



**Supplementary Figure 1.** BDL model induces severe liver injury and liver fibrosis. (A) Representative micrographs of gross liver images, H&E staining, Masson's trichrome and Sirius staining of livers. Images were taken at original magnification (100 $\times$ ). Scalebars=200  $\mu$ m. A red dotted line showed a huge gallbladder. Black arrows points to thenecrosis area. (B) Relative mRNA levels of *Jcad*,  *$\alpha$ -SMA*, *Tgf- $\beta$* , *Ctgf*, *Col-1a1* and *Ck19* in mouse liver were determined by quantitative RT-PCR analysis. n=6 in each group. All data were expressed as mean $\pm$ SD. \*\*\*\**P*<0.05, 0.01, and 0.001 vs.WT-Sham mice.