**Table 1.** Number of statistically significant differentially expressed genes between estrus, diapause, and pregnancy in mink uterus. a Comparison between different gestational stages. Estrus vs Diapause indicates gene expression changes from estrus going to diapause. Diapause vs Pregnancy indicates gene expression changes from diapause going into pregnancy. b Genes with more than 1.5 fold increase between the indicated gestational stages with the number of statistically significant genes followed by the total number of upregulated genes in parenthesis. c Genes with less than 0.6 fold decrease between the indicated gestational stages with the number of statistically significant genes followed by the total number of downregulated genes in parenthesis. d Genes detected between the indicated gestational stages with the number of statistically significant genes followed by the total number of genes in parenthesis. Statistical significance is designed as adjusted *p* value < 0.05

|  |  |  |  |
| --- | --- | --- | --- |
| Comparison a | Upregulated - Fold > 1.5 b | Downregulated - Fold < 0.6 c | *p* < 0.05 d |
| Estrus vs Diapause | 476 (3198) | 303 (7094) | 819 (23841) |
| Diapause vs Pregnancy | 358 (3329) | 91 (8218) | 451 (23402) |
| Total | 834 (6527) | 394 (15312) | 1270 (47243) |

**Table 2.** Top 20 most differentially expressed gene in the diapause stage relative to estrus (adjusted *p* value < 0.05)

|  |  |  |  |
| --- | --- | --- | --- |
| Gene Symbol | Log2 Fold Change | Adjusted p value | Gene Description |
| GDF3 | 9.46 | 1.45E-07 | Growth differentiation factor 3 |
| ENSNVIG00000008916 | 9.15 | 1.88E-21 | Novel uncharacterized gene ENSNVIG00000008916 |
| AICDA | 8.13 | 1.05E-07 | Activation induced cytidine deaminase |
| LRP2 | 7.20 | 4.09E-12 | LDL receptor related protein 2 |
| ENSNVIG00000012177 | -7.13 | 3.76E-05 | Novel uncharacterized gene ENSNVIG00000012177 |
| ERMIN | 7.11 | 2.94E-03 | ermin |
| ENSNVIG00000008905 | 7.03 | 6.27E-12 | Novel uncharacterized gene ENSNVIG00000008905 |
| SLC26A7 | 6.97 | 1.40E-05 | Solute Carrier Family 26 (Sulfate Transporter), Member 7 |
| LBP | -6.50 | 2.87E-04 | Lipopolysaccharide binding protein |
| RNF128 | 6.20 | 5.36E-12 | Ring finger protein 128 |
| ENSNVIG00000015113 | 6.15 | 4.71E-13 | Novel uncharacterized gene ENSNVIG00000015113 |
| MATN3 | 6.04 | 3.39E-04 | Matrilin 3 |
| ETV4 | 6.03 | 2.36E-51 | ETS variant transcription factor 4 |
| SERPINA1 | 5.90 | 1.11E-06 | Serpin family A member 1 |
| LRP1B | 5.83 | 2.50E-03 | LDL receptor related protein 1B |
| SLC35D3 | -5.69 | 1.26E-06 | Solute carrier family 35 member D3 |
| DKK1 | -5.68 | 2.15E-19 | Dickkopf WNT signaling pathway inhibitor 1 |
| SVOPL | -5.64 | 6.84E-05 | SVOP Like |
| CXCL17 | -5.54 | 3.01E-03 | C-X-C motif chemokine ligand 17 |
| SLC39A4 | 5.47 | 4.20E-21 | Solute carrier family 39 member 4 |

**Table 3.** Top 20 most differentially expressed gene in the pregnancy stage relative to diapause (adjusted *p* value < 0.05)

|  |  |  |  |
| --- | --- | --- | --- |
| Gene Symbol | Log2 Fold Change | Adjusted p value | Gene Description |
| ATP12A | 11.16 | 2.46E-06 | ATPase H+/K+ transporting non-gastric alpha2 subunit |
| S100G | 11.11 | 1.98E-06 | S100 Calcium Binding Protein G |
| LCN1 | 10.68 | 7.79E-05 | Lipocalin 1 |
| ENSNVIG00000011420 | 10.67 | 9.61E-04 | Novel uncharacterized gene ENSNVIG00000011420 |
| PLG | 10.28 | 1.24E-04 | Plasminogen |
| GATM | 10.18 | 2.16E-05 | Glycine amidinotransferase |
| SEC14L4 | 10.07 | 1.83E-04 | SEC14 like lipid binding 4 |
| CYP24A1 | 9.97 | 2.51E-02 | Cytochrome P450 family 24 subfamily A member 1 |
| ROS1 | 9.81 | 3.31E-04 | ROS proto-oncogene 1, receptor tyrosine kinase |
| HGD | 9.12 | 6.00E-04 | Homogentisate 1,2-dioxygenase |
| CTLA4 | 8.86 | 2.62E-02 | Cytotoxic T-lymphocyte associated protein 4 |
| TRABD2A | 8.36 | 9.61E-04 | TraB domain containing 2A |
| PTPN5 | 8.06 | 4.20E-03 | Protein tyrosine phosphatase non-receptor type 5 |
| CAPN3 | 8.02 | 9.82E-04 | Calpain 3 |
| FAM3B | 7.75 | 1.58E-03 | FAM3 metabolism regulating signaling molecule B |
| SLC15A1 | 7.57 | 4.45E-04 | Solute carrier family 15 member 1 |
| K1C23 | 7.19 | 4.53E-04 | Keratin 23 |
| CCR3 | -7.16 | 7.71E-03 | C-C motif chemokine receptor 3 |
| ADGRF3 | 7.15 | 6.22E-03 | Adhesion G protein-coupled receptor F3 |
| SLC26A4 | 7.05 | 2.58E-03 | Solute carrier family 26 member 4 |