## Supplemental figure legends

**SFigure 1.** (A) Real-time PCR analysis of CYP2E1 mRNA levels. (B) Percentage of the survival mice after $CCl_4$ injection.

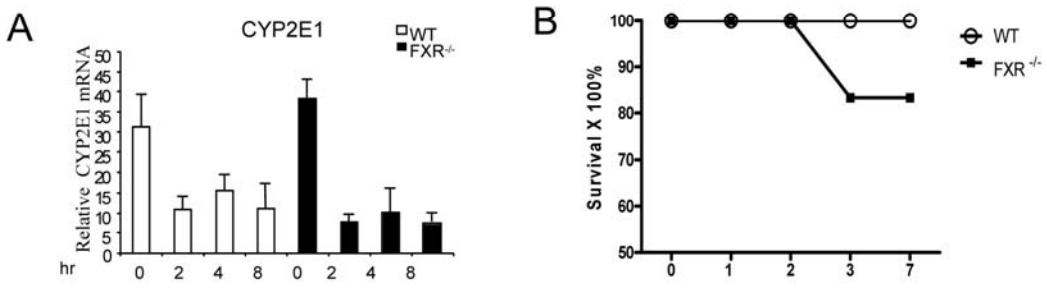
**SFigure 2.** (A) Real-time PCR analysis of VP16, FXR, and SHP in the wild-type mice treated with adenovirus by tail-vein injection. *, $p < 0.05$. (B) Serum ALT and BAs in the $FXR^{-/-}$ mice infected with adenovirus. *, $p < 0.05$.

**SFigure 3.** Real-time PCR analysis of hepatic IL-6 expression in 1% CA and control diet feeding mice after 70% PH (A), and after $CCl_4$ treatment (B), and in 4% Resin diet feeding mice after $CCl_4$ treatment (C), and in adenovirus-treated $FXR^{-/-}$ mice after $CCl_4$ treatment (D).

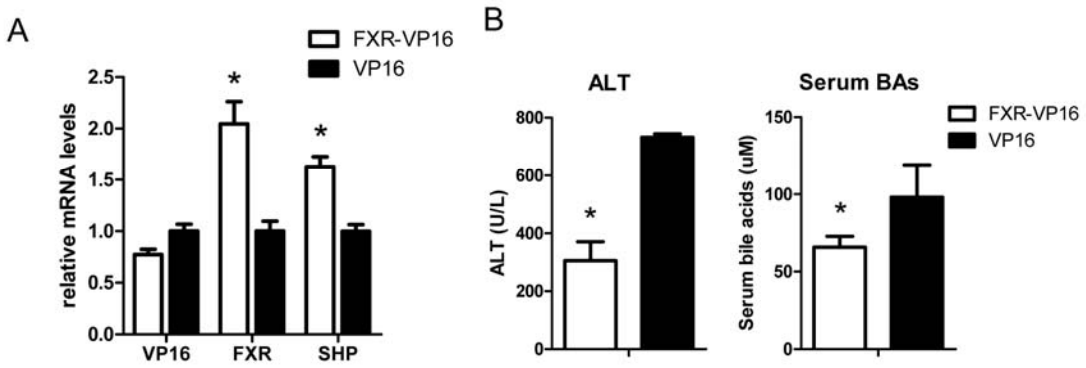
**SFigure 4.** (A)&(B) Quantification of phospho-STAT3 in 1% CA-containing food feeding mice with $CCl_4$ treatment and 70% PH, respectively. (C) Immunoblot analysis of gp130 protein levels and p38α phosphorylation in 1% CA-containing-diet feeding mice after 70% PH.

**SFigure 5.** (A) Serum ALT and BAs in the wild-type mice fed with 0.2% CA- or 2% Resin-containing diet after $CCl_4$ treatment. *, $p < 0.05$. ALT is shown as the average value of 4 mice for each group. (B) Real-time PCR analysis of FoxM1B and Cyclin D1. The relative mRNA levels are shown as the average value of 4 mice for each group. (C) & (D) Representative figures of TUNEL and H&E staining. (E) Representative figures of BrdU staining. (F) Quantification of proliferating and apoptotic cells in the liver of wild-type mice. *, $p < 0.05$.

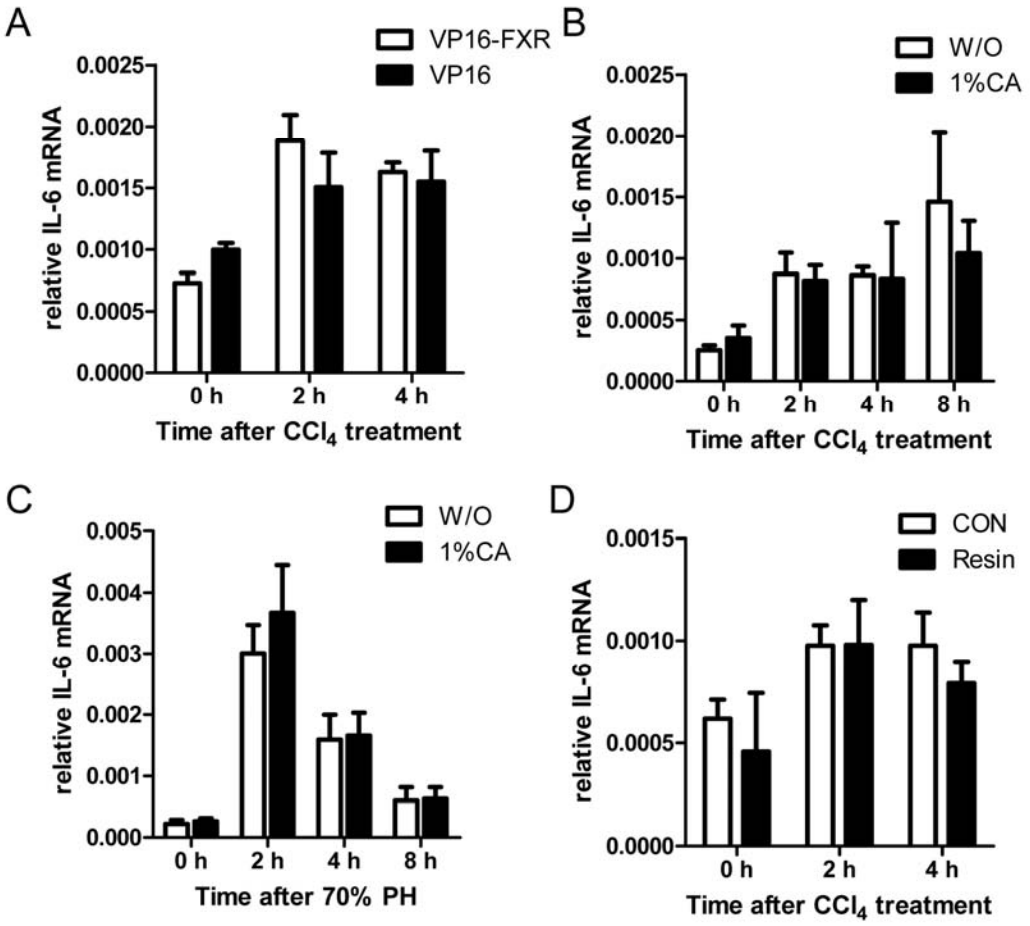
**SFigure 1**


A
CYP2E1
WT
FXR-/-
Relative CYP2E1 mRNA
0
5
10
15
20
25
30
35
40
45
50
hr
0 2 4 8 0 2 4 8
B
Survival X 100%
100
90
80
70
60
50
0 1 2 3 7
WT
FXR -/-

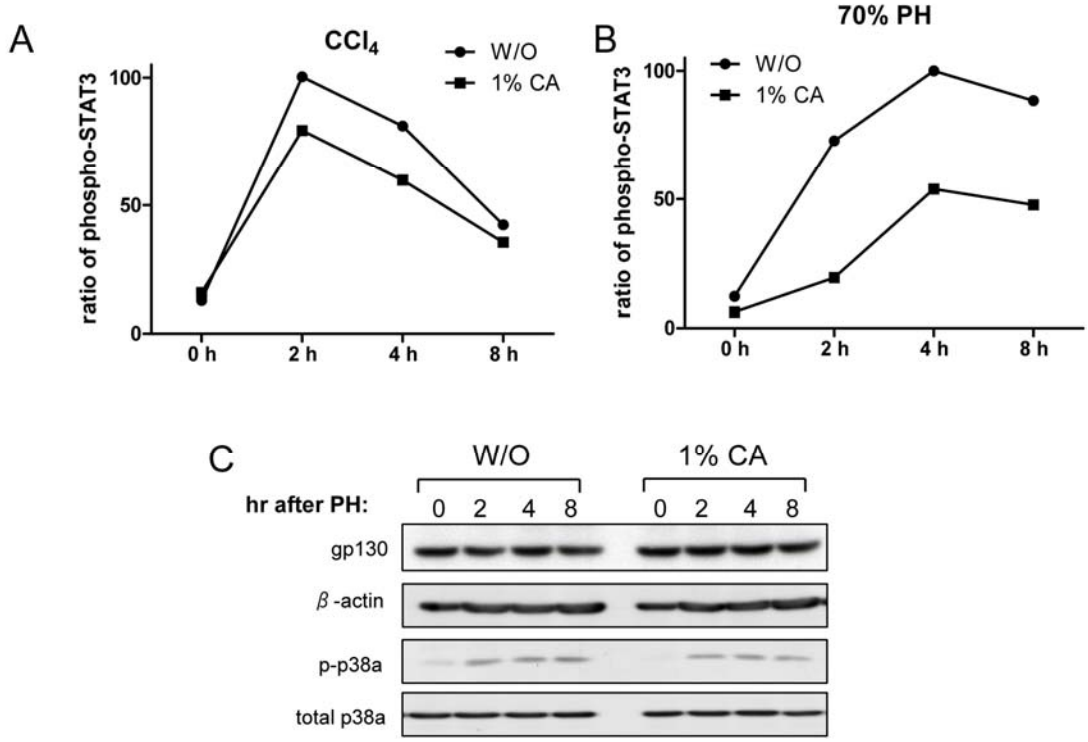
**SFigure 2**


A
FXR-VP16
VP16
relative mRNA levels
2.5
2.0
1.5
1.0
0.5
0.0
*
*
VP16
FXR
SHP
B
ALT
ALT (U/L)
800
600
400
200
0
*
Serum BAs
Serum bile acids (uM)
150
100
50
0
*
FXR-VP16
VP16

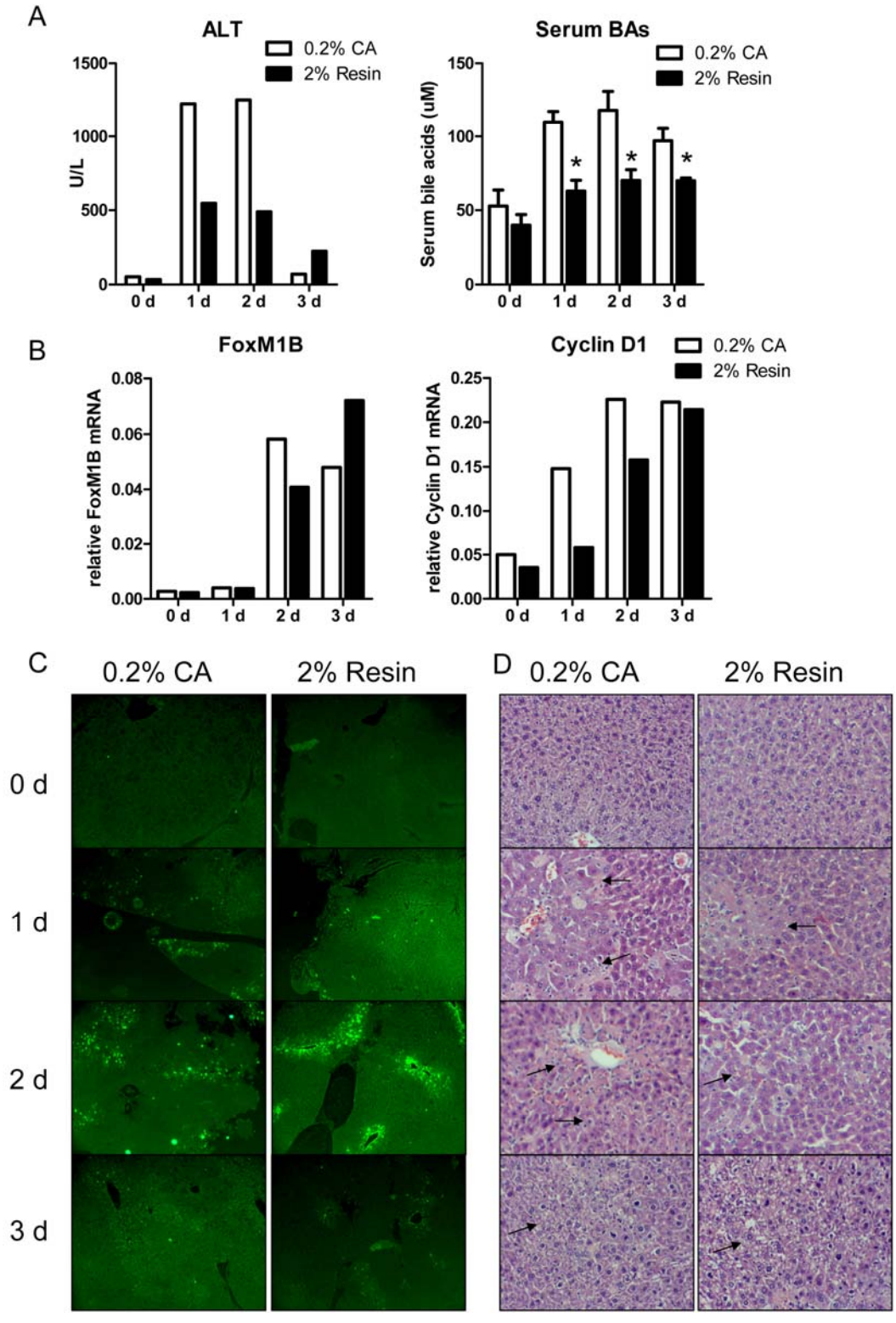
**SFigure 3**

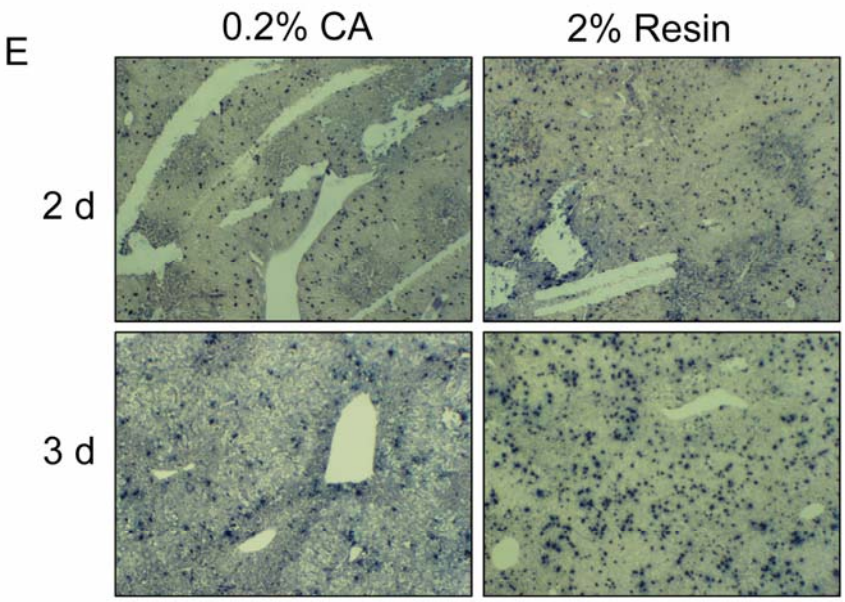

A
VP16-FXR
VP16
relative IL-6 mRNA
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
0 h
2 h
4 h
Time after CCl4 treatment
B
W/O
1%CA
relative IL-6 mRNA
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
0 h
2 h
4 h
8 h
Time after CCl4 treatment
C
W/O
1%CA
relative IL-6 mRNA
0.005
0.004
0.003
0.002
0.001
0.000
0 h
2 h
4 h
8 h
Time after 70% PH
D
CON
Resin
relative IL-6 mRNA
0.0015
0.0010
0.0005
0.0000
0 h
2 h
4 h
Time after CCl4 treatment

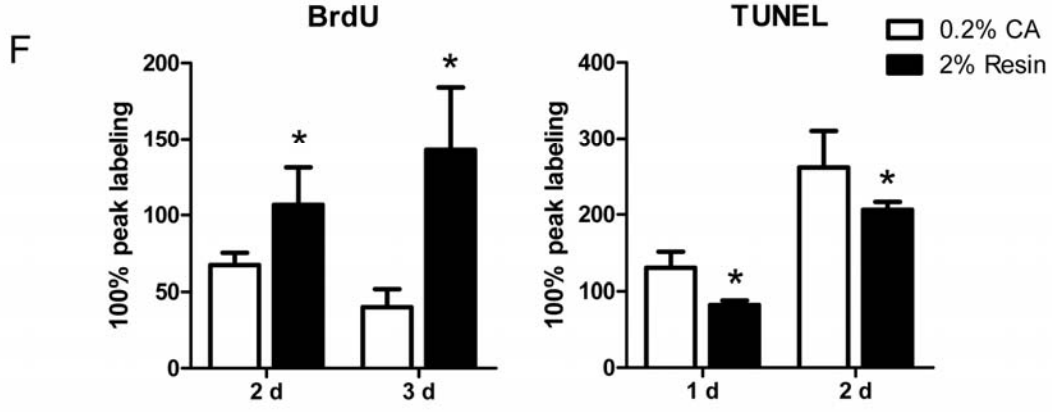
## SFigure 4


A
CCl4
W/O
1% CA
ratio of phospho-STAT3
100
50
0
0 h
2 h
4 h
8 h
B
70% PH
W/O
1% CA
ratio of phospho-STAT3
100
50
0
0 h
2 h
4 h
8 h
C
W/O
1% CA
hr after PH:
0 2 4 8
0 2 4 8
gp130
β -actin
p-p38a
total p38a

**SFigure 5**


A
ALT
0.2% CA
2% Resin
U/L
1500
1000
500
0
0 d
1 d
2 d
3 d
Serum BAs
Serum bile acids (uM)
150
100
50
0
*
B
FoxM1B
relative FoxM1B mRNA
0.08
0.06
0.04
0.02
0.00
Cyclin D1
relative Cyclin D1 mRNA
0.25
0.20
0.15
0.10
0.05
0.00
C
D
0.2% CA
2% Resin
0 d
1 d
2 d
3 d


E
0.2% CA
2% Resin
2 d
3 d


F
BrdU
TUNEL
0.2% CA
2% Resin
100% peak labeling
200
150
100
50
0
400
300
200
100
0
*
2 d
3 d
1 d
2 d

**STABLE 1**

| Real-time PCR primers | Sequences |
|---|---|
| mBcl-xl-F | CTTTCGGGATGGAGTAAACTGG |
| mBcl-xl-R | CCCGTAGAGATCCACAAAAGTG |
| mBSEP-F | GGATGGTTTGACTGCACTTCTG |
| mBSEP-R | AGAGGACTGACAGCGAGAATCA |
| mc-Fos-F | ACTTCGACCATGATGTTCTCGG |
| mc-Fos-R | AAAGTTGGCACTAGAGACGGAC |
| mc-Jun-F | AGTGACGGACCGTTCTATGACTG |
| mc-Jun-R | TGAGAAGGTCCGAGTTCTTGGC |
| mc-Myc-F | CTTACAATCTGCGAGCCAGGAC |
| mc-Myc-R | GTACGGAGTCGTAGTCGAGGTC |
| mCyclinD1-F | TACTTCAAGTGCGTGCAGAAGG |
| mCyclinD1-R | CAAGGGAATGGTCTCCTTCATC |
| mCYP7A1-F | GACGAATTCATGATGAGCATTTCTTTGATC |
| mCYP7A1-R | CATGCGGCCGCCCTCTTCTTCCAACCACATAT |
| mFoxM1B-F | GGATTCCAAGAGAGCAGAGGTG |
| mFoxM1B-R | CCGATTCTGCTCCAGGTGACAA |
| mFXR-F | CTGCGTGATGGACATGTACATG |
| mFXR-R | CCTGCAAAACTTGGTTGTGGAGG |
| mIL-6-F | CAAAGCCAGAGTCCTTCAGAG |
| mIL-6-R | TGGTCCTTAGCCACTCCTTC |
| mMRP2-F | CCAGTGCACGGTCATCACTATC |
| mMRP2-R | GGACCCATATTGGACAGCAGTT |
| mMRP3-F | ACCATCCGTACCCAGTTTGAAC |
| mMRP3-R | GGCCATCCCATAGAAGATGC |
| mMRP4-F | CCTCTTTTACAAGATGGTTCAGCA |
| mMRP4-R | TCCATTGGAGGTGTTCATAACC |
| mNTCP-F | ATCTGACCAGCATTGAGGCTCT |
| mNTCP-R | CCGTCGTAGATTCCTTTGCTGT |
| mOATP1-F | CCTGTTTACATTGGGGAACTCTG |
| mOATP1-R | GGGAGAAAGCTTGATCCTCTCA |
| mSHP-F | GTCTTTCTGGAGCCTTGAGCTG |
| mSHP-R | GTAGAGGCCATGAGGAGGATTC |
| mSOCS3-F | GTAGACTTCACGGCTGCCAAC |
| mSOCS3-R | AACTTGCTGTGGGTGACCAT |
| mTNFa-F | CGCCCTTCCAGAACTCCAGGCG |
| mTNFa-R | TGCTACGACGTGGGCTACAG |
| VP16-F | CTCGACGACTTGGGCTTTAG |
| VP16-R | TTTACACTCCCGGTACAGGTC |