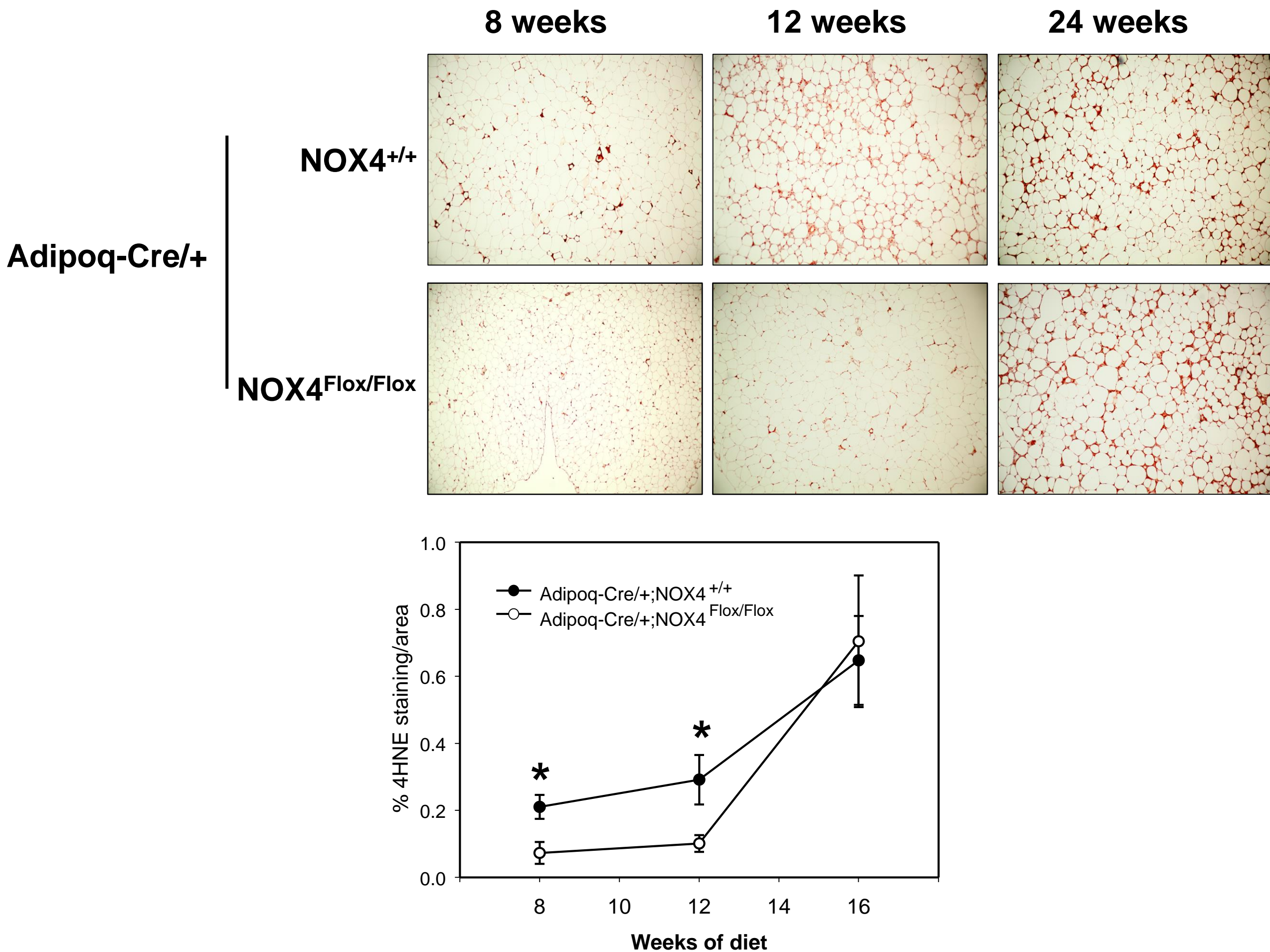


## Supplemental Material

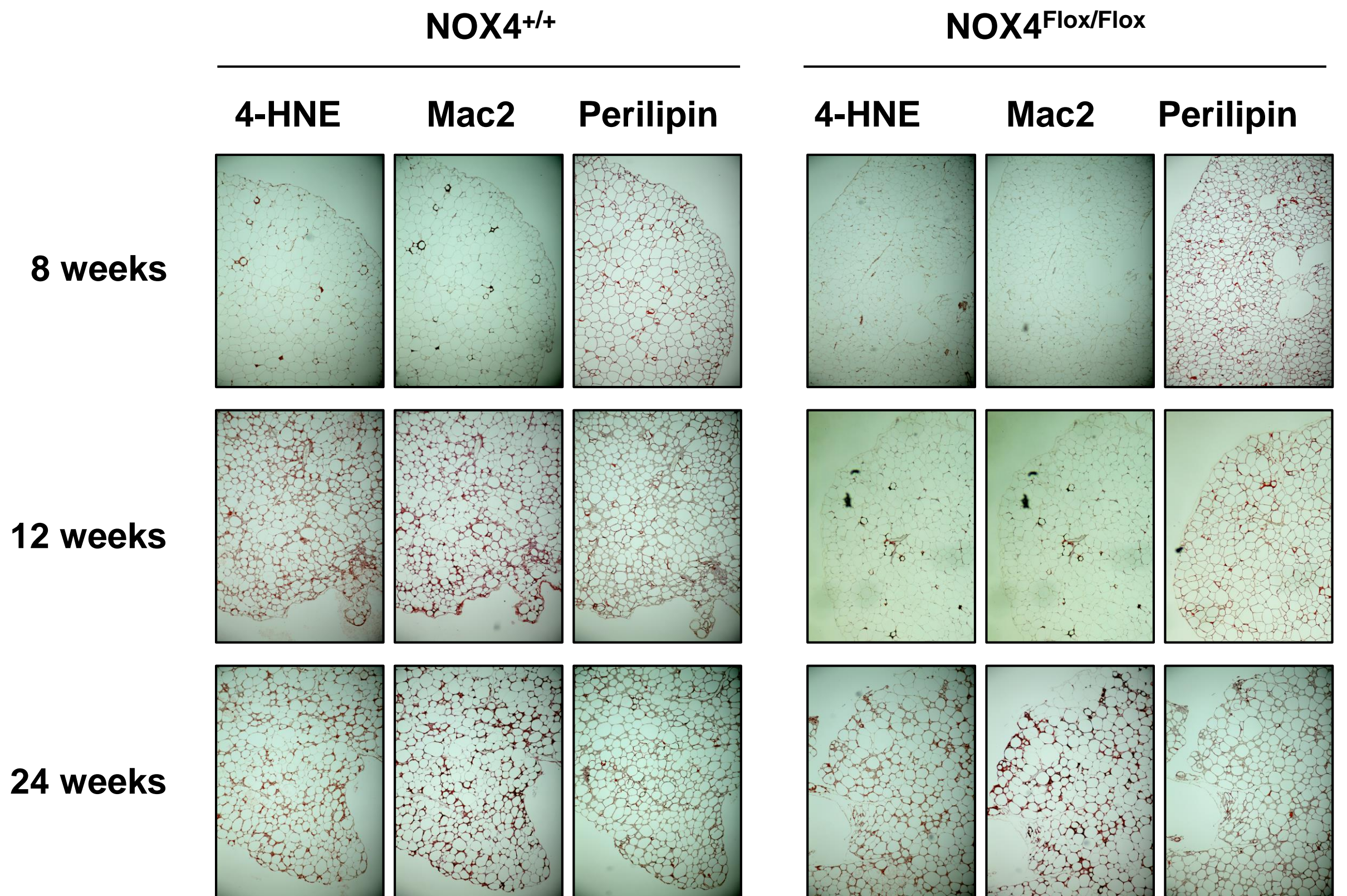
### Adipocyte-specific deficiency of NADPH oxidase 4 delays the onset of insulin resistance and attenuates adipose tissue inflammation in obesity



**Supplemental Figure I. Adipocyte-specific deficiency of NOX4 initially lowers oxidative stress in adipose tissue during the development of obesity.**

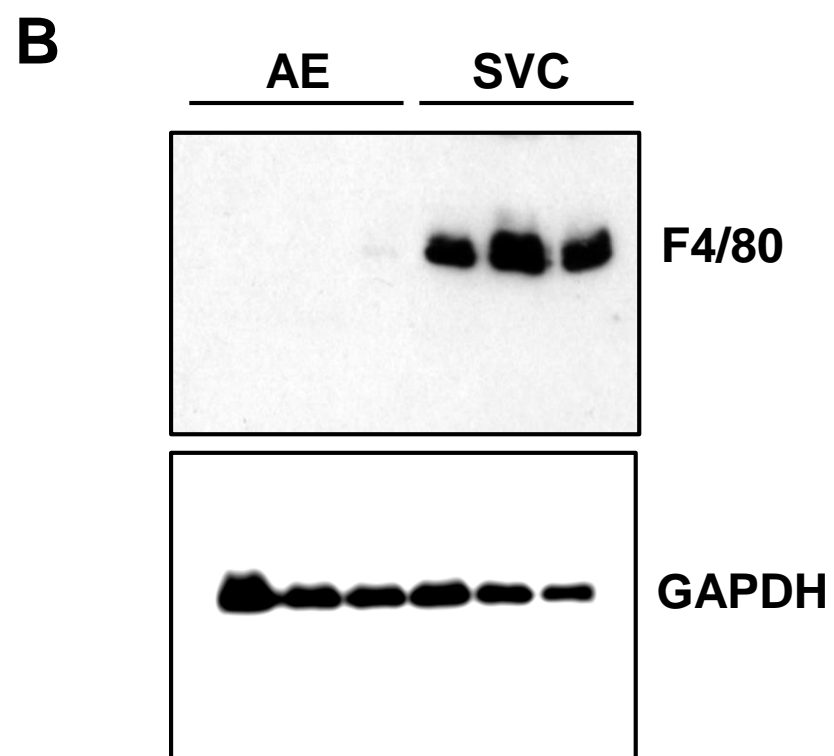
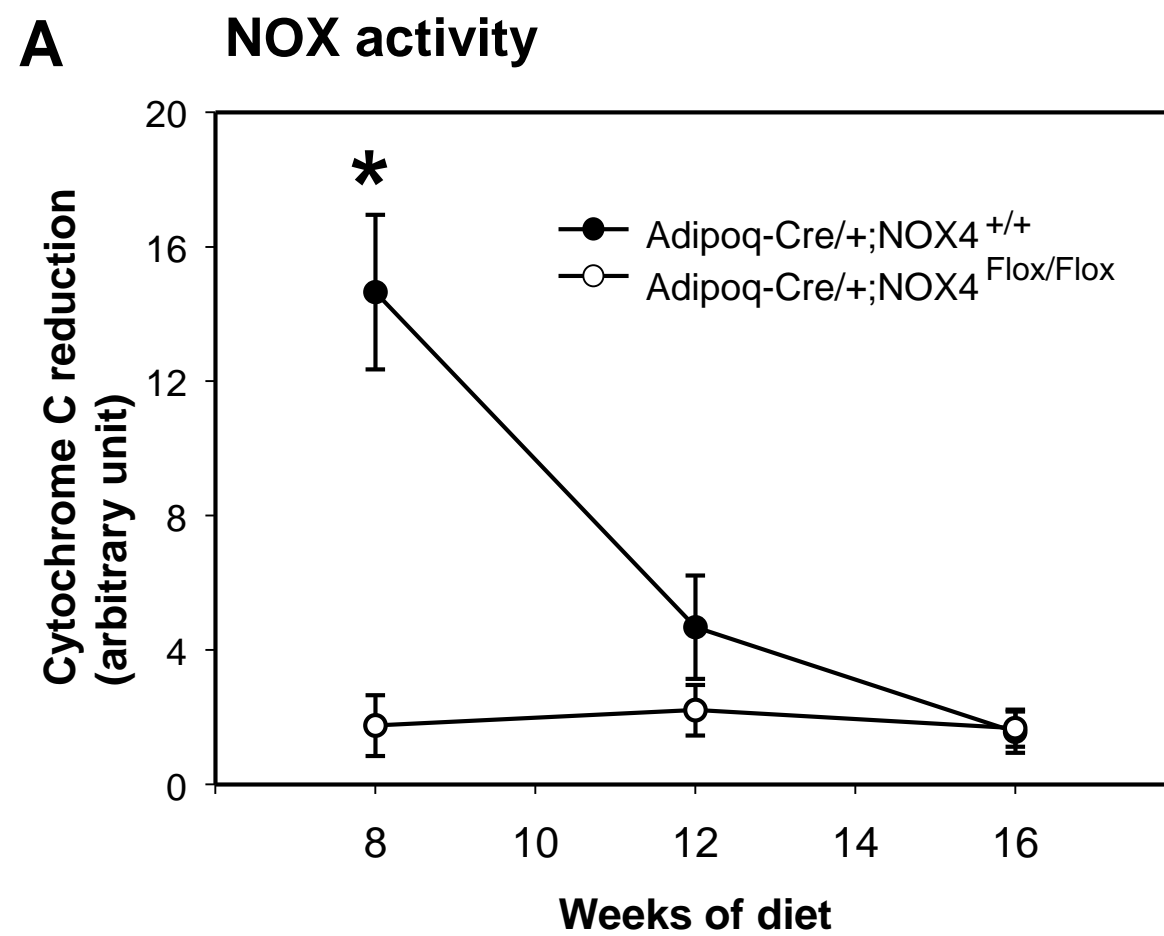
A; Epididymal fat isolated from Adipoq-Cre/+;NOX4<sup>+/+</sup> and Adipoq-Cre/+;NOX4<sup>Flox/Flox</sup> mice fed a HFHS diet for 8,12, and 16 weeks was analyzed by immunohistochemistry using a 4-HNE antibody which detects lipid peroxidation product (n=5). Tissues were photographed using microscopy (original magnification ×60), and quantified using Image Pro Plus software. \*P < 0.05 vs. Adipoq-Cre/+;NOX4<sup>+/+</sup> in HFHS. ANOVA and Bonferroni post-hoc test.

# Adipoq-Cre/+



**Supplemental Figure I. Adipocyte-specific deficiency of NOX4 initially lowers oxidative stress in adipose tissue during the development of obesity.**

*B*; Adjacent sections from EWAT isolated from Adipoq-Cre/+;NOX4<sup>+/+</sup> and Adipoq-Cre/+;NOX4<sup>Flox/Flox</sup> mice fed a HFHS diet for 8, 12, and 24 weeks were also stained using 4-HNE, Mac-2 and perilipin-I antibodies. Tissues were photographed using microscopy (original magnification ×60)



**Supplemental Figure II. NOX activity is transiently increased in control mice and unchanged in Adipoq-Cre/+;NOX4<sup>Flox/Flox</sup> mice during the development of obesity.**

*A*; Adipoq-Cre/+;NOX4<sup>+/+</sup> and Adipoq-Cre/+;NOX4<sup>Flox/Flox</sup> mice were fed HFHS for the indicated time periods (n=5). At sacrifice, the AE fraction from EWAT was harvested and analyzed for NOX activity. Data are representative of at least 3 independent experiments. \*P<0.005 vs Adipoq-Cre/+;NOX4<sup>+/+</sup>. ANOVA and Bonferroni post-hoc test. *B*; The AE and SVC fractions from EWAT of Adipoq-Cre/+;NOX4<sup>+/+</sup> were isolated and analyzed by Western blotting using F4/80 and GAPDH antibody (n=3).