|  |  |  |  |
| --- | --- | --- | --- |
| **Table S1 Major GO terms related to osmotic regulation in 0 vs 5 psu groups** | | | |
| **Description** | ***P*\_bonferroni** | **Type** | **Differential genes** |
| Ion binding | 3.88E-05 | molecular\_function | COX1;c101564\_g1;ADH4;TRIM39;CYP2P;c105226\_g1;c105433\_g1;c106588\_g1;SNAI2,SLUG;c107478\_g1;DSC1;TAT;ADCK,ABC1;TNK1;c111614\_g1;ALB;K06911;c112636\_g1;ACTB\_G1;DDR2,TKT;KRAB;RASD2;RASD2;CDHE,CDH1;CDH3;c115683\_g7;TRIM29,ATDC;c117980\_g4;c119888\_g1;c120156\_g1;STK32,YANK;CYP2C;ADH1\_7;SIK;ALPK;E1.2.1.5;CRYAA;GPX4;c156641\_g1;c168787\_g1;APOE;CYTB,petB;glnA,GLUL;c19896\_g1;SOCS1,JAB;CRYL1;EPHA8,EEK;TEX14,SGK307;MYL7;ACADVL;c72315\_g1;TUBA;COX2;E2.7.3.2;c86748\_g1;KRAB;c88272\_g1;c88272\_g2;c90496\_g1;PKD1L2;STK33;HOMER;ASPN;c99149\_g1;c99623\_g2 |
| Ion transmembrane transport | 0.000195 | biological\_process | COX1;TRPA1,ANKTM1;COX3;ATPeF0A,MTATP6,ATP6;CHRNA4;KCNH5;SLC26A9;COX2 |
| Hydrogen ion transmembrane transporter activity | 0.00029 | molecular\_function | COX1;COX3;ATPeF0A, MTATP6,ATP6;COX2 |
| Hydrogen ion transmembrane transport | 0.000332 | biological\_process | COX1;COX3;ATPeF0A,MTATP6,ATP6;COX2 |
| Hormone activity | 0.00106 | molecular\_function | ADM;c893\_g1;NPPA;ACDC |
| Inorganic ion transmembrane transport | 0.00201 | biological\_process | COX1;COX3;ATPeF0A,MTATP6,ATP6;KCNH5;SLC26A9;COX2 |
| Monovalent inorganic cation transport | 0.00596 | biological\_process | COX1;COX3;ATPeF0A,MTATP6,ATP6;KCNH5;SCN1B;COX2 |
| Anion binding | 0.00643 | molecular\_function | ADH4;c105433\_g1;TAT;ADCK,ABC1;TNK1;c111614\_g1;ALB;c112636\_g1;ACTB\_G1;DDR2,TKT;RASD2;RASD2;c120156\_g1;STK32,YANK;SIK;ALPK;E1.2.1.5;GPX4;c156641\_g1;APOE;glnA,GLUL;c19896\_g1;CRYL1;EPHA8,EEK;TEX14,SGK307;ACADVL;c72315\_g1;TUBA;E2.7.3.2;c88272\_g1;c88272\_g2;c90496\_g1;STK33;HOMER;c99623\_g2 |
| Cellular amino acid metabolic process | 0.00659 | biological\_process | GST,gst;TAT;MTHFD2;c113444\_g1;c120156\_g1;STK32,YANK;SIK;ALPK;E1.2.1.5;GPX4;PTS-HPR;glnA,GLUL;OAZ3;E2.3.1.7;CRYL1;E2.7.3.2;STK33;HOMER;K14165 |
| Ion transport | 0.00735 | biological\_process | COX1;TRPA1,ANKTM1;SLC6A5S;COX3;c1641\_g1;ATPeF0A,MTATP6,ATP6;CHRNA4;KCNH5;SLC26A9;APOE;SCN1B;COX2 |
| Ion transmembrane transporter activity | 0.00816 | molecular\_function | COX1;TRPA1,ANKTM1;SLC6A5S;COX3;ATPeF0A, ATP6;CHRNA4;KCNH5;SLC26A9;COX2 |
| Nitrogen compound metabolic process | 0.0168 | biological\_process | c106312\_g1;c106644\_g2;GST,gst;c107959\_g1;TAT;MTHFD2;FBP,fbp;c112105\_g3;c112323\_g1;c113444\_g1;RASD2;RASD2;c115683\_g7;E3.1.27.1;c120156\_g1;STK32,YANK;SIK;K16330;ALPK;E1.2.1.5;c124849\_g1;GPX4;c132576\_g1;c1641\_g1;PTS-HPR;ATPeF0A,MTATP6,ATP6;glnA,GLUL;OAZ3;c207168\_g1;E2.3.1.7;CRYL1;TUBA;E2.7.3.2;STK33;HOMER;K14165;c99023\_g1;c99149\_g1 |
| Inorganic cation transmembrane transport | 0.0338 | biological\_process | COX1;COX3;ATPeF0A,MTATP6,ATP6;KCNH5;COX2 |
| Inorganic cation transmembrane transporter activity | 0.0354 | molecular\_function | COX1;SLC6A5S;COX3;ATPeF0A,MTATP6,ATP6;KCNH5;COX2 |
| Cation transmembrane transport | 0.0378 | biological\_process | COX1;COX3;ATPeF0A,MTATP6,ATP6;KCNH5;COX2 |