Iron enhances hepatic fibrogenesis and activates TGF-β signaling in murine hepatic stellate cells

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Fig. 1

(a) (b) (c) (d) (e)
Fig. 2

(a) α-SMA mRNA fold change

(b) Serpine-1 mRNA fold change

(c) µg collagen/mg protein

(d) Vimentin and β-actin Western Blot

Holo-Tf treatments for 24 h

α-SMA mRNA fold change:
- Basal: 0.5
- 0.005 g/L: 0.7
- 0.05 g/L: 1.0
- 0.5 g/L: 1.5
- 2 g/L: 2.0
- 5 g/L: 2.5

Serpine-1 mRNA fold change:
- Basal: 1.0
- 0.005 g/L: 1.2
- 0.05 g/L: 1.5
- 0.5 g/L: 2.0
- 2 g/L: 2.5
- 5 g/L: 3.0

µg collagen/mg protein:
- Basal: 10
- 0.005 g/L: 12
- 0.05 g/L: 15
- 0.5 g/L: 30
- 2 g/L: 30
- 5 g/L: 40
(a) TGF-β mRNA fold change

(b) TGF-β RII/actin ratio

(c) p-Smad 2/actin ratio
Fig. 4

(a) Ferritin levels in response to different DFO treatments for 24 h.Basal 0.1 µM 1 µM 10 µM 100 µM

(b) α-SMA mRNA fold change in response to different DFO treatments for 24 h. Basal 0.1 µM 1 µM 10 µM 100 µM

(c) Col1-α1 mRNA fold change in response to different DFO treatments for 24 h. Basal 0.1 µM 1 µM 10 µM 100 µM

(d) Collagen levels in response to different DFO treatments for 24 h. Basal 0.1 µM 1 µM 10 µM 100 µM

** Indicates statistical significance compared to Basal.
* Indicates statistical significance compared to 0.1 µM.
Fig. 5

(a) Ferritin levels fold change

(b) Collagen protein fold change

(c) α-SMA mRNA fold change

(d) Col1-α1 mRNA fold change

10 µM DFO double dosage treatment

Before DFO treatment
After DFO treatment
Fig. 6

(a) TGF-β R2

(b) p-smad2

β-actin

Similar loading overall