|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Category | Metabolite | p-value | Query | Match | HMDB | PubChem | ChEBI | KEGG |
| Age | Pantothenic Acid | 7.05E-06 | Pantothenic Acid | Pantothenic acid | HMDB0000210 | 6613 | 46905 | C00864 |
| Citrulline | 0.000174 | Citrulline | Citrulline | HMDB0000904 | 9750 | 16349 | C00327 |
| Cytidine | 0.000479 | Cytidine | Cytidine | HMDB0000089 | 6253 | 17562 | C00475 |
| 2-Deoxycytidine | 0.001121 | 2-Deoxycytidine | Deoxycytidine | HMDB0000014 | 13711 | 15698 | C00881 |
| Cytosine | 0.001337 | Cytosine | Cytosine | HMDB0000630 | 597 | 16040 | C00380 |
| ADP | 0.007119 | ADP | ADP | HMDB0001341 | 6022 | 16761 | C00008 |
| Homoserine Threonine | 0.008661 | Homoserine | L-Homoserine | HMDB0000719 | 12647 | 15699 | C00263 |
| Threonine | 0.008666 | Threonine | L-Threonine | HMDB0000167 | 6288 | 16857 | C00188 |
| UDP GlcNAc | 0.01136 | Uridine diphosphate N-acetylglucosamine | Uridine diphosphate-N-acetylglucosamine | HMDB0000290 | 445675 | 16264 | C00043 |
| Adenosine | 0.01205 | Adenosine | Adenosine | HMDB0000050 | 60961 | 16335 | C00212 |
| Adenine | 0.01483 | Adenine | Adenine | HMDB0000034 | 190 | 16708 | C00147 |
| 3-Methyl-2-Oxovaleric Acid | 0.02915 | 3-Methyl-2-Oxovaleric Acid | 3-Methyl-2-oxovaleric acid | HMDB0000491 | 47 | 35932 | C00671 |
| Capric Acid | 0.03278 | Capric Acid | Capric acid | HMDB0000511 | 2969 | 30813 | C01571 |
| ATP | 0.03373 | ATP | Adenosine triphosphate | HMDB0000538 | 5957 | 15422 | C00002 |
| Amiloride | 0.04331 | Amiloride | Amiloride | HMDB0014732 | 16231 | 2639 | C06821 |
| Carnosine | 0.04557 | Carnosine | Carnosine | HMDB0000033 | 439224 | 15727 | C00386 |
| Acetylglucosamine | 0.04731 | Acetylglucosamine | N-Acetyl-D-glucosamine | HMDB0000215 | 439174 | 506227 | C00140 |
| Proline | 0.04816 | Proline | L-Proline | HMDB0000162 | 145742 | 17203 | C00148 |
| EXposure | Betaine | 0.01039 | Betaine | Betaine | HMDB0000043 | 247 | 17750 | C00719 |
| Acetyl L Glutamine | 0.0251 | Aceglutamide | N-Acetylglutamine | HMDB0006029 | 182230 | 21553 | NA |
| ADP | 0.027165 | ADP | ADP | HMDB0001341 | 6022 | 16761 | C00008 |
| Pantothenic Acid | 0.0273 | Pantothenic Acid | Pantothenic acid | HMDB0000210 | 6613 | 46905 | C00864 |
| Dulcitol | 0.03639 | Dulcitol | Galactitol | HMDB0000107 | 11850 | 16813 | C01697 |
| Strain | Homoserine Threonine | 8.74E-05 | Homoserine | L-Homoserine | HMDB0000719 | 12647 | 15699 | C00263 |
| Threonine | 0.000109 | Threonine | L-Threonine | HMDB0000167 | 6288 | 16857 | C00188 |
| Serine | 0.000434 | Serine | Serine | HMDB0062263 | 5951 | 17822 | C00716 |
| 2/3 Aminoisobutyric Acid/Dimethylglycine | 0.000455 | Dimethylglycine | Dimethylglycine | HMDB0000092 | 673 | 17724 | C01026 |
| Taurine | 0.000478 | Taurine | Taurine | HMDB0000251 | 1123 | 15891 | C00245 |
| Glutaconic Acid | 0.00052 | Glutaconic Acid | Glutaconic acid | HMDB0000620 | 5280498 | 15670 | C02214 |
| Methylhistamine | 0.000538 | Methylhistamine | 1-Methylhistamine | HMDB0000898 | 3614 | 29009 | C05127 |
| Hydroxyproline | 0.000659 | Hydroxyproline | Hydroxyproline | HMDB0240251 | 440015 | 28397 | C01015 |
| 2-Aminoadipic Acid | 0.000811 | 2-Aminoadipic Acid | Aminoadipic acid | HMDB0000510 | 469 | 37024 | C00956 |
| 5-Aminolevulinic Acid | 0.000986 | 5-Aminolevulinic Acid | 5-Aminolevulinic acid | HMDB0001149 | 137 | 17549 | C00430 |
| Ribose | 0.001001 | Ribose | D-Ribose | HMDB0000283 | 5779 | 47013 | C00121 |
| 13C3-Lactate | 0.001101 | L-Lactate | L-Lactic acid | HMDB0000190 | 107689 | 422 | C00186 |
| Methionine | 0.001135 | Methionine | L-Methionine | HMDB0000696 | 6137 | 16643 | C00073 |
| Imidazole | 0.00126 | Imidazole | Imidazole | HMDB0001525 | 795 | 16069 | C01589 |
| Malate | 0.001267 | Malate | L-Malic acid | HMDB0000156 | 222656 | 30797 | C00149 |
| Guanosine | 0.001299 | Guanosine | Guanosine | HMDB0000133 | 6802 | 16750 | C00387 |
| Malonic Acid | 0.001645 | Malonic Acid | Malonic acid | HMDB0000691 | 867 | 30794 | C04025 |
| Inosine | 0.001866 | Inosine | Inosine | HMDB0000195 | 6021 | 17596 | C00294 |
| D-Mannose 6-Phosphate | 0.001994 | D-Mannose 6-Phosphate | Mannose 6-phosphate | HMDB0001078 | 439198 | 49728 | C00275 |
| Xylose | 0.002012 | Xylose | D-Xylose | HMDB0000098 | 135191 | 53455 | C00181 |
| Lactate | 0.002077 | Lactate | L-Lactic acid | HMDB0000190 | 107689 | 422 | C00186 |
| Glutamic Acid | 0.002218 | Glutamic Acid | L-Glutamic acid | HMDB0000148 | 33032 | 16015 | C00025 |
| Lauric Acid | 0.002846 | Lauric Acid | Dodecanoic acid | HMDB0000638 | 3893 | 30805 | C02679 |
| Hypoxanthine | 0.003257 | Hypoxanthine | Hypoxanthine | HMDB0000157 | 790 | 17368 | C00262 |
| 3-hydroxykynurenine | 0.004393 | 3-hydroxykynurenine | Hydroxykynurenine | HMDB0000732 | 89 | 1547 | C02794 |
| L-Alloisoleucine/ Leucine/Norleucine | 0.004949 | L-Alloisoleucine | L-Alloisoleucine | HMDB0000557 | 99288 | 43433 | NA |
| 2HG | 0.007351 | d-2-hydroxyglutarate | D-2-Hydroxyglutaric acid | HMDB0000606 | 439391 | 32796 | C01087 |
| l-2-hydroxyglutarate | L-2-Hydroxyglutaric acid | HMDB0000694 | 439939 | 32797 | C03196 |
| ATP | 0.00898 | ATP | Adenosine triphosphate | HMDB0000538 | 5957 | 15422 | C00002 |
| Creatine | 0.009471 | Creatine | Creatine | HMDB0000064 | 586 | 16919 | C00300 |
| TMAO | 0.01123 | TMAO | Trimethylamine N-oxide | HMDB0000925 | 1145 | 15724 | C01104 |
| 13C5-15N-Glutamic acid | 0.0139 | L-Glutamic acid | L-Glutamic acid | HMDB0000148 | 33032 | 16015 | C00025 |
| Uridine | 0.01414 | Uridine | Uridine | HMDB0000296 | 6029 | 16704 | C00299 |
| Creatinine | 0.01491 | Creatinine | Creatinine | HMDB0000562 | 588 | 16737 | C00791 |
| Glutamine | 0.01553 | Glutamine | L-Glutamine | HMDB0000641 | 5961 | 18050 | C00064 |
| Isoleucine | 0.01727 | Isoleucine | L-Isoleucine | HMDB0000172 | 6306 | 17191 | C00407 |
| Nicotinamide | 0.01932 | Nicotinamide | Niacinamide | HMDB0001406 | 936 | 17154 | C00153 |
| Nicotinamide Mononucleotide | 0.01939 | Nicotinamide Mononucleotide | Nicotinamide ribotide | HMDB0000229 | 14180 | 16171 | C00455 |
| Adonitol | 0.01944 | Adonitol | Ribitol | HMDB0000508 | NA | 15963 | C00474 |
| Sarcosine | 0.01987 | Sarcosine | Sarcosine | HMDB0000271 | 1088 | 15611 | C00213 |
| Alanine | 0.0223 | Alanine | L-Alanine | HMDB0000161 | 5950 | 16977 | C00041 |
| Betaine | 0.02467 | Betaine | Betaine | HMDB0000043 | 247 | 17750 | C00719 |
| Xanthosine | 0.02484 | Xanthosine | Xanthosine | HMDB0000299 | 64959 | 18107 | C01762 |
| Epinephrine | 0.02788 | Epinephrine | Epinephrine | HMDB0000068 | 5816 | 28918 | C00788 |
| Acetylglucosamine | 0.02835 | Acetylglucosamine | N-Acetyl-D-glucosamine | HMDB0000215 | 439174 | 506227 | C00140 |
| p-Tolylacetic acid/4-Ethylbenzoic acid | 0.03002 | p-Tolylacetic acid | p-Tolyl acetate | HMDB0032075 | 8797 | NA | C01963 |
| 4-Ethylbenzoic acid | 4-Ethylbenzoic acid | HMDB0002097 | 12086 | 262555 | NA |
| Aspartate | 0.03131 | Aspartate | L-Aspartic acid | HMDB0000191 | 5960 | 17053 | C00049 |
| Benzoic Acid | 0.03382 | Benzoic Acid | Benzoic acid | HMDB0001870 | 243 | 30746 | C00539 |
| Lysine | 0.0357 | Lysine | L-Lysine | HMDB0000182 | 5962 | 18019 | C00047 |
| Carnitine | 0.039 | Carnitine | L-Carnitine | HMDB0000062 | 10917 | 16347 | C00318 |
| Citrulline | 0.040362 | Citrulline | Citrulline | HMDB0000904 | 9750 | 16349 | C00327 |
| Caprylic Acid | 0.04044 | Caprylic Acid | Caprylic acid | HMDB0000482 | 379 | 28837 | C06423 |
| UDP-GlcNAc | 0.04107 | UDP-GlcNAc | Uridine diphosphate-N-acetylglucosamine | HMDB0000290 | 445675 | 16264 | C00043 |
| Citraconic Acid | 0.04652 | Citraconic Acid | Citraconic acid | HMDB0000634 | 643798 | 17626 | C02226 |
| ADP | 0.047444 | ADP | ADP | HMDB0001341 | 6022 | 16761 | C00008 |
| Age:  Exposure | Adenine | 0.037 | Adenine | Adenine | HMDB0000034 | 190 | 16708 | C00147 |
| Age:  Strain | Indole-3-lactic acid | 0.01266 | Indole-3-lactic acid | Indolelactic acid | HMDB0000671 | 676157 | 24813 | C02043 |
| Anthranilic Acid | 0.03654 | Anthranilic Acid | 2-Aminobenzoic acid | HMDB0001123 | 227 | 30754 | C00108 |
| Exposure:Strain | D-Xylonic Acid (Lithium Salt) | 0.006728 | Xylonate | D-Xylonate | METPA0050 | NA | 48093 | C00502 |
| Age: Exposure: Strain | Indole-3-lactic acid | 0.01722 | Indole-3-lactic acid | Indolelactic acid | HMDB0000671 | 676157 | 24813 | C02043 |
| Tryptophan | 0.02227 | Tryptophan | L-Tryptophan | HMDB0000929 | 6305 | 16828 | C00078 |
| Hydroxyproline | 0.033491 | Hydroxyproline | Hydroxyproline | HMDB0240251 | 440015 | 28397 | C01015 |
| Nicotinamide Mononucleotide | 0.03739 | Nicotinamide Mononucleotide | Nicotinamide ribotide | HMDB0000229 | 14180 | 16171 | C00455 |
| ADP Ribose | 0.04946 | ADP Ribose | ADP-ribose | HMDB0001178 | 33576 | 16960 | C00301 |