

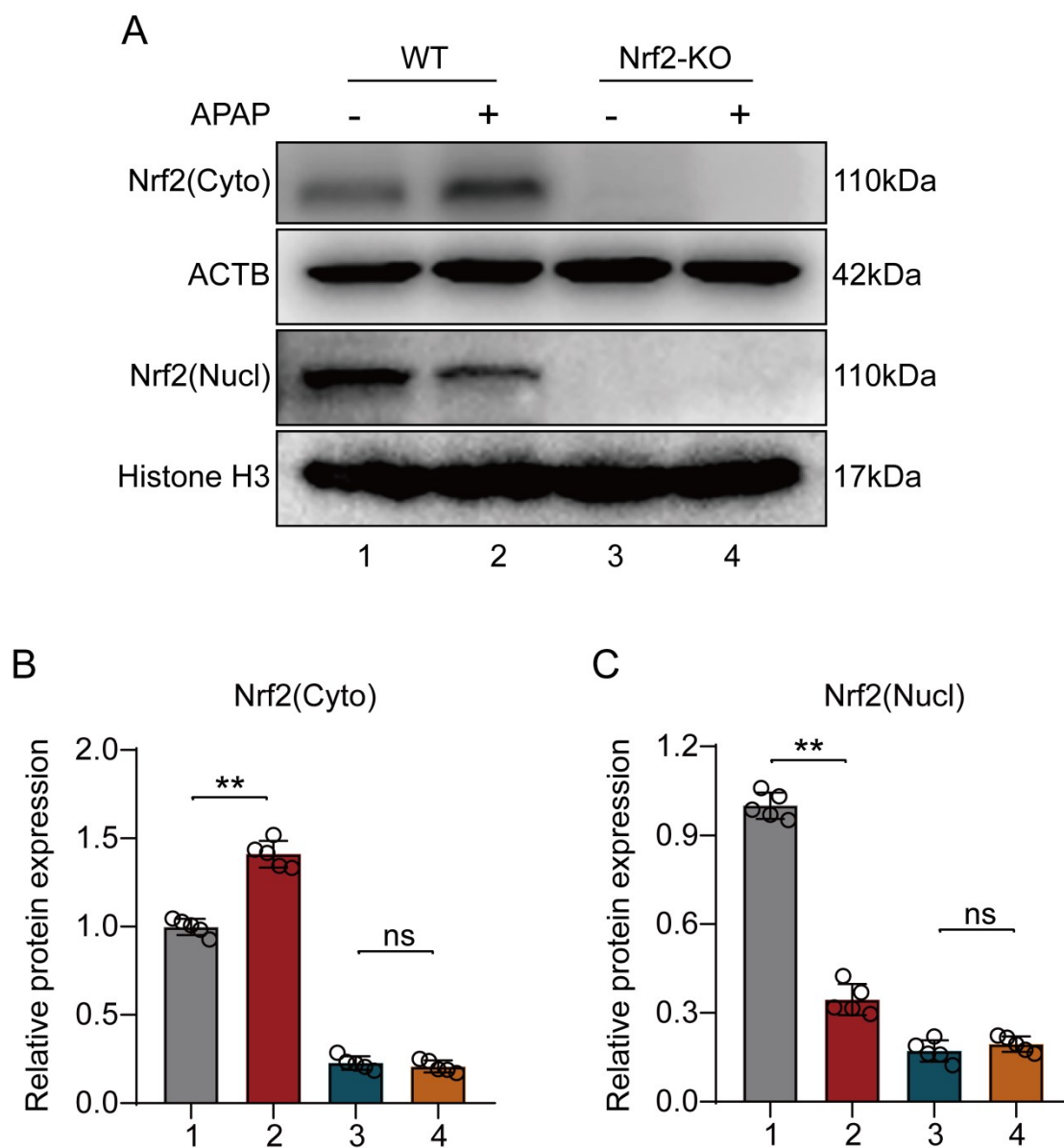
## Supplementary information

for

**Cynarin alleviates acetaminophen-induced acute liver injury through the activation of Keap1/Nrf2-mediated lipid peroxidation defense via the AMPK/SIRT3 signaling pathway**

Luying Zhao et al.

### Figures and figure legends

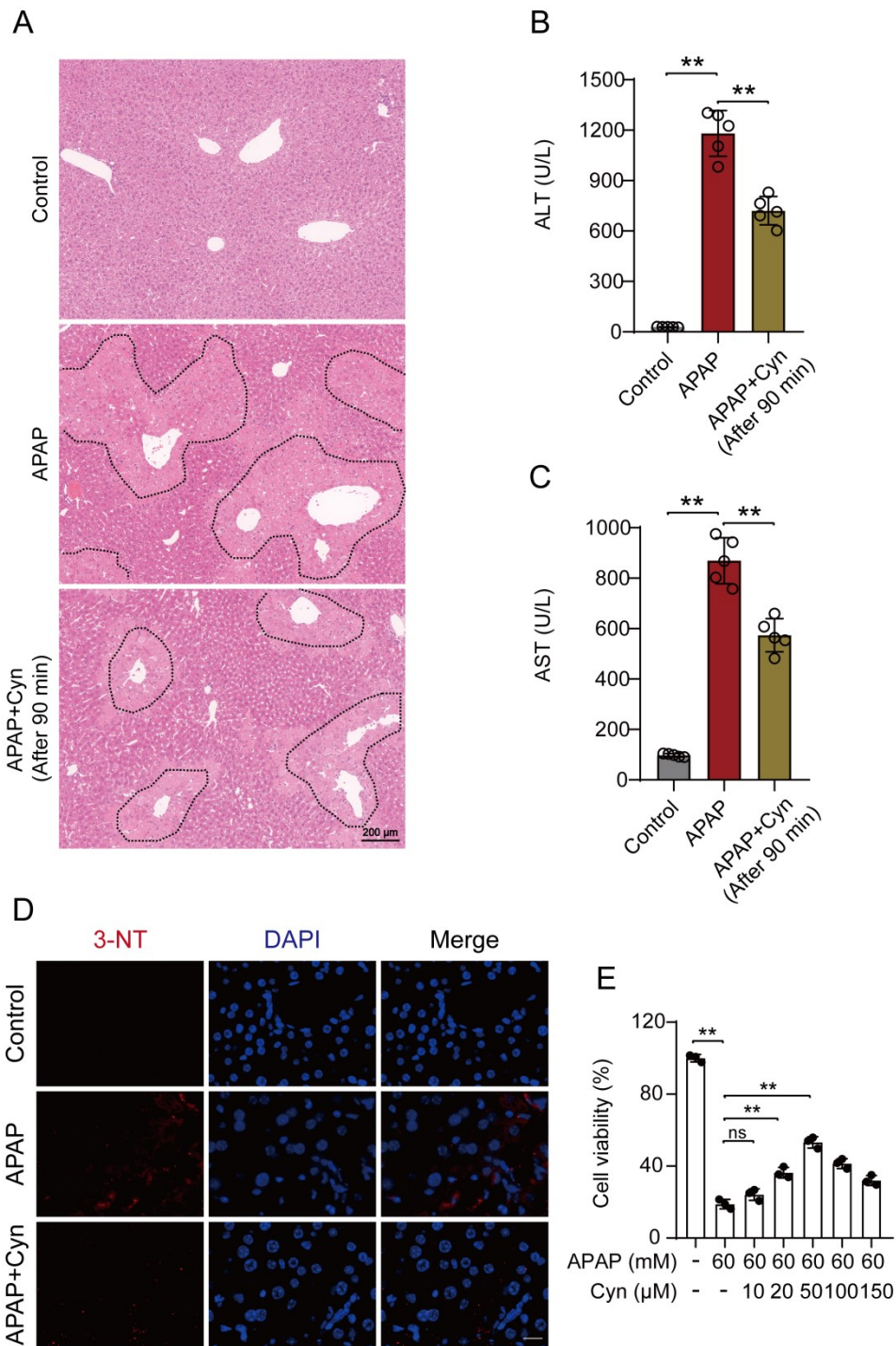


**Fig.S1 Nrf2-KO exacerbates APAP-induced ALI. (A-C) The protein expression**

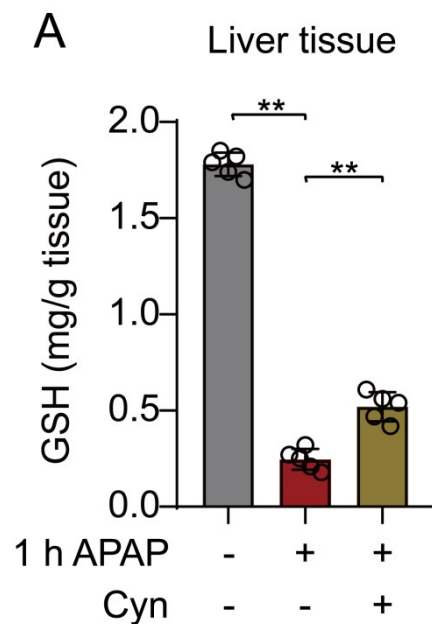
levels of cytoplasm and nucleus Nrf2 in liver tissues were analysed by western blot.

Data are shown as means  $\pm$  SD; statistical significance is presented as  $*P < 0.05$ ,  $**P$

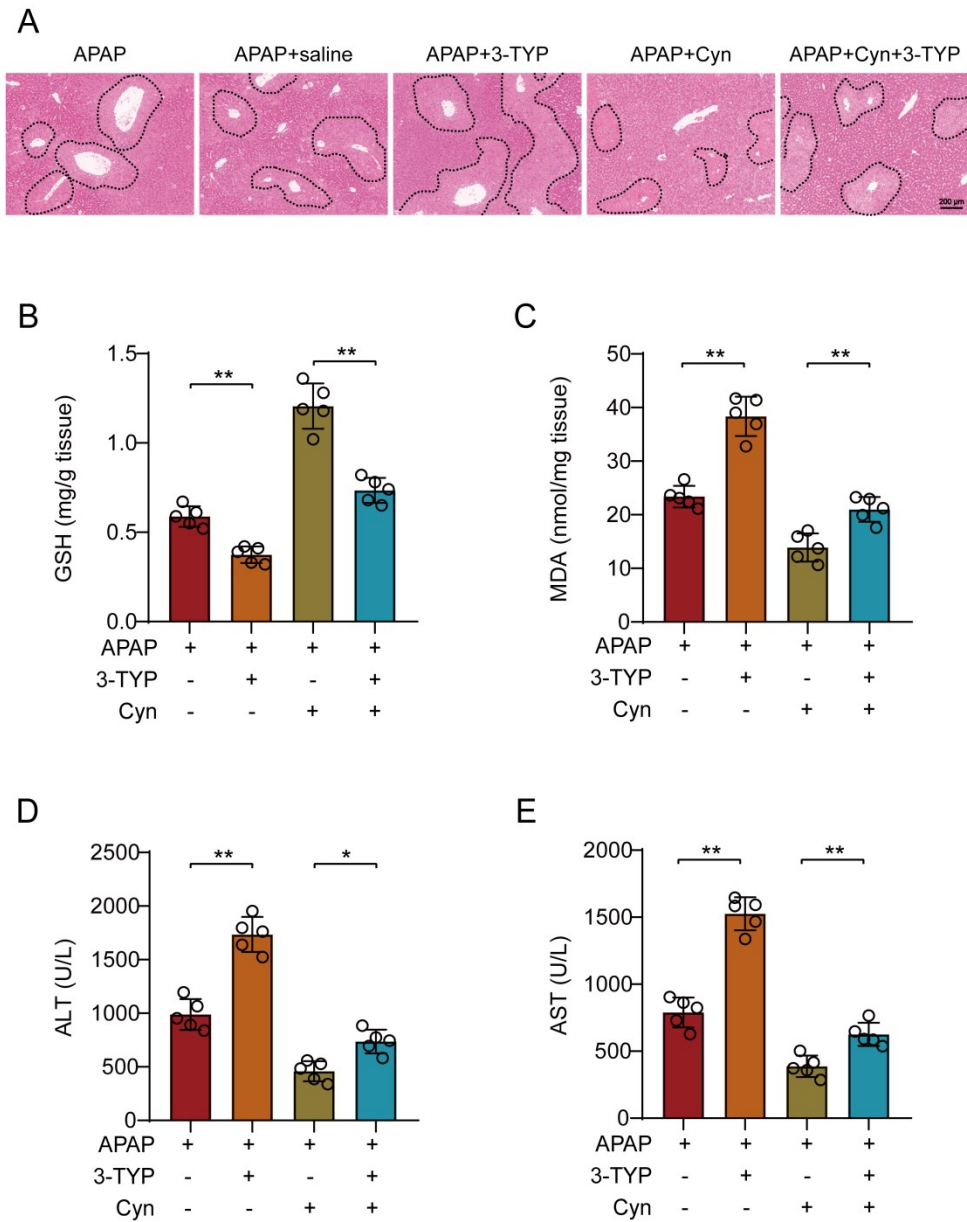
$< 0.01$ , ns indicates no significance.



**Fig.S2 Cyn alleviates APAP-induced ALI.** (A) HE staining (scale bar = 200  $\mu\text{m}$ ). (B-C) Detection of AST and ALT in serum. (D) Immunofluorescence staining for 3-NT of liver tissue in each group (scale bar: 20  $\mu\text{m}$ ). (E) The cell viability of AML-12 cells after APAP (60 mM) and Cyn treatment was detected by CCK-8. Shown are the means  $\pm$  SD; statistical significance is indicated as  $*P < 0.05$ ,  $**P < 0.01$ , ns indicates no significance.



**Fig.S3 Cyn inhibits lipid peroxidation in APAP-induced ALI.** (A) The determination of GSH contents 1 h after APAP by biochemical kits. Shown are the means  $\pm$  SD; statistical significance is indicated as  $*P < 0.05$ ,  $**P < 0.01$ .



**Fig.S4 Cyn activates Keap1/Nrf2-mediated lipid peroxidation defense via the AMPK/SIRT3 pathway.** (A) HE staining (scale bar = 200  $\mu$ m). (B-C) Biochemical kits were used to determine the levels of GSH and MDA in each group of liver tissue.

(D-E) Detection of AST and ALT in serum. Shown are the means  $\pm$  SD; statistical significance is indicated as  $*P < 0.05$ ,  $**P < 0.01$ .