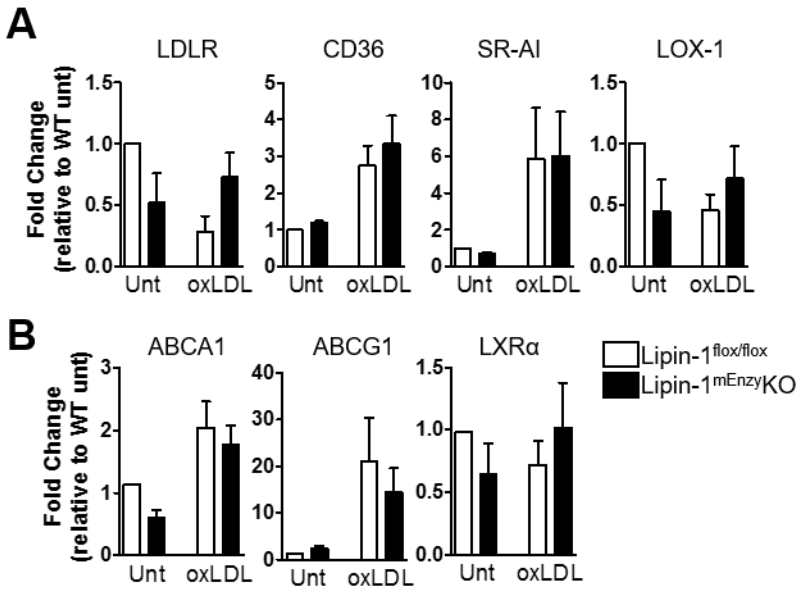
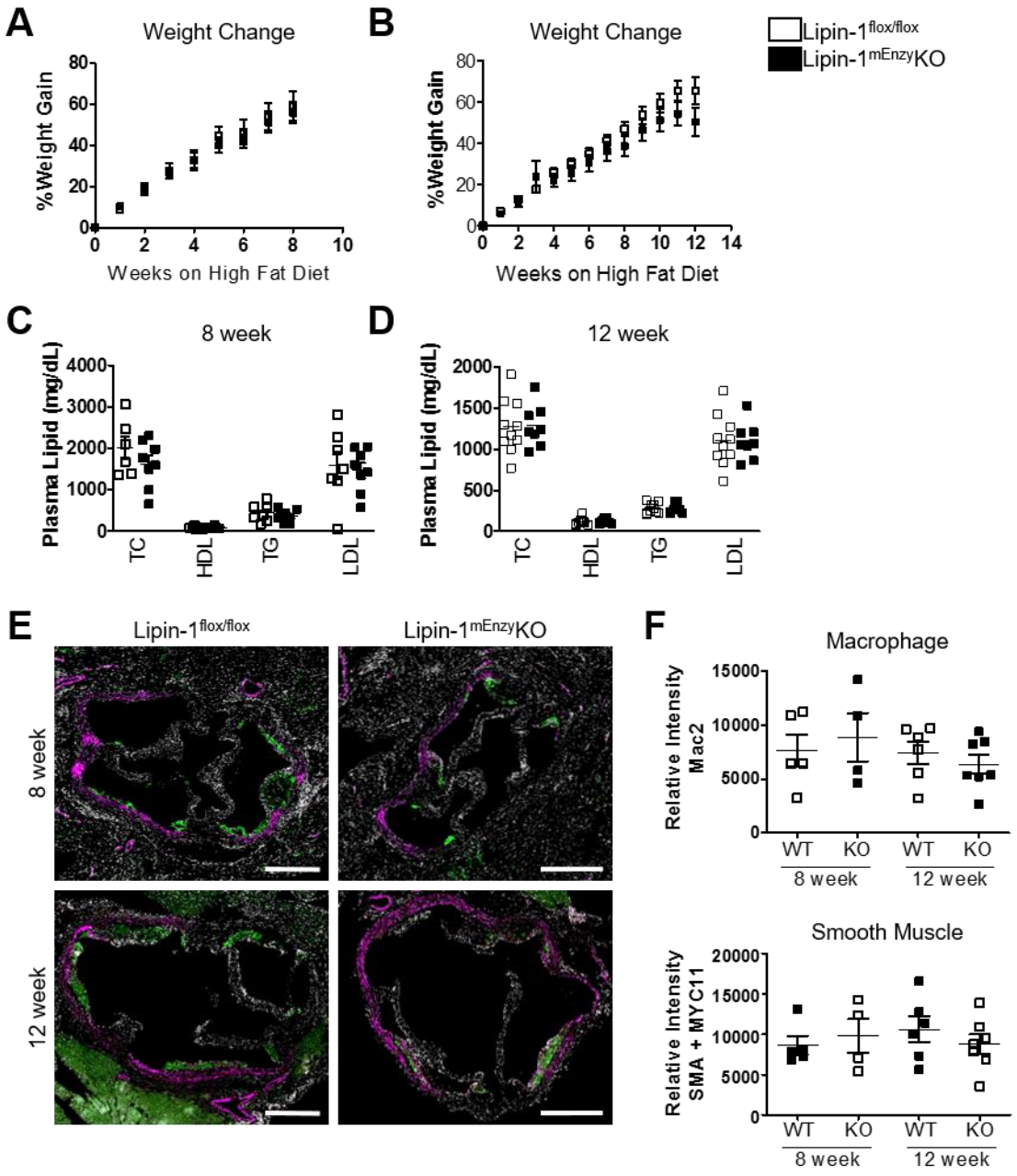
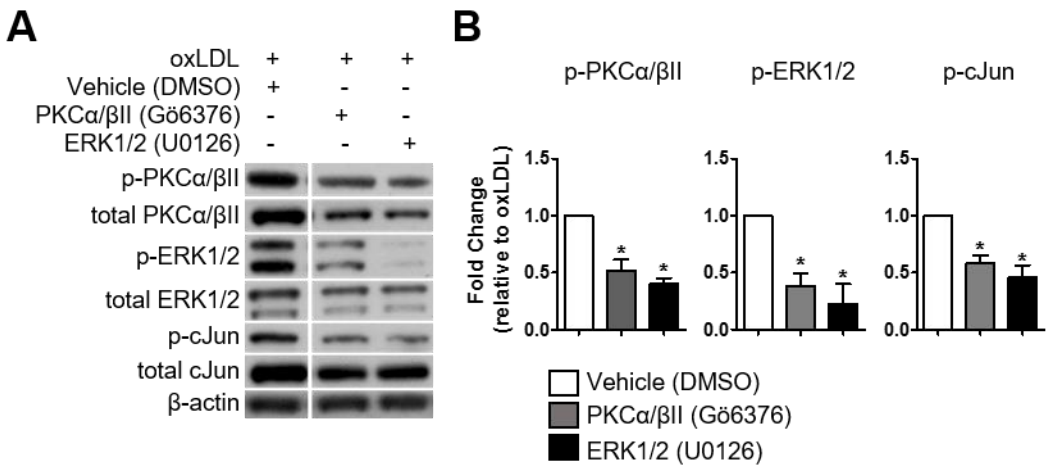
## SUPPLEMENTAL MATERIAL



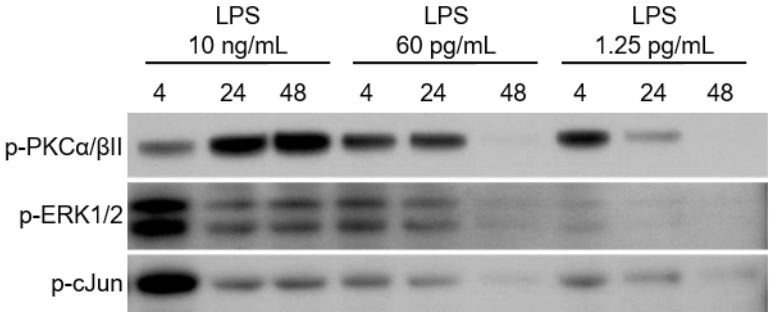

**Supplemental Figure I. Scavenger receptor and PPARγ-regulated gene expression is not statistically different between lipin-1$^{mEnzy}$KO and lipin-1$^{flox/flox}$ control mice.** Lipin-1$^{mEnzy}$KO and lipin-1$^{flox/flox}$ BMDMs were either stimulated with 25 µg/mL of oxLDL or left untreated. RNA was collected at 24 hours after stimulation for qRT-PCR analysis. A) Graphical representation of scavenger receptor expression by fold change analysis of oxLDL stimulated samples over untreated (0 hour) samples. Abbreviations: Low-density lipoprotein receptor (LDLR), Cluster of Differentiation 36 (CD36), Scavenger receptor type A member I (SR-AI), Lectin-like oxidized low-density lipoprotein receptor-1 (LOX-1). B) Graphical representation of PPARγ-regulated gene expression by fold change analysis of oxLDL stimulated samples over untreated (0 hour) samples. Abbreviations: ATP-binding cassette transporter sub-family A member 1 (ABCA1), ATP-binding cassette sub-family G member 1 (ABCG1), liver X receptor alpha (LXRα).




**Supplemental Figure II. Loss of myeloid-associated lipin-1 reduces atherosclerosis.** Lipin-1$^{flox/flox}$ (n=18) and lipin-1$^{mEnzy}$KO (n=16) mice were injected with 3x10$^{10}$ vector genomes of AAV8-PCSK9 and placed on high fat diet for 8 or 12 weeks. Graphs represent quantification by Image J analysis (A-D). A-B) Percent weight change over 8 weeks (A) and 12 weeks (B) on high fat diet of both the lipin-1$^{flox/flox}$ and lipin-1$^{mEnzy}$KO mice. C-D) Plasma lipid levels in lipin-1$^{flox/flox}$ and lipin-1$^{mEnzy}$KO mice at time of euthanasia. TC = total cholesterol, HDL = high-density lipoprotein, TG = triglycerides, LDL = low-density lipoprotein. E) Representative immunofluorescence images of aortic roots of lipin-1$^{flox/flox}$ and lipin-1$^{mEnzy}$KO after 8 or 12 weeks of high fat diet. Staining included nuclei (DAPI = white), macrophages (Mac2 = green), smooth muscle actin (SMA = red), and smooth muscle myosin heavy chain 11 (MYC11 = blue). Scale bar = 200 µm. F) Quantification of macrophage (Mac2) and smooth muscle (SMA + MYC11) stain in aortic roots.




**Supplemental Figure III. OxLDL stimulation of BMDMs induces activation of linked PKCα/βII-ERK1/2-cJun signaling cascade.** A-B) WT BMDMs were stimulated with 25 µg/mL of oxLDL for 24 hours to induce foam cell formation prior to inhibitor addition. Inhibitors were added: 1 µM of the PKCα/βII inhibitor Gö6376 or 10 µM of the MEK1/2 (ERK1/2) inhibitor U0126. Total cellular protein was collected at 48 hours after initial stimulation for Western blot analysis. A) Representative Western blot images of phosphorylated and total PKCα/βII, ERK1/2, and cJun. B) Graphs represent fold change analysis of p-PKCα/βII, p-ERK1/2, and p-cJun over vehicle (oxLDL only) control samples as quantified by Image J analysis. (Mean ± SEM, n= 3-5, *$p \leq 0.05$).




**Supplemental Figure IV. Stimulation of BMDMs with varying concentrations of LPS does not induce persistent activation of the PKCα/βbII-ERK1/2-cJun signaling cascade.** WT BMDMs were stimulated with either 10 ng/mL (amount of LPS used in Figure 5), 60 pg/mL (50 times the maximum endotoxin present in the modLDL preparations), or 1.25 pg/mL (maximum calculated endotoxin present in the modLDL preparations) of LPS. Total cellular protein was collected at 4, 24, and 48 hours after stimulation for Western blot analysis. Representative Western blot images of phosphorylated PKCα/βII, ERK1/2, and cJun.

**SUPPLEMENTAL TABLE I**: Quantitative Real-Time PCR Primers

| Gene | Forward | Reverse |
|---|---|---|
| Rpl13a | 5’ – TCC ACC CTA TGA CAA GAA – 3’ | 5’ – GTA AGC AAA CTT TCT GGT AG – 3’ |
| LDLR | 5’ – TGA CTC AGA CGA ACA AGG CTG – 3’ | 5’ – ATC TAG GCA ATC TCG GTC TCC – 3’ |
| CD36 | 5’ – ATG GGC TGT GAT CGG AAC TG – 3’ | 5’ – GTC TTC CCA ATA AGC ATG TCT CC - 3’ |
| SR-AI | 5’ – AAC TGA CCA AAG ACT TAA TG – 3’ | 5’ – CTG TAG ATT CAC GGA CTC - 3’ |
| LOX-1 | 5’ – AGG GGC GTT TCT TTA CAG – 3’ | 5’ – GCA GTT TTC AGC GAA CAC – 3’ |
| ABCA1 | 5’ – AAA ACC GCA GAC ATC CTT CAG – 3’ | 5’ – CAT ACC GAA ACT GCT TCA CCC – 3’ |
| ABCG1 | 5’ – CTT TCC TAC TCT GTA CCC GAG – 3’ | 5’ – CGG GGC ATT CCA TTG ATA AGG – 3’ |
| LXRα | 5’ – CAG TGC GTG CTC TCT GAG G – 3’ | 5’ – GGT CGG AGA AAG ATC GTT TGT T – 3’ |