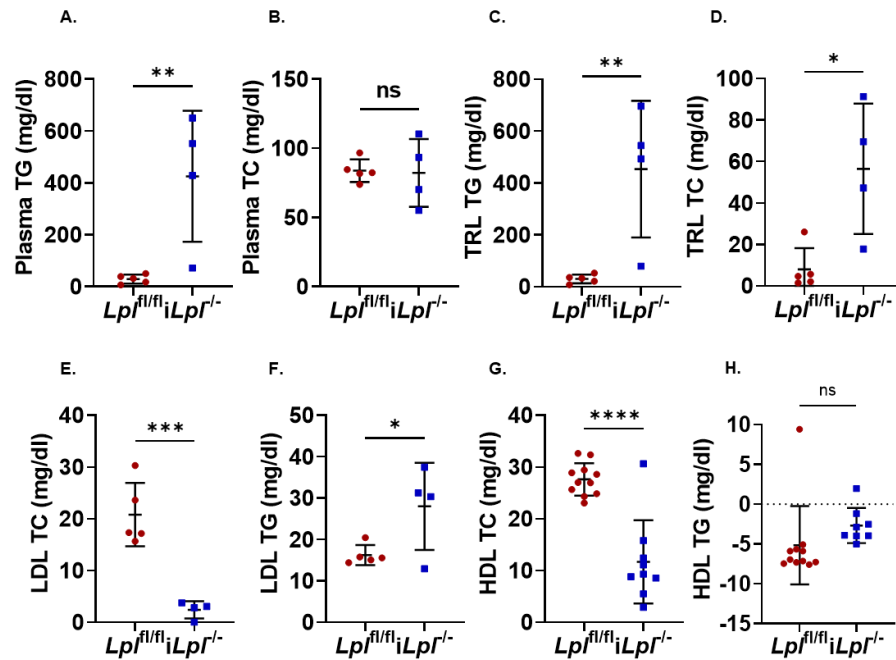


SUPPLEMENTARY FIGURES

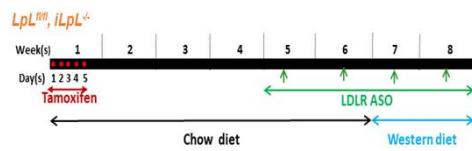
Supplement Figure 1



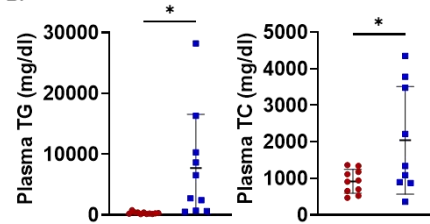
Supplementary Figure 1. Changes in circulating lipoproteins in *iLpl*^{-/-} mice. *iLpl*^{-/-} were maintained on a standard laboratory chow diet and at 8-12 weeks groups of male mice were divided, and half were treated with tamoxifen to induce LpL deficiency. Two weeks plasma TG and cholesterol were assessed, and lipoproteins were separated by ultracentrifugation. Plasma TG and cholesterol are shown in **A** and **B**, isolated TRLs in **C** and **D**, LDL cholesterol and TG in **E** and **F**, HDL cholesterol and TG in **G** and **H**.

Supplement Figure 2

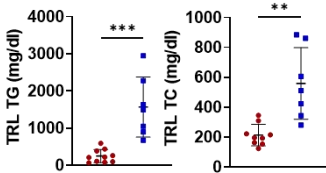
A. Study design



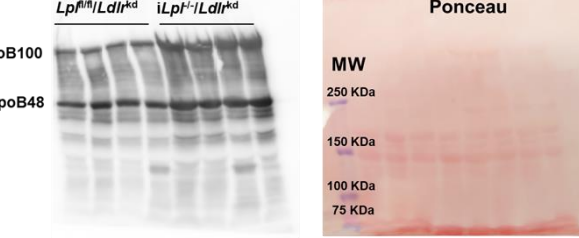
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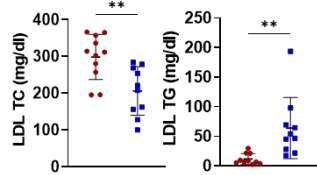
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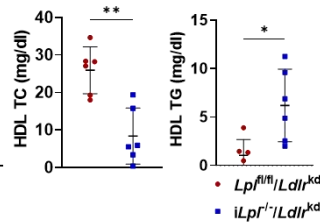
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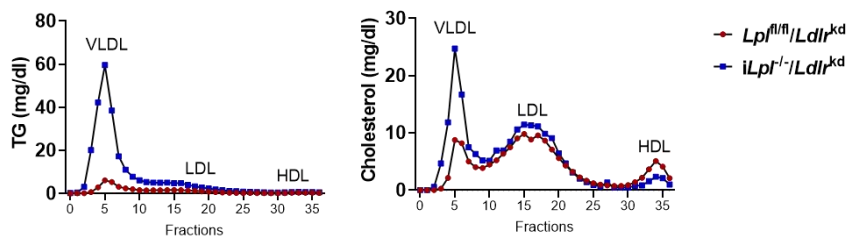
E.



F.

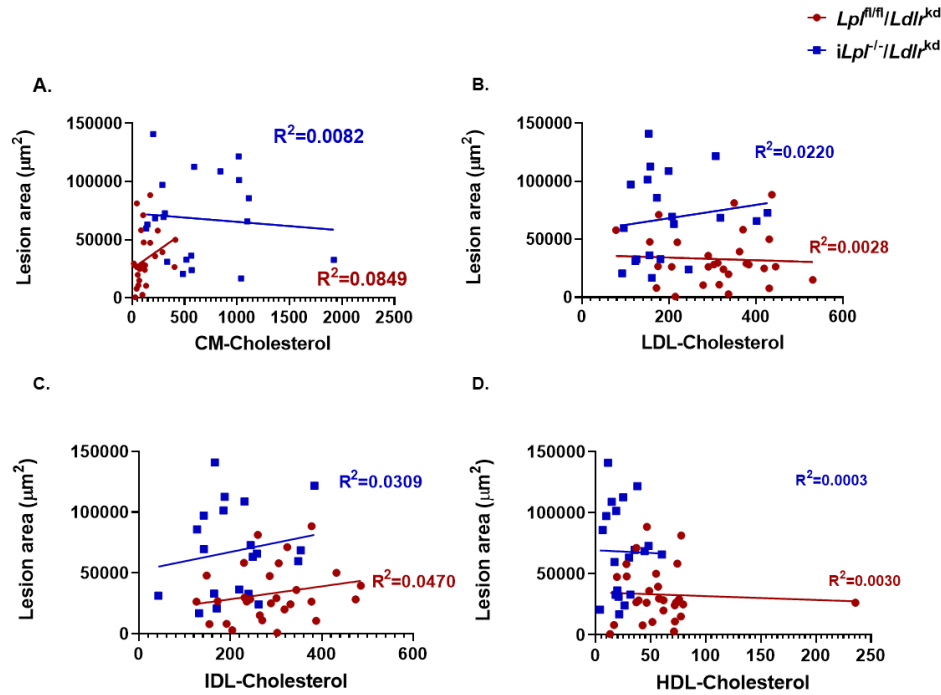


G.



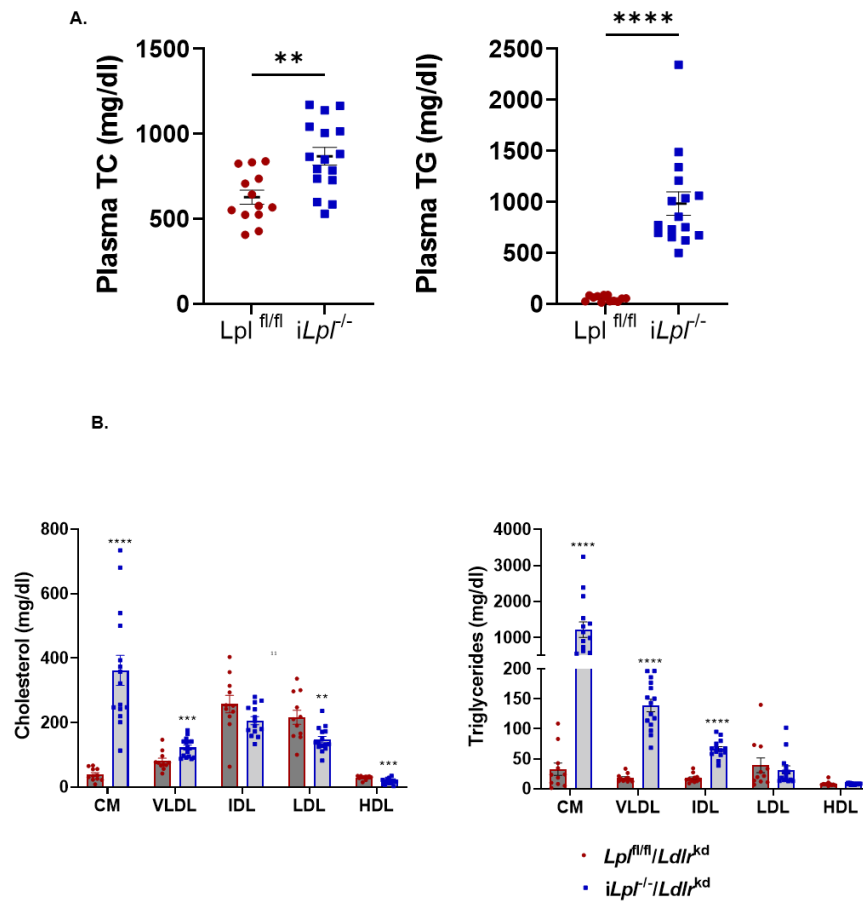
Supplementary Figure 2. Lipoprotein analysis of male *iLpL^{fl/fl}/Ldl^{ASO}* mice on Western diet. *LpL^{fllox/flox}/beta actin Cre* mice (6 weeks) were injected intraperitoneally with tamoxifen (of 40 mg/kg x 4 days). The mice were maintained on a chow diet and 4 weeks later received LDLR ASO (weekly intraperitoneal injections). Two weeks after the first ASO injection, mice were switched to a WD for 2 weeks. **A.** Schematic of experiment. **B.** Total TG and cholesterol levels. **C.** TRL cholesterol and TG, **D.** Immunoblot of TRLs obtained following a 30 minute spin ($d < 1.006$) (left panel), and Ponceau staining of the membrane showing equal loading (right panel). **E.** LDL TG and cholesterol levels, **F.** HDL TG and cholesterol levels, **G.** Distribution of TG and cholesterol levels in plasma fractionated by size-exclusion chromatography. $n = 11-15$ mice/group. Data are presented as the mean $\pm$ SEM. ** $p < 0.005$, *** $p < 0.001$, **** $p < 0.0001$ vs *LpL^{fl/fl}* mice by Student's test.

Supplement Figure 3



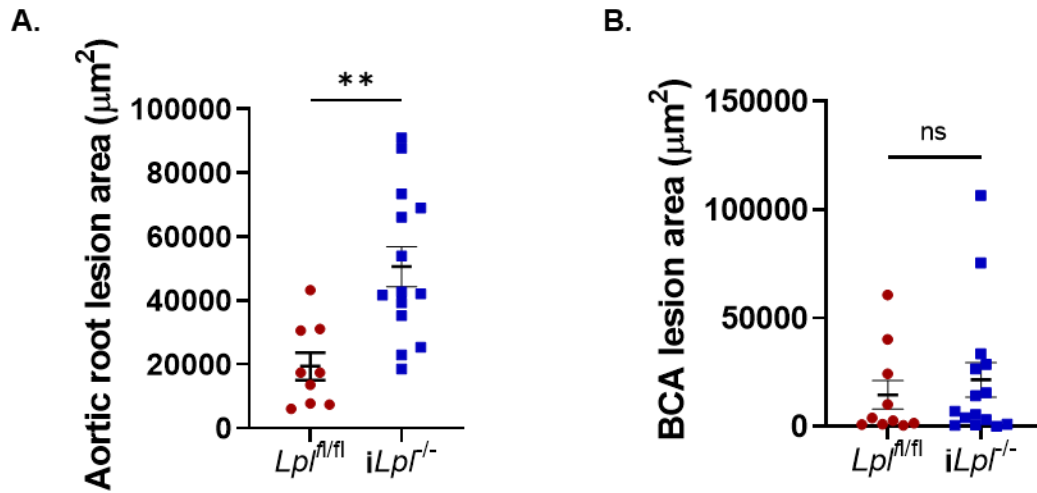
Supplementary Figure 3. Correlations of lesion size and lipoproteins. **A.** Correlation analysis between Chylomicrons-Cholesterol and lesion area. **B.** Correlation analysis between LDL-Cholesterol and lesion area **C.** Correlation analysis between IDL-Cholesterol and lesion area. **D.** Correlation analysis between HDL-Cholesterol and lesion area. R^2 = Coefficient of determination.

Supplement Figure 4



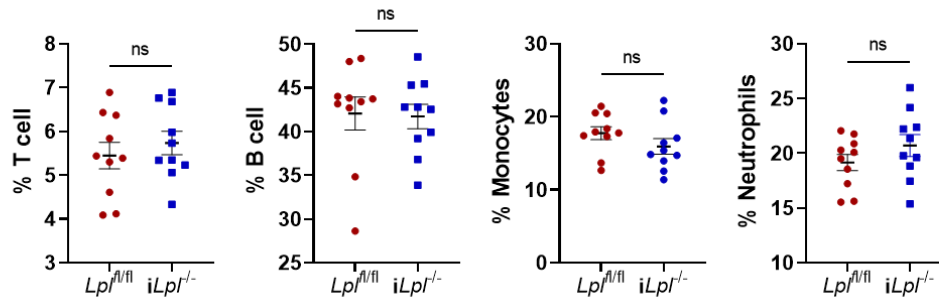
Supplementary Figure 4. Lipoprotein analysis of female $iLpl^{-/-}/Ldlr^{kd}$ mice on Western diet. $Lpl^{fl/fl}$ and $iLpl^{-/-}$ after 12 weeks of LDLR knockdown using PCSK9 AAV and WD feeding. **A.** Total cholesterol and TG levels. **B.** Plasma cholesterol and TG distribution on ultracentrifuge-fractionated lipoproteins. $n=21-28$ /group. Data are presented as the mean $\pm$ SEM. * $p<0.01$; ** $p<0.005$, *** $p<0.001$, **** $p<0.0001$ vs $Lpl^{fl/fl}$ mice by Student's test.

Supplement Figure 5



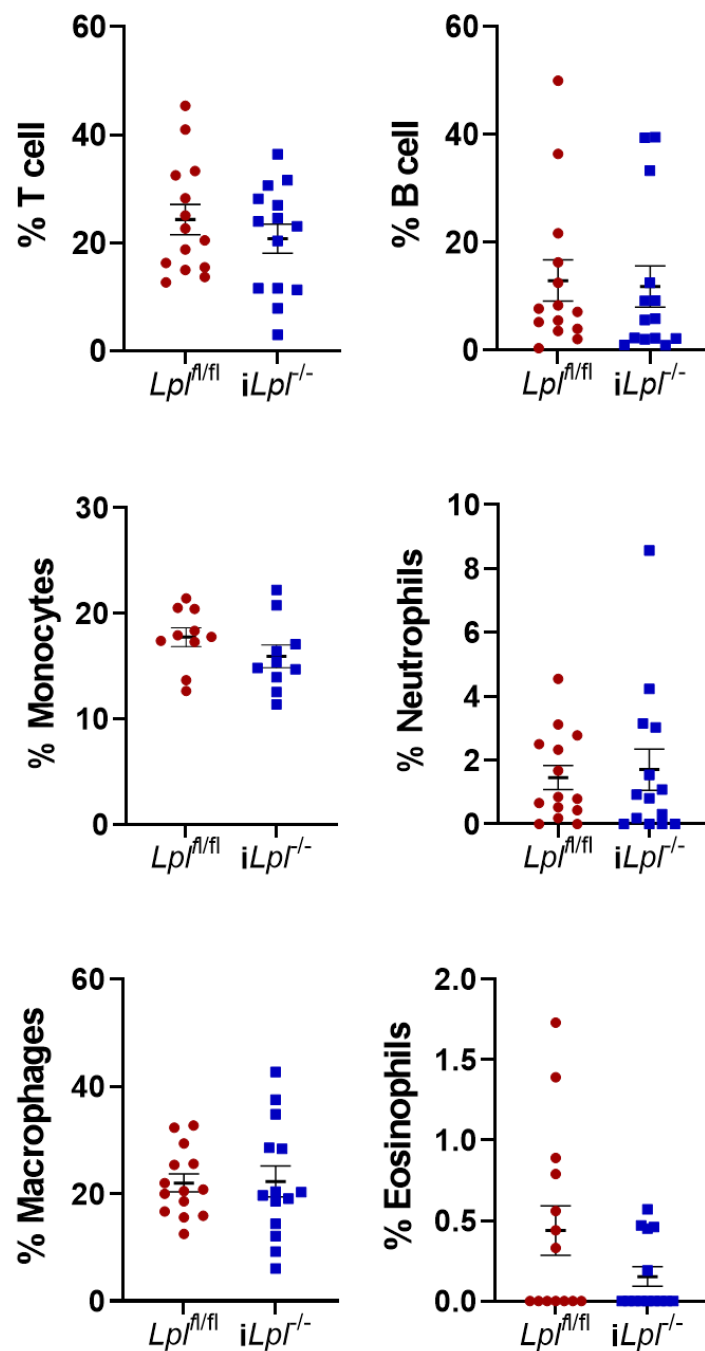
Supplementary Figure 5. Aortic root, but not BCA, lesions are larger in female $iLpl^{-/-}/Ldlr^{kd}$ mice. $Lpl^{fl/fl}$ and $iLpl^{-/-}$ after 12 weeks of LDLR knockdown using PCSK9 AAV and WD feeding. **A.** Quantification of aortic root plaque size. **B.** Quantification of BCA plaque size.

Supplement Figure 6



Supplementary Figure 6. There are no differences in the number of circulating leukocytes in mice lacking LpL and LDLR. Cells were derived from *LpI^{fl/fl}* and *iLpI^{-/-}* after 12 weeks of LDLR knockdown using PCSK9 AAV and WD feeding. Percentage of T cells, B cells, monocytes, **and** neutrophils. *n* = 10 mice/group. Data are presented as the mean $\pm$ SEM. Statistical significance was determined by Student's test.

Supplement Figure 7



Supplementary Figure 7. There are no differences in the number of aortic leukocytes in mice lacking LpL and LDLR. Aortic immune cells were derived from $LpI^{fl/fl}$ and $iLpI^{-/-}$ after 12 weeks of LDLR knockdown using PCSK9 AAV and WD feeding. Percentage of T cells, B cells, macrophages, neutrophils, and eosinophils. $n = 14$ mice/group. Data are presented as the mean $\pm$ SEM. Statistical significance was determined by Student's test.