

Supplementary tables

Table S1. Primers used in this study

Primers	Forward primer	Reverse primer
ACC-1	5'-CTGCCATCCCATGTGCTAAT-	5'-AGCAGTCGTTCCCCTTCATT-3'
PGC-1 α	5'-CCCTGCCATTGTTAAGACC-3'	5'-TGCTGCTGTTCCCTGTTTTTC-3'
β -actin	5'-AGGTGACAGCATTGCTTCTG-	5'-GCTGCCTCAACACCTCAAC-3'

Supplementary figures

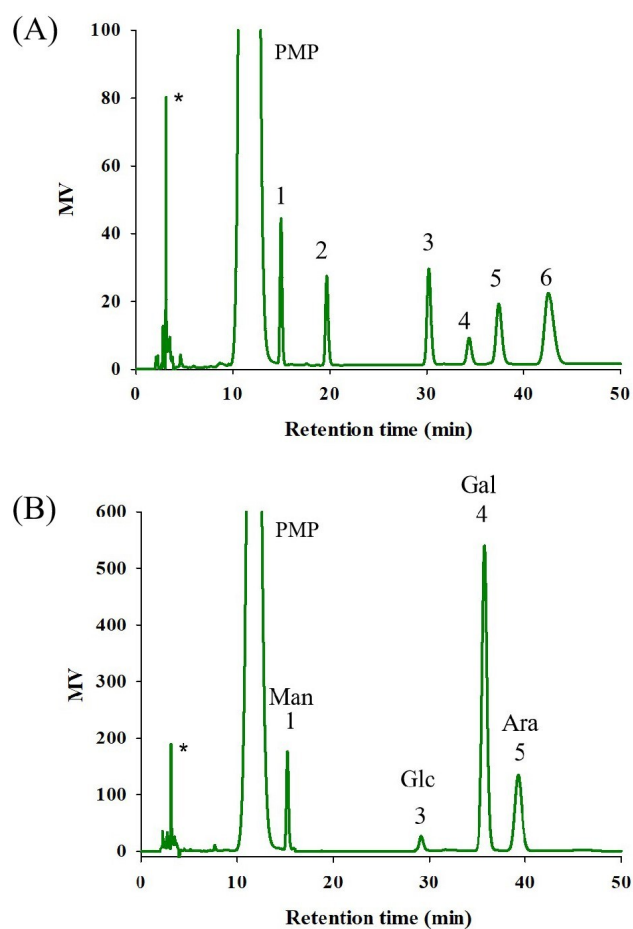


Fig.S1 Chemical characters of the SATP. (A) a standard mixture of monosaccharides; (B) analysis of monosaccharide composition of SATP (*-solvent peak, 1-mannose, 2-rhamnose, 3-glucose, 4-galactose, 5-arabinose, and 6-fucose).

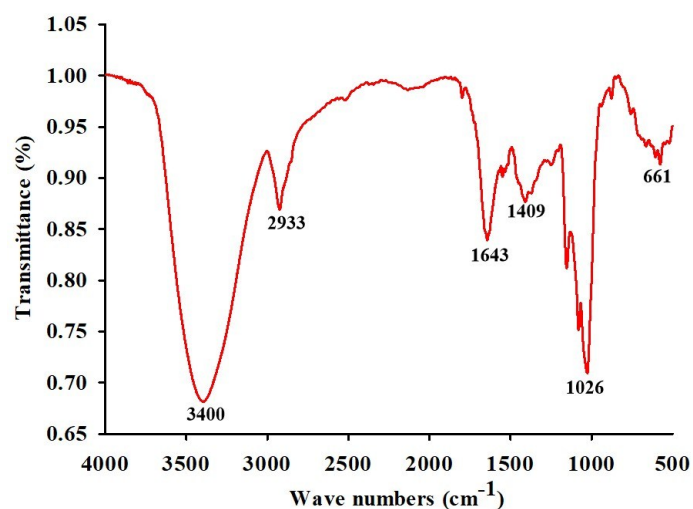
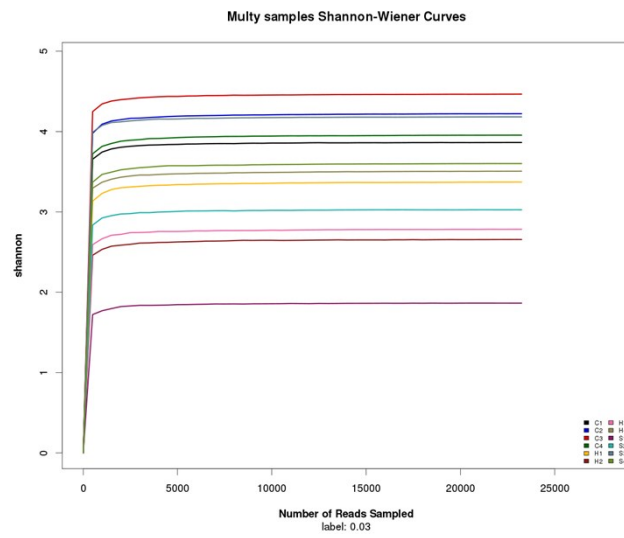


Fig.S2 FT-IR spectrum of SATP. (The absorbance band at 3,400 cm^{-1} represented the stretching vibration of O-H in the constituent sugar residues. The adjacent peak at 2,933 cm^{-1} was found for the stretching vibration of C-H in the sugar ring. The relatively strong absorption peak at 1,643 cm^{-1} was caused by the bending vibration of C-O bonds in uronic acids. On the contrary, SAP had the absorption band centered at 1,409 cm^{-1} due to the C-H. The absorbance of polysaccharides in the range 1,026-1,600 cm^{-1} was characteristic of the C-O.)

(A)



(B)

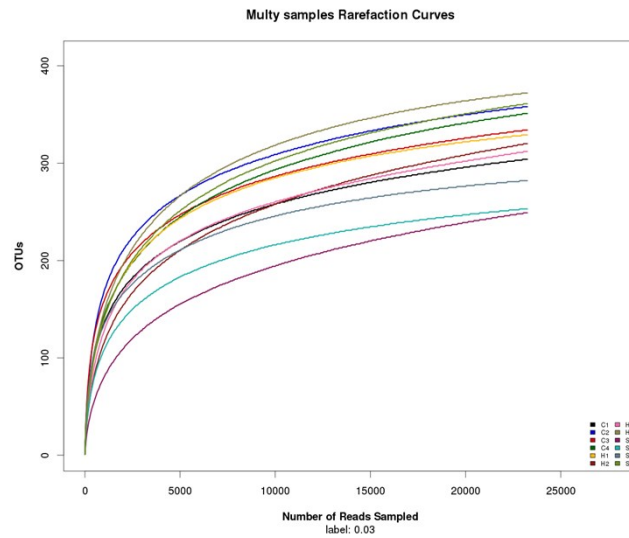


Fig.S3 Effect of SATP on the richness and diversity of caecal microbiota in HFD-fed mice (N=4). Control group, Chow-fed mice were treated daily with control saline; HFD group, HFD-fed mice were treated daily with control saline; SATP group, HFD-fed mice were treated daily with SATP (400 mg kg^{-1}) for 14 weeks by oral gavage. (A) Shannon-Wiener curves. (B) Rarefaction curves.