</i></b>      | 0 | 1.303759586 | 0.95  | 0.433 | 0 | 1 |
| <b><i>Igfbp2</i></b>     | 0 | 1.230939384 | 0.988 | 0.937 | 0 | 1 |
| <b><i>mt-Co1</i></b>     | 0 | 1.23050029  | 1     | 1     | 0 | 1 |
| <b><i>mt-Nd1</i></b>     | 0 | 1.183619665 | 0.993 | 0.891 | 0 | 1 |
| <b><i>Grip1</i></b>      | 0 | 1.180896633 | 0.976 | 0.551 | 0 | 1 |
| <b><i>Meis2</i></b>      | 0 | 1.155406561 | 0.555 | 0.051 | 0 | 1 |
| <b><i>mt-Nd3</i></b>     | 0 | 1.129794628 | 0.999 | 0.999 | 0 | 1 |
| <b><i>Wls</i></b>        | 0 | 1.121903792 | 0.986 | 0.889 | 0 | 1 |
| <b><i>Meis1</i></b>      | 0 | 1.099468902 | 0.45  | 0.012 | 0 | 1 |
| <b><i>mt-Co2</i></b>     | 0 | 1.066031579 | 1     | 1     | 0 | 1 |
| <b><i>Slit2</i></b>      | 0 | 1.025763358 | 0.999 | 0.896 | 0 | 1 |
| <b><i>Lamb1</i></b>      | 0 | 0.923037216 | 0.961 | 0.737 | 0 | 1 |
| <b><i>mt-Cytb</i></b>    | 0 | 0.886429854 | 0.981 | 0.965 | 0 | 1 |
| <b><i>Prkg1</i></b>      | 0 | 0.881326346 | 0.558 | 0.21  | 0 | 1 |
| <b><i>Gm42418</i></b>    | 0 | 0.880825775 | 1     | 1     | 0 | 1 |
| <b><i>B4galnt3</i></b>   | 0 | 0.865182795 | 0.365 | 0.079 | 0 | 1 |
| <b><i>Esrrg</i></b>      | 0 | 0.836969776 | 1     | 1     | 0 | 1 |
| <b><i>Zfhx4</i></b>      | 0 | 0.826494921 | 0.986 | 0.881 | 0 | 1 |
| <b><i>mt-Co3</i></b>     | 0 | 0.811710727 | 1     | 1     | 0 | 1 |
| <b><i>mt-Nd2</i></b>     | 0 | 0.809592272 | 0.981 | 0.933 | 0 | 1 |
| <b><i>mt-Atp6</i></b>    | 0 | 0.808668003 | 1     | 1     | 0 | 1 |
| <b><i>Pcdh7</i></b>      | 0 | 0.807906595 | 0.999 | 0.993 | 0 | 1 |
| <b><i>Rapgef4os1</i></b> | 0 | 0.807882426 | 0.878 | 0.516 | 0 | 1 |
| <b><i>Gm853</i></b>      | 0 | 0.802759984 | 0.462 | 0.121 | 0 | 1 |
| <b><i>Map1b</i></b>      | 0 | 0.795618313 | 0.831 | 0.703 | 0 | 1 |
| <b><i>Mmd</i></b>        | 0 | 0.7940426   | 0.588 | 0.232 | 0 | 1 |
| <b><i>Rapgef4</i></b>    | 0 | 0.788067125 | 1     | 0.995 | 0 | 1 |
| <b><i>mt-Nd4</i></b>     | 0 | 0.786439907 | 0.995 | 0.996 | 0 | 1 |
| <b><i>Pdzrn4</i></b>     | 0 | 1.552851774 | 0.999 | 0.787 | 0 | 2 |
| <b><i>Meg3</i></b>       | 0 | 1.416844083 | 0.996 | 0.444 | 0 | 2 |

|                 |   |             |       |       |   |   |
|-----------------|---|-------------|-------|-------|---|---|
| <b>Dach2</b>    | 0 | 1.117171684 | 0.906 | 0.297 | 0 | 2 |
| <b>Galnt7</b>   | 0 | 1.1034598   | 0.906 | 0.198 | 0 | 2 |
| <b>Ano4</b>     | 0 | 1.05198056  | 0.996 | 0.872 | 0 | 2 |
| <b>Prickle1</b> | 0 | 0.943541009 | 0.996 | 0.771 | 0 | 2 |
| <b>Ccdc85a</b>  | 0 | 0.848452726 | 0.621 | 0.093 | 0 | 2 |
| <b>Etl4</b>     | 0 | 0.83949195  | 1     | 1     | 0 | 2 |
| <b>Ptprd</b>    | 0 | 0.822221683 | 0.997 | 0.922 | 0 | 2 |
| <b>Dnajc6</b>   | 0 | 0.799625714 | 0.925 | 0.362 | 0 | 2 |
| <b>Olfr1507</b> | 0 | 0.795427502 | 0.879 | 0.302 | 0 | 2 |
| <b>Syt1</b>     | 0 | 0.765165355 | 0.963 | 0.547 | 0 | 2 |
| <b>Lrrc9</b>    | 0 | 0.752001607 | 0.567 | 0.096 | 0 | 2 |
| <b>Thsd7a</b>   | 0 | 0.697368327 | 0.977 | 0.625 | 0 | 2 |
| <b>Erdr1</b>    | 0 | 0.66038738  | 0.653 | 0.182 | 0 | 2 |
| <b>Efna5</b>    | 0 | 0.6498026   | 0.998 | 0.897 | 0 | 2 |
| <b>Tenm3</b>    | 0 | 0.642203641 | 0.974 | 0.594 | 0 | 2 |
| <b>Col9a3</b>   | 0 | 0.628118661 | 1     | 0.998 | 0 | 2 |
| <b>Rmst</b>     | 0 | 0.622389939 | 0.998 | 0.971 | 0 | 2 |
| <b>Mapk10</b>   | 0 | 0.614503758 | 0.917 | 0.427 | 0 | 2 |
| <b>Atp1a2</b>   | 0 | 0.601968282 | 0.889 | 0.456 | 0 | 2 |
| <b>Plagl1</b>   | 0 | 0.59447474  | 0.868 | 0.381 | 0 | 2 |
| <b>Cdh2</b>     | 0 | 0.592863059 | 0.72  | 0.252 | 0 | 2 |
| <b>Ldlrad4</b>  | 0 | 0.58932486  | 0.965 | 0.614 | 0 | 2 |
| <b>Aff2</b>     | 0 | 0.57568973  | 0.995 | 0.963 | 0 | 2 |
| <b>Eya4</b>     | 0 | 0.568305011 | 0.5   | 0.132 | 0 | 2 |
| <b>Aff1</b>     | 0 | 0.559231814 | 0.353 | 0.059 | 0 | 2 |
| <b>Epha7</b>    | 0 | 0.541212895 | 0.36  | 0.067 | 0 | 2 |
| <b>Eif2s3y</b>  | 0 | 0.537417072 | 0.741 | 0.29  | 0 | 2 |
| <b>Slit2</b>    | 0 | 0.521699116 | 1     | 0.925 | 0 | 2 |

Table S5. qPCR, Related to Fig. S3

| <b>Gene Name</b> | <b>Access number</b> | <b>Forward Primer</b>     | <b>Reverse Primer</b>     |
|------------------|----------------------|---------------------------|---------------------------|
| Il1b             | NM_031512            | AGGCTTCCTTGTGCAAGTGT      | TGTCGAGATGCTGCTGTGAG      |
| Il1ra            | NM_013123.3          | CGCAGCTGTCCTCTTACTCC      | GACTTCCATCCCCTGCAACA      |
| Tnfa             | NM_012675.3          | GATCGGTCCCAACAAGGAGG      | GCAGCCTTGTCCCTTGAAGA      |
| Relt             | NM_001108495.1       | GCGGCCTTCAAAGAGGTTG       | TCACTGCATACTGAGCAGCC      |
| Mcp1             | NM_031530            | CTGTAGCATCCACGTGCTGT      | TCACTTGGTTCTGGTCCAGTTT    |
| Ccr2             | NM_021866            | TGCTGCAAATGAGTGGGTCT      | AAGGGCCACAAGTATGCTGA      |
| Hprt1            | NM_012583.2          | CTCATGGACTGATTATGGACAGGAC | GCAGGTCAGCAAAGAACTTATAGCC |
| Gapdh            | NM_017008.4          | GGGTGTGAACCACGAGAAAT      | ACTGTGGTCATGAGCCCTTC      |