

**Table S1.** Pathway Analysis Result with MetPA.

No	Pathway Name	Total	Expected	Hits	Raw p	Impact
1	Ether lipid metabolism	13	0.0835	1	0.0806	0.2143
2	Glycerophospholipid metabolism	30	0.1926	3	0.0007	0.2065
3	Purine metabolism	68	0.4365	1	0.3616	0.0114
4	Tryptophan metabolism	41	0.2632	1	0.2350	0.0019
5	Arachidonic acid metabolism	36	0.2311	2	0.0206	0
6	Synthesis and degradation of ketone bodies	5	0.0321	1	0.0317	0
7	Linoleic acid metabolism	5	0.0321	1	0.0317	0
8	alpha-Linolenic acid metabolism	9	0.0578	1	0.0565	0
9	Folate biosynthesis	16	0.1027	1	0.0984	0
10	Butanoate metabolism	20	0.1284	1	0.1216	0
11	Sphingolipid metabolism	21	0.1348	1	0.1274	0

Note: Total is the total number of compounds in the pathway; the Hits is the actually matched number from the user uploaded data; the Impact is the pathway impact value calculated from pathway topology analysis.