

Table S1. Classification of differential metabolites

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| Carbohydrates (27) | Up-regulated | D-Mannitol; Galactonic acid; Hydroxyacetone; UDP-N-acetylglucosamine; L-Threonate; D-Xylulose; Xylitol; Ribitol; D-Sorbitol; N,N'-Diacetylchitobiose; L-Rhamnose |
| | Down-regulated | Gluconolactone; Muramic acid; Trehalose; 3- α -Mannobiose; D-Melibiose; L-Sorbose; D-Lyxose; Erythritol; D-Mannose; Maltotetraose; α,α -Trehalose; Stachyose; N-Acetylglucosamine-1-phosphate; Maltopentaose; Maleamic acid; D-Mannitol 1-phosphate |
| Lipids (15) | Up-regulated | PC; Hioetheramide-PC; 1-Stearoyl-2-oleoyl-sn-GPC; 1-Palmitoyl-sn-GPC; 1-Stearoyl-sn-GPC; 1-Oleoyl-sn-GPC; 1,2-dioleoyl-sn-GPC; Linoleic acid; Glyceric acid; α -Linolenic acid; Mvristic acid; α -Pinene; Docosaheaxaenoic acid |
| | Down-regulated | Arabinono-1,4-lactone; 1-Palmitoyl-2-hydroxy-sn-GPE |
| Amino acids (11) | Up-regulated | L-Threonine; Allocystathionine; L-Proline; L-Aspartate; D-Proline; L-Pipecolic acid |
| | Down-regulated | 4-Guanidinobutyric acid; L-Pyroglutamic acid; L-Citrulline; 4-Aminobutyric acid; (S)-2-Hydroxyglutarate |
| Nucleic acids (10) | Up-regulated | Adenine; Adenosine; Uracil; Cytidine; Cytosine; Guanosine; Oxypurinol; 2-Hydroxyadenine; 2'-O-methyladenosine |
| | Down-regulated | AMP |
| Peptides (4) | Down-regulated | Pro-Met; Arg-Cys; Pro-Ala; Ammelide |
| Cofactors/vitamins (4) | Up-regulated | (3-Carboxypropyl)-trimethylammonium cation; Riboflavin |
| | Down-regulated | Pyridoxine; Nicotinate |
| Energy (4) | Up-regulated | Succinate; 2-Isopropylmalic acid |
| | Down-regulated | Argininosuccinic acid; Citrate |
| Others (4) | Up-regulated | Lawson; Immunomycin; 1-Phenylethylamine; Jasmine lactone; Betaine; Xanthine |
| | Down-regulated | Urea; 1,2,3-Benzenetriol; Dihydroxyacetone; Betaine aldehyde; Imidazole |