SIRT1	Forward	GAA CCT CTG CCT CAT CTA
	Reverse	GCA TAC TCG CCA CCT AAC
SIRT2	Forward	TGG TGG GTC CTA TTG TCG
	Reverse	GTG TCC GAG TCT GAA TCCT
β-actin	Forward	CGT TGA CAT CCG TAA AGA CC
	Reverse	TAG AGC CAC CAA TCC ACA C

Table S1: Primer sequences (Sense, Anti-sense: 5' to 3') of genes used for RT-PCR analysis



Figure S1 A: Graphical representation of the percentage (%) area of Collagen-1 fibers stained using Masson's Trichrome staining in the liver sections, percentage (%) fibrotic area of collagen-1 stained by Sirius Red staining in the liver sections and percentage positive area of collagen-1 stained using collagen-1 antibody in immunohistochemical staining of the liver sections. **B** Band intensity of western blot expression of collagen-1 analyzed using ImageJ software. All values are expressed as the mean \pm S.D. of six rats per experimental group (n=6). Statistical analysis was performed using one-way ANOVA followed by Bonferroni's post hoc t-test for multiple comparisons. ****p < 0.0001, **p < 0.001, **p < 0.01, when compared with the chow diet (CD) group. $\overset{\#\#}{=} > 0.001, \overset{\#\#}{=} > 0.001$, when compared to the High fat diet (HFD) group).

A



Figure S2 A: Graphical representation of percentage (%) positive area stained using α -SMA, fibronectin and TGF- β 1 antibody in immunohistochemical (IHC) staining of the liver sections of all experimental groups. All values are expressed as the mean \pm S.D. of six rats per experimental group (n=6). Statistical analysis was performed using one-way ANOVA followed by Bonferroni's post hoc t-test for multiple comparisons. ****p < 0.0001, ***p < 0.001, when compared with the chow diet (CD) group. ### p<0.001, ## p<0.01, when compared to the High fat diet (HFD) group).



Figure S3 A: Whole blot images of IL-6 (28 kDa), IL-1 β (31 kDa), TNF- α (17.3 kDa) and β -Actin (42 kDa) as represented in Figure 3C.



Figure S3 B: Whole blot images of Collagen-1 (138 kDa), Vimentin (57 kDa), Fibronectin (220 kDa), α -SMA (42 kDa), TGF- β 1 (44kDa) and β -Actin (42 kDa) as represented in Figure 4B, E.



Figure S3 C: Whole blot images of Cleaved Caspase 3 (17 kDa), Bcl-2 (24 kDa), Bax (20 kDa) and β -Actin (42 kDa) as represented in Figure 5A.

D



Figure S3 D: Whole blot images of a-SMA (44 kDa), Fibronectin (220 kDa), Collagen-1 (138 kDa), Vimentin (67 kDa) and β-Actin (42 kDa) as represented in Figure 6B performed in 3 repeats.

E



Figure S3 E: Whole blot images of **Fibronectin** (220 kDa), **Vimentin** (67 kDa), **Collagen-1** (138 kDa), α -SMA (44 kDa), and β -Actin (42 kDa) as represented in Figure 6J performed in 3 repeats.



Figure S3 F: Whole blot images of SIRT1(110 kDa), SIRT2 (43 kDa), and β -Actin (42 kDa) as represented in Figure 7C.

G

REPEAT 2 REPEAT 3 REPEAT 1 SIRT1 110 kDa -110 kDa -110 kDa -SIRT2 43 kDa -43 kDa -43 kDa β-Actin 42 kDa -42 kDa -42 kDa -NC NC NC FFA (1 mM) FFA (1 mM) FFA (1 mM) FFA + FFA + FFA + Tenovin-1 (10 µM) Tenovin-1 (10 µM)

Figure S3 G: Whole blot images of SIRT1(110 kDa), SIRT2 (43 kDa), and β-Actin (42 kDa) as represented in Figure 7F performed in 3 repeats.

FFA +

Tenovin-1 (20 µM)

FFA +

Tenovin-1 (20 µM)

Tenovin-1 (10 µM)

FFA + Tenovin-1 (20 µM)



Figure S3 H: Whole blot images of p-C-JUN and C-JUN (43 kDa), JNK-1 and p-JNK (46 kDa), p-STAT3 and STAT3 (88 kDa) and β -Actin (42 kDa) as represented in Figure 8A.

Η

Ι



Figure S3I: Whole blot of p-C-JUN and C-JUN (43 kDa), JNK-1 and p-JNK (46 kDa), and β -Actin (42 kDa) as represented in Figure 8C performed in 3 repeats.

J



Figure S3 J: Whole blot images of p-STAT3 and STAT3 (88 kDa) and β -Actin (42 kDa) as represented in Figure 8C performed in 3 repeats.