

**S1 Table. Mean FPKM values of genes that changed significantly in painted turtle telencephalon after 24 hours of anoxia at 19°C.**

| Human Gene<br>Ortholog | Sequence Length<br>(kb) | #<br>Exons | Mean FPKM ± SEM  |                    | -LOG <sub>10</sub> (p-value) |
|------------------------|-------------------------|------------|------------------|--------------------|------------------------------|
|                        |                         |            | Normoxia         | Anoxia             |                              |
| APOLD1                 | 0.677                   | 1          | 0.3162 ± .0869   | 169.4843 ± 15.3225 | 9.837718                     |
| PTGS2                  | 8.11                    | 11         | 0.4858 ± .1754   | 55.6362 ± 55.6362  | 4.687669                     |
| FOSB                   | 6.092                   | 5          | 0.1692 ± .0839   | 38.0412 ± 38.0412  | 5.421253                     |
| FOS                    | 2.301                   | 4          | 0.3584 ± .2090   | 27.3408 ± 27.3408  | 7.185112                     |
| EGR1                   | 1.45                    | 2          | 10.8166 ± 1.2077 | 212.4740 ± 18.7898 | 9.69016                      |
| BTG1/2                 | 1.878                   | 2          | 2.6001 ± .6744   | 59.7873 ± 7.2043   | 6.423472                     |
| ATF3                   | 3.504                   | 3          | 0.8595 ± .1727   | 32.0300 ± 4.1616   | 7.266755                     |
| KLF2                   | 2.154                   | 3          | 18.3261 ± 3.8814 | 333.3068 ± 60.279  | 4.780772                     |
| JUNB                   | 0.719                   | 1          | 20.8766 ± 5.5343 | 269.846 ± 87.6450  | 4.139213                     |
| NR4A1                  | 6.608                   | 6          | 0.8967 ± .2356   | 20.0767 ± 4.8369   | 4.024999                     |
| CYR61                  | 35.668                  | 8          | 3.8738 ± .9033   | 45.0959 ± 8.6998   | 5.660014                     |
| DUSP1                  | 2.056                   | 5          | 13.2768 ± 1.6567 | 140.1647 ± 25.1123 | 6.329801                     |
| JUN                    | 0.941                   | 1          | 36.7934 ± 1.7867 | 297.1345 ± 29.0648 | 7.747229                     |
| HES4                   | 1.75                    | 4          | 10.9939 ± 1.3533 | 86.4969 ± 12.2511  | 4.253441                     |
| C8orf4                 | 0.317                   | 1          | 4.0971 ± .6818   | 30.5262 ± 7.7812   | 5.552381                     |
| DDIT4                  | 1.155                   | 2          | 10.9071 ± 2.2153 | 58.5520 ± 12.2882  | 3.747429                     |
| ETS2                   | 12.372                  | 8          | 6.6482 ± .9053   | 34.2827 ± 7.7812   | 4.051485                     |
| C2orf77                | 14.315                  | 9          | 3.644 ± .4603    | 15.0211 ± 3.3850   | 4.270075                     |
| C1orf51                | 9.43                    | 5          | 4.4468 ± .5173   | 11.0608 ± 1.2657   | 4.531651                     |

*Note: Only genes that changed by 2x or more were included. No genes changed by less than 0.5x. General linear model after log<sub>2</sub> transformation and normal/Gaussian distribution with FPR multiple testing correction procedure (ANOVA function in JMP Genomics 5.1).*