

S5 Table. Microbial diversity of each group. Data are represented as the means \pm S.D. and analyzed by Mann-Whitney test, ** $P < 0.01$ and * $P < 0.05$ vs the HFD group.

Groups	Shannon index	ACE index	Chao1 index	Simpson	Coverage
Control	5.20 \pm 0.43	2730.77 \pm 524	2108.47 \pm 432	0.01 \pm 0.0024	0.98
HFD	4.59 \pm 0.74*	2702.35 \pm 423	1920.25 \pm 324	0.03 \pm 0.0015*	0.98
HFD+M	4.89 \pm 1.07*	2449.08 \pm 376	1777.53 \pm 354*	0.02 \pm 0.0031	0.98
HFD+FO600	4.78 \pm 1.21	1935.63 \pm 234**	1472.04 \pm 315*	0.02 \pm 0.0019	0.99
HFD+KO600	4.86 \pm 0.88	2743.34 \pm 643	2122.68 \pm 327	0.02 \pm 0.0043	0.98
HFD+FO300KO300	5.1 \pm 0.97	2776.64 \pm 387	2216.93 \pm 369	0.02 \pm 0.0052	0.98
HFD+FO400KO200	4.86 \pm 1.01	2907.67 \pm 424*	2111.37 \pm 433	0.02 \pm 0.0033	0.98
HFD+FO450KO150	4.75 \pm 1.24*	3017.46 \pm 412*	2346.54 \pm 451	0.03 \pm 0.0065	0.98