### Supplementary Data

Title: Src-homology protein tyrosine phosphatase-1 agonist, SC-43, reduces liver fibrosis

### Authors:

Tung-Hung Su, Chung-Wai Shiau, Ping Jao, Nian-Jie Yang, Wei-Tien Tai, Chun-Jen Liu, Tai-Chung Tseng, Hung-Chih Yang, Chen-Hua Liu, Kai-Wen Huang, Ting-Chen Hu, Yu-Jen Huang, Yao-Ming Wu, Li-Ju Chen, Pei-Jer Chen, Ding-Shinn Chen, Kuen-Feng Chen, Jia-Horng Kao





# Figure S2. SHP-1 inhibition increased liver fibrosis in CCI<sub>4</sub>-induced fibrosis mouse model.

Sodium stibogluconate, a specific SHP-1 inhibitor, was administered during CCl<sub>4</sub> induction for 2 weeks. Representative images after sirius red staining and collagen-positive area quantification. Scale bar: 100  $\mu$ m. Columns: mean and bars: standard error. \*P < 0.05 compared with the vehicle group. N = 9 in each group.



# Figure S3. SHP-1 inhibition increased liver fibrosis in bile duct ligation fibrosis mouse model.

Sodium stibogluconate, a specific SHP-1 inhibitor, was administered after BDL for 7 days. Representative images after sirius red staining and collagen-positive area quantification. Scale bar: 100  $\mu$ m. Columns: mean and bars: standard error. N =8 in each group.



# Figure S4. SC-43 treatment reduces the α-SMA expression in CCI<sub>4</sub>-induced liver fibrosis mouse model.

Representative images after  $\alpha$ -SMA staining and quantification. Scale bar: 100  $\mu$ m. Columns: mean and bars: standard error. N=3 in each group.



### Figure S5. SC-43 treatment increases apoptotic hepatic stellate cells in CCl4-induced liver fibrosis mouse model.

Representative images after TUNEL staining for apoptotic cells and quantification. Scale bar: 100  $\mu$ m. Columns: mean and bars: standard error. \*P < 0.05 compared with the vehicle group. N=4-6 in each group.



Figure S6. The liver hydroxyproline level in bile duct ligation mouse models.

(a) In the BDL fibrosis prevention model. (b) In the BDL fibrosis therapy model.



### Figure S7. The cell cycle is HSCs after SC-43 treatment.

(a) Representative image of cell cycles in LX2 cells. (b) The increased Sub-G1 phase on LX2 and HSC-T6 cells after SC-43 treatment.



Figure S8. SC-43 treatment downregulates phospho-STAT3 in primary mouse hepatic stellate cells



(a)