

Supplementary Table 4. Mean relative abundance of top 4 different taxa at phylum level

	Placebo		Low dose group		High dose group	
	Baseline	4 weeks	Baseline	4 weeks	Baseline	4 weeks
Firmicutes	0.6482±0.1459	0.6596±0.1481	0.6580±0.1290	0.6289±0.1325	0.6434±0.1678	0.6553±0.1896
Actinobacteriota	0.1700±0.1046	0.1167±0.1114	0.1280±0.1107	0.1010±0.1203	0.1389±0.0857	0.1103±0.1280
Bacteroidota	0.1077±0.0252	0.1325±0.0246 ^a	0.1062±0.0957	0.2062±0.1298	0.1281±0.0717	0.1655±0.1086
Proteobacteria	0.0790±0.0727	0.0636±0.0567	0.0832±0.0889	0.0454±0.0740	0.064±0.0597	0.0478±0.1107
F/B	7.6310±8.7460	22.9150±35.594 0 ^a	11.3096±15.072 4	6.1567±8.5521	7.4971±5.4348	8.1785±9.6824

Data expressed as mean±standard deviations. The mean relative abundance of different taxa at phylum level were analyzed among three groups at baseline and the end of intervention using one-way analysis of variance or the Kruskal–Wallis H-test, and the Benjamin–Krieger–Yekutieli method was used to adjust *P* values for pairwise comparisons. ^a Significant difference between the low-dose and the placebo groups; ^b Significant difference between the high-dose and the placebo groups.