

## Supplementary Tables

**Table S1. Primers utilized for RT-PCR analyses.**

Genes	Forward primers (5'-3')	Reverse primers (5'-3')
<i>Ern1</i>	cctcccagatccaatgatgg	caaaggccgatgacaaagtct
<i>Fabp4</i>	tcaccatcccgtcagagagtactt	acattccaccaccagcttgca
<i>Gapdh</i>	tgacctgcccacgccttg	catcaccatcttcaggagcg
<i>Ormdl3</i>	ccaaccttatccacaacctgg	gaccccgtagtccatctgc
<i>Ssr1</i>	gaaccacagatttggcagaa	gaggcatctagcgattcaacaat
<i>Xbp1</i>	ggctgtctggccttagaaga	ctgtcaaatgacctccctg
<i>Xbp1s</i>	gagtccgcagcaggtg	gtgtcagagtccatggga
<i>Xbp1u</i>	gactatgtgcacctctgcag	ctgggagttcctccagacta

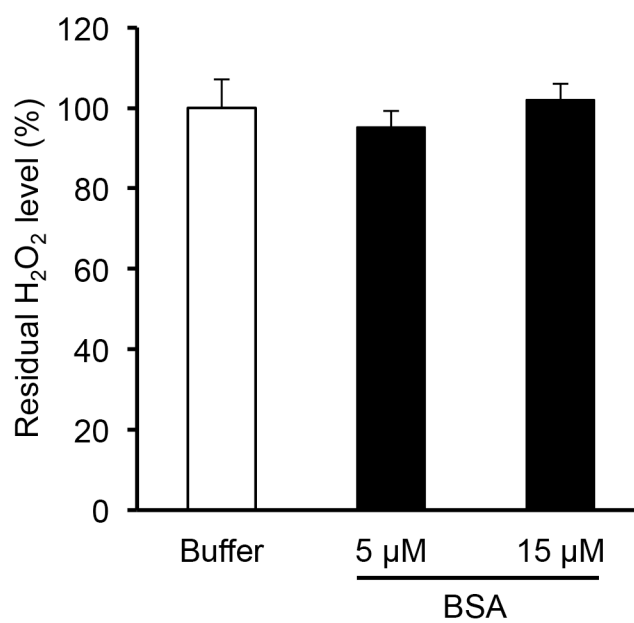
All primers utilized for RT-PCR analyses in this study are shown.

**Table S2. Antibodies utilized for Western blotting.**

	Vender	Clone (for mAb)	Conjugated
Primary antibodies			
FABP4	Cell Signaling Technology	D25B3	-
GAPDH	Cell Signaling Technology	D16H11	-
GSTA4	Abnova	-	-
Secondary antibodies			
Goat anti-rabbit	Cell Signaling Technology	-	Horseradish peroxidase

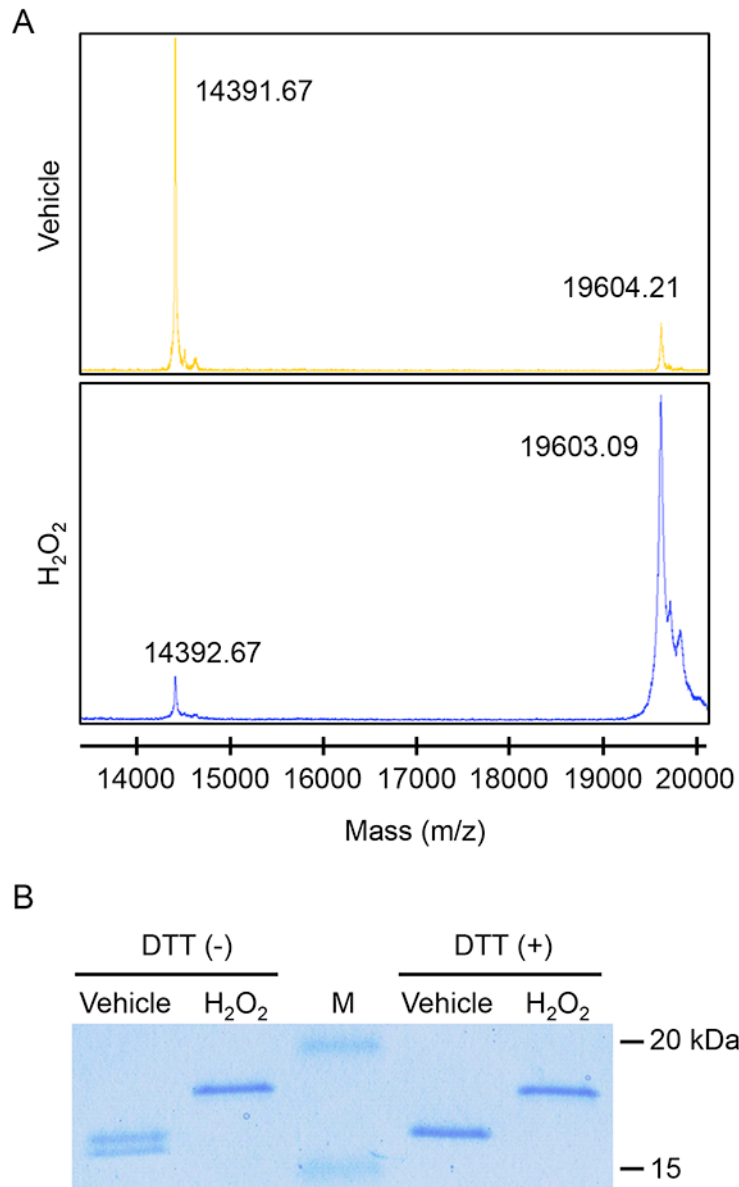
All primary and secondary antibodies utilized for Western blotting in this study are shown.

## Supplementary Figures



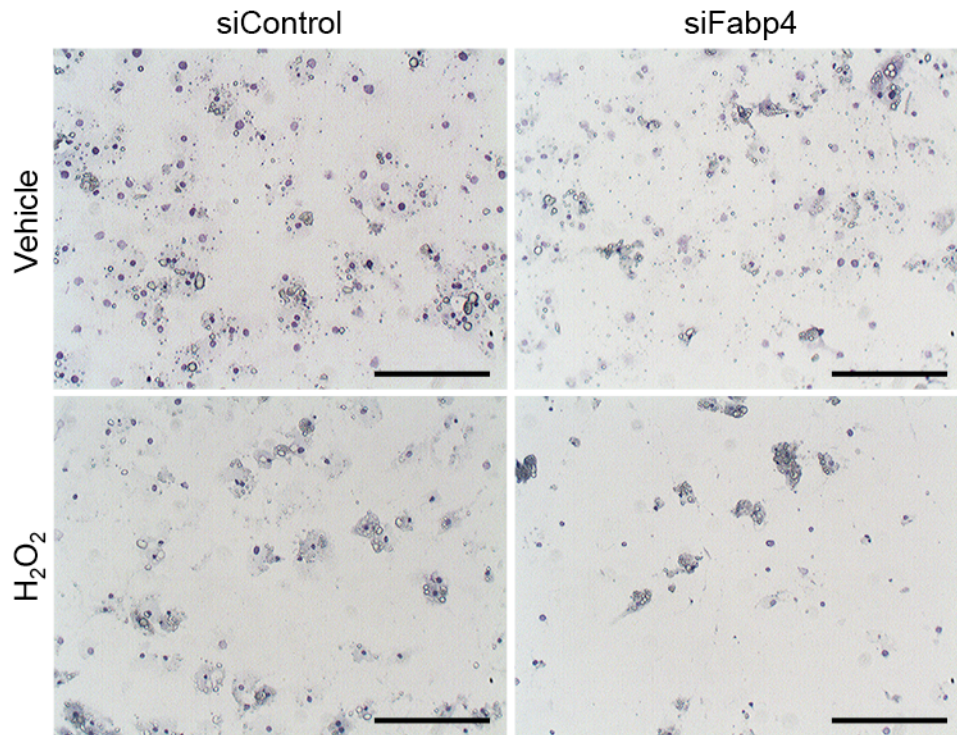
**Figure S1. No significant reduction of H<sub>2</sub>O<sub>2</sub> by BSA.**

5 or 15 μM of fatty acid-free BSA were incubated with H<sub>2</sub>O<sub>2</sub>, and then, the residual H<sub>2</sub>O<sub>2</sub> level was measured. The relative H<sub>2</sub>O<sub>2</sub> level in each sample against the negative control (buffer alone) was calculated. Data represent mean ± SD (n=3).



**Figure S2. Mass spectral and SDS-PAGE analyses of FABP4 protein treated with  $H_2O_2$ .**

(A) Mass spectral analysis. After incubation of FABP4 with  $H_2O_2$  or vehicle, the samples were analyzed by MALDI-TOF mass spectrometry. (B) SDS-PAGE. After incubation of FABP4 with  $H_2O_2$  or vehicle, the samples were subjected to 20% SDS-PAGE with or without 50 mM DTT. After electrophoresis, the gel was visualized by CBB staining.



**Figure S3. Knockdown of FABP4 in the 3T3-L1 adipocytes reduced the resistance to oxidative stress induced by exposure of H<sub>2</sub>O<sub>2</sub>.**

At 48 h after siRNA transfection, the cells were exposed with 300 mM H<sub>2</sub>O<sub>2</sub> or vehicle for 1 h and then stained with 0.5% crystal violet. After washing, the cells were observed by bright field microscopy. A typical image of three independent experiments is shown. Scale bars represent 200  $\mu$ m.