Table S1 The relative concentrations of differential metabolites in response to heat stress in the intestine of *Brachymystax lenok*.

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| --- | --- | --- | --- |
| metabolites | VIP | Fold change | p-value |
| Acetylcarnitine | 5.17 | 1.88 | 1.58765E-06 |
| Cytidine | 2.68 | 0.26 | 1.68137E-06 |
| Dopamine | 2.59 | 0.24 | 3.85664E-06 |
| L-Pyroglutamic acid | 1.83 | 0.25 | 6.82996E-06 |
| L-Tyrosine | 3.65 | 0.25 | 8.52235E-06 |
| L-Histidine | 2.82 | 0.21 | 1.41634E-05 |
| Phe-Ile | 1.26 | 0.10 | 4.63693E-05 |
| Ile-Leu | 1.14 | 0.14 | 4.68907E-05 |
| Cytosine | 1.56 | 0.47 | 0.00013 |
| Uracil | 1.02 | 0.27 | 0.0003 |
| Lys-Leu | 1.60 | 0.11 | 0.0008 |
| Adenosine | 2.26 | 0.09 | 0.001 |
| D-Pipecolinic acid | 1.25 | 0.26 | 0.001 |
| 1-Palmitoyl-2-hydroxy-sn-glycero-3-phosphoethanolamine | 3.39 | 0.13 | 0.001 |
| Glycerophosphocholine | 8.52 | 0.16 | 0.001 |
| D-Proline | 3.64 | 0.40 | 0.002 |
| His-Ile | 1.53 | 0.06 | 0.002 |
| (3-Carboxypropyl)  trimethylammonium cation | 5.16 | 1.66 | 0.002 |
| 2-Hydroxyadenine | 1.99 | 0.13 | 0.002 |
| 1-Palmitoyl-sn-glycero-3-phosphocholine | 15.70 | 0.29 | 0.002 |
| L-Palmitoylcarnitine | 3.45 | 2.35 | 0.003 |
| Stachyose | 1.56 | 0.17 | 0.005 |
| N-Acetyl-L-alanine | 2.04 | 4.78 | 0.005 |
| Taurocholate | 2.91 | 0.33 | 0.005 |
| 4-Oxoretinol | 1.308 | 2.72 | 0.006 |
| Taurochenodeoxycholate | 2.678 | 0.12 | 0.009 |
| Adenosine 3'-monophosphate | 1.18 | 0.23 | 0.012 |
| Glutathione disulfide | 1.04 | 1.76 | 0.02 |
| 1-Stearoyl-2-oleoyl-sn-glycerol 3-phosphocholine (SOPC) | 2.05 | 0.39 | 0.02 |
| 1,2-dioleoyl-sn-glycero-3-phosphatidylcholine | 1.61 | 0.39 | 0.02 |
| Pro-Met | 1.411 | 0.11 | 0.02 |
| Creatine | 3.841 | 1.57 | 0.03 |
| 1-Stearoyl-sn-glycerol 3-phosphocholine | 3.671 | 0.29 | 0.03 |
| L-Carnitine | 6.24 | 1.23 | 0.04 |
| L-Aspartate | 2.72 | 0.32 | 3.28836E-05 |
| L-Glutamine | 2.67 | 0.21 | 0.000155482 |
| Ammelide | 1.31 | 0.40 | 6.02211E-05 |
| L-Phenylalanine | 7.54 | 0.22 | 7.57251E-05 |
| trans-cinnamate | 2.634 | 0.25 | 5.19132E-05 |
| L-Methionine | 2.96 | 0.19 | 0.000252491 |
| L-Leucine | 10.5 | 0.29 | 2.10578E-05 |
| N-Acetylmannosamine | 1.97 | 0.22 | 0.001 |
| 3-Methoxy-4-Hydroxyphenylglycol Sulfate | 5.58 | 5.83 | 0.0006 |
| (+-)12-HETE | 2.47 | 2.36 | 0.0005 |
| Erucic acid | 1.34 | 1.78 | 0.005 |
| Alpha-D-Glucose | 1.59 | 0.25 | 0.04 |
| L-Tryptophan | 1.02 | 0.38 | 0.01 |
| Genistein | 1.29 | 0.15 | 0.02 |
| Aminopterin | 1.45 | 2.27 | 0.01 |
| DL-lactate | 2.15 | 1.54 | 0.02 |
| 9R,10S-EpOME | 1.88 | 1.92 | 0.04 |