**Supplementary File 2 - Top 10 markers expressed in each ovary cluster**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Granulosa** | avg\_log2FC | **Mesenchyme** | avg\_log2FC | **Endothelium** | avg\_log2FC |
| Nr5a2 (1) | 2.37 | Col1a2 (2) | 2.80 | Kdr (3) | 3.21 |
| Bex4 (4) | 2.08 | Col3a1 (5) | 2.68 | Mmrn2 (6) | 3.15 |
| Lect1 (7) | 1.95 | Col1a1 (4) | 2.64 | Cdh5 (4) | 3.02 |
| Fst (8) | 1.90 | Ogn (9,10) | 2.40 | Egfl7(11) | 2.93 |
| Hsd17b1 (12) | 1.89 | Bgn (13) | 2.37 | Pecam1 (14) | 2.91 |
| Slc18a2 (15,16) | 1.87 | Tcf21 (17) | 2.35 | Cldn5 (18) | 2.87 |
| Inha (15) | 1.82 | Dcn (19) | 2.34 | Esam (20) | 2.84 |
| Serpine2 (21) | 1.76 | Pdgfra (22) | 2.30 | Flt1 (23) | 2.83 |
| Ivns1abp (24) | 1.65 | Lum (10) | 2.18 | Cd93 (6,25) | 2.79 |
| Fam13a | 1.59 | Mgp (26) | 2.17 | Ctla2a (27) | 2.77 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Immune** | avg\_log2FC | **Oocyte** | avg\_log2FC | **Epithelilum** | avg\_log2FC |
| Lyz2 (28) | 3.62 | Gm15698 | 4.06 | Upk1b (29) | 3.23 |
| Laptm5 (30) | 3.54 | Gdf9 (31) | 3.91 | Upk3b (32) | 3.17 |
| H2Aa (33) | 3.48 | H1foo (34) | 3.78 | Lgals7 (35) | 3.09 |
| Cd74 (36) | 3.47 | Padi6 (37) | 3.78 | Aldh1a2 (38) | 3.04 |
| Fcer1g (39) | 3.45 | Ooep (40) | 3.75 | Mt2 (41,42) | 2.95 |
| Ctss (36) | 3.37 | Oosp1 (43) | 3.72 | Ildr2 (44) | 2.90 |
| H2.Eb1 (45) | 3.33 | Rfpl4 (46) | 3.62 | Krt18 (47) | 2.82 |
| C1qb (48) | 3.32 | Tcl1 (43) | 3.56 | Gpm6a | 2.76 |
| C1qc (48) | 3.23 | Khdc1b (49) | 3.54 | Plxna4 (50) | 2.75 |
| Cd52 | 3.17 | Nlrp14 (51) | 3.53 | Krt7(47) | 2.67 |

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