Supplementary Fig. S1. 12S-LOX deficiency decreased superoxide production after irradiation or 12S-HETE in AECII cells. Primary AECII cells were enriched from *WT* and *Alox12<sup>-/-</sup>* mouse lungs and irradiated at 17.5 Gy. AECII were then incubated with DHE (10  $\mu$ *M*) for 30 min at 37°C in a CO<sub>2</sub> incubator, and washed twice with cold PBS. Fluorescence was recorded using an EVOS cell imaging system, and fluorescence intensity was measured in fifty living cells using ImageJ. Production of superoxide was increased significantly after irradiation in *WT* AECII. 12-LOX deficiency decreased radiation-induced superoxide production. Columns: mean, bars: standard deviation, \**P* < 0.05 for the comparison to corresponding genotype vehicle by ANOVA. \*\* *P* < 0.05 for the comparison to *WT* within each treatment by ANOVA. Supplementary Figure S1

