**Additional file 3**

**Table 2** The top 20 down-regulated differential metabolites between Tanshi group and ISO group

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Metabolites | Super Class | Class | VIP | adj.P-value | log2(FC) |
| 26,26,26,27,27,27-hexafluoro-25-hydroxyvitamin D2LysoPE(0:0/20:5(5Z,8Z,11Z,14Z,17Z))HaloxyfopOPC4-CoALysoPE(20:5(5Z,8Z,11Z,14Z,17Z)/0:0)LysoPC(16:1(9Z)/0:0)PC(15:1(9Z)/0:0)Norophthalmic acidIndoleacrylic acidLysoPE(16:1(9Z)/0:0)PE(16:1(9Z)/0:0)PIM1(18:0/16:2(9Z,12Z))PS(19:1(9Z)/22:2(13Z,16Z))4-formyl IndoleTryptophanolPyridine N-oxide glucuronidePE(22:1(11Z)/0:0)[4-(7-hydroxy-3,4-dihydro-2H-1-benzopyran-3-yl)phenyl]oxidanesulfonic acid4-EthynylanilineL-Tryptophan | Lipids and lipid-like moleculesLipids and lipid-like moleculesUnclassifiedLipids and lipid-like moleculesLipids and lipid-like moleculesLipids and lipid-like moleculesLipids and lipid-like moleculesOrganic acids and derivativesOrganoheterocyclic compoundsLipids and lipid-like moleculesLipids and lipid-like moleculesLipids and lipid-like moleculesUnclassifiedUnclassifiedOrganoheterocyclic compoundsOrganic oxygen compoundsLipids and lipid-like moleculesPhenylpropanoids and polyketidesUnclassifiedOrganoheterocyclic compounds | Sterol LipidsGlycerophospholipidsUnclassifiedFatty AcylsGlycerophospholipidsGlycerophospholipidsGlycerophospholipidsCarboxylic acids and derivativesIndoles and derivativesGlycerophospholipidsGlycerophospholipidsGlycerophospholipidsUnclassifiedUnclassifiedIndoles and derivativesOrganooxygen compoundsGlycerophospholipidsIsoflavonoidsUnclassifiedIndoles and derivatives | 1.0919616244.9299898491.4056448626.0963972351.59728583716.750637951.353776061.9408850316.876389411.6029173721.3895358661.4657832731.3559398171.7895269331.2335557581.0752630321.4172053087.341379511.023958112.114766241 | 8.68221E-089.33073E-081.08764E-071.83675E-079.62857E-071.39959E-062.90078E-062.90078E-063.00103E-063.04996E-063.05969E-063.87723E-063.95378E-064.80501E-065.36057E-065.51069E-065.72115E-066.51683E-066.75322E-066.84676E-06 | -2.967438423-2.747432213-4.478342917-1.975383947-2.231308141-1.834147821-1.811810094-5.853816439-2.205448311-1.660100017-1.768080671-2.081104767-2.258597125-2.109123085-2.240859656-1.620640964-1.52323455-3.859043479-1.590396832-3.195371749 |