Supplementary Materials for

**Obeticholic acid induces hepatoxicity via FXR in NAFLD mice**

Chuangzhen Lin1, †, Bingqing Yu1, †, Lixin Chen1, Zhaohui Zhang1, Weixiang Ye2, Hui Zhong3, Wenke Bai1, Yuping Yang1, Biao Nie1, \*.

**\* Corresponding author. Email: biaonie@jnu.edu.cn**

**Supplementary figure legends**

**Supplementary Figure 1. FXR deficiency altered the effect of high-dose OCA on mRNA expression of gene involved liver fibrosis and cholesterol metabolism.**

(A) Hepatic mRNA expression of *Timp1* and *Ctgf* was determined by quantitative real-time PCR (qPCR) in WT mice and FXR-/- mice. (B) Hepatic mRNA expression of *Nlrp3*, *Il-1β*, and *Tnfα* was determined by qPCR in WT mice and FXR-/- mice. (C) Hepatic mRNA expression of genes involved in cholesterol metabolism in WT mice and FXR-/- mice, as determined by qPCR. ns, not significant; \*, P＜0.05; \*\*, P＜0.01; \*\*\*, P＜0.001.

**Supplementary Figure 2. High-dose OCA decreased liver TG content in mice**

Liver lipid extracts were prepared by lysing 0.1 g of each liver, and triglyceride (TG) content was determined by a kit. (A)Liver TG content of wildtype mice. (B)Liver TG content of FXR-/- mice. ns, not significant; \*, P＜0.05; \*\*, P＜0.01; \*\*\*, P＜0.001.

**Supplementary Table 1. Real-time PCR primers.**

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| Genes | Sense (5’-3’) | Anti-sense (5’-3’) |
| Il-1β | TGGTGTGTGACGTTCCCATT | CAGCACGAGGCTTTTTTGTTG |
| Timp1 | TGGCATCTGGCATCCTCTTG | CGCTGGTATAAGGTGGTCTCG |
| Ctgf | AGAACTGTGTACGGAGCGTG | GTGCACCATCTTTGGCAGTG |
| Nlrp3 | AGCCTTCCAGGATCCTCTTC | CTTGGGCAGCAGTTTCTTTC |
| Tnfα | AGCACAGAAAGCATGATCCG | CTGATGAGAGGGAGGCCATT |
| Srb1 | TGGTCTGAACCCTAACCCAAAG | AGAACTACTGGCTCGATCTTCC |
| Cyp27a1 | GGGTGGACACGACATCCAAC | GCGCAGGGTCTCCTTAATCA |
| Hmgcr | GCTGGTGAGCTGTCCTTGAT | TCCTCAAGCTGCCTTCTTGG |
| Abcg5 | GCCACGGTCATTTTCAGCAG | AGGAATGGGCATTTCTTGTATGT |
| Abcg8 | CCCTGATCCGTCGTCAGATTT | CATTGACCTCTCCGAGTGACAT |