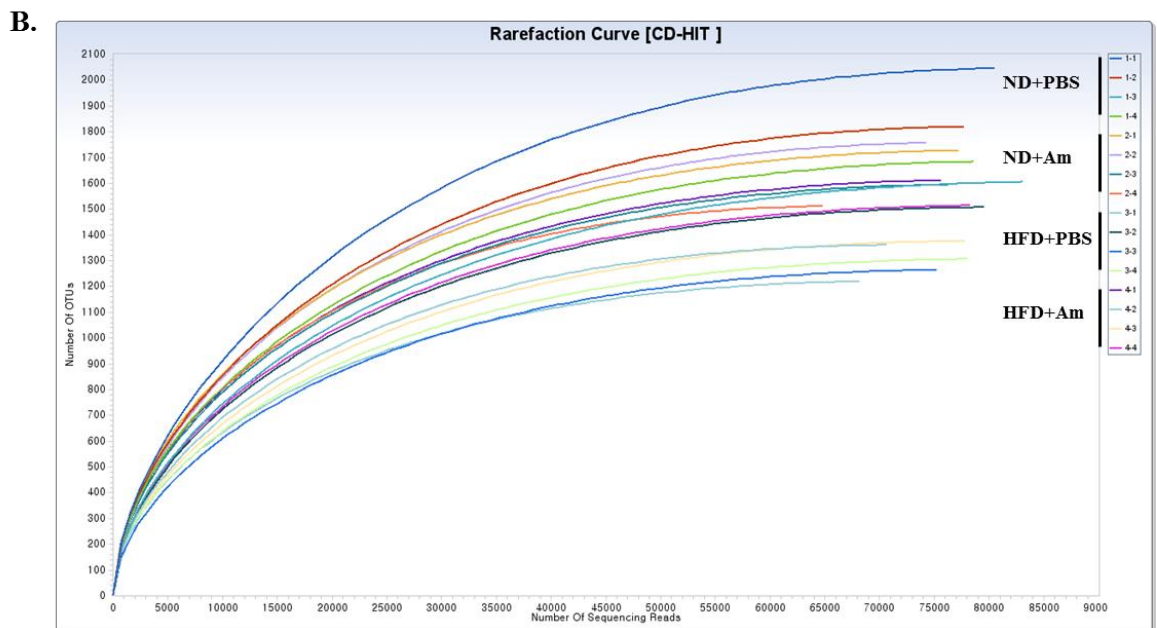
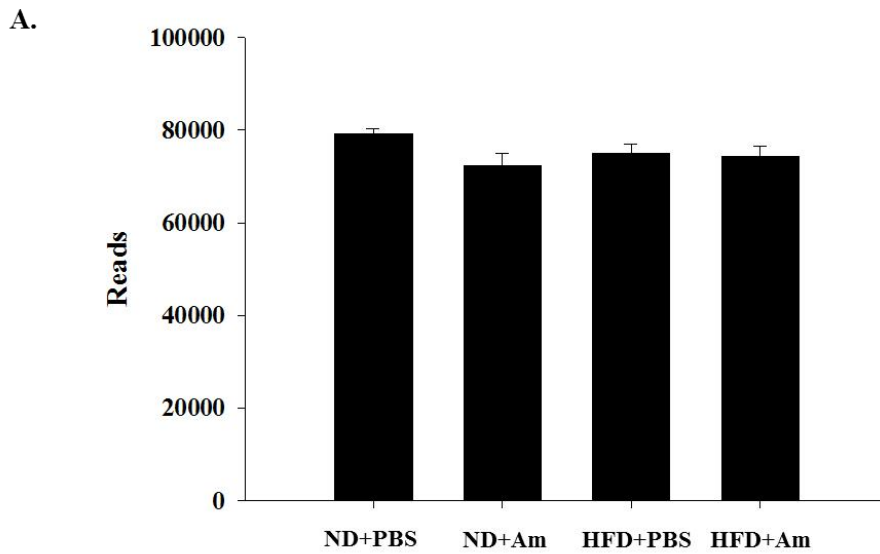


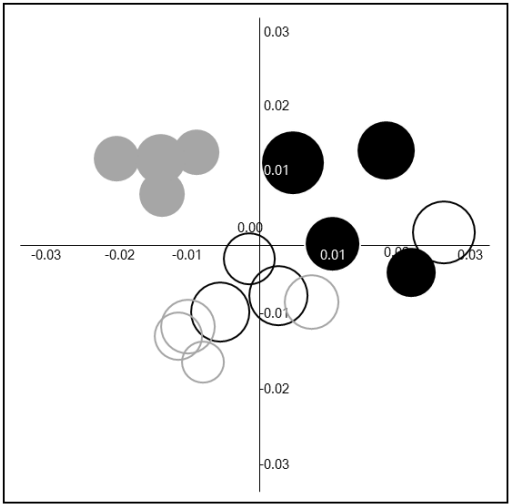
1 **Supplemental Material**

2 **Figure S1. A. Valid reads B. Rarefaction analysis of MiSeq sequencing reads of the**  
3 **16S rRNA gene in the different samples. ND + PBS, 10% fat diet with phosphate**  
4 **buffered saline (PBS); ND + Am, 10% fat diet with *Akkermansia muciniphila* (Am); HFD**  
5 **+ PBS, 45% fat diet with PBS; and HFD + Am, 45% fat diet with Am.**

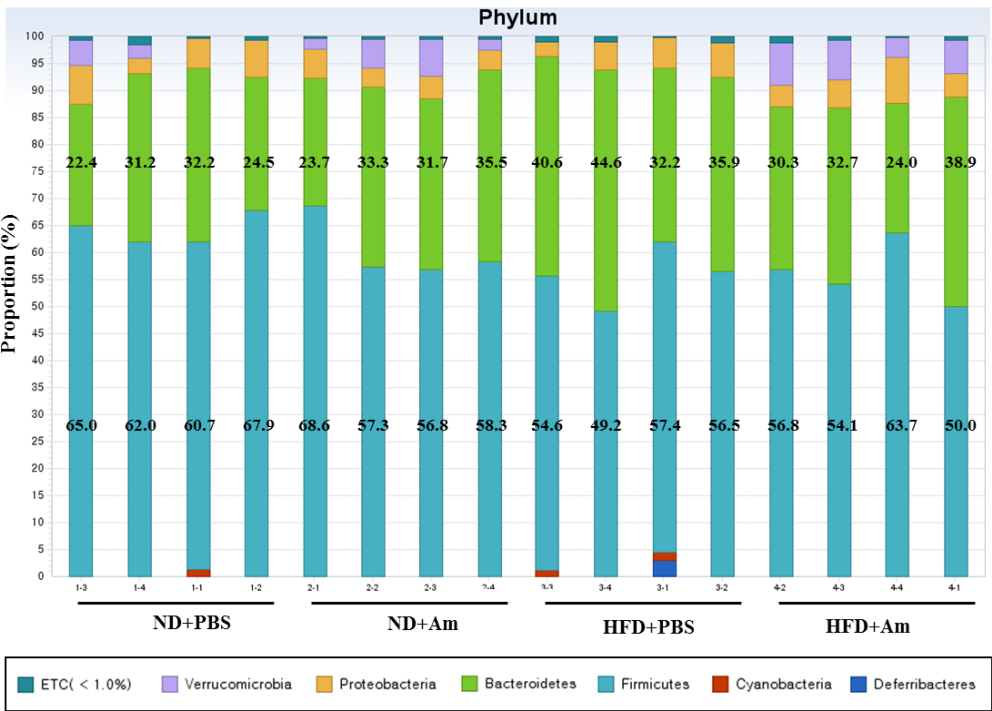


8 **Figure S2. A. Composition of gut microbiome in ND+PBS (black closed circle),**  
 9 **ND+Am (black open circle), HFD+PBS (gray closed circle), and HFD+Am (gray open**  
 10 **circle) B. Composition of gut microbiome in phylum level. C. Composition of gut**  
 11 **microbiome in genus level. ND + PBS, 10% fat diet with phosphate buffered saline (PBS);**  
 12 **ND + Am, 10% fat diet with *Akkermansia muciniphila* (Am); HFD + PBS, 45% fat diet**  
 13 **with PBS; and HFD + Am, 45% fat diet with Am.**

A.



B.



C.

