Quality Control: Tissue Verification

To do tissue verification for the liver samples obtained from the six pythons, we identified liver-specific housekeeping genes in our liver results data. Working cooperatively with the other liver teams, we referenced Kouadjo et al., 2007 for a list of established liver-specific housekeeping genes that we then searched for in the results file for each of the six snakes.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Housekeeping gene sequence** | **Gene description** | **General Function** | **Expression (Yes/No)** | | | | | |
| **Snake 1 (not fed)** | **Snake 2 (not fed)** | **Snake 3 (not fed)** | **Snake 4 (fed)** | **Snake 5 (fed)** | **Snake 6 (fed)** |
| AAGACTCAGGA | albumin 1 | Cell defense | Y | Y | Y | Y | Y | Y |
| TCGGACCATAG | alpha 1 microglobulin/bikunin | Cell defense | Y | Y | Y | Y | Y | Y |
| CAAATAGGTTG | serine (or cysteine) proteinase inhibitor, clade A, member 1a | Cell defense | Y | N | N | N | N | Y |
| ACCCTTAGAGA | betaine-homocysteine methyltransferase | Amino acid metabolism | Y | Y | Y | Y | Y | Y |
| GCCACGCCCCC | 4-hydroxyphenylpyruvic acid dioxygenase | Amino acid metabolism | Y | N | N | Y | Y | Y |
| GTGATTGCTGA | murinoglobulin 2 | Cell defense | Y | Y | Y | Y | Y | Y |
| TTGTCCTCGTA | inter alpha-trypsin inhibitor, heavy chain 4 | Cell defense | Y | Y | Y | Y | Y | Y |

**Table 1.** Tissue verification as a quality control measure. Liver-specific housekeeping gene nucleotide base sequences were obtained from Kouadjo *et al.*, 2007 descriptions and general functions were generated using the Basic Local Alignment Search Tool (BLAST). The results file for all snakes was searched for each of the housekeeping genes. If it was identified, expression is recorded as yes (Y), and if not, it is recorded as no (N). Note that only housekeeping genes with at least one “Y” are included, and that it was not necessary to use all the liver housekeeping genes established by Kouadjo *et al.* for verification.