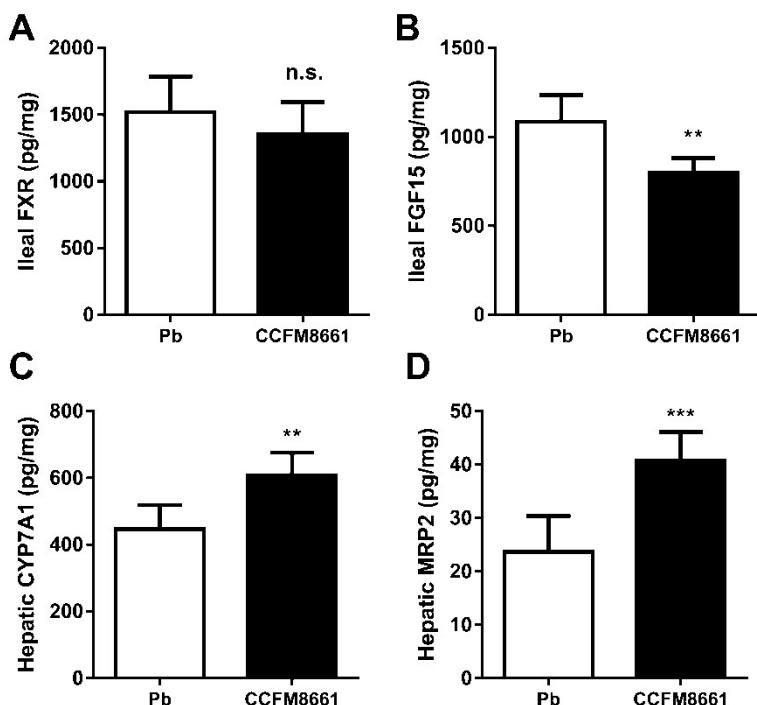


## Supplementary Materials



**Fig. S1.** Effects of *L. plantarum* CCFM8661 treatment on the levels of FXR (A) and FGF15 (B) in the ileum and CYP7A1 (C) and MRP2 (D) in the liver. The experiment lasted for 12 weeks and the treatment for each group was described in the “Materials and methods” section. The levels of target proteins were determined using commercial kits (Sbj Bio, China) according to the manufacturer’s instructions. \*\* and \*\*\*\* indicate significant differences ( $P < 0.01$  and  $P < 0.0001$ , respectively) between the comparison of Pb and CCFM8661 groups. n.s. indicates no significant differences ( $P > 0.05$ ) between the comparison of Pb and CCFM8661 groups. Values are mean  $\pm$  SD values of six mice per group.

**Table S1** Primer sequences used for real-time quantitative PCR

Primers	Sequence (5'-3')
Gapdh-F	GCAAAGTGGAGATTGTTGCCAT
Gapdh-R	CCTTGACTGTGCCGTTGAATT
Asbt-F	ACCACTTGCTCCACACTGCTT
Asbt-R	CGTTCCCTGAGTCAACCCACAT
Osta-F	TGTTCCAGGTGCTTGTCA
Osta-R	CCACTGTTAGCCAAGATGGAGA A
Ost $\beta$ -F	GATGCGGCTCCTTGGAA
Osy $\beta$ -R	GGAGGAACATGCTTGTCA
Ibabp-F	CAGGAGACGTGATTGAAAGGG
Ibabp-R	GCCCCCAGAGTAAGACTGGG
Cyp7a1-F	CAGGGAGATGCTCTGTGTTCA
Cyp7a1-R	AGCCATACATCCCTCCGTGA
Cyp8b1-F	AAGGCTGGCTTCCTGAGCTT
Cyp8b1-R	AACAGCTCATCGGCCTCATC
Fgf15-F	GATTGCCATCAAGGACGTCAG
Fgf15-R	TCAGCCCGTATATCTGCCG
Shp-F	CGATCCTCTCAACCCAGATG
Shp-R	AGGGCTCCAAGACTTCACACA
Fxr-F	TGAGAACCCACAGCATTG
Fxr-R	GCGTGGTGTGGTTGAATGTC
Bsep-F	AAGGACAGCCACACCAACTC
Bsep-R	CCAGAACATGACAAACGGAA
Ntcp-F	TCCGTCGTAGATTCTTTGC
Ntcp-R	AGGGGGACATGAACCTCAG
Mrp2-F	TCTGTGAGTGCAAGAGACAGGT
Mrp2-R	TCCAGGACCAAGAGATTG

*Gapdh*, glyceraldehyde-3-phosphate dehydrogenase; *Asbt*, apical sodium bile acid transporter; *Osta*, organic solute transporter alpha; *Ost $\beta$* , organic solute transporter beta; *Ibabp*, ileal BA-binding protein; *Fxr*, farnesoid X receptor; *Fgf15*, fibroblast growth factor 15; *Cyp7a1*, cholesterol 7 $\alpha$ -hydroxylase; *Cyp8b1*, sterol-12alpha-hydroxylase; *Shp*, small heterodimer partner; *Bsep*, bile salt export pump; *Ntcp*, sodium taurocholate cotransporting polypeptide; *Mrp2*, multidrug resistance-associated protein 2. F, forward primer; R, reverse primer.