Supplementary Table

Table S1. Protective effects of H2 in Acute or Chronic Hepatic Injures Animal Models

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| Animal Models | Mechanisms | References |
| Ischemia/Reperfusion (I/R)-induced liver injury | Hepatic malondialdehyde (MDA), TNF-α, IL-6, IL-1β, CD31, HMGB-1 and Egr-1↓  Serum TNF-α, IL-6 levels↓  Hepatic superoxide dismutase (SOD), Catalase (CAT) activities and glutathione (GSH) content↑  Hepatic A20, Bcl-2, HO-1 and Sirt1↑  Hepatic NF-κB (Model dependent)↑↓  Hepatic p-MKK4 and p-JNK↓  Hepatocyte endoplasmic reticulum (ER) stress, apoptosis and autophagy↓  Liver regeneration markers↑ | (Fukuda et al., 2007; Xiang et al., 2012; Matsuno et al., 2014; Tan et al., 2014; Zhang et al., 2015a; Shimada et al., 2016; Lu et al., 2017; Bai et al., 2018; Ishikawa et al., 2018; Li et al., 2018a; Li et al., 2018b; Zhang et al., 2018; Ge et al., 2019; Uto et al., 2019; Zhang et al., 2019) |
| Bile duct ligation (BDL)-induced liver injury | Hepatic TNF-α, IL-1β, IL-6 and HMGB1↓  Hepatic SOD and CAT activities↑  Hepatic MDA and myeloperoxidase (MPO) contents↓  Hepatic p-ERK1/2↓ | (Liu et al., 2010; Liu et al., 2016) |
| Cecal ligation and puncture (CLP)-induced liver injury | FUNDC1-dependent mitophagy↑ | (Yan et al., 2019) |
| Lipopolysaccharide (LPS)-induced liver injury | Hepatic HO-1↑  Hepatic endothelin-1, 8-hydroxy-2′-deoxyguanosine (8-OHdG) and 4-HNE↓  TUNEL-positive cells↓ | (Iketani et al., 2017) |
| D-galactosamine/LPS-induced liver injury | Macrophages infiltration↓  Serum TNF-α and IL-6 levels↓  Hepatic ROS, Caspase-3 activity, cleaved-PARP, p-JNK↓  Hepatic GSH content↑ | (Sun et al., 2011) |
| Carbon tetrachloride-induced liver injury | Macrophages infiltration↓  Serum TNF-α and IL-6 levels↓  Hepatic ROS, α-SMA, hydroxyproline, and Col1a1 mRNA↓  Hepatic GSH content↑  TUNEL-positive cells↓ | (Sun et al., 2011; Koyama et al., 2014) |
| Diethylnitrosamine-induced liver injury | Serum IL-6 levels↓  Hepatic phosphorylation of c-jun↓  Hepatocyte compensatory proliferation↓ | (Sun et al., 2011) |
| Acetaminophen (APAP)-induced liver injury | Hepatic MDA, MPO, peroxynitrite and 4-HNE↓  Hepatic SOD and glutathione peroxidase (GSH-Px) activities, GSH content↑  Hepatic ER and mitochondria structure injuries↓  Hepatic p-JNK, connexin 32 and CYP2E1↓  Hepatic TNF-α, IL-1β mRNA levels↓  Hepatocyte proliferation↑ | (Zhang et al., 2015b) |
| Doxorubicin (DOX)-induced liver injury | Hepatic ROS, MDA↓  Hepatic TNF-α, IL-1β and IL-6↓  Hepatic Bax, cleaved-Caspase-3/8↓  Hepatic Bcl2↑  TUNEL-positive cells↓ | (Gao et al., 2016) |
| CO2 pneumoperitoneum-induced liver injury | Hepatic SOD activity, SOD2 and HO-1 mRNA↑  Hepatic MDA, TNF-α and IL-6↓ | (Chen et al., 2018) |
| Chronic intermittent hypoxia (IH)-induced liver injury | Serum levels of 8-OHdG and IL-6↓  Serum SOD activity↑ | (Yang et al., 2018) |

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