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| Supplemental Online Table 1. List of plasma metabolites and biologic pathways which were assayed by mass-spectrometry-based metabolomics in hospitalized subjects on enteral and parenteral nutrition, and healthy volunteers. | |
| **Compound (Metabolite)** | **Metabolic Pathway** |
| Acetoacetate | Ketone |
| Acetylcarnitine | Fatty acid Oxidation |
| Acetylcholine | Lipids/phospholipids, ligand |
| Aconitate | TCA Cycle |
| Adenine | Nucleotide/Purine metabolism |
| Adenosine | Nucleotide/Purine metabolism |
| Adenosine 3 phosphate (ATP) | Nucleotide |
| Adenosine diphosphate (ADP) | Nucleotide/Purine metabolism |
| Adenosine monophosphate (AMP) | Nucleotide |
| Adenylosuccinate | Nucleotide/Purine metabolism |
| Adipic Acid | Caprolactam degradation |
| Agmatine | Polyamine metabolism |
| Alanine (Ala) | Amino Acid |
| Allantoin | Nucleotide Degredation |
| Allopurinol | Nucleotide metabolism (Drug) |
| Alpha-Ketoglutaric Acid | TCA Cycle |
| Aminoisobutyrate | Amino acids metabolism/Val, Leu, iso-Leu |
| Aminolevulinate | Amino acids metabolism/Gly, Thr,Ser |
| 2-Aminoadipate | Amino acids metabolism/Lys |
| 5-Aminovalerate | Amino Acid |
| Anthranilate | Amino Acid metabolism/Trp, Phe, Tyr |
| Arachidonate | Lipids/phospholipids, ligand |
| Arginine | Amino Acid |
| Ascorbate | Vitamins |
| Ascorbic Acid (Vit. C) | Vitamin, Cofactor |
| Asparagine (Asp) | Amino Acid |
| Aspartic Acid | Amino Acids |
| Azelaic Acid | Fatty Acids and Conjugates |
| Benzoic acid | Amino Acid (Phenylalanine Metabolism, others) |
| Betaine | Amino acids metabolism/Gly,Ser, Thr metabolism |
| Biotin | Vitamins |
| Cadaverine | Amino Acid |
| Carnitine | Amino acids metabolism/Lys |
| Chenodeoxycholate | Bile acid metabolism |
| Choline | Vitamins |
| Citraconic Acid | Amino Acid metabolism/Val, Leu, IL |
| Citric Acid | TCA Cycle |
| Citrulline | Urea Cycle |
| Creatine | Amino acids metabolism/Arg, Gly |
| Creatinine | Amino acids metabolism/Arg, Gly |
| Cystamine (Cys) | Amino acids metabolism/Cys |
| Cystathionine | Amino acids metabolism/cys |
| Cysteine | Amino Acid |
| Cystine | Amino acids metabolism |
| Cytidine | Nucleotide/Pyrimidine metabolism |
| Cytidine 5 monophosphate (CMP) | Nucleotide/Pyrimidine metabolism |
| Cytosine (Cyt) | Nucleotide |
| Deoxycarnitine | Lipids/phospholipids, ligand |
| 2-Deoxycytidine Diphosphate (DCDP) | Nucleotide/Pyrimidine metabolism |
| Deoxycytidylic acid (DCMP) | Nucleotide/pyrimidine |
| 2-Deoxyuridine | Nucleotide/Pyrimidine metabolism |
| Deoxyuridine 3 phosphate (DUTP) | Nucleotide/pyrimidine |
| Deoxyuridylic acid (DUMP) | Nucleotide/pyrimidine |
| D-Glyceraldehyde-3-phosphate (D-GA3P) | Glycolysis/Glycogenesis |
| Dihydroxy acetone phosphate (DHAP) | Glycolysis/phospholipid |
| Dimethylglycine | Vitamins |
| Dopamine | Adrenaline Metabolism |
| D-Leucic Acid | Amino Acid metabolism/Leu |
| D-Thymidine monophosphate (DTMP) | Nucleic Acid |
| Epinephrine | Amino Acid metabolism/Tyr,ligand |
| Erythrose | Sugar |
| Folic Acid | One carbon pool by folate |
| Fructose | Sugar |
| Fructose 1 phosphate (F1P) | Glycolosis |
| Fructose 1,6 bi-phosphate (F16BP) | Glycolysis |
| Fructose 2,6 bi-phosphate (F26BP) | Glycolosis |
| Fructose 6 phosphate (F6P) | Glycolosis |
| Fumaric Acid | TCA Cycle |
| Galactose | Sugars |
| gama-Aminobutyrate | Amino Acid metabolism/Ala, Glu, Asp |
| Geranyl Pyrophosphate | Ubiquinone and other terpenoid-quinone biosynthesis |
| Gibberellin | Diterpenoid biosynthesis |
| Glucoronate | Amino sugar and nucleotide sugar metabolism |
| Glucosamine | Amino sugar and nucleotide sugar metabolism |
| Glucose | Glycolysis/sugar |
| Glucose 1,6 biphosphate (G16BP) | Glycolysis/Glycogenesis |
| Glucose 1-phosphate (G1P) | Glycolysis |
| Glucose 6-phosphate (G6P) | Glycolosis/PPP |
| Glutamic acid (Glu A) | Amino Acid |
| Glutamine (Glu) | Amino Acid |
| Glutaric Acid | Amino Acids/lys, trp, fatty acids |
| Glyceraldehyde | Sugar |
| Glycerate | Amino Acid metabolism/Gly, Ser |
| Glycerol-3-P | Lipids/Glycerollipid |
| Glycine (Gly) | Amino Acid |
| Glycochenodeoxycholate | Bile acid metabolism |
| Glycocholate | Bile acid metabolism |
| Guanidinoacetate | Amino Acid metabolism/Gly, Ser,Thr |
| Guanosine | Nucleotide/Purine metabolism |
| Guanosine 3,5 cyclic monophosphate (cGMP) | Nucleotide/Purine metabolism |
| Guanosine 5 diphosphate (GDP) | Nucleotide/Purine metabolism |
| Guanosine 5 triphosphate (GTP) | Nucleotide/Purine metabolism |
| Guanosine-5'-monophosphate (GMP) | Nucleotide/Purine metabolism |
| 12-HETE | Lipids/phospholipids, ligand |
| 13-HODE | Lipids/phospholipids, ligand |
| Hippuric Acid | Amino Acid (Phenylalanine Metabolism |
| Hippuric Acid | Gut flora metabolism |
| Histamine | Nucleotide |
| Histidine (His) | Amino Acid |
| Homocysteine | Amino acids metabolism/Cys, Met |
| Homogentisate | Amino Acid metabolism/Tyr |
| Homoserine | Amino acids metabolism/Thr, Met, Asp |
| Homovanillate | Amino acids metabolism/Tyr,ligand |
| 2-Hydroxyglutarate | Amino-acid metabolism & Glycine/Serine/Threonine metabolism |
| 3-Hydroxybutyric Acid (3HBA ) | TCA Cycle |
| 4-Hydroxybutyric Acid (4HBA) | Lipids/phospholipids, ligand |
| 3-Hydroxyisovaleric Acid | Amino Acid |
| 3-Hydroxykynurenine | Tryptophan Cycle |
| Hydroxyphenylpyruvate | Amino acids metabolites/phe, tyr |
| Hydroxyproline | Amino acids metabolism/Pro |
| 5-Hydroxytryptophan | Tryptophan Cycle |
| 8-Hydroxyguanosine | Nucleotide/Purine metabolism |
| Hypoxanthine | Nucleotide |
| Inosine | Nucleotide/Purine metabolism |
| Inosine monophosphate (IMP) | Nucleotide/Purine metabolism |
| Inositol | Glucose/inositol metabolism |
| isoButyric Acid (2-methylpropanoic acid) | Fatty acid metabolism |
| *iso*-Leucine (*iso*-Leu) | Amino Acid |
| isoValeric Acid | Amino Acid |
| Kynurenate | Amino Acid metabolism/Try |
| lactate | Glycolysis/TCA |
| Lactose | Sugar/Galactose |
| Leucine (Leu) | Amino Acid |
| Linoleic Acid | Fatty acid metabolism |
| Linolenic Acid | Fatty acid metabolism |
| L-Kynurenine | Tryptophan Cycle |
| Lysine (Lys) | Amino Acid |
| Malate | TCA Cycle |
| Maleic Acid | TCA Cycle |
| Malonic Acid | TCA Cycle |
| Mannose | Sugar/Galactose Metabolism |
| Margaric Acid | Fatty acid metabolism |
| Melatonin | Neuroactive ligand |
| Methionine (Met) | Amino Acid |
| 1-Methyladenosine | Nucleotide/Purine metabolism |
| 1-Methylguanosine | Nucleotide/Purine metabolism |
| 1-Methylhistamine | Amino acids metabolism/His |
| 1/3-Methylhistidine | Amino Acid (Histidine Metabolism) |
| Methyl-OH-isobyturate | Fatty acid metabolism |
| 3-Methyl-2-Oxovaleric Acid | Amino Acid |
| Methylmalonate | Vitamins |
| MethylSuccinate | Amino Acid metabolism/Isoleu |
| Mevalonate | Terpenoid backbone biosynthesis |
| Myristic Acid | Fatty acid metabolism |
| N-Carbamoyl-B-Alanine | Urea cycle |
| N2,N2-Dimethylguanosine | Nucleotide/Purine metabolism |
| N-AcetylGlycine | Amino Acid metabolism |
| N-acetylneuraminate | Sugars |
| N-acetylputrescine | Polyamine metabolism |
| Niacinamide | Vitamins |
| Nicotinate (Niacin) | Nicotinate and nicotinamide metabolism |
| 3-Nitro-tyrosine | Oxidative Damage |
| Normetanephrin | Amino Acid metabolism/Tyr,ligand |
| OH-Phenylpyruvate (4-Hydroxyphenylpyruvate) | Amino Acid / Tyrosine metabolism |
| Ornithine | Urea cycle |
| Orotate | Nucleotide/Pyrimidine metabolism |
| Orotidylic acid (OMP) | Nucleotide/Pyrimidine metabolism |
| Oxalic Acid | Glyoxylate and dicarboxylate metabolism |
| Oxaloacetate | TCA Cycle |
| Oxidized glutathione | Oxidative Damage |
| 8-Oxo-2'-deoxyguanosine | Nucleotide/Purine metabolism |
| Oxypurinol | Nucleotide metabolism |
| Pantothenate | Amino acids metabolism/alanine, CoA |
| PGE | Lipids/Arachidonic acid metabolism |
| Phenylalanine | Amino Acid |
| Phenylpyruvic acid (PPA) | Amino acids metabolism/Phe |
| Phosphoenolpyruvic Acid (PEP) | Glycolosis |
| Phosphoribosyl pyrophosphate (PRPP) | Nucleotide/Purine metabolism |
| Phosphotyrosine | Amino acids metabolism |
| 2-Phosphoglyceric Acid | Glycolosis |
| 3-Phosphoglyceric Acid | Glycolosis |
| Pipecolate | Amino Acid |
| Proline (Pro) | Amino Acid |
| Propionate | Nicotinate and nicotinamide metabolism |
| Putrescine | Polyamine metabolism |
| Pyridoxal-5-P | Vitamins/B6 |
| 4-Pyridoxic acid | Vitamins/B6 |
| Pyroglutamic Acid | Amino acids/Glu |
| Pyruvate | Glycolysis/amino acids metabolism |
| Quinolinate | Amino Acid/ Tryptophan, bela alanine metabolism |
| Reduced glutathione | Oxidative Damage |
| Ribose-5-P | Pentose phosphate pathway |
| Salicylurate | Amino Acid metabolism/Gly |
| Sarcosine | Amino Acid |
| Serine (Ser) | Amino Acid |
| Shikimic Acid | Amino Acid metabolism/Phe, Tyr,Trp |
| Sorbitol | Sugar |
| Spermidine | Polyamine metabolism |
| Spermine | Polyamine metabolism |
| Succinate | TCA Cycle |
| Sucrose | Sugar |
| Taurine (Tau) | Amino acids metabolism/Sulfur metabolism |
| Taurocholate | Conjugated bile acid biosynthesis |
| Threonine (Thr) | Amino Acid |
| Thymidine 5 phosphate (DTMP) | Nucleotide/pyrimidine |
| Trimethylamine (TMA) | Gut flora metabolism / Redox |
| Trimethylamine-N-oxide | Gut flora metabolism / Redox |
| Tryptamine | Amino Acid |
| Tryptophan (Try) | Tryptophan Cycle |
| Tyramine | Amino Acid |
| Tyrosine (Tyr) | Amino Acid |
| Uracil | Nucleotide/Pyrimidine metabolism |
| Urate | Nucleotide/Purine metabolism |
| Uridine | Nucleotide/Pyrimidine metabolism |
| Uridine diphosphate (UDP) | Nucleotide/Pyrimidine metabolism |
| Valine (Val) | Amino Acid |
| Xanthine | Nucleotide |
| Xanthosine | Nucleotide/Purine metabolism |
| Xanthurenate | Amino acids metabolism |
| Cysteinyl-Glycine (Cys-Gly) | Amino acids degradation |
| Glycerol | Fatty acid metabolism |
| Malondialdehyde | Oxidative Damage |