Spred2 Deficiency Exacerbates D-*Galactosamine*/Lipopolysaccharideinduced Acute Liver Injury in Mice via Increased Production of  $TNF\alpha$ 

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# **Supplemental Figure 1**

WT and Spred- $2^{-/-}$  mice were intraperitoneally injected with D-galactosamine (400 mg/kg) and LPS (20 µg/kg). At appropriate time intervals, mice were sacrificed and the livers were resected. Livers were extracted and expressions of TNF receptor 1 (TNFR1) in liver extracts were analysed by western blotting. There were no differences between WT-and Spred- $2^{-/-}$ -livers (time 0: 3 each, time 1 and 3 h: 6 mice each).



Liver extracts at 5 h after injection of D-GalN/LPS were immunoblotted using the indicated primary antibodies. Uncropped images of the Figure 2d are shown. Left; Bcl-2, Right; GAPDH. M; Marker. Shown are 5 each from WT and Spred2-'-livers.



Liver extracts at 0 h (a), 0.5 h (b), 1 h (c), and 3 h (d) after injection of D-GalN/LPS were immunoblotted using the indicated primary antibodies. Uncropped images of the Figure 3a are shown. M; Marker. Shown are 3 each (a-c) and 6 each (d) from WT and Spred2-/-livers.



<u>Experiment 1</u>: Neutralizing anti-murine TNF $\alpha$  IgG or control IgG (each 750 µg/mouse) was i.p. administered into Spred2<sup>-/-</sup> mice 14 h before D-GalN/LPS administration. At 5 h after D-GalN/LPS challenge, the mice were sacrificed. Liver extracts at 5 h after injection of D-GalN/LPS were immunoblotted using the indicated primary antibodies. Uncropped images (shown red square) of the Figure 4d are shown. M; Marker. Shown are 4 each from Spred2<sup>-/-</sup>-livers.

Experiment 2: WT and Spred2<sup>-/-</sup> mice were injected with D-GalN (700 mg/kg, i.p.)/TNF $\alpha$  (10 µg/kg, i.v.), and sacrificed at 6 h after challenge. Liver extracts were immunoblotted using the indicated primary antibodies. Uncropped images (shown red square) of the Figure 5e are shown. M; Marker. Shown are 8 each from WT and Spred2<sup>-/-</sup>-livers.



Liver extracts at 0 h (a), 1 h (b), and 3 h (c) after injection of D-GalN/LPS were immunoblotted using the indicated primary antibodies. Uncropped images of the Supplemental Figure 1 are shown. M; Marker. Shown are 3 each from WT and Spred2-'-livers at 0 h (a), and 6 each at 1 (b) and 3 h (c).