## SUPPLEMENTAL FIGURES

Supplemental Figure 1. Oxygenated cholesteryl linoleate in mmLDL and their reduction by ebselen. Native LDL, mmLDL and mmLDL+ebselen (50  $\mu$ M ebselen, incubated for 1 hour at 37°C with mmLDL) were extracted with hexane/methanol as described in Methods and analyzed by LC-MS using MRM pairs from Table 1. Baseline intensities of the MS signal are artificially altered in order to visually separate individual traces.

**Supplemental Figure 2. Oxygenated cholesteryl linoleate in 15LO-modified native LDL.** Native LDL and 15LO-modified LDL were extracted with hexane/methanol as described in Methods and analyzed by LC-MS using MRM pairs from Table 1. Baseline intensities of the MS signal are artificially altered in order to visually separate individual traces.

**Supplemental Figure 3. Oxygenated cholesteryl linoleate in murine atherosclerotic lesions.** Sections of aorta were isolated from high-fat fed apoE<sup>-/-</sup> and chow fed C57BL/6 mice and subjected to the lipid extraction procedure as detailed in Methods. The extracts were analyzed by LC-MS using MRM pairs from Table 1. The extracts from chow fed C57BL/6 mice did not contain any detectable amounts of oxidized CE and are not shown in the figure.

Supplemental Figure 1



## Supplemental Figure 2



## Supplemental Figure 3



## Supplemental Table 1

Peak	mmLDL/15LO-AACE
	$(\text{mean} \pm \text{s.e.})$
Α	$0.41 \pm 0.24$
В	$0.96 \pm 0.31$
С	$0.11 \pm 0.02$
D	$0.21 \pm 0.10$

The retention time / MS peaks A, B, C, and D were quantified in the hexane extracts from 50  $\mu$ g mmLDL (protein concentration) (Fig. 3) and in 2.5  $\mu$ g of 15LO-modified AA-CE (Fig. 7). These amounts of mmLDL and 15LO-AACE induced comparable cytoskeletal rearrangements and ERK1/2 phosphorylation in macrophages. Numbers in the table represent ratios (mean  $\pm$  standard error) of the mmLDL/15LO-AACE peak intensities from three independent experiments.