

Figure S1 WEFL affects the composition of the gut microbiota in HFD-fed mice. (A) Venn diagram of total gut microbiota in the ND group compared with the ND-WEFL group. (B) Venn diagram of total gut microbiota in the HFD group compared with the HFD-WEFL group. (C) The Taxonomic composition analysis on genus level of four group mice.

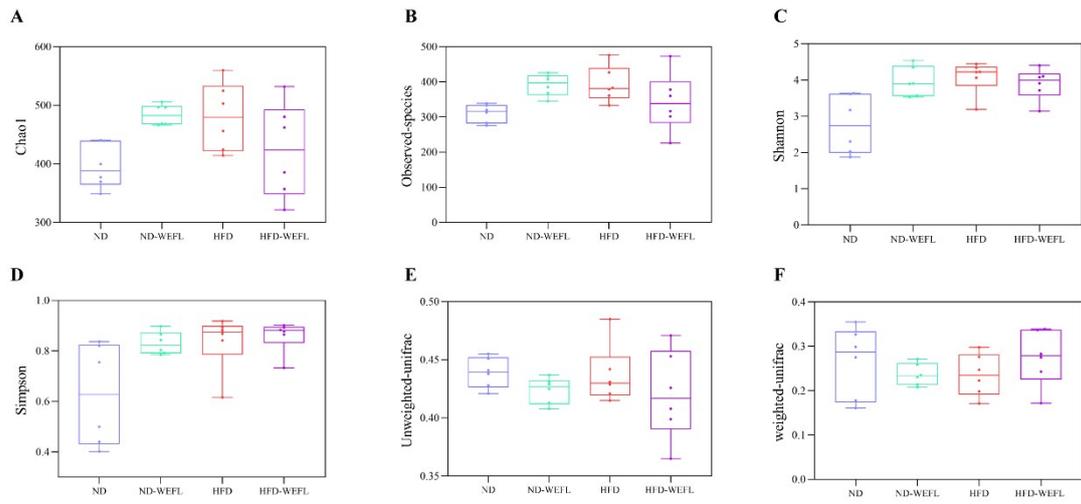


Figure S2 Alpha diversity analysis and Beta diversity analysis. (A) Chao1. (B) observed-species. (C) Shannon. (D) Simpson. (E) Unweighted-unifrac. (F) Weighted-unifrac.

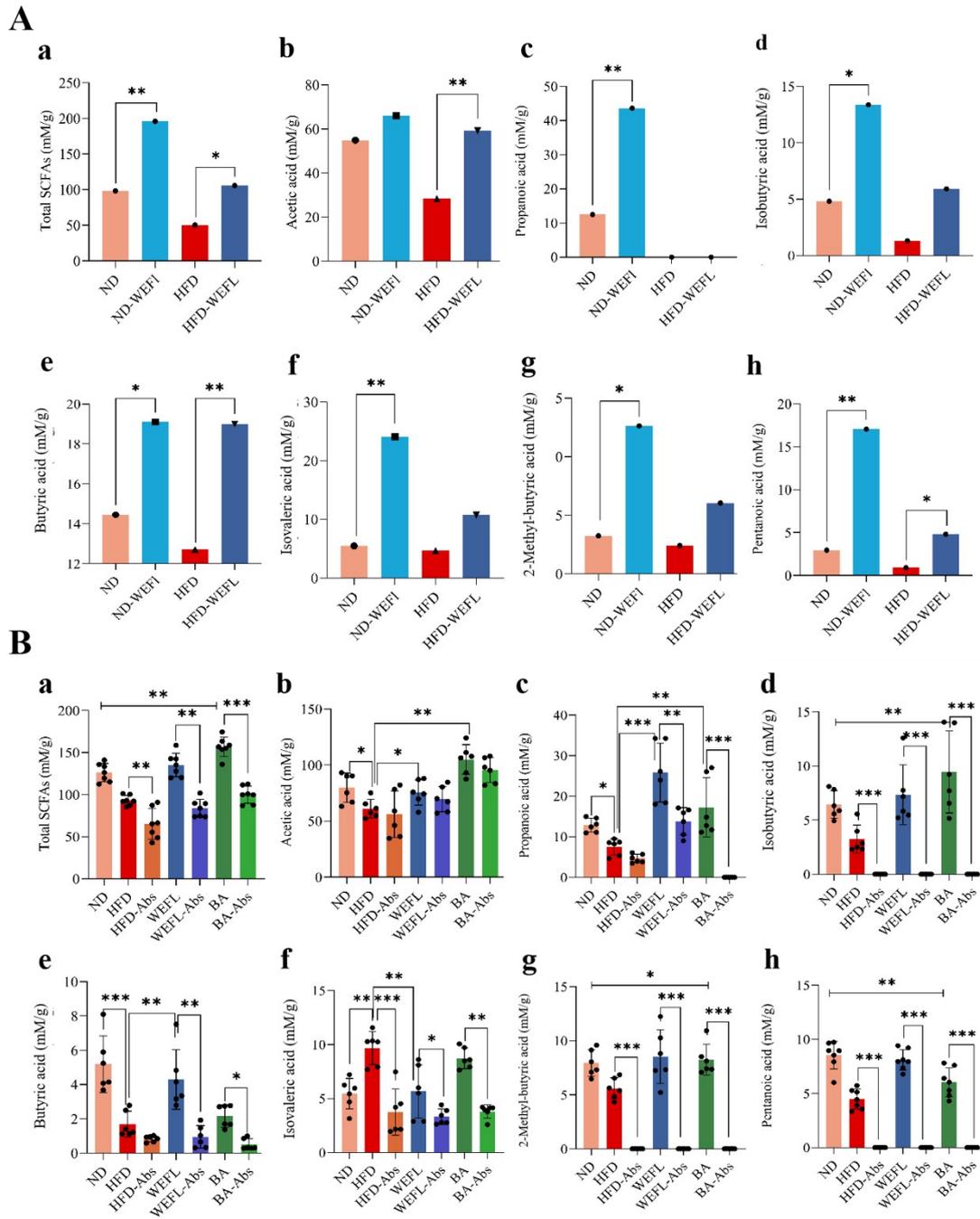


Figure S3 Effect of WEFL on SCFAs in fecal samples in the first animal experiments (A). SCFAs content in seven groups of fecal samples in the second batch of animal experiments (B). The sequences of SCFAs in the two images were the same, including total SCFAs (a), acetic acid (b), propionic acid (c), isobutyric acid (d), butyric acid (e), isovaleric acid (f), 2-methyl-butyric acid (g), and pentanoic acid (G). * $P < 0.05$, ** $P < 0.01$ and *** $P < 0.001$.

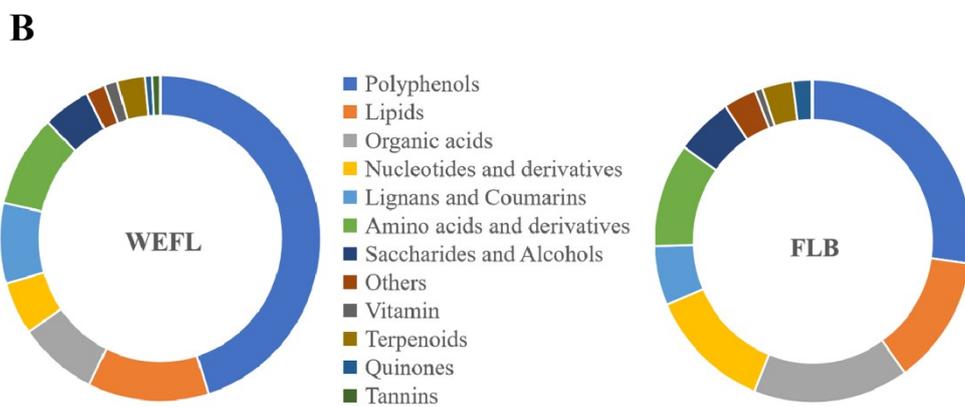
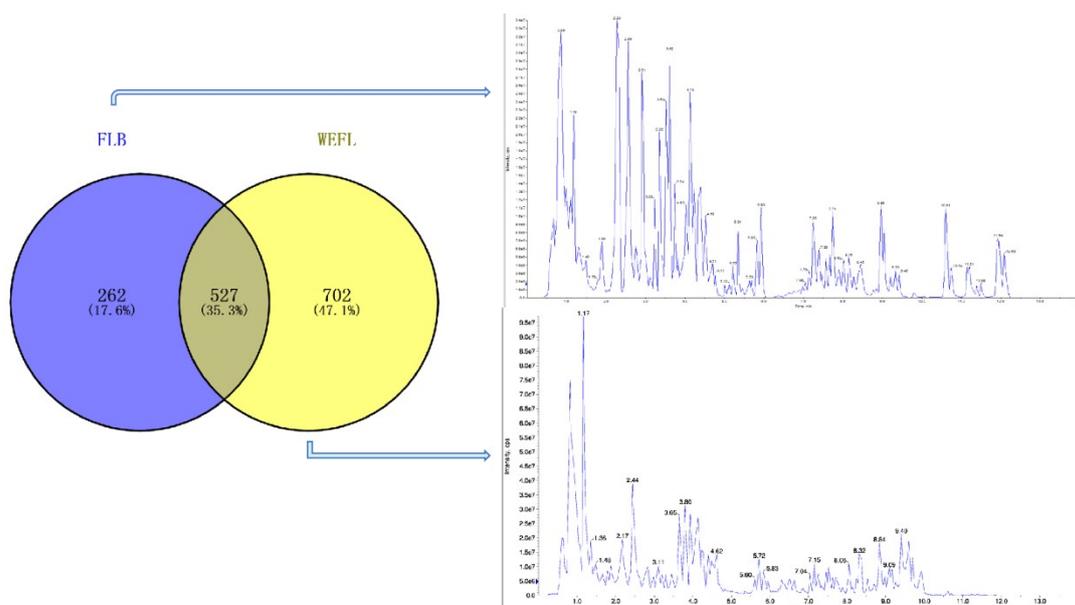


Figure S4 (A) Venn diagram of the substances detected in FLB and WEFL respectively. (B) Classification diagram of substances detected in FLB and WEFL respectively.