## Suppl. Fig. 1: Time course analysis of ConA-induced liver injury.

WT and PGAM5-/- mice were treated with ConA ( $25 \mathrm{mg} / \mathrm{kg}$ ) for 2 h , 4 h , and 9 h . (A) Plasma concentrations of AST/ALT (+SD, Group sizes >=3). (B) Representative pictures of H\&E staining (dashed line shows necrotic area). Scale bars $=200 \mu \mathrm{~m}$. (C) Representative pictures of TUNEL staining (red). Scale bars $=250 \mu \mathrm{~m}$.

## Suppl. Fig. 2: PGAM5 is not necessary for apoptotic liver injury.

WT and PGAM5-/- mice were treated with anti-FAS (Jo2) antibody at a dose of $0.25 \mu \mathrm{~g} / \mathrm{g}$ of body weight for 6h. (A) Plasma concentrations of AST/ALT (group sizes, $n=4$ ). (B) Representative pictures of H\&E staining. Insets show respective enlarged pictures. (C) Representative pictures and quantitative analysis of TUNEL staining (red). Scale bars: 250 m . (D) Representative pictures of cleaved caspase-3 staining (red). Statistical analysis showed the mean $+\mathrm{SD}, \mathrm{N} . \mathrm{S} . \mathrm{p}>0.05,{ }^{*} \mathrm{P} \leq 0.05$, ** $\mathrm{P} \leq 0.01,{ }^{* * * P \leq 0.001 .}$

Suppl. Fig. 3: Mdivi-1 pretreatment does not block ConA-induced infiltration of T-cells and neutrophils.
(A) Representative pictures of immunofluorescence staining of MPO (upper panel) and CD4 (lower panel) in liver sections from mice treated as indicated for 7h. Scale bars: $100 \mu \mathrm{~m}$. (B) Quantification results (Group sizes: $n=5$ ). Statistical analysis showed the mean $+S D, N . S . p>0.05,{ }^{* * * P \leq 0.001 . ~}$

## Suppl. Fig. 4: Mdivi-1 is not additive to PGAM5 deficiency in protecting against ConA-induced liver

 injury.WT and PGAM5-/- mice were treated with ConA ( $25 \mathrm{mg} / \mathrm{kg}$ ) for 7h. For ConA+Mdivi-1, PGAM5-/mice were intraperitoneally injected with Mdivi-1 ( $50 \mathrm{mg} / \mathrm{kg}$ ) 30 mins before ConA treatment. (A) Plasma concentrations of AST/ALT (+SD, Group sizes: $n=5$, ) (B) Representative pictures of H\&E staining (dashed line shows necrotic area) and TUNEL (green). Scale bars: $100 \mu \mathrm{~m}$. (C) Quantitative analysis of TUNEL staining (green). Statistical analysis showed the mean + SD, N.S. p>0.05, *P ${ }^{*} 0.05$, ${ }^{* * P} \leq 0.01,{ }^{* * * P \leq 0.001 .}$


Suppl. Fig. 1


Suppl. Fig. 2

Suppl. Fig. 2


Suppl. Fig. 3

Suppl. Fig. 3


Suppl. Fig. 4

