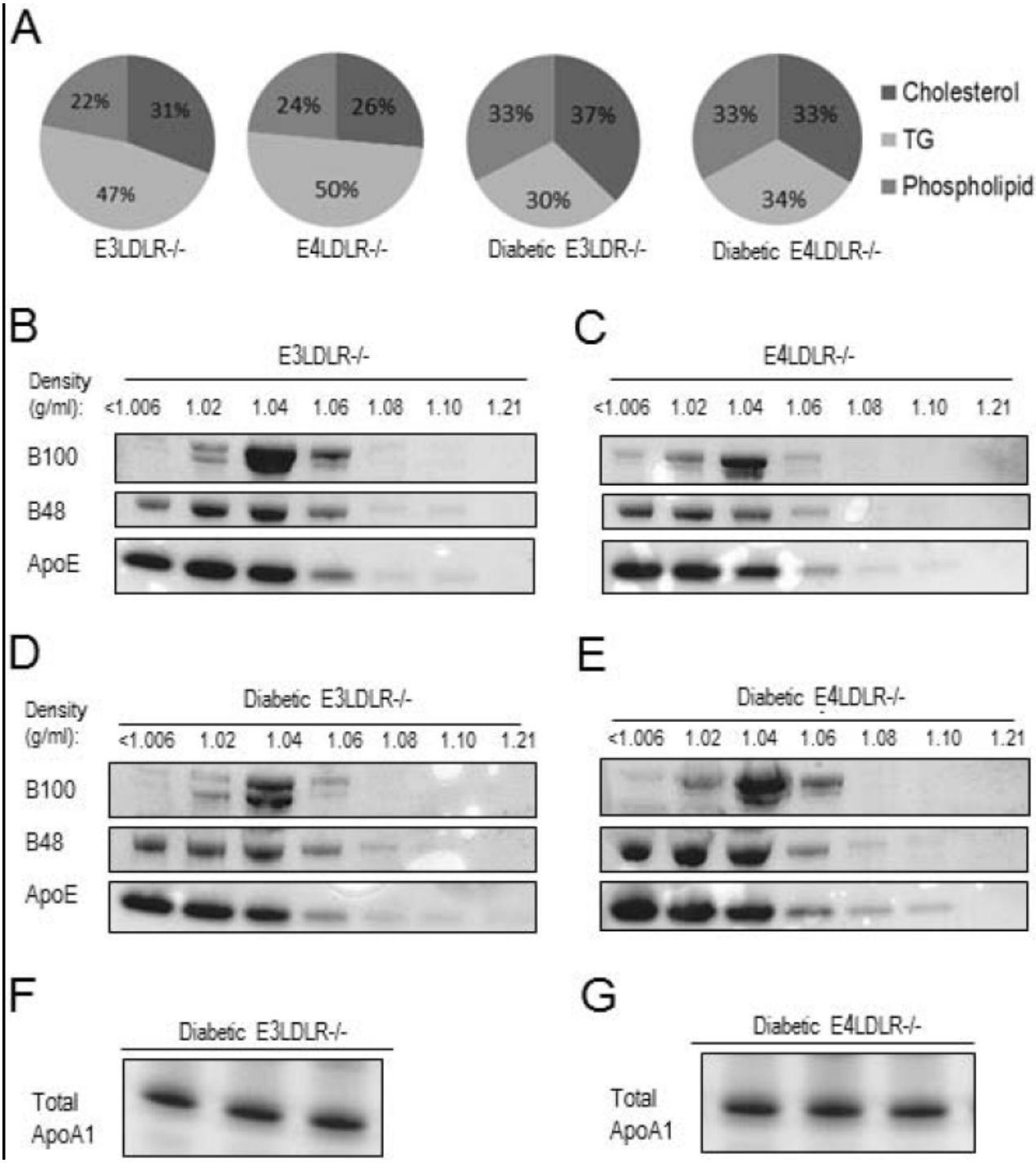
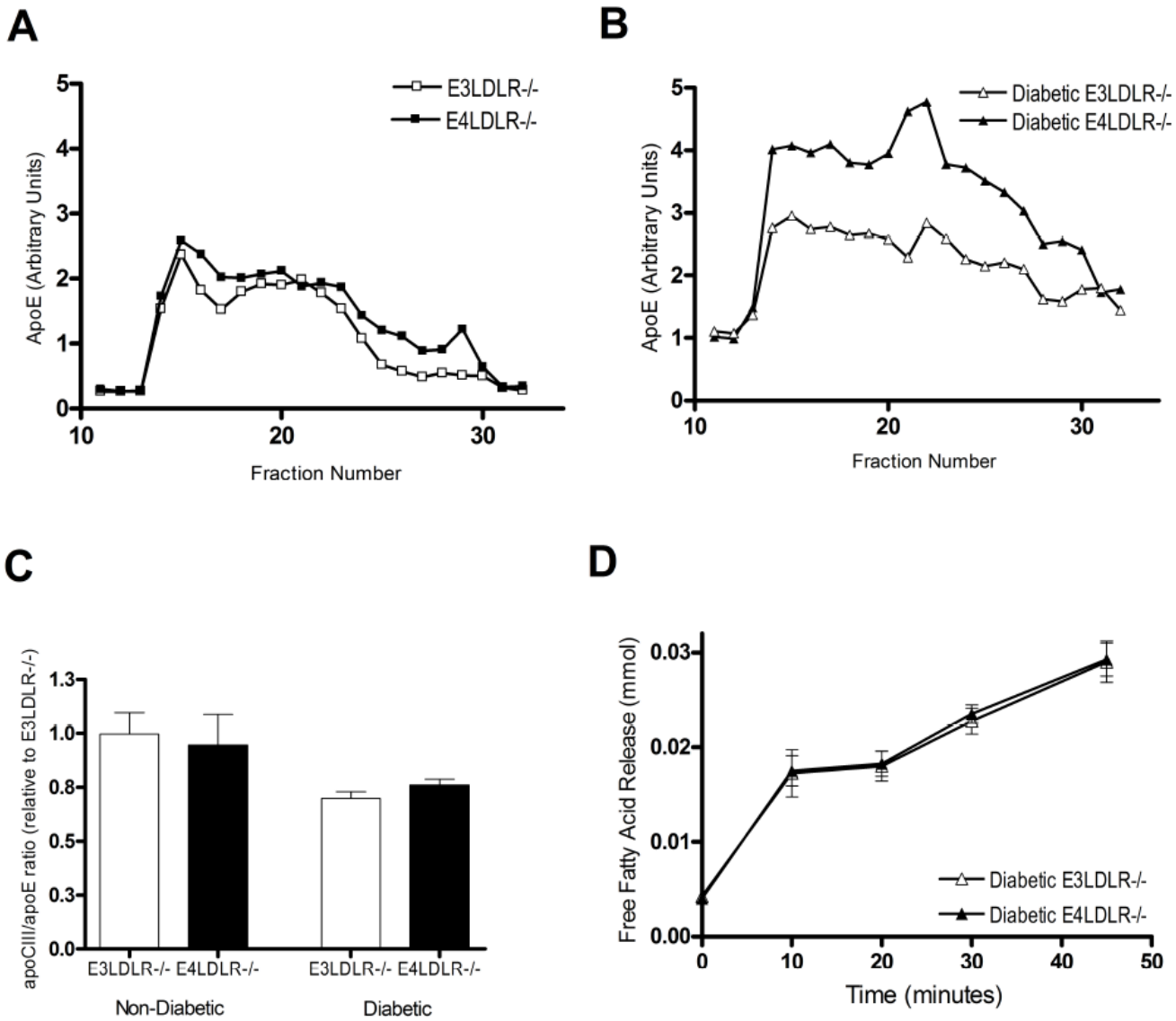
SUPPLEMENTARY DATA

Supplementary Figure 1. Lipoprotein lipid composition and apolipoprotein distribution. *A*: Composition of cholesterol, triglycerides, and phospholipids in VLDL isolated by ultracentrifugation of plasma from non-diabetic and diabetic E3LDLR-/- and E4LDLR-/- mice. *B-E:* Lipoprotein were separated by sequential ultracentrifugation from 800 l pooled (n = 6) plasma into density fractions indicated. Equal volume of fractions were loaded onto 4-20% SDS-PAGE. *F-G:* Total plasma ApoA1 from individual diabetic E3LDLR-/- (F) and diabetic E4LDLR-/- (G) mice was estimated by loading all lipoprotein fractions (density <1.21 g/ml) onto 4-20% SDS-PAGE.

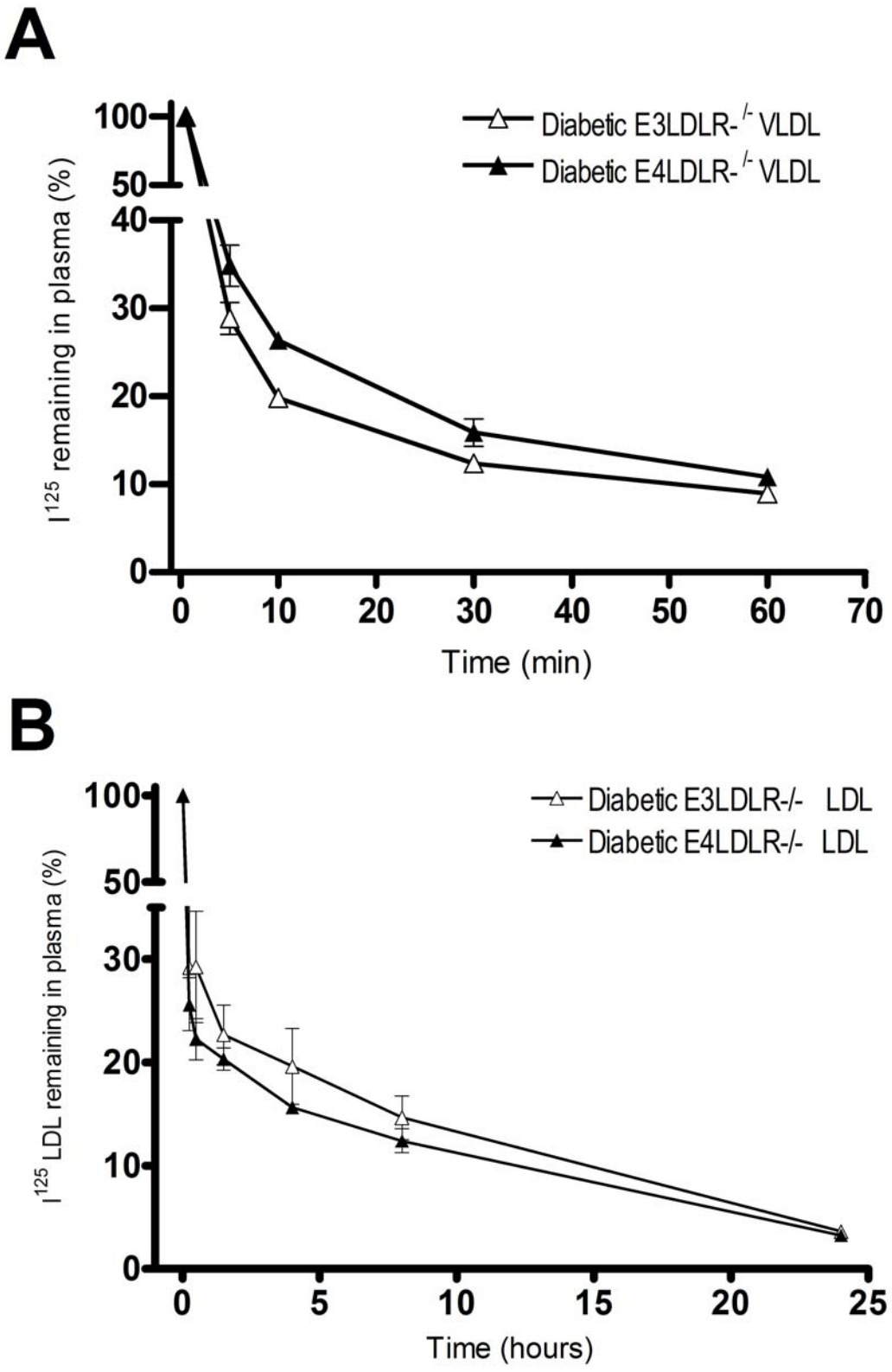


SUPPLEMENTARY DATA

Supplementary Figure 2. Apolipoprotein E distribution, ApoCIII/ApoE ratio and VLDL lipolysis. *A-B:* ApoE protein was determined by ELISA in lipoprotein fractions separated by FPLC from the pooled plasma (n = 6) of diabetic E3LDLR-/- (A) and diabetic E4LDLR-/- (B) mice. *C:* Plasma Apolipoprotein CIII and Apolipoprotein E protein was measured by ELISA. n = 4-8. Data is expressed as the ratio of ApoCIII/ApoE relative to the mean of non-diabetic E3LDLR-/- mice as 1.0. *D:* VLDL was isolated from diabetic E3LDLR-/- (white triangles) or diabetic E4LDLR-/- (black triangles) mice and incubated at 37°C with bovine lipoprotein lipase. The reaction was stopped at timepoints indicated by adding 5M NaCl, and FFA release ($FA_{timepoint}$ - FA_0) was measured. n = 4-6.

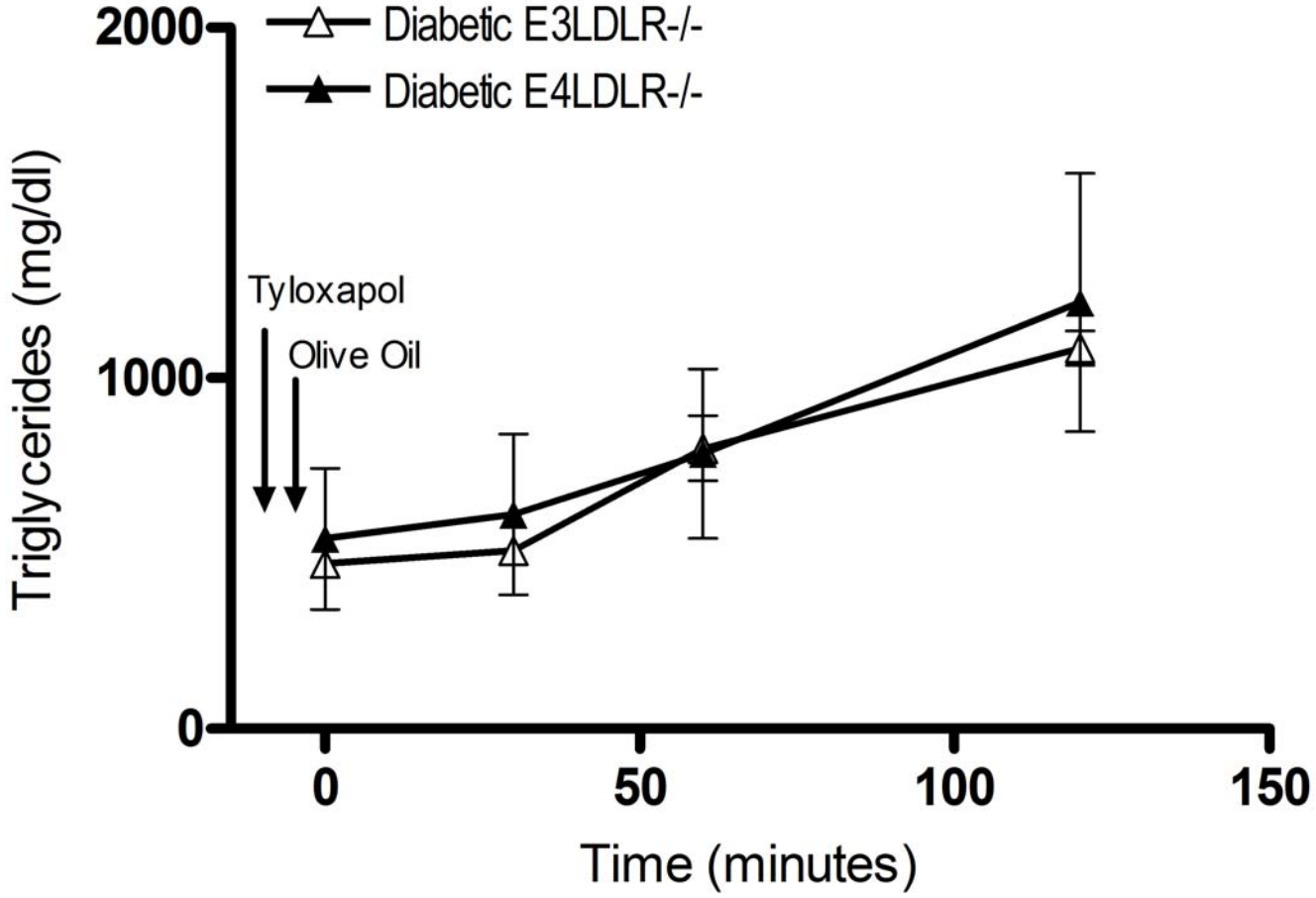


Supplementary Figure 3. Lipoprotein clearance. *A-B:* VLDL (A) or LDL (B) isolated from diabetic E3LDLR-/- or diabetic E4LDLR-/- mice was labeled with ^{125}I and re-injected via tail vein into non-diabetic LDLR-/- recipients. Plasma was collected at the listed timepoints and measured for radioactivity. All values are normalized to values 2 minutes post-injection.



SUPPLEMENTARY DATA

Supplementary Figure 4. Dietary lipid absorption. Diabetic E3LDLR-/- (white triangles) and diabetic E4LDLR-/- (black triangles) mice were given an oral gavage of olive oil (200 l) 5 minutes after tail vein injection of Tyloxapol (0.7 mg/g BW). Plasma triglycerides were measured 0, 30, 60, and 120 minutes post-gavage. n = 3-4.



Supplementary Figure 5. Apoptosis and macrophage infiltration in the atherosclerotic plaque. *A-B:* Macrophages were detected using MOMA-2 antibodies followed by a secondary conjugated to Cy5. Plaques from diabetic E3LDLR-/- (A) and diabetic E4LDLR-/- (B) mice are shown in Brightfield (upper image) and Cy5 (blue, lower image). Magnifications are 20X. *C-D:* DNA fragmentation was detected in 8 m frozen sections of the aortic root using ApopTag Fluorescein *in situ* staining. Pictured are plaques bordering the aortic valves (V-shaped structures at the center of the image) of diabetic E3LDLR-/- (C) and diabetic E4LDLR-/- (D) mice. A 1% methyl-green solution was used to delineate ultrastructure. Magnifications are 30x.