

Supplementary materials

Cell-type specific analysis of physiological action of estrogen in mouse oviducts

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Supplementary figures:

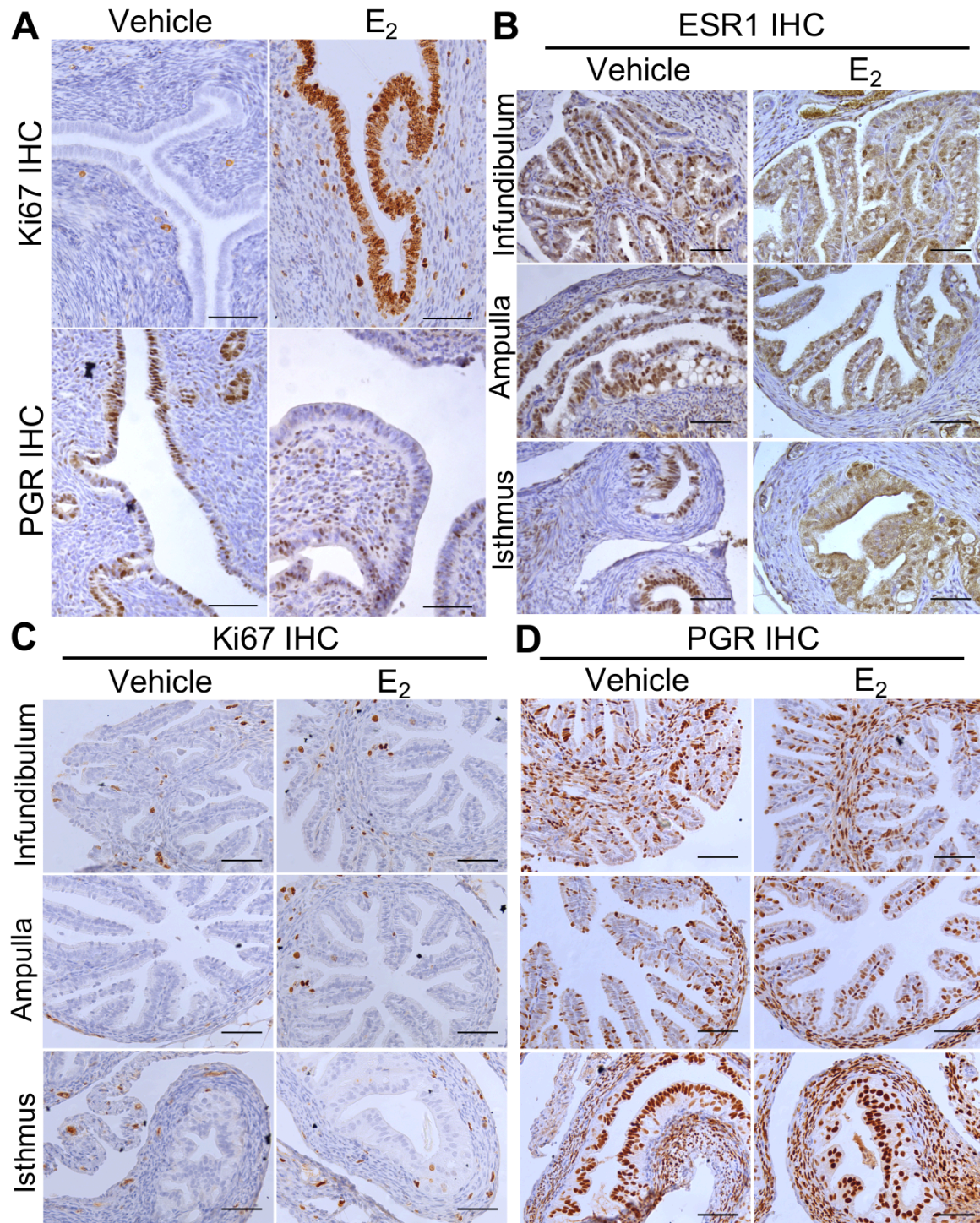


Figure S1. IHC Staining of ESR1, Ki67, and PGR in uterine and oviduct samples collected from ovariectomized females treated with Veh or E₂. **A.** Staining of Ki67 and PGR in uterine samples after Veh or E₂ treatment. **B-D.** Lower magnification of ESR1, Ki67, and PGR staining images from Fig. 1 of oviduct samples treated with Veh or E₂. All scale bars = 50 μm.

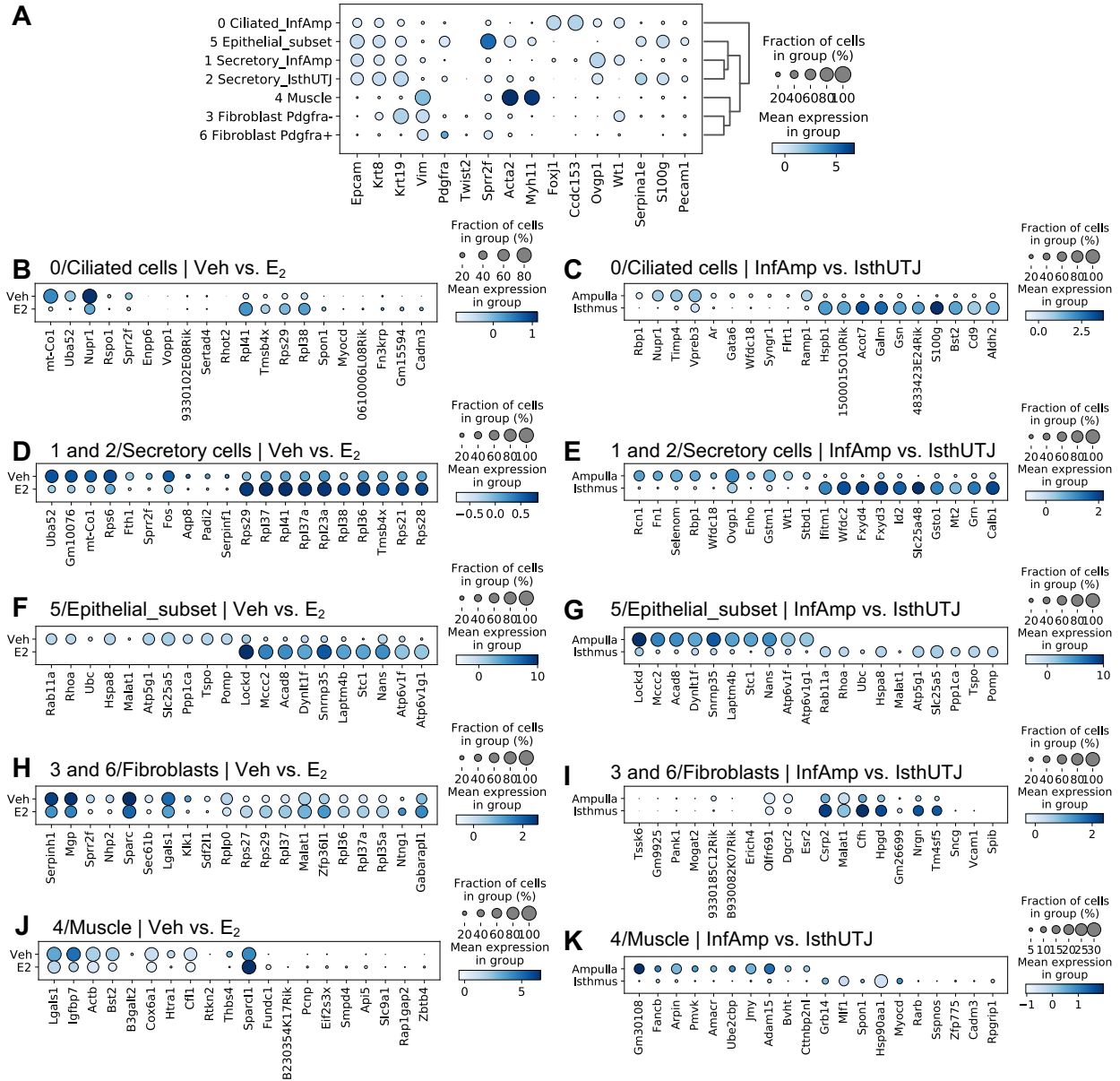
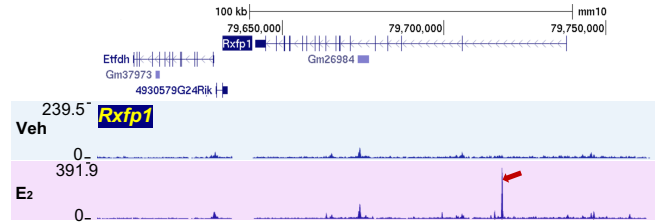
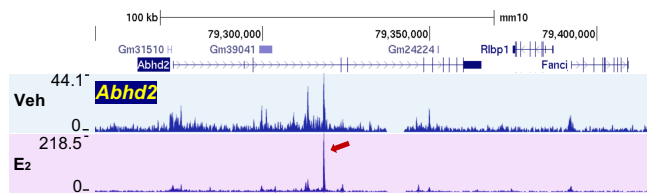
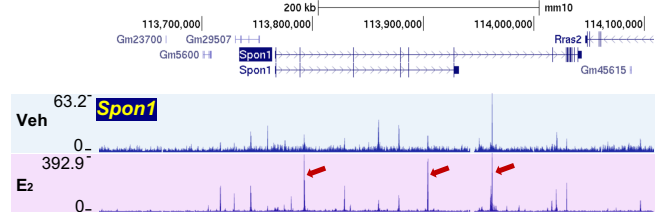
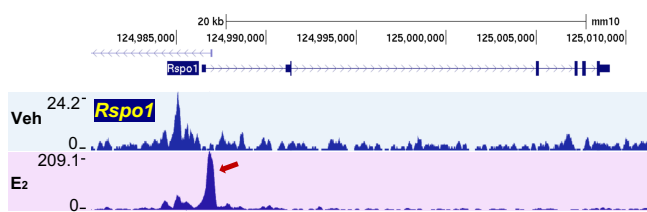


Figure S2. Dot plots of top 10 differentially expressed genes in cell clusters comparing between Veh vs. E₂ treatment or InfAmp vs. IsthUTJ. **A.** Marker genes in all cell clusters including 0/ciliated (InfAmp), 1/secretory (InfAmp), 2/secretory (IsthUTJ), 3/fibroblast *Pdgfra*⁺, 4/muscle, 5/epithelial (subset), and 6/fibroblast *Pdgfra*⁺ cell clusters. Epithelial cells are indicated by *Epcam*⁺ and *Krt8*⁺, mesenchymal cells (fibroblasts and muscles) by *Vim*⁺, *Pdgfra*⁺, and *Twist2*⁺, muscle cells by *Act2a*⁺ and *Myh11*⁺, ciliated cells by *Foxj1*⁺ and *Ccdc153*⁺, secretory cells by *Ovgp1*⁺, and endothelial cells by *Pecam1*⁺. *Krt19* was expressed in both epithelial and fibroblasts. *Spr2f*, *Serpina1e*, and *S100g* were expressed specifically in 5/epithelial cell subset. **B-K.** The top 10 region- and E₂-specific genes for each cell clusters are shown.

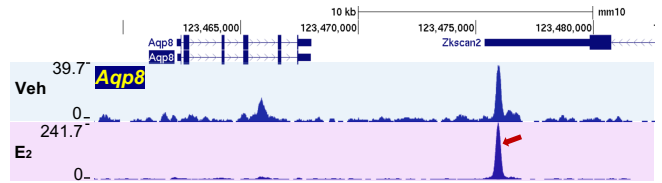
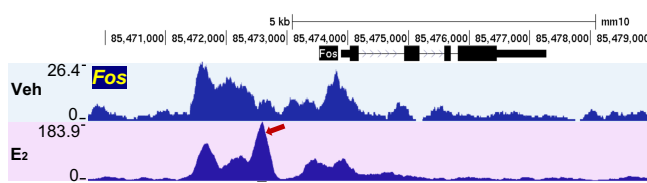
A Genes enriched in all clusters | Veh vs E₂



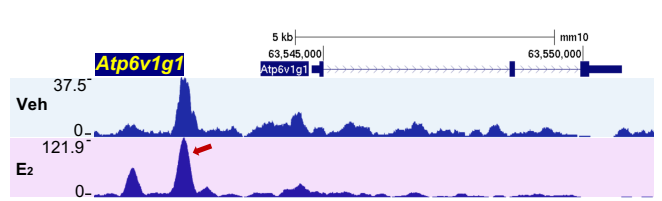
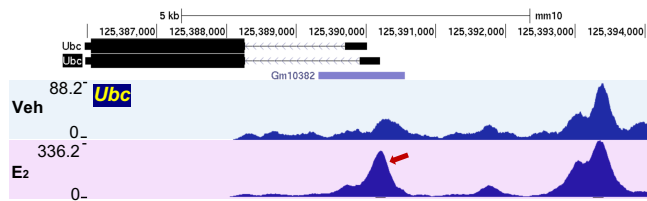
B Genes enriched in Ciliated cells | Veh vs E₂



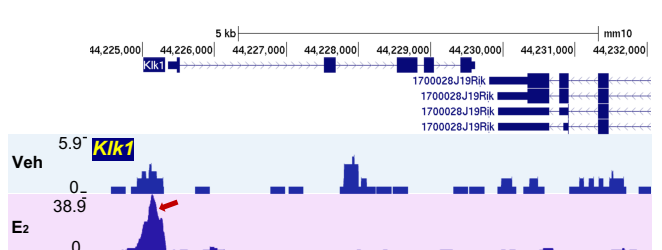
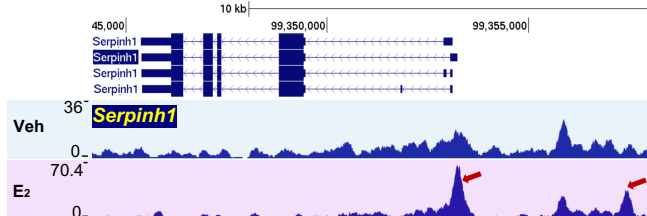
C Genes enriched in Secretory cells | Veh vs E₂



D Genes enriched in Epithelial cells subset | Veh vs E₂



E Genes enriched in Fibroblasts | Veh vs E₂



F Genes enriched in Muscle cells | Veh vs E₂

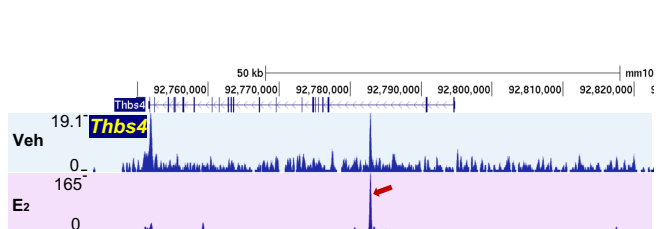
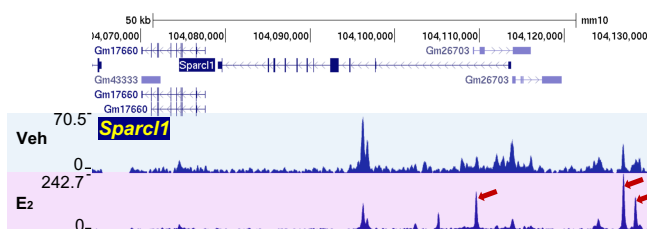
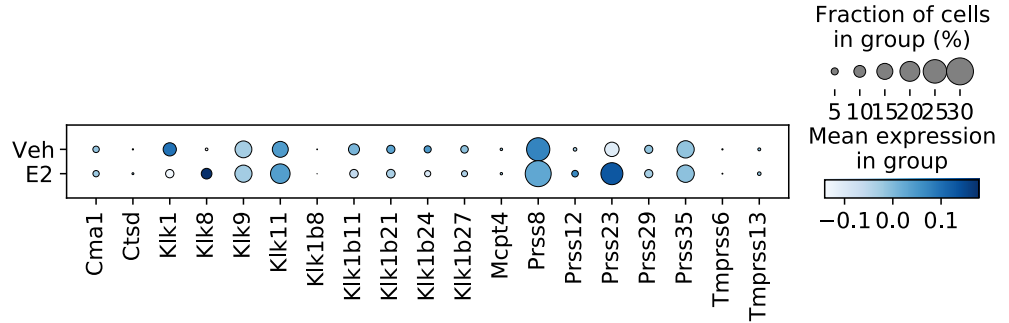


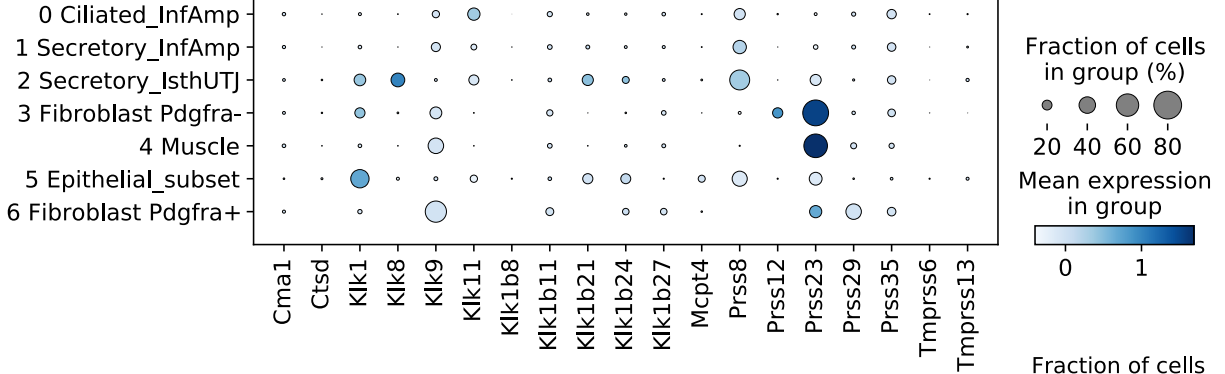
Figure S3. UCSC Genome Browser screenshots of ESR1 binding sites using ESR1 chromatin immunoprecipitation-sequencing (ChIP-seq) analysis from mouse uterine dataset (GSE36455)^{50,51} that were treated with E₂ (blue tracks) or Veh (pink tracks) for 1 hr. Significant increase of ESR1 binding sites (red arrows) on the promoters, TSSs, and intragenic regions were observed in a subset of genes identified in scRNA-seq analysis in the mouse oviduct to be enriched after E₂

compared to Veh treatment in **A.** all cell clusters, **B.** ciliated cells, **C.** secretory cells, **D.** epithelial cell subset, **E.** fibroblasts, and **F.** muscle cells. Note that scales on y-axes for Veh and E₂ tracks are actual, not fixed scales.

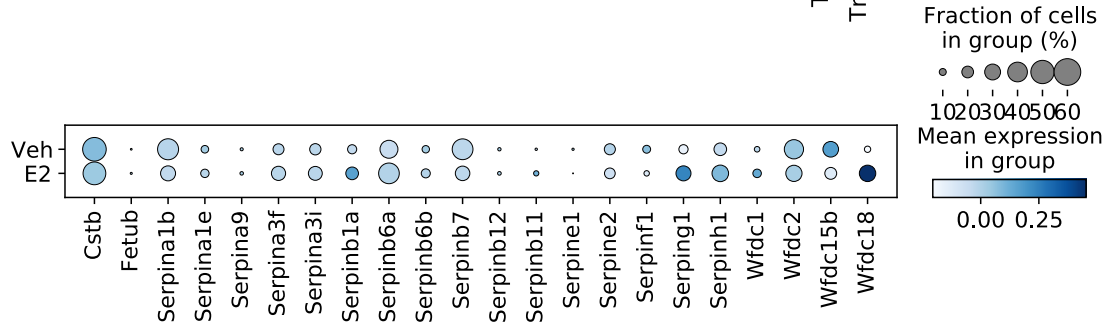
A



B



C



D

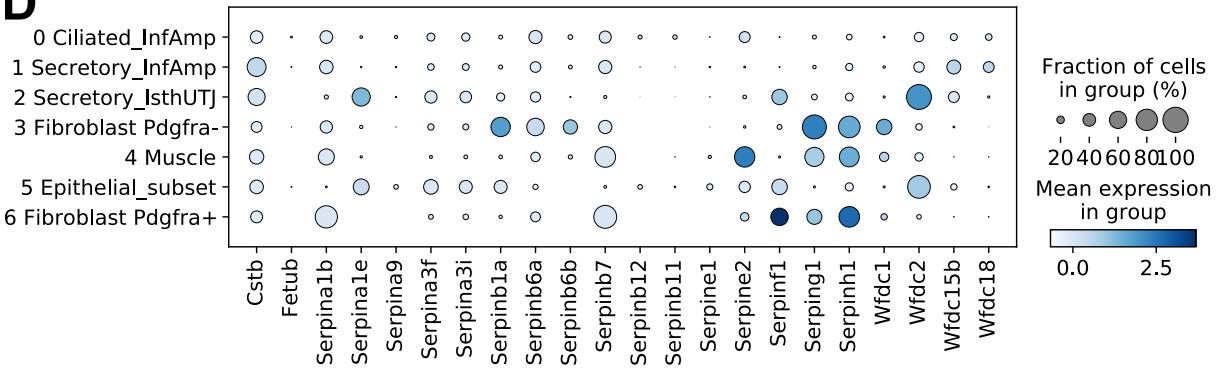


Figure S4: Dot plots of genes in (A-B) protease and (C-D) protease inhibitor family in cells isolated from Veh and E₂-treated samples; including 0/ciliated, 1/secretory (InfAmp), 2/secretory (IsthUTJ), and 3/fibroblast *Pdgfra*⁻, 4/muscle, 5/epithelial (subset), and 6/fibroblast *Pdgfra*⁺ cell clusters.

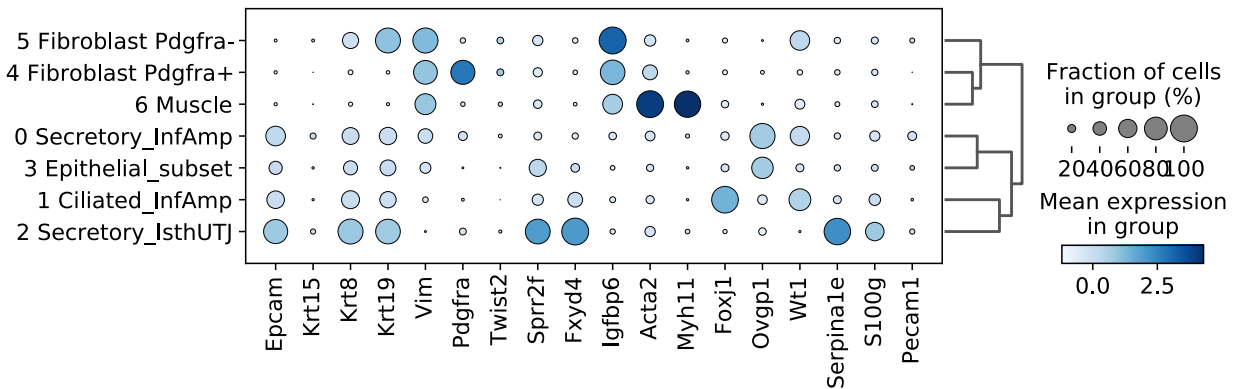


Figure S5. Dot plots of marker genes for each cell cluster from estrus and Veh- vs. E₂-treated datasets combined, including 0/secretory (InfAmp), 1/ciliated (InfAmp), 2/secretory (IsthUTJ), 3/epithelial (subset), 4/fibroblast *Pdgfra*⁺, 5/fibroblast *Pdgfra*⁻, and 6/muscle cell clusters.

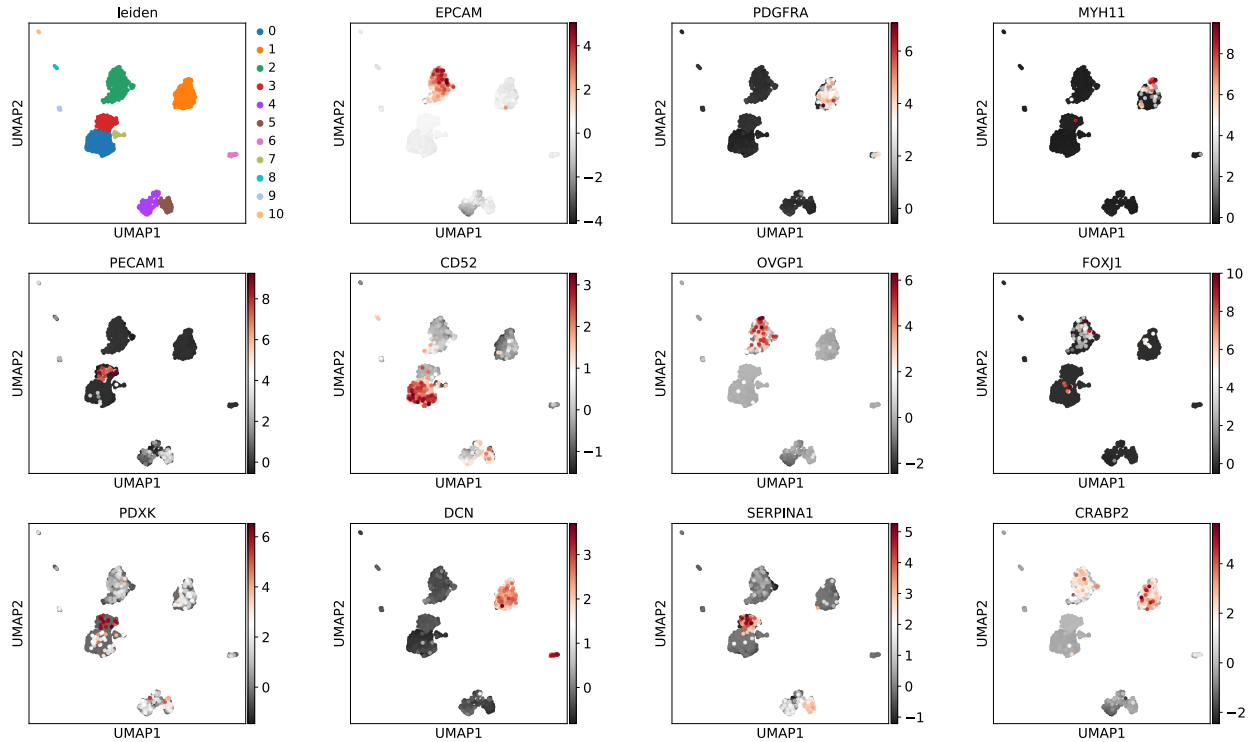


Figure S6. UMAP plot of clusters of cells from human fallopian tubes with different cell-type markers; epithelial cells ($EPCAM^+$), fibroblast ($PDGFRA^+$), muscle cells ($MYH11$), endothelial cells ($PECAM1^+$), immune cells ($CD52^+$), secretory epithelial cells ($OVGPI^+$), ciliated epithelial cells ($FOXJ1^+$), epithelial cells in the infundibulum and the ampulla identified in mice ($PDXK^+$), fibroblast and muscle cells identified in mice (DCN^+), secretory epithelial cells in the isthmus identified in mice ($SERPINA1^+$), epithelial cells in the UTJ identified in mice ($CRABP2^+$).

Supplementary Tables:

Table S1: Top 25 genes and *p*-values (*p*) enriched in each cell cluster identified in Veh- and E₂-treated samples; 0/ciliated (InfAmp), 1/secretory (InfAmp), 2/secretory (IsthUTJ), 3/ fibroblast *Pdgfra*⁻, 4/muscle, 5/epithelial (subset), and 6/fibroblast *Pdgfra*⁺ clusters.

0/ gene	0/ <i>p</i>	1/ gene	1/ <i>p</i>	2/ gene	2/ <i>p</i>	3/ gene	3/ <i>p</i>	4/ gene	4/ <i>p</i>	5/ gene	5/ <i>p</i>	6/ gene	6/ <i>p</i>
<i>Ccdc153</i>	0	<i>Ovgp1</i>	0	<i>Fxyd3</i>	0	<i>Igfbp6</i>	0	<i>Acta2</i>	6.34E-113	<i>Sprr2f</i>	8.94E-95	<i>Dcn</i>	4.96E-67
<i>Tppp3</i>	0	<i>Aldoc</i>	0	<i>Fxyd4</i>	0	<i>Upk3b</i>	0	<i>Tagln</i>	6.74E-113	<i>Car2</i>	3.92E-91	<i>Gsn</i>	2.29E-64
<i>Elof1</i>	0	<i>Ier3</i>	0	<i>Wfdc2</i>	0	<i>Dcn</i>	0	<i>Myl9</i>	7.06E-113	<i>Tmem213</i>	2.96E-78	<i>Lgals1</i>	5.03E-47
<i>Chchd10</i>	0	<i>Gstm2</i>	0	<i>Id2</i>	0	<i>Rarres2</i>	0	<i>Tpm2</i>	1.72E-110	<i>Gm28940</i>	1.13E-75	<i>Serpinfl</i>	2.34E-45
4933434E2 0Rik	0	<i>Plet1</i>	0	<i>Slc25a4</i> 8	0	<i>Gas6</i>	0	<i>Tpm1</i>	3.92E-110	4933408J1 7Rik	1.46E-75	<i>Cd63</i>	3.62E-45
<i>Mt1</i>	0	<i>Rpl32</i>	0	<i>Calb1</i>	0	<i>Aebp1</i>	0	<i>Myl6</i>	1.25E-109	A530040E 14Rik	1.60E-75	<i>Lum</i>	4.50E-44
<i>Gm19935</i>	0	<i>Plat</i>	0	<i>Grn</i>	0	<i>Serping1</i>	0	<i>Mustn1</i>	9.06E-104	<i>Zfp366</i>	2.43E-75	<i>Mirg</i>	5.74E-41
<i>Tmem212</i>	0	<i>Rcn1</i>	0	<i>Pdzklip</i> 1	0	<i>Csrp2</i>	0	<i>Csrp1</i>	1.23E-101	<i>Gm47662</i>	2.67E-75	<i>Myrfl</i>	7.38E-41
<i>Fam183b</i>	0	<i>Rpl14</i>	0	<i>Anpep</i>	0	<i>Cfh</i>	0	<i>Flna</i>	5.70E-94	<i>Npas4</i>	2.86E-75	<i>Olfir845</i>	7.52E-41
<i>Vpreb3</i>	0	<i>Krt18</i>	0	<i>Galm</i>	0	<i>Sparc</i>	0	<i>Sparcl1</i>	2.84E-93	<i>Gm14412</i>	3.04E-75	<i>Foxn1</i>	7.52E-41
<i>Foxj1</i>	0	<i>Kctd14</i>	0	<i>Cndp2</i>	1.16E-302	<i>C3</i>	0	<i>Myh11</i>	1.88E-89	<i>Gm29325</i>	3.10E-75	<i>E030018</i> <i>B13Rik</i>	7.53E-41
1700016K1 9Rik	0	<i>Rps5</i>	0	<i>Rnf128</i>	6.99E-296	<i>Ogn</i>	0	<i>Mylk</i>	6.44E-89	<i>Gm13963</i>	3.12E-75	<i>Gm2901</i> 0	7.58E-41
1110017D1 5Rik	0	<i>Emb</i>	0	<i>Ybx1</i>	1.08E-288	<i>Upk1b</i>	0	<i>Des</i>	8.24E-88	<i>Col28a1</i>	3.13E-75	<i>Tbr1</i>	7.79E-41
<i>Dynlrb2</i>	0	<i>Selenom</i>	0	<i>Ifitm1</i>	8.76E-281	<i>Nbl1</i>	0	<i>Lgals1</i>	1.01E-87	<i>Gm26945</i>	3.24E-75	<i>Tdrd5</i>	7.86E-41
<i>Gm867</i>	0	<i>Rps9</i>	0	<i>Cldn10</i>	1.79E-274	<i>Nkain4</i>	0	<i>Vim</i>	6.19E-87	<i>Gm40190</i>	3.24E-75	<i>Ecell</i>	7.96E-41
1700007K1 3Rik	0	<i>Rps27a</i>	0	<i>Crabp2</i>	3.98E-272	<i>Cldn15</i>	0	<i>Cald1</i>	5.18E-83	<i>Gm16630</i>	3.38E-75	<i>A118237</i> 1	8.03E-41
<i>Cfap126</i>	0	<i>Eef1a1</i>	0	<i>Gsto1</i>	1.01E-271	<i>Rspo1</i>	0	<i>Crip1</i>	9.12E-83	<i>Gm38096</i>	3.77E-75	<i>A930009</i> <i>A15Rik</i>	8.10E-41
<i>Calm1</i>	0	<i>Rpl11</i>	0	9530014 <i>B07Rik</i>	1.08E-270	<i>Gas1</i>	0	<i>Cavin3</i>	3.52E-76	<i>Gpr55</i>	3.77E-75	<i>Gm3904</i> 3	8.24E-41
<i>Sntn</i>	0	<i>Fnl1</i>	0	4833423 <i>E24Rik</i>	3.64E-268	<i>B2m</i>	0	<i>Palld</i>	3.36E-73	<i>Rasl10b</i>	3.86E-75	<i>Zfp407</i>	8.48E-41
<i>Dnah5</i>	0	<i>Rps15a</i>	0	<i>Cd9</i>	1.69E-259	<i>Igfl</i>	0.00E+00	<i>Actb</i>	6.41E-73	<i>Gm5160</i>	4.14E-75	<i>Gng10</i>	9.97E-41
<i>Tm4sf1</i>	0	<i>Rpl23</i>	0	<i>Tspan8</i>	1.46E-217	<i>Col3a1</i>	4.65E-307	<i>Mfge8</i>	1.43E-69	A430106G 13Rik	4.16E-75	<i>Igkv13-55-1</i>	1.01E-40
<i>Dynl11</i>	0	<i>Slc1a3</i>	3.59E-308	<i>Klf5</i>	1.30E-214	<i>Efemp1</i>	2.51E-303	<i>Igfbp7</i>	3.11E-67	<i>Serinc4</i>	4.29E-75	<i>Mcmdec2</i>	1.04E-40
<i>Rsph1</i>	0	<i>Rps4x</i>	5.41E-306	<i>Pla2g4a</i>	8.55E-205	<i>Cavin1</i>	1.55E-295	<i>Malat1</i>	7.06E-64	<i>Slc47a1</i>	4.40E-75	<i>Gm4062</i> 1	1.09E-40
<i>Nudt4</i>	0	<i>Cd81</i>	6.17E-305	<i>Sox17</i>	1.03E-202	<i>Tmsb10</i>	9.40E-288	<i>Calm2</i>	4.00E-60	<i>Gm33280</i>	4.60E-75	<i>Gm4091</i> 0	1.10E-40
<i>Dnajc7</i>	0	<i>Rpl10</i>	4.42E-303	<i>Car2</i>	7.82E-195	<i>Crip1</i>	1.26E-285	<i>Actn1</i>	2.39E-59	<i>Rgs6</i>	4.80E-75	<i>Slc13a1</i>	1.10E-40

Table S2: Top 500 genes and p -values differentially expressed in Veh- vs. E₂-treated samples or InfAmp vs. IsthUTJ in all 7 cell clusters combined, 0/ciliated, 1 and 2/secretory, 3 and 6/fibroblast, 4/muscle, and 5/epithelial (subset) cell clusters. Please refer to file Table S2.xlsx.

Table S3: Gene ontology (GO) biological processes (BPs) enriched in Veh- vs. E₂-treated samples or InfAmp vs. IsthUTJ in all 7 cell clusters combined, 0/ciliated, 1 and 2/secretory, and 3 and 6/fibroblast. Data were analyzed using the top 500 genes identified in Table S2.

PANTHER overrepresentation test was used as analysis type with Fisher's test, FDR correction was included when applicable. There were no significant BPs enriched in 4/muscle and 5/epithelial (subset) cell clusters. Please refer to file Table S3.xlsx.

Table S4: Top 1,000 genes and GOBPs enriched in endogenous (estrus) vs. exogenous E₂-treated samples in all 7 cell clusters combined. Data were analyzed using the top 1,000 genes identified. PANTHER overrepresentation test was used as analysis type with Fisher's test and FDR correction. Please refer to file Table S4.xlsx.

Table S5: Top 25 genes and *p*-values enriched in 11 (#0-10) cell clusters identified from cells collected from human Fallopian tubes.

0/ gene	0/ <i>p</i>	1/ gene	1/ <i>p</i>	2/ gene	2/ <i>p</i>	3/ gene	3/ <i>p</i>	4/ gene	4/ <i>p</i>	5 gene	5/ <i>p</i>	6/ gene	6/ <i>p</i>	7/ gene	7/ <i>p</i>	8/ gene	8/ <i>p</i>	9/ gene	9/ <i>p</i>	10/ gene	10/ <i>p</i>
<i>IL7R</i>	2.27E-179	<i>SPARCL1</i>	2.29E-182	<i>WFDC2</i>	1.82E-165	<i>KRTAP5-ASI</i>	1.76E-130	<i>HLA-DPB1</i>	7.25E-81	<i>LYZ</i>	1.19E-63	<i>GSN</i>	1.37E-21	<i>FTH1</i>	4.46E-15	<i>PTCR A</i>	2.68E-13	<i>CCL2 1</i>	2.42E-11	<i>IFI27</i>	2.40E-07
<i>CD69</i>	1.52E-151	<i>SFRP4</i>	3.18E-176	<i>CLU</i>	7.30E-165	<i>HMMR</i>	3.25E-130	<i>HLA-DPA1</i>	2.68E-80	<i>AC02065 6.1</i>	4.38E-63	<i>CFD</i>	2.07E-21	<i>SRGN</i>	5.89E-15	<i>GZMB</i>	2.75E-13	<i>CLD N5</i>	2.64E-11	<i>EGFL 7</i>	2.85E-07
<i>KLRB1</i>	1.01E-140	<i>DCN</i>	4.79E-170	<i>KRT18</i>	2.83E-161	<i>BNIP1</i>	6.17E-130	<i>HLA-DQA1</i>	6.77E-76	<i>CSTA</i>	1.62E-57	<i>DCN</i>	7.21E-21	<i>EMP3</i>	1.50E-14	<i>PPP1R14B</i>	2.84E-13	<i>CAV1 N2</i>	2.92E-11	<i>LIFR</i>	3.15E-07
<i>BTG1</i>	3.61E-124	<i>C11orf96</i>	6.22E-163	<i>ELF3</i>	9.24E-153	<i>RNF217-ASI</i>	8.52E-130	<i>HLA-DRB1</i>	1.43E-72	<i>SI00A9</i>	2.03E-57	<i>IGFBP6</i>	7.73E-21	<i>SCNN1 G</i>	1.32E-13	<i>JCHAI N</i>	2.85E-13	<i>TFF3</i>	2.94E-11	<i>CAV1</i>	3.39E-07
<i>CD52</i>	2.12E-120	<i>IGFBP4</i>	2.72E-162	<i>CLDN4</i>	3.19E-147	<i>TMEM25 5A</i>	9.70E-130	<i>CD74</i>	6.17E-71	<i>TYROBP</i>	2.19E-53	<i>SERPIN G1</i>	9.13E-21	<i>DLGAP 2</i>	1.35E-13	<i>IGKC</i>	2.94E-13	<i>TFPI</i>	4.17E-11	<i>MT1 M</i>	3.76E-07
<i>CD3E</i>	4.62E-112	<i>IGFBP7</i>	1.93E-161	<i>KRT8</i>	1.06E-146	<i>TEPP</i>	1.45E-129	<i>HLA-DRA</i>	1.01E-70	<i>CTSS</i>	1.94E-52	<i>MGP</i>	3.92E-20	<i>SLC30A 2</i>	1.37E-13	<i>MZB1</i>	3.28E-13	<i>SPTB NI</i>	8.16E-11	<i>EMPI</i>	4.09E-07
<i>RPS12</i>	3.31E-110	<i>LGALS1</i>	1.11E-160	<i>SLPI</i>	7.82E-145	<i>PRC1</i>	1.46E-129	<i>HLA-DMA</i>	3.01E-69	<i>FTL</i>	1.01E-50	<i>FBLN5</i>	6.66E-20	<i>NCAPH</i>	1.40E-13	<i>PLD4</i>	3.48E-13	<i>SI00 A10</i>	1.97E-10	<i>RNAS E1</i>	6.45E-07
<i>CD3D</i>	5.79E-110	<i>SFRP1</i>	2.89E-158	<i>CRISP3</i>	3.56E-123	<i>WNT7A</i>	1.57E-129	<i>HLA-DQB1</i>	1.09E-67	<i>TKT</i>	3.00E-49	<i>PLAC9</i>	1.04E-19	<i>SI00A5</i>	1.56E-13	<i>IRF7</i>	3.54E-13	<i>KLF4</i>	5.98E-10	<i>NFIB</i>	6.53E-07
<i>TSC2 D3</i>	1.14E-109	<i>CD81</i>	2.95E-155	<i>KRT19</i>	3.66E-119	<i>IL11</i>	1.82E-129	<i>MS4A6 A</i>	6.83E-60	<i>LGALS2</i>	3.47E-49	<i>LTBP4</i>	1.80E-19	<i>ASPM</i>	1.57E-13	<i>ITM2C</i>	4.44E-13	<i>HLA-E</i>	7.85E-10	<i>SOCS 3</i>	7.44E-07
<i>HARS2</i>	4.66E-106	<i>TPM2</i>	3.92E-154	<i>ELN-ASI</i>	5.18E-116	<i>AL137077 2</i>	2.25E-129	<i>GPR18 3</i>	4.66E-59	<i>SI00A8</i>	5.06E-49	<i>CPE</i>	2.98E-19	<i>ZHX1</i>	1.58E-13	<i>CLIC3</i>	5.29E-13	<i>KLF2</i>	1.15E-09	<i>GNNG 11</i>	7.46E-07
<i>LINC02 315</i>	5.22E-106	<i>RARRES2</i>	4.73E-153	<i>AC02090 9.3</i>	7.50E-116	<i>AC097359 2</i>	2.86E-129	<i>SRGN</i>	7.18E-59	<i>PSAP</i>	6.47E-48	<i>SEMA3 C</i>	5.79E-19	<i>ZNF763</i>	1.58E-13	<i>IRF8</i>	7.06E-13	<i>AKAP 12</i>	1.41E-09	<i>TM4S F1</i>	9.85E-07
<i>RPLP1</i>	5.32E-106	<i>SELENO P</i>	8.09E-151	<i>AC11939 6.2</i>	1.31E-115	<i>ADRA2B</i>	3.03E-129	<i>AIF1</i>	2.08E-58	<i>THBS1</i>	9.85E-48	<i>SFRP2</i>	1.50E-18	<i>AF1275 77.4</i>	1.59E-13	<i>GNA15</i>	1.20E-12	<i>GNNG 11</i>	1.86E-09	<i>YBX3</i>	1.34E-06
<i>AC0229 16.1</i>	8.74E-106	<i>TGM2</i>	1.41E-147	<i>AC01163 2.1</i>	2.10E-115	<i>KCNJ4</i>	3.38E-129	<i>FTL</i>	5.39E-58	<i>AIF1</i>	2.12E-47	<i>TIMP3</i>	1.80E-18	<i>LINC00 379</i>	1.64E-13	<i>GRAS P</i>	1.39E-12	<i>LMO 2</i>	1.87E-09	<i>CCD C85B</i>	2.40E-06
<i>C10orf 91</i>	1.06E-105	<i>PTGDS</i>	1.26E-145	<i>EPCAM</i>	3.15E-115	<i>SUOX</i>	3.42E-129	<i>TYROB P</i>	3.59E-55	<i>APIS2</i>	1.20E-46	<i>MFAP5</i>	2.89E-18	<i>CDKL2 B</i>	1.66E-13	<i>SEC61 B</i>	1.66E-12	<i>YBX3</i>	2.22E-09	<i>A2M</i>	2.44E-06
<i>EDC4</i>	3.12E-105	<i>SERPINF 1</i>	6.47E-145	<i>AKAP6</i>	4.00E-115	<i>WNT7B</i>	3.71E-129	<i>SGK1</i>	1.45E-54	<i>TYMP</i>	1.74E-46	<i>CCDC8 0</i>	2.91E-18	<i>AC0020 91.2</i>	1.69E-13	<i>GPR18 3</i>	3.66E-12	<i>KAN K3</i>	3.12E-09	<i>TSC2 2D1</i>	3.44E-06
<i>FABP4</i>	5.54E-105	<i>SELENO M</i>	1.49E-139	<i>AL07864 4.2</i>	1.80E-114	<i>LAMP3</i>	3.78E-129	<i>CTSZ</i>	1.77E-54	<i>VCAN</i>	1.74E-46	<i>ADH1B</i>	7.77E-18	<i>CXCL9</i>	1.73E-13	<i>AREG</i>	7.62E-12	<i>MMR NI</i>	4.21E-09	<i>ID1</i>	3.59E-06
<i>KCNE5</i>	5.71E-105	<i>TAGLN</i>	1.49E-135	<i>AC00983 1.1</i>	3.41E-114	<i>B4GALNT 3</i>	4.48E-129	<i>RGS10</i>	7.50E-54	<i>CYBB</i>	1.61E-45	<i>UAPI</i>	1.71E-17	<i>AC0976 34.3</i>	1.73E-13	<i>NR3C1</i>	9.05E-12	<i>NNM T</i>	4.42E-09	<i>GSN</i>	3.63E-06
<i>KIFC1</i>	1.03E-104	<i>NBL1</i>	1.85E-131	<i>AC07361 0.3</i>	3.63E-114	<i>TSFM</i>	5.16E-129	<i>HLA-DMB</i>	1.32E-53	<i>SI00A12</i>	3.58E-44	<i>ACKR3</i>	2.15E-17	<i>PMFBP 1</i>	1.77E-13	<i>CD74</i>	9.71E-12	<i>ARL4 A</i>	6.76E-09	<i>SPRY 1</i>	3.67E-06
<i>MATN4</i>	1.68E-104	<i>RAMP1</i>	2.67E-129	<i>DNAH17</i>	5.65E-114	<i>DCAF4</i>	5.28E-129	<i>OGFRL 1</i>	2.92E-53	<i>TNFRSF 1B</i>	1.11E-43	<i>SI00A10</i>	2.85E-17	<i>FAM86 B2</i>	1.78E-13	<i>A1BG</i>	1.04E-11	<i>ADIR F</i>	7.24E-09	<i>UAC A</i>	3.82E-06
<i>MPDU 1</i>	5.28E-104	<i>IGFBP6</i>	2.44E-125	<i>AC02723 7.2</i>	6.17E-114	<i>AC010618 3</i>	5.30E-129	<i>RGS1</i>	9.54E-53	<i>UPP1</i>	8.66E-43	<i>COL6A2</i>	4.52E-17	<i>TMEM2 55B</i>	1.82E-13	<i>PMEP A1</i>	1.72E-11	<i>ANXA 2</i>	8.43E-09	<i>SOX1 7</i>	4.04E-06
<i>KCNB2</i>	5.77E-104	<i>IFITM3</i>	9.18E-125	<i>SLC35F 1</i>	9.72E-114	<i>AC051619 5</i>	5.46E-129	<i>MS4A7</i>	1.12E-50	<i>MAFB</i>	1.94E-41	<i>COL1A2</i>	4.60E-17	<i>ZBTB12</i>	1.83E-13	<i>PLP2</i>	1.74E-11	<i>IGFB P7</i>	1.07E-08	<i>ID3</i>	6.49E-06
<i>AP0007 87.1</i>	8.87E-104	<i>LAPTM4 A</i>	3.76E-124	<i>IL13</i>	1.34E-113	<i>SPATA12</i>	5.58E-129	<i>FCER1 G</i>	2.49E-50	<i>HLA-DRA</i>	5.73E-41	<i>IGFBP5</i>	4.66E-17	<i>RSPO3</i>	1.88E-13	<i>LDLR AD4</i>	2.00E-11	<i>LAYN</i>	1.13E-08	<i>THB D</i>	7.44E-06
<i>AC0076 20.2</i>	9.43E-104	<i>PGRMC1</i>	3.63E-123	<i>TACSTD 2</i>	1.48E-113	<i>TMEM25 4-ASI</i>	5.69E-129	<i>CD83</i>	6.93E-48	<i>LAPTM5</i>	7.01E-41	<i>PMP22</i>	5.47E-17	<i>AC1185 53.1</i>	1.88E-13	<i>RPS3A</i>	3.06E-11	<i>RAB1 1A</i>	1.13E-08	<i>ADIR F</i>	1.01E-05