**S2 Table. Regional brain tissue concentrations (picomoles per milligram of brain tissue) of metabolites assayed by capillary electrophoresis time-of-flight mass spectrometry (CE-TOFMS)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | ITG | MFG | CB |
|  | **AD** | **ASY** | **CN** | **AD** | **ASY** | **CN** | **AD** | **ASY** | **CN** |
| Alanine | 2147.727 | 2010.427 | 1916.502 | 1670.967 | 1650.186 | 1545.128 | 2146.387 | 2028.784 | 2317.791 |
| Arginine | 553.024 | 527.705 | 447.339 | 406.453 | 389.552 | 333.975 | 622.702 | 583.141 | 764.147 |
| Aspartate | 1697.2 | 2068.507 | 2224.454 | 1351.105 | 1712.173 | 1784.718 | 1748.343 | 1695.375 | 2198.271 |
| Betaine | 85.815 | 86.191 | 130.04 | 87.252 | 102.212 | 117.436 | 103.838 | 91.506 | 124.507 |
| Choline | 375.389 | 470.349 | 756.151 | 315.868 | 413.477 | 645.185 | 460.798 | 507.47 | 681.202 |
| Citrulline | 76.187 | 91.54 | 85.031 | 42.859 | 58.758 | 79.677 | 79.323 | 71.403 | 139.452 |
| Creatine | 6216.002 | 6263.294 | 5962.509 | 5218.692 | 5163.396 | 4731.436 | 8697.022 | 8385.721 | 8545.685 |
| Cysteine | 382.245 | 189.753 | 111.81 | 254.138 | 87.557 | 63.224 | 276.626 | 157.304 | 276.986 |
| GABA | 1107.401 | 1447.963 | 1471.191 | 1047.736 | 1247.565 | 1286.138 | 1142.701 | 1185.362 | 1383.455 |
| Glutamine | 5200.442 | 5499.598 | 4693.919 | 4291.165 | 4998.839 | 3778.312 | 5610.641 | 5286.284 | 5045.883 |
| Glutamate | 8630.782 | 9020.212 | 8729.433 | 7086.272 | 7283.645 | 6536.885 | 8513.834 | 8287.258 | 8540.24 |
| Glutathione (GSH) | 276.934 | 161.552 | 83.315 | 253.26 | 115.45 | 71.197 | 209.557 | 98.551 | 143.476 |
| Glutathione (GSSG) | 136.749 | 183.447 | 134.49 | 160.398 | 186.059 | 145.453 | 173.495 | 204.835 | 145.007 |
| Methionine | 250.683 | 217.249 | 191.727 | 163.728 | 159.821 | 144.644 | 270.574 | 297.393 | 352.212 |
| Ornithine | 37.577 | 47.926 | 65.795 | 30.605 | 36.867 | 64.858 | 53.131 | 66.33 | 81.11 |
| Putrescine | 26.717 | 31.713 | 30.557 | 26.758 | 30.875 | 26.797 | 10.827 | 14.97 | 17.619 |
| S-Adenosylmethionine | 10.472 | 8.872 | 5.873 | 8.616 | 7.29 | 5.153 | 7.71 | 8.61 | 8.244 |
| Spermidine | 44.337 | 46.687 | 27.504 | 32.917 | 39.346 | 25.121 | 19.041 | 17.556 | 13.544 |
| N-Acetyl glutamic acid | 118.344 | 168.725 | 177.242 | 106.604 | 140.01 | 137.356 | 183.236 | 189.064 | 223.728 |
| Cystathionine | 569.002 | 673.409 | 947.71 | 913.309 | 801.43 | 528.764 | 283.363 | 201.61 | 255.227 |
| S-Adenosylhomocysteine | 14.268 | 14.142 | 13.649 | 13.014 | 11.961 | 9.198 | 17.141 | 16.23 | 16.321 |
| Methionine sulfoxide | 6.158 | 8.926 | 9.042 | 5.794 | 6.532 | 10.118 | 8.782 | 5.689 | 12.445 |
| SDMA | 2.661 | 3.077 | 2.24 | 2.195 | 2.822 | 1.794 | 2.655 | 3.287 | 2.897 |
| Argininosuccinic acid | 2.836 | 6.202 | 3.144 | 1.622 | 5.697 | 2.218 | 3.292 | 3.09 | 4.207 |
| N-Acetyl aspartic acid | 0.117 | 0.145 | 0.157 | 0.121 | 0.122 | 0.123 | 0.117 | 0.11 | 0.122 |
| Urea | 0.648 | 0.592 | 0.464 | 0.581 | 0.598 | 0.433 | 0.572 | 0.638 | 0.369 |

AD: Alzheimer’s disease, ASY: asymptomatic Alzheimer’s disease), CN: control. ITG: inferior temporal gyrus, MFG: medial frontal gyrus, CB: cerebellum.

\*indicates metabolites that could only be relatively quantified. The values provided represent the average areas of urea and NAA peaks relative to the methionine sulfone internal standard added to the test samples.