

Supplemental Data

Adoptive Transfer of Heme Oxygenase-1 (HO-1)-Modified Macrophages Rescues the Nuclear Factor Erythroid 2-Related Factor (Nrf2) Antiinflammatory Phenotype in Liver Ischemia/Reperfusion Injury

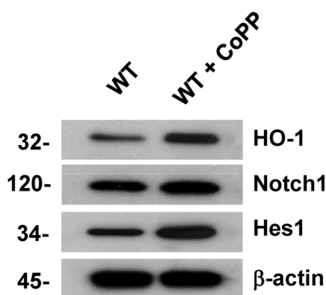
Jing Huang,\* Xiu-Da Shen, Shi Yue, Jianjun Zhu, Feng Gao, Yuan Zhai, Ronald W Busuttill, Bibo Ke, and Jerzy W Kupiec-Weglinski

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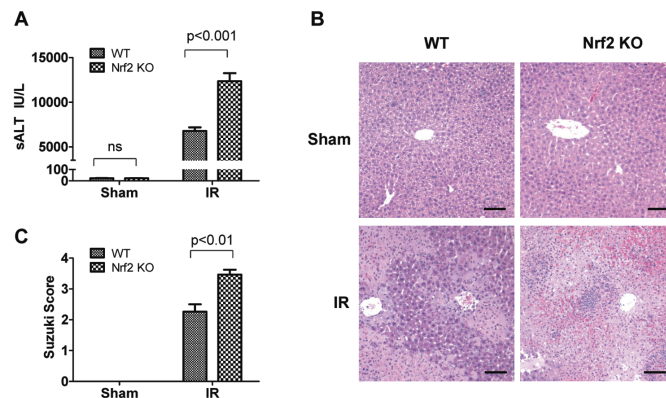
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Supplementary Table S1. Primer sequences for the amplification.

Target genes	Forward primers	Reverse primers
HPRT	5'-TCAACGGGGGACATAAAAGT-3'	5'-TGCATTGTTTACCAGTGTCAA-3'
TNF- $\alpha$	5'-GCCTCTTCTCATTCTGCTGT-3'	5'-GATGATCTGAGTGTGAGGGTCTG-3'
IL-1 $\beta$	5'-TGTAATGAAAGACGGCACACC-3'	5'-TCTTCTTTGGGTATTGCTTGG-3'
CXCL-10	5'-GCTGCCGTCAITTTCTGC-3'	5'-TCTCACTGGCCCGTCATC-3'
MCP-1	5'-CATCCACGTGTTGGCTCA-3'	5'-GATCATCTTCTGCTGGAATGAGT-3'
Arginase-1	5'-GGAAAGCCAATGAAGAGCTG-3'	5'-GATGCTTCCAAGTCCAGAC-3'
Mrc-1	5'-GGTCTATGGAACCCAGGATG-3'	5'-TGCCCAGTAAGGAGTACATGG-3'
Nos-2	5'-GCTACCAGATGCCCGATG-3'	5'-CTAGGTCGATGCACAACCTGG-3'
IL-10	5'-CGACTCCTAATGCAGGACT-3'	5'-TTGATTCTGGGCCATGC-3'
TGF- $\beta$	5'-CGC CAT CTA TGA GAA AAC C-3'	5'-GTA ACG CCA GGA ATT GT-3'



Supplementary Figure S1. HO-1 promotes *Notch1* signaling in IR-stressed livers. C57Bl6 mice pretreated with CoPP, an HO-1 inducer (5 mg/kg i.p. at d -1) were subjected to warm hepatic ischemia (90 min). Untreated recipients served as controls. Livers were harvested at 6 h of reperfusion, and analyzed for HO-1, Notch1, and HES1 protein expression by Western blots. Representative of three experiments are shown.



Supplementary Figure S2. *Nrf2* deficiency aggravates IR-liver damage (6 h reperfusion after 90 min of ischemia). Groups of WT and *Nrf2* KO mice were subjected to hepatic IR or sham procedure. (A) Liver function in *Nrf2* KO mice, assessed by sALT levels (IU/L), was increased as compared with WT controls (12,354 $\pm$ 947 vs. 6,774 $\pm$ 359). Comparable sALT levels in WT and *Nrf2* KO sham controls. Mean $\pm$ SD are shown. (B) Representative (n=3) histological staining (H&E) of ischemic livers. *Nrf2* KO livers with significant edema, severe sinusoidal congestion/cytoplasmic vacuolization, and extensive (30-50%) necrosis (Suzuki's score=3.47 $\pm$ 0.17); WT livers with moderate sinusoidal congestion, cytoplasmic vacuolization, and hepatocellular necrosis (10-15%) (Suzuki's score=2.26 $\pm$ 0.24). Scale bars indicate 50  $\mu$ m. (C) Liver damage evaluated by Suzuki's histological grading. Mean $\pm$ SD; n=4-6/group.