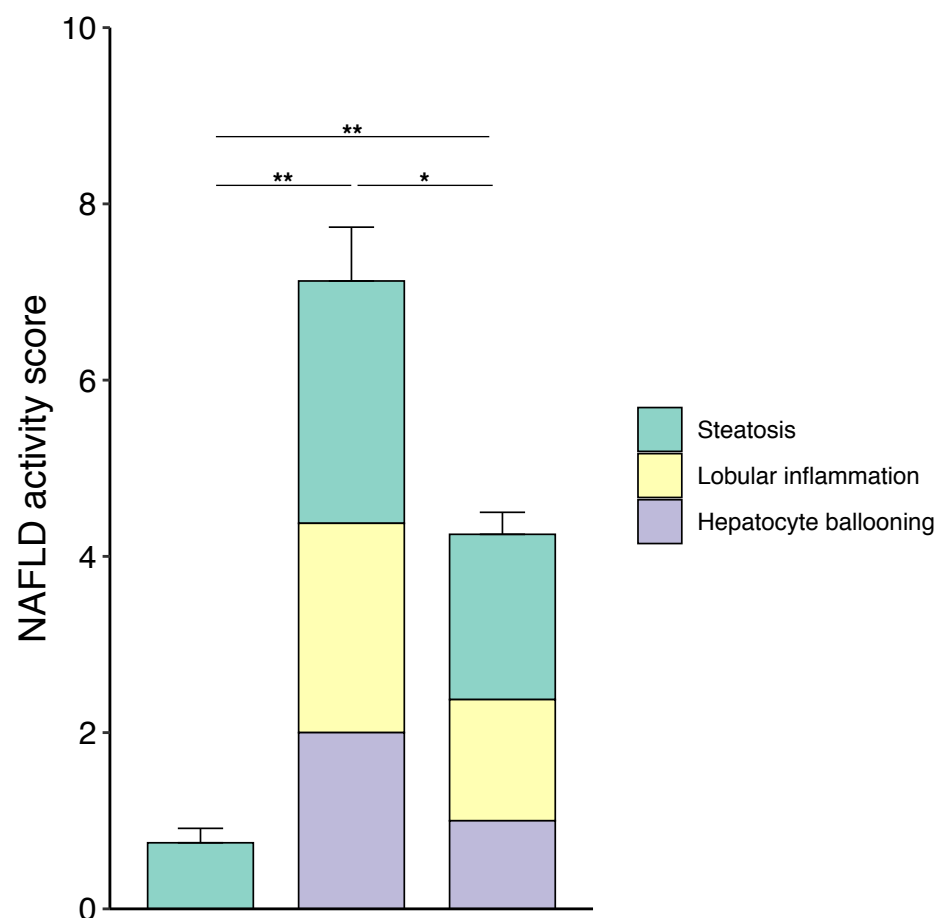
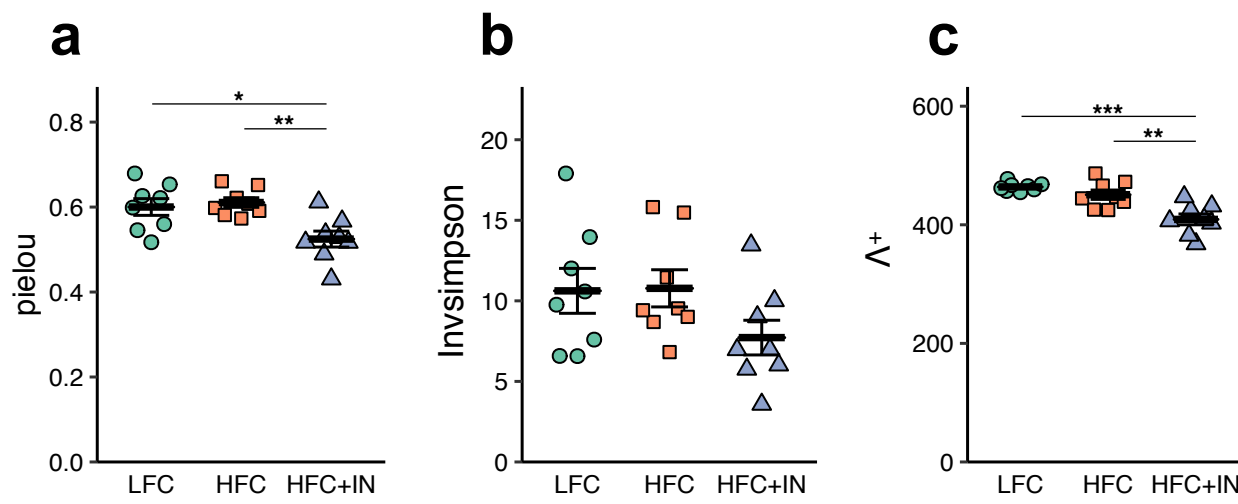




Supplemental Fig. S1: non-alcoholic fatty liver disease activity score

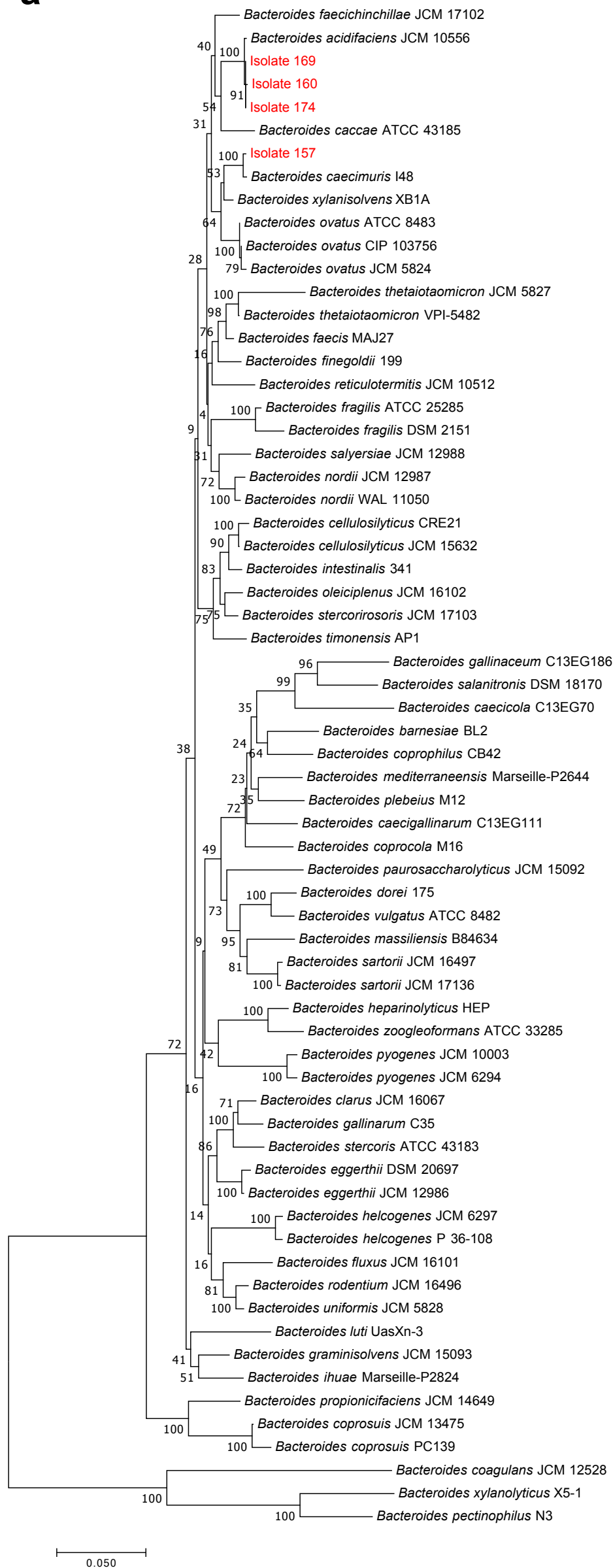
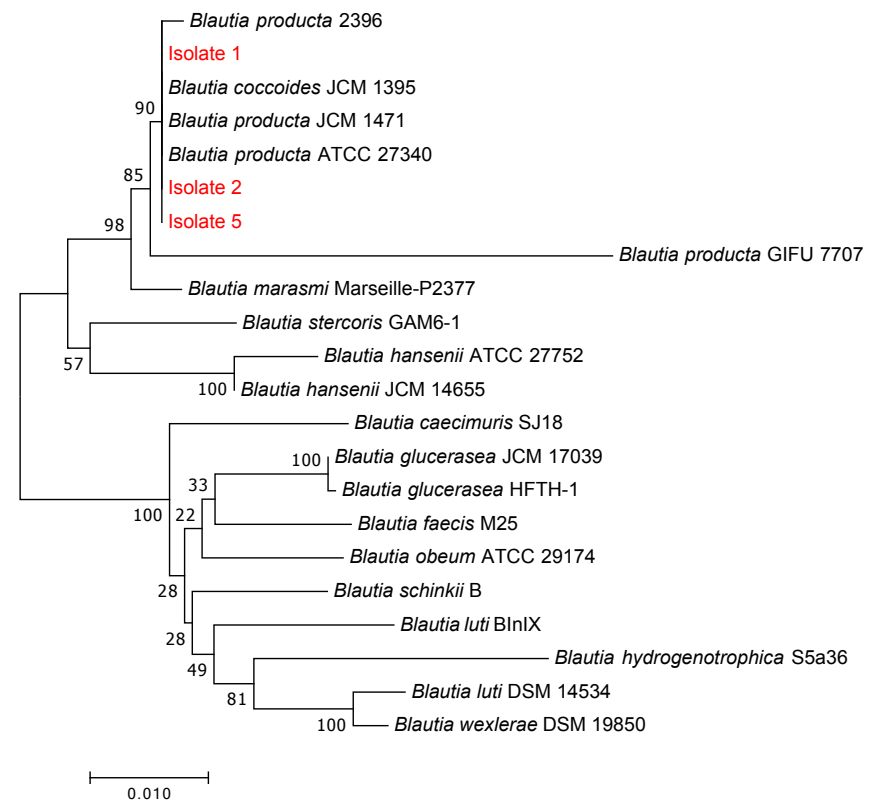
Prebiotic inulin supplementation prevents NAFLD/NASH development. Mice were fed a low-fat/fructose/cholesterol diet (LFC), a high-fat/fructose/cholesterol diet (HFC) or a 10% (w/w) inulin-supplemented HFC diet (HFC+IN) for 20 weeks. Data are mean $\pm$ SEM. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ (Kruskal-Wallis followed by Steel-Dwass test).



Supplemental Fig. S2: Alpha diversity index.

a, Pielou evenness. **b**, Simpson reciprocal index. **c**, Taxonomic distinctness Λ^+ . Each point represents an individual mouse (thick bars, means; error bars, SEM). * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ (ANOVA followed by *post hoc* Tukey's test).

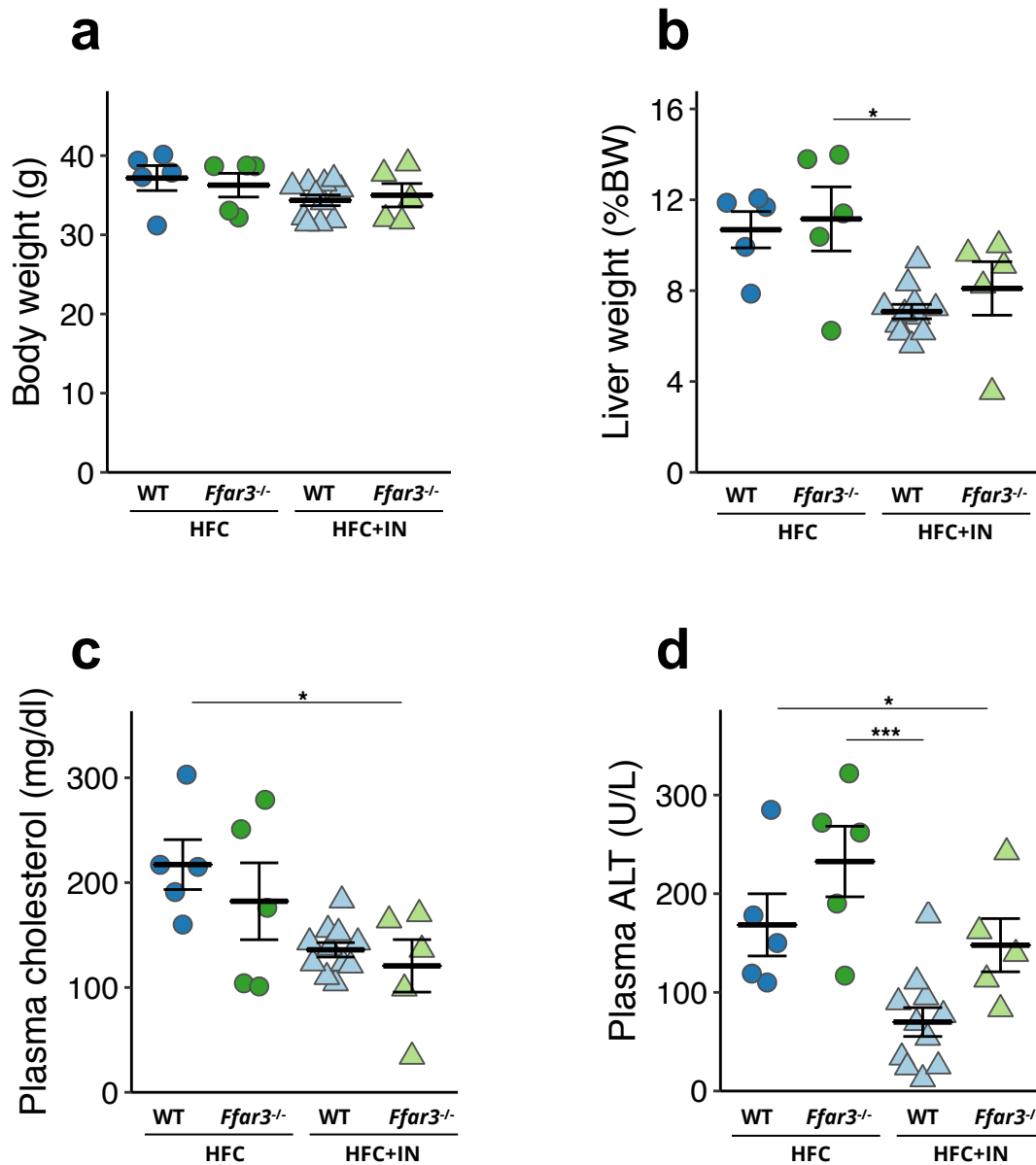
Supplementary Figure S2

a**b**

Supplemental Fig. S3: Phylogenetic tree predicted by the neighbour-joining method using 16S rRNA gene sequences

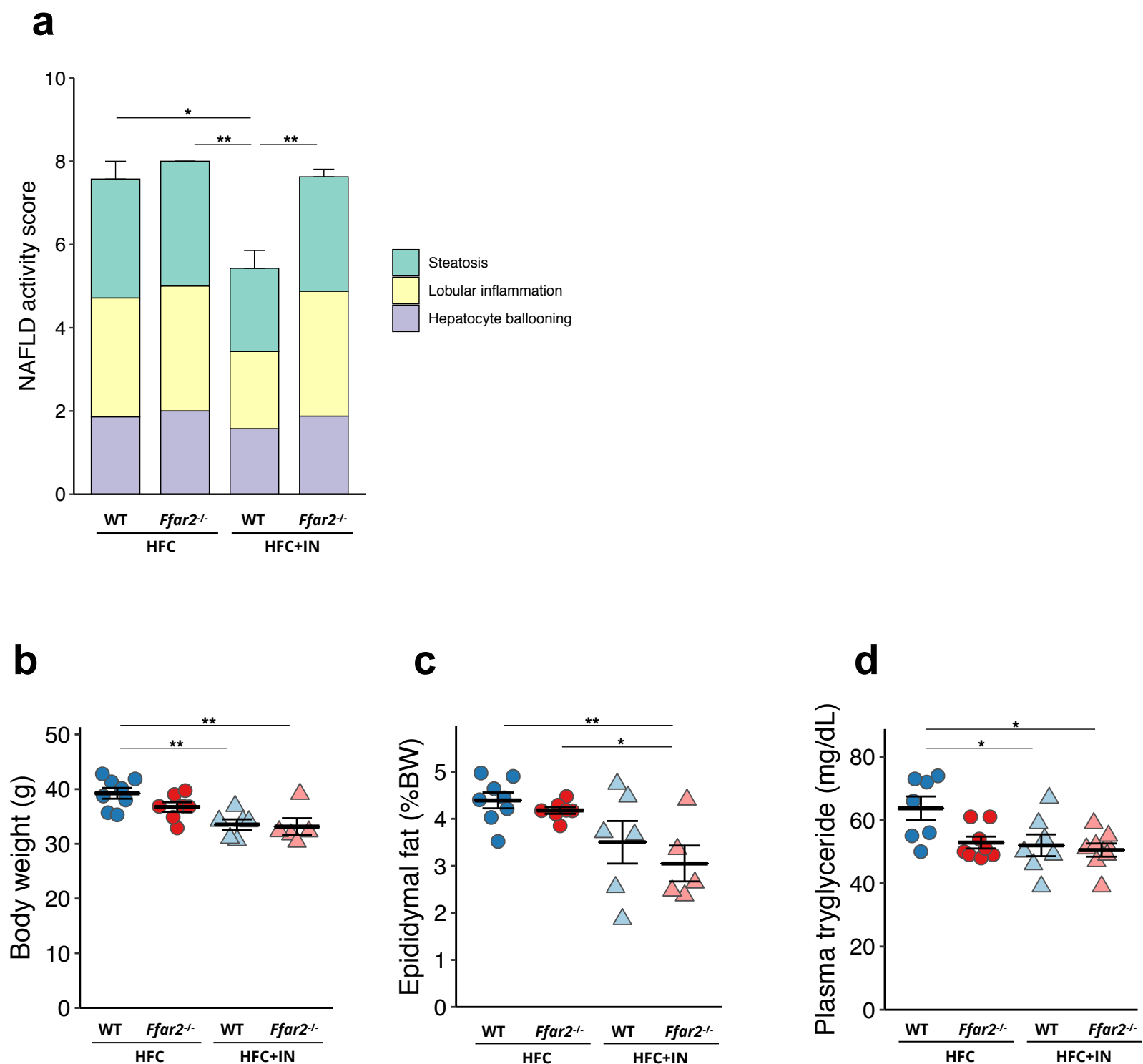
a, Isolated strains 160, 169 and 174 belong to the *Bacteroides acidifaciens* cluster. Strain 174 was used for the gnotobiotic experiment.

b, Isolated strains 1, 2 and 5 belong to the *Blautia producta* cluster. Strain 1 was used for the gnotobiotic experiment. Bootstrap values are expressed as percentages of 1000 replications. The scale bars show evolutionary distances in units of the number of nucleotide substitutions per site.



Supplemental Fig. S4: A deficiency of *Ffar3* does not affect the features of NAFLD/NASH

C57BL/6 WT and *Ffar3*^{-/-} mice were fed an HFC or an HFC+IN diet for 20 weeks. **a**, Body mass. **b**, Liver to body mass ratio. **c**, Plasma cholesterol. **d**, Plasma ALT. Each point represents an individual mouse (thick bars, means; error bars, SEM). **P*<0.05, ***P*<0.01, ****P*<0.001 (ANOVA followed by *post hoc* Tukey's test).



Supplemental Fig. S5: a deficiency in Ffar2 does not affect the obese phenotype but NAFLD.

a, non-alcoholic fatty liver disease activity score. **b**, Body mass. **c**, Epididymal fat to body mass ratio. **d**, Plasma triglyceride. Each point represents an individual mouse (thick bars, means; error bars, SEM). Data represent at least two independent experiments with similar results. Data are mean $\pm$ SEM. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ on Kruskal-Wallis followed by Steel-Dwass test (a) or ANOVA followed by *post hoc* Tukey's test (b-d).