**Table S4 The difference in metabolites between the SD group and HB group.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | VIP | p\_value | FDR | Type |
| Pyrazine | 1.39  | 0.00  | 0.04  | up |
| Isoborneol | 1.39  | 0.00  | 0.04  | up |
| D-arabinose | 1.38  | 0.00  | 0.01  | up |
| L-hydroxyproline | 1.38  | 0.00  | 0.04  | up |
| α-linolenic acid | 1.38  | 0.00  | 0.04  | down |
| Campesterol | 1.37  | 0.01  | 0.05  | up |
| Dodecanoic acid | 1.37  | 0.00  | 0.04  | up |
| 9-decenoic acid | 1.37  | 0.01  | 0.05  | up |
| 9-octadecenoic acid | 1.36  | 0.01  | 0.07  | up |
| L-serine | 1.35  | 0.01  | 0.09  | up |
| Oleic acid | 1.35  | 0.00  | 0.04  | up |
| Cholesterol | 1.35  | 0.01  | 0.09  | up |
| Methyl galactoside | 1.34  | 0.02  | 0.09  | down |
| 2-pyrrolidinone | 1.32  | 0.00  | 0.05  | up |
| 5-dodecenoic acid | 1.31  | 0.03  | 0.13  | up |
| Glyceryl-glycoside | 1.31  | 0.02  | 0.11  | down |
| D-(+)-trehalose | 1.30  | 0.03  | 0.13  | down |
| L-valine | 1.30  | 0.03  | 0.12  | insig |
| 4-aminobutanoic acid | 1.30  | 0.04  | 0.13  | down |
| Putrescine | 1.28  | 0.01  | 0.09  | up |
| DL-phenylalanine | 1.28  | 0.04  | 0.13  | insig |
| L-aspartic acid | 1.27  | 0.05  | 0.14  | down |
| Stearic acid | 1.26  | 0.01  | 0.09  | up |
| β-D-glucopyranose | 1.25  | 0.04  | 0.14  | down |
| 9-tetradecenoic acid | 1.24  | 0.04  | 0.14  | up |
| Propanal | 1.23  | 0.04  | 0.14  | up |
| Pentanedioic acid | 1.22  | 0.02  | 0.11  | up |
| N-acetyl-D-glucosamine | 1.21  | 0.04  | 0.13  | insig |
| Malic acid | 1.17  | 0.04  | 0.14  | insig |