a P6 Retina

95
72
Active β-catenin

28
17
H-Ferritin

55
36
GAPDH

WT   rd1

b P10 Retina

95
72
Active β-catenin

28
17
L-Ferritin

28
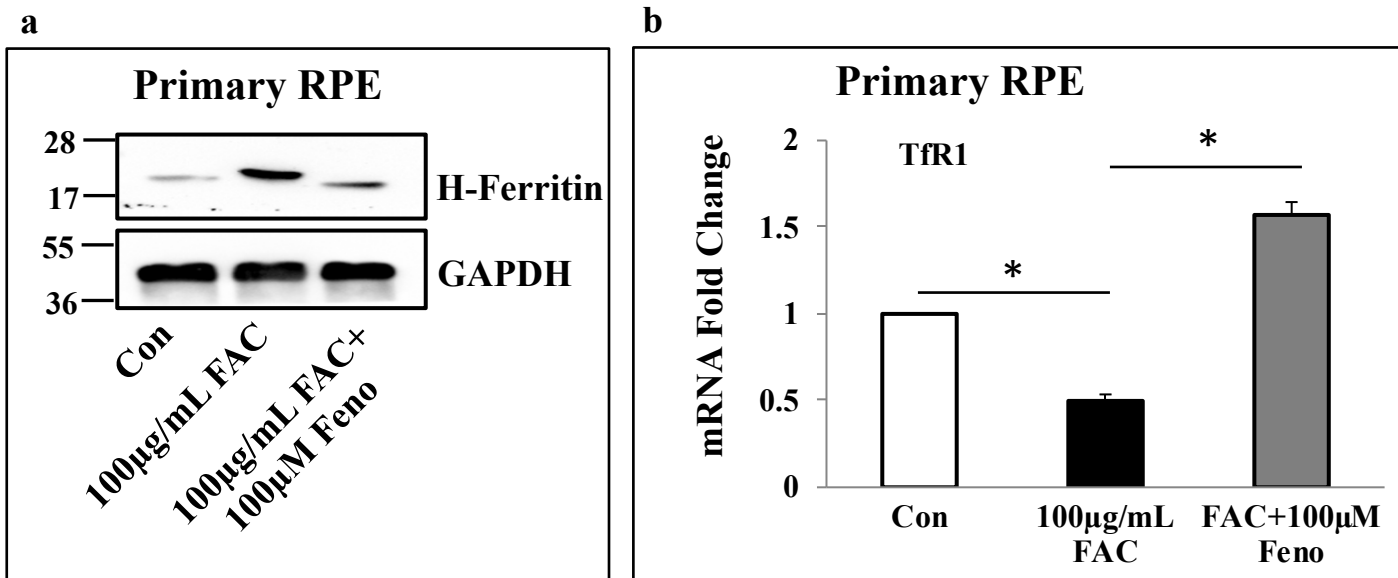17
H-Ferritin

55
36
GAPDH

WT   rd1

Supplementary Figure 1

Supplementary Figure 1

Heavy (H-) chain ferritin, light (L-) chain ferritin and active β-catenin protein levels were determined by immunoblotting in WT and rd1 mice at postnatal day 6 (a) and postnatal day 10 (b). Blots cropped from different parts of the same gel or from different gels are separated by white space in (a) and (b). Data presented as mean ± SE of three independent experiments; n=3 mice per group; *$p < 0.05$

a

Primary RPE

| 28 — |
| 17 — | H-Ferritin |
| 55 — |
| 36 — | GAPDH |

Con
100μg/mL FAC
100μg/mL FAC+ 100μM Feno

b

Primary RPE

TfR1

mRNA Fold Change

Con   100μg/mL FAC   FAC+100μM Feno
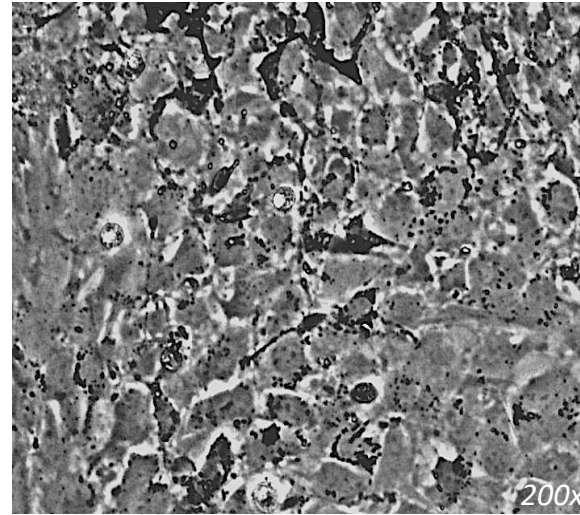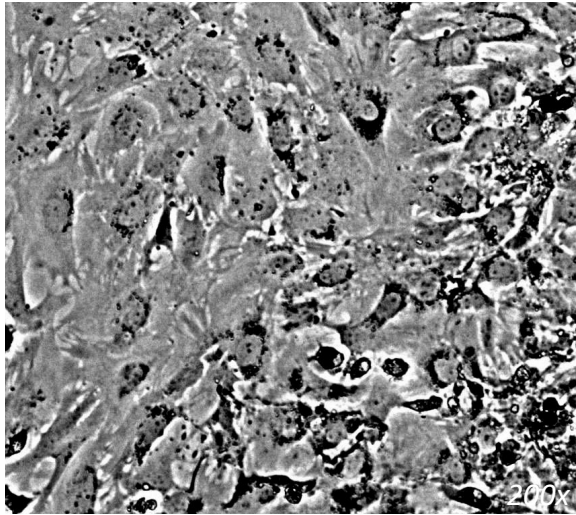
Supplementary Figure 2

Supplementary Figure 2

(a) Ferritin protein levels in mouse primary RPE cells treated with FAC and fenofibrate by western blot (b) mRNA expression of TfR1 was determined by Real-time PCR. Blots cropped from different parts of the same gel or from different gels are separated by white space in (a). Data presented as mean $\pm$ SE of three independent experiments; *$p < 0.05$

Name of the compound	% inhibition of the Ferrozine-Fe^{2+} (λmax 560)
100μM Fenofibrate	38.73684 ± 4.8
100μM Fenofibric acid	26.5501 ± 5.3
100μM Deferiprone	61.2561 ±3.9

Supplementary Figure 3

Supplementary Figure 3

Percentage inhibition of the ferrozine-Fe^{2+} complex by 100 μM fenofibrate or 100 μM fenofibric acid when treated along with $FeCl_2$. 100μM iron chelator deferiprone was used as a positive control. Data presented as mean ± SE of three independent experiments.

Supplementary Figure 4

Supplementary Figure 4

Representative phase-contrast images of the primary retinal pigment epithelial cells isolated from C57BL/6 mice after 6 days in culture.

Supplementary Table 1: List of primers used

h_Axin2_f	5'-CCACACCCTTCTCCAATCCA-3'
h_Axin2_r	5'-TGGACACCTGCCAGTTTCTTT-3'
h_ccnd1_f	5'-TGAGGGACGCTTTGTCTGTC-3'
h_ccnd1_r	5'-GCCTTTGGCCTCTCGATACA-3'
h_cMYC_f	5'-CCCTCCACTCGGAAGGACTA-3'
h_cMYC_r	5'-GCTGGTGCATTTTCGGTTGT-3'
h_TfR1_f	5'-GAGGACGCGCTAGTGTTCTT-3'
h_TfR1_r	5'-TGTGACATTGGCCTTTGTGTT-3'
h_HO1_f	5'-AGACACCCTAATGTGGCAGC-3'
h_HO1_r	5'-ATGGCCGTGTCAACAAGGAT-3'
m_Axin2_f	5'-GCTGCGCTTTGATAAGGTCC-3'
m_Axin2_r	5'-CGCGAACGGCTGCTTATTTT-3'
m_cMYC_f	5'-CGTTGGAAACCCCGCAGA-3'
m_cMYC_r	5'-TACGGAGTCGTAGTCGAGGT-3'
m_ccnd1_f	5'-TCAAGTGTGACCCGGACTG-3'
m_ccnd1_r	5'-CCTTGGGGTCGACGTTCTG-3'
h_18srRNA_f	5'-GTAACCCGTTGAACCCCATT-3'
h_18srRNA_f	5'-CCATCCAATCGGTAGTAGCG-3'

Supplementary Table 2: List of antibodies used

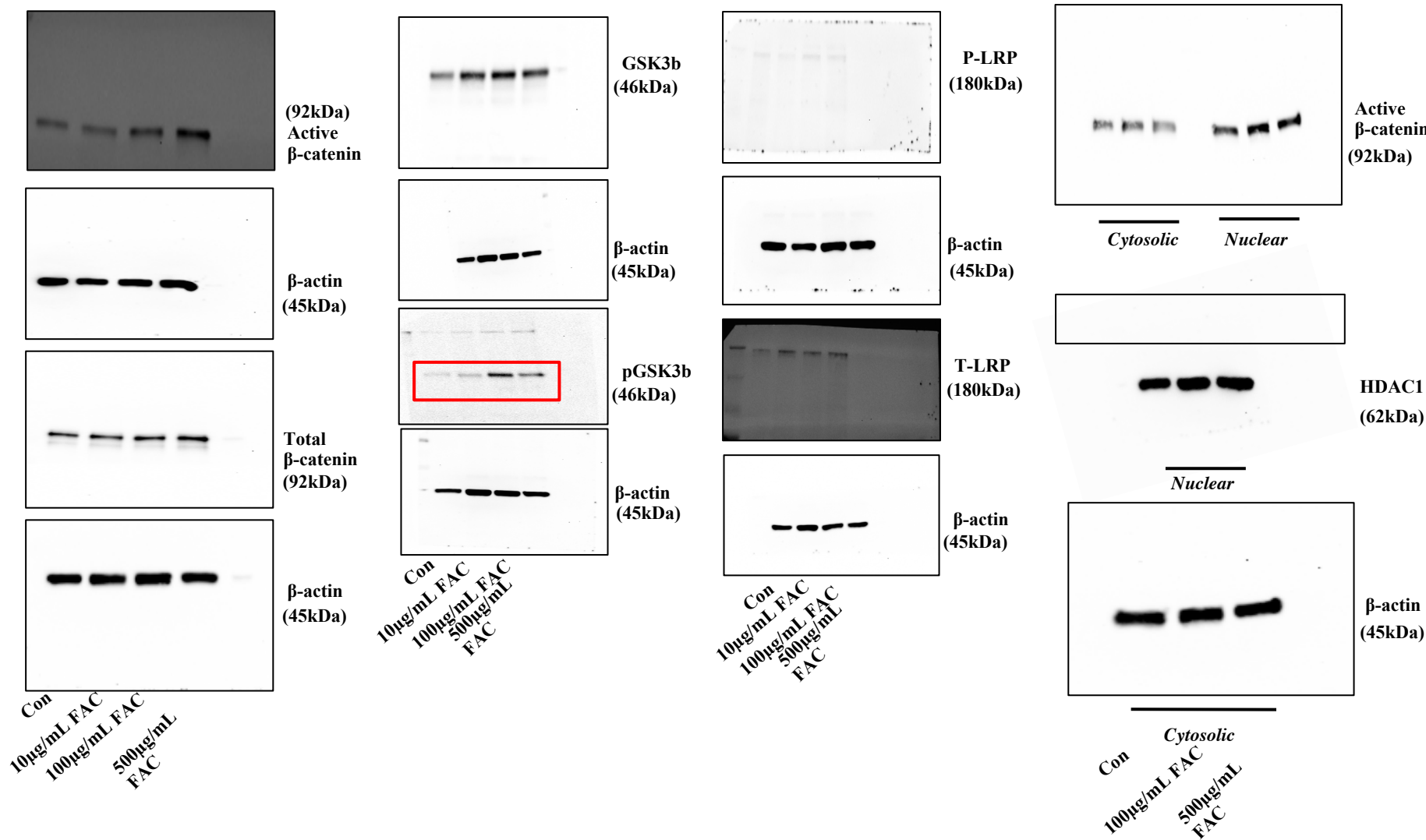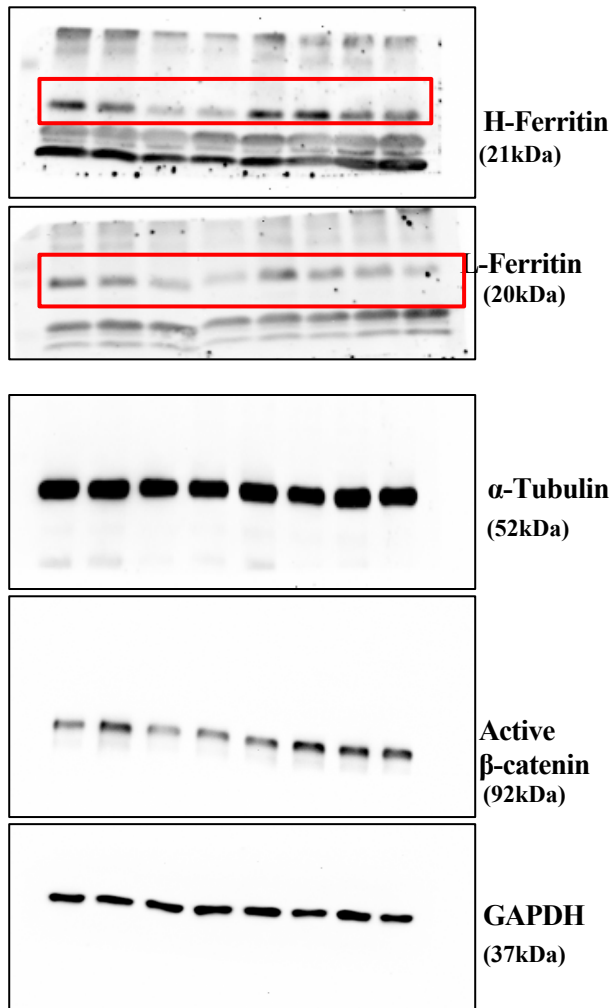| Name	Source	Cat no.	Dilution
Non-phospho (Active) β-Catenin (Ser33/37/Thr41) (D13A1) Rabbit mAb	CST	8814	1:1500
β-Catenin Antibody	CST	9562	1:1000
GSK-3β (27C10) Rabbit mAb	CST	9315	1:1000
Phospho-GSK-3-beta (Ser9) (D3A4) Rabbit mAb	CST	9322	1:1000
LRP6 (C47E12) Rabbit mAb	CST	3395	1:1000
c-Myc (D84C12) Rabbit mAb	CST	5605	1:1000
GAPDH (14C10) Rabbit mAb	CST	2118	1:5000
α-Tubulin Antibody	CST	2144	1:5000
β-Actin (8H10D10) Mouse mAb	CST	3700	1:5000
Anti-Ferritin Heavy Chain antibody	Abcam	ab65080	1:1000
Anti-Ferritin Light Chain antibody	Abcam	ab69090	1:1000
Anti-Transferrin Receptor antibody	Abcam	ab84036	1:1000
HDAC1 Antibody (10E2)	SCBT	sc-81598	1:1000
Shc Antibody (PG-797)	SCBT	sc-967	1:1000
Angiotensin II/III Antibody	Novus Biologicals	NB100-62346	1:1000
Renin Antibody	Novus Biologicals	AF4277	1:1000

Figure 1. Uncropped Western blots

H-Ferritin
(21kDa)

L-Ferritin
(20kDa)

α-Tubulin
(52kDa)

Active
β-catenin
(92kDa)

GAPDH
(37kDa)

H-Ferritin
(21kDa)

L-Ferritin
(20kDa)

GAPDH
(37kDa)

Active
β-catenin
(92kDa)

GAPDH
(37kDa)

Figure 2B-C
Uncropped Western blots

Apo-Tfn   **Holo-Tfn**
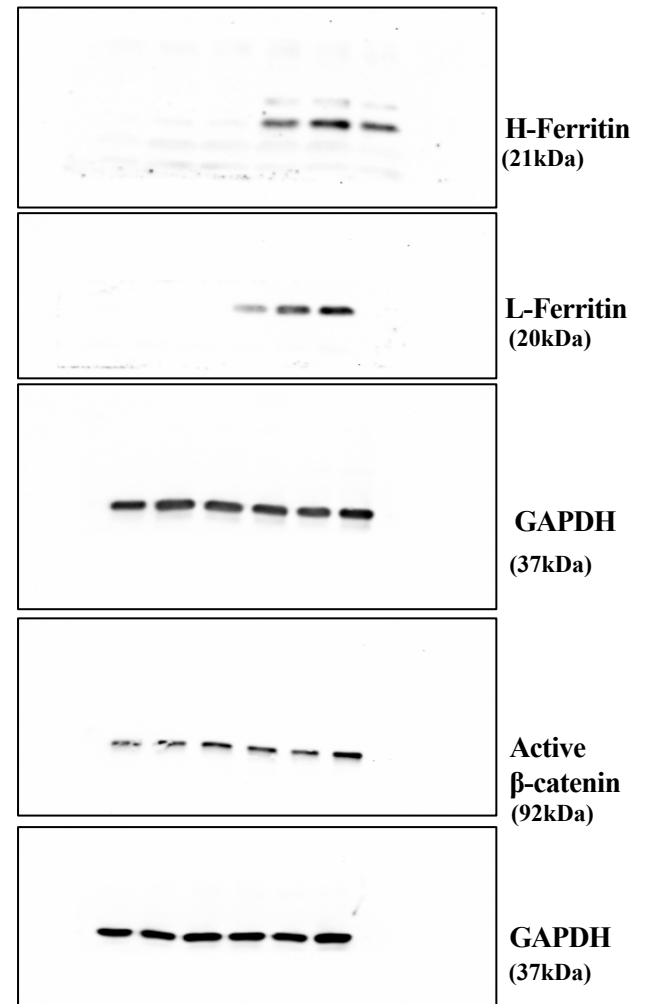
Figure 2D-E
Uncropped Western blots

PBS   **Iron dextran**

TfR1 (90kDa)

H-ferritin (21kDa)

L-ferritin (20kDa)

GAPDH (37kDa)

Active β-catenin (92kDa)

GAPDH (37kDa)

WT   rd1

WT   rd1
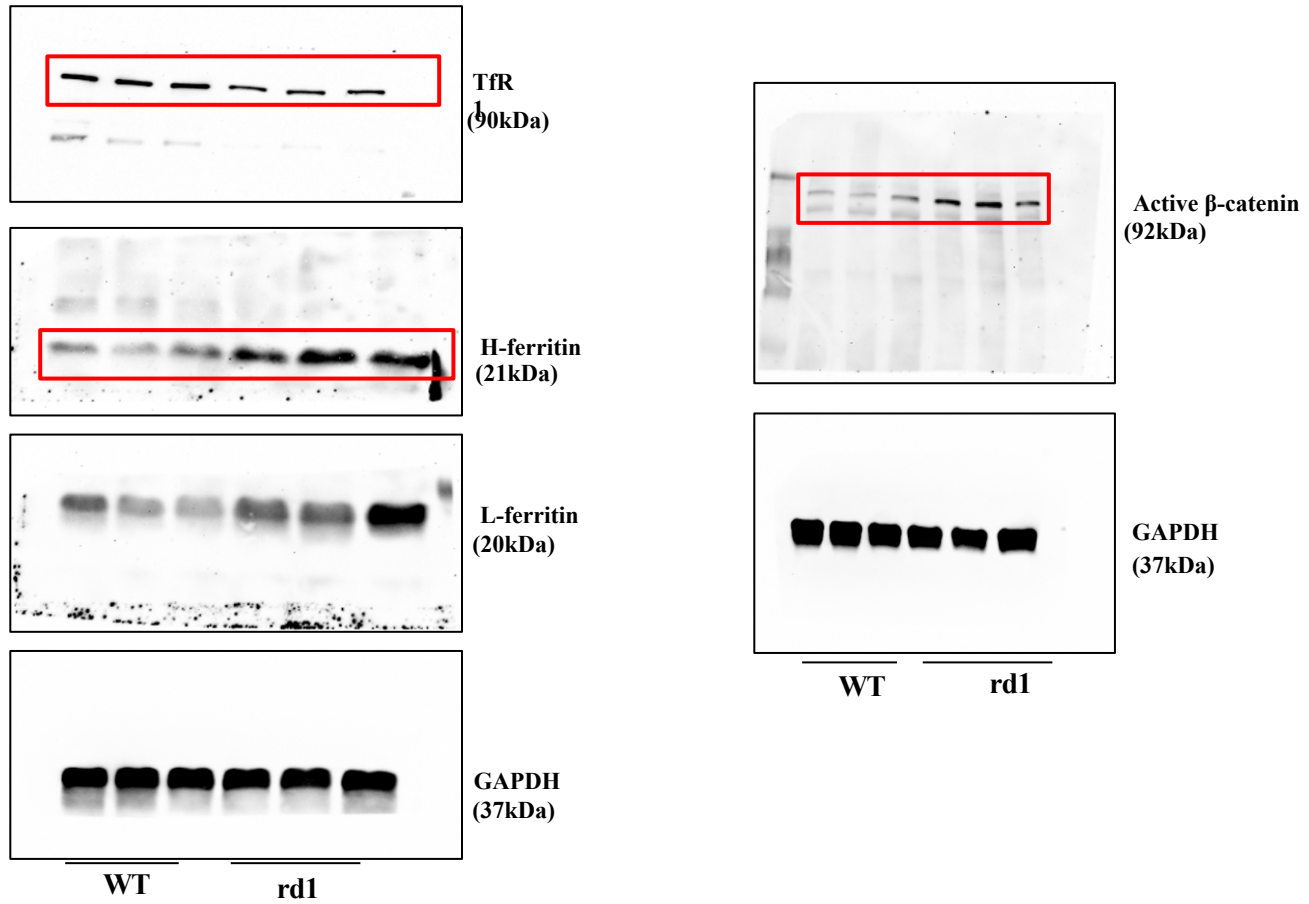
Figure 3. Uncropped Western blots

SHC1
(66kDa)

100µg/mL Con
FAC

SHC1
(66kDa)

GAPDH
(37kDa)

PBS   Iron-dextran

LRP6
(180kDa)

Active
β- catenin
(92kDa)

Con
FAC
FAC+5mM NAC
FAC+100µM DFP

α- Tubulin
(52kDa)

Con
FAC
FAC+5mM NAC
FAC+
100µM DFP

Active
β catenin
(92kDa)

Con
100µg/mL FAC
FAC+100µM DFP
Con
100µg/mL FAC
FAC+100µM DFP

Cytosol   Nuclear

β-actin
(45kDa)

Cytosol

HDAC1
(62kDa)

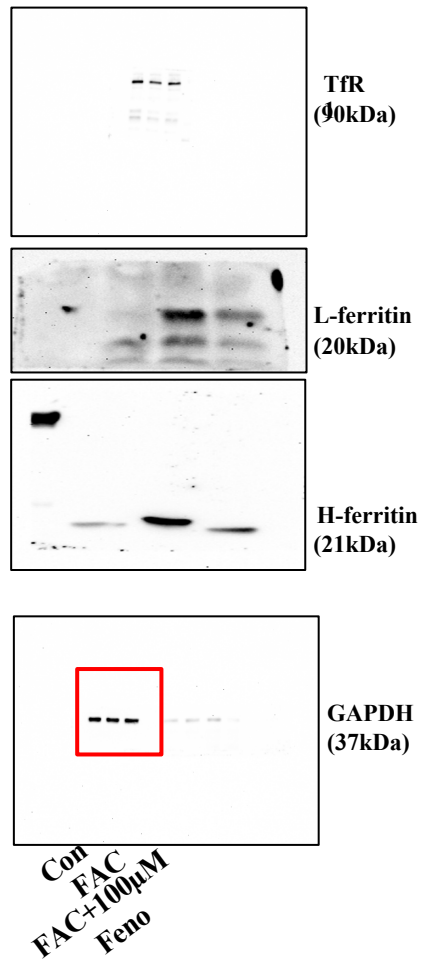Nuclear
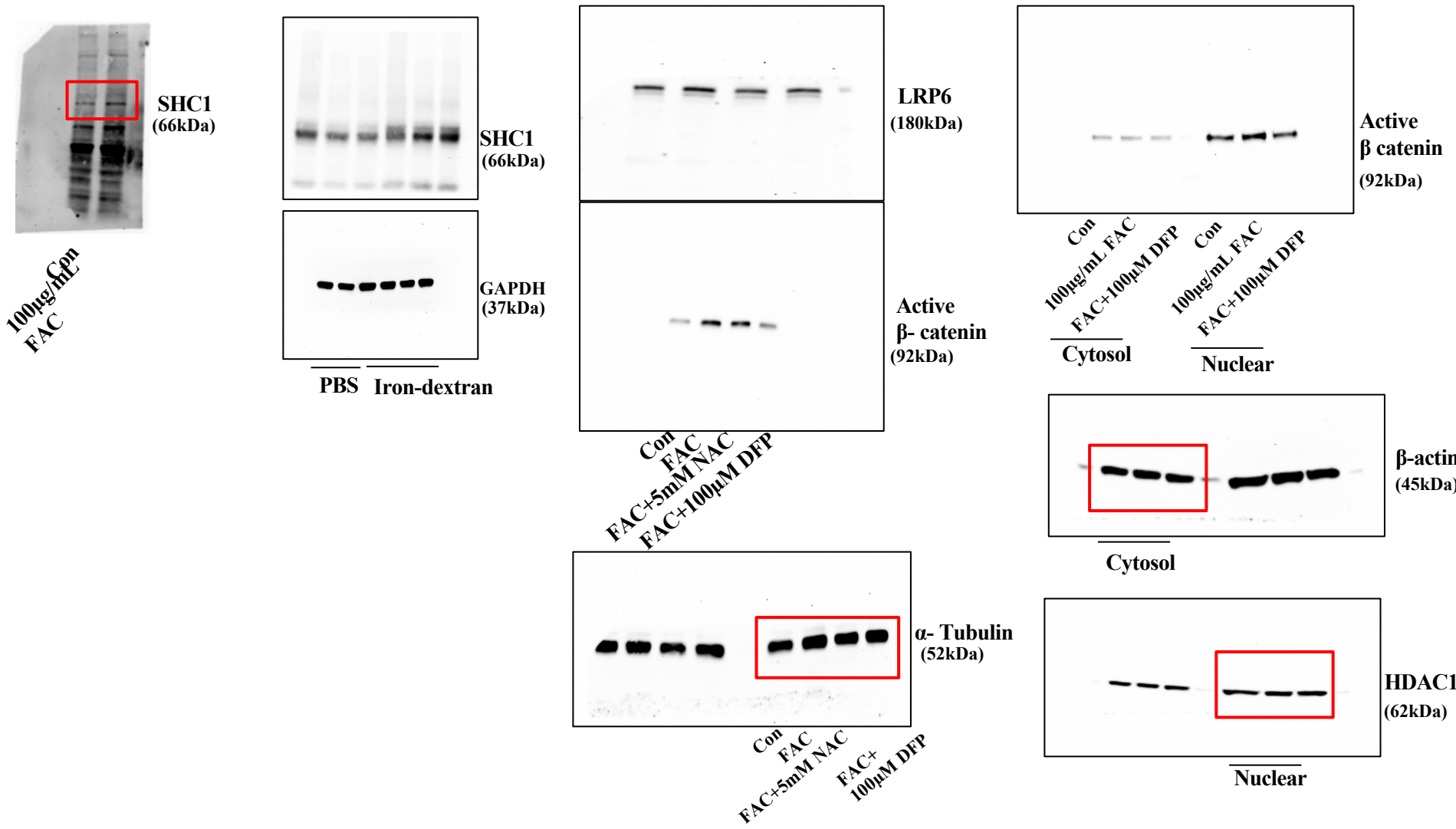
Figure 4. Uncropped Western blots
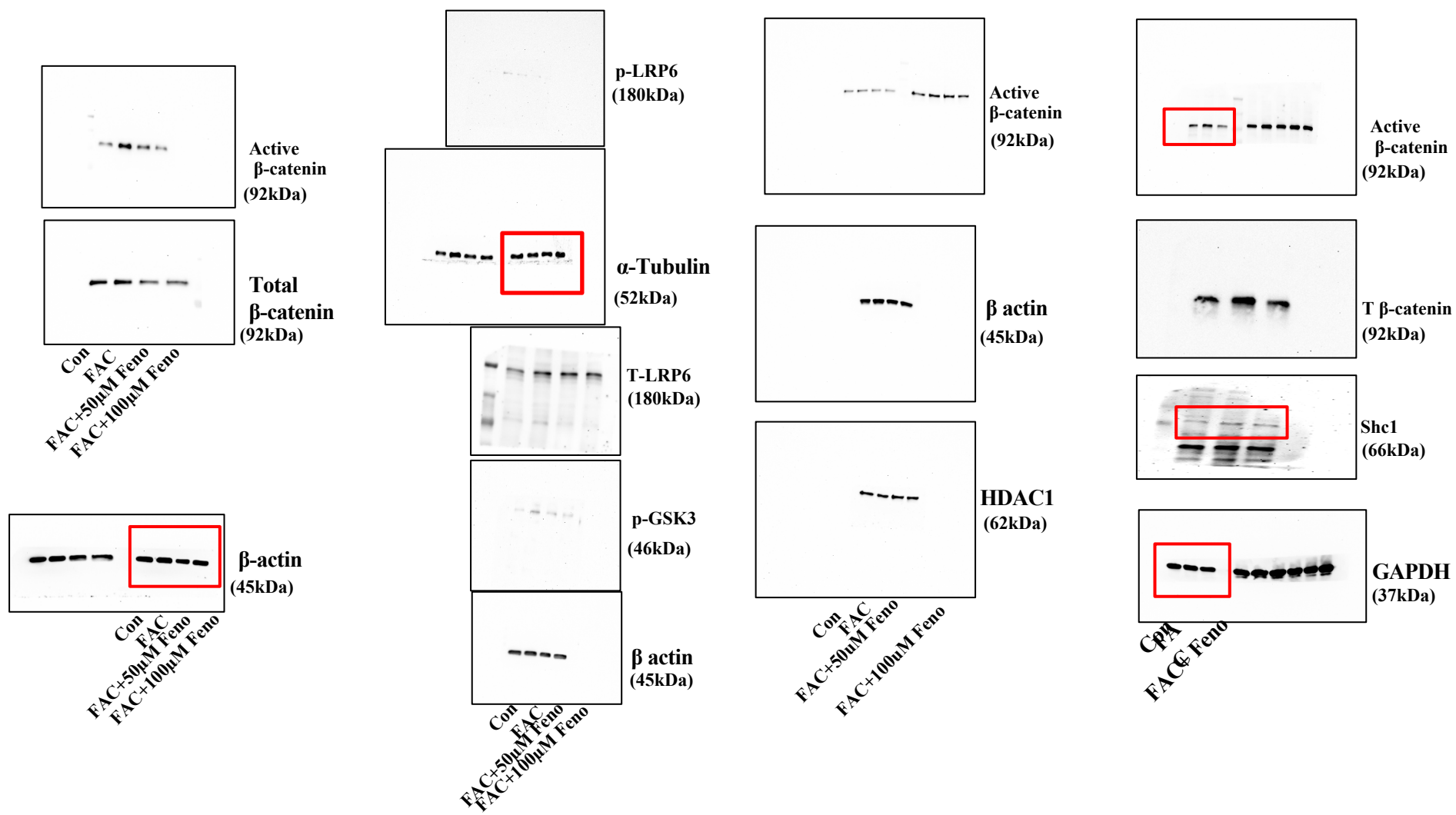
Figure 5. Uncropped Western blots

TfR (90kDa)

L-ferritin (20kDa)

H-ferritin (21kDa)

GAPDH (37kDa)

Con
FAC
FAC+100μM Feno

Figure 6. Uncropped Western blots

ANGII/III (~40kDa)
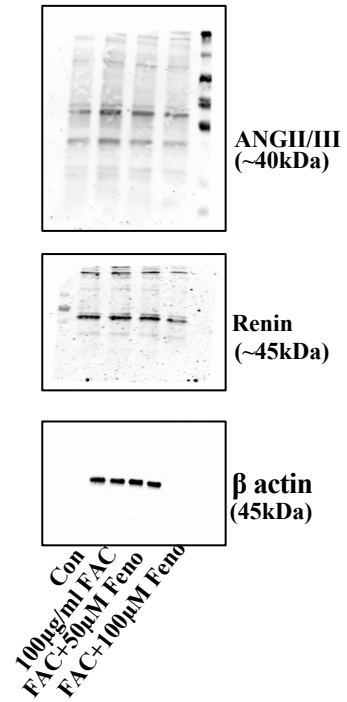
Renin (~45kDa)

β actin (45kDa)

Con
100μg/ml FAC
FAC+50μM Feno
FAC+100μM Feno

Figure 7. Uncropped Western blots