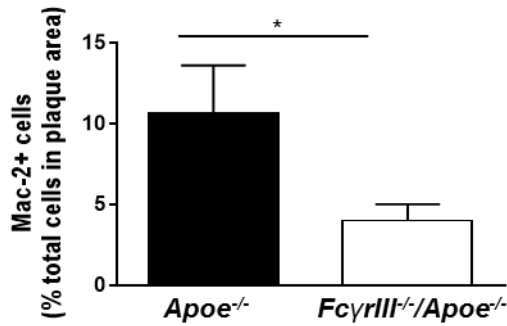
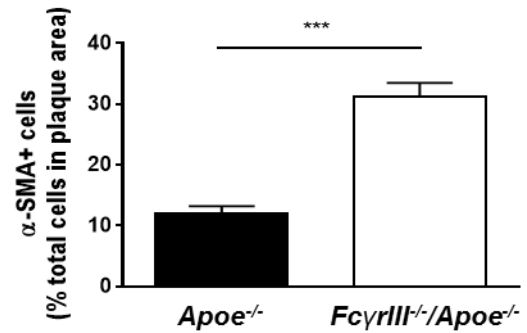


## SUPPLEMENTAL FIGURES WITH LEGENDS

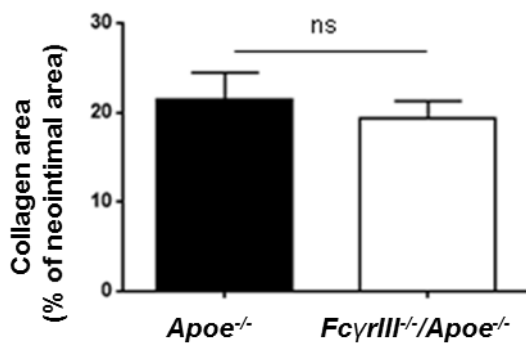
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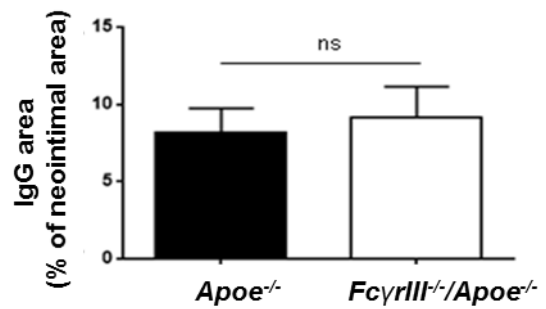
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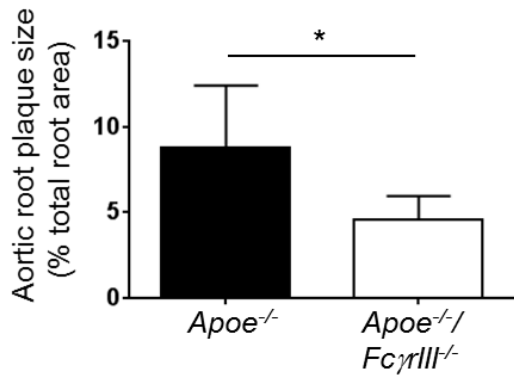
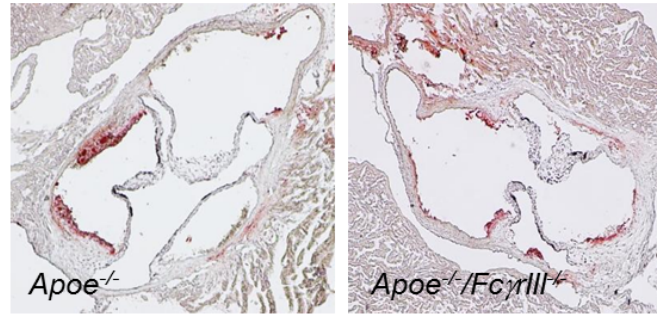
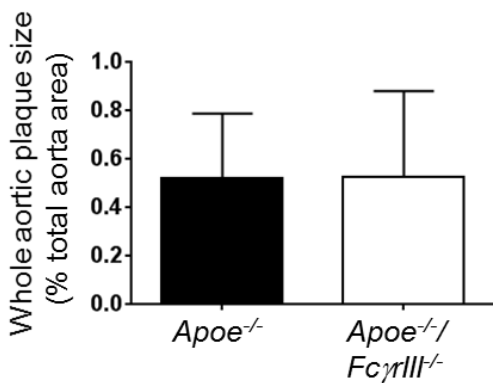
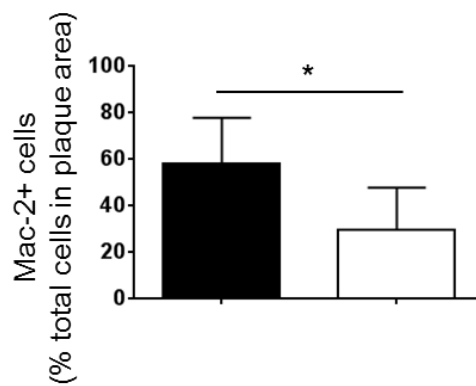
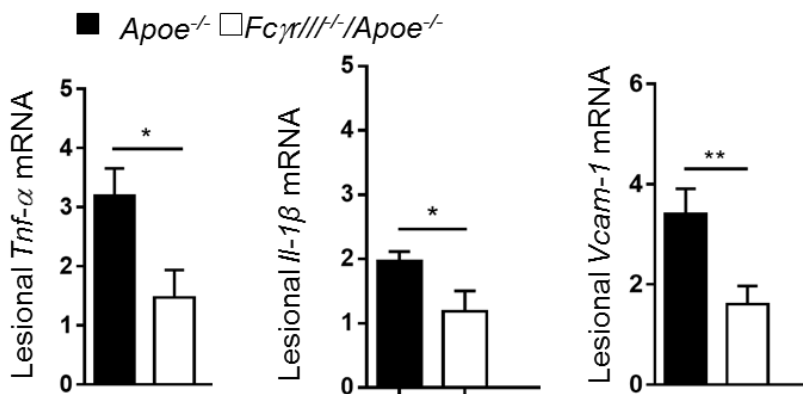
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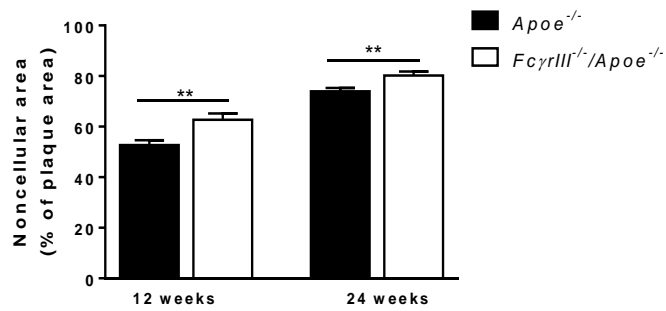
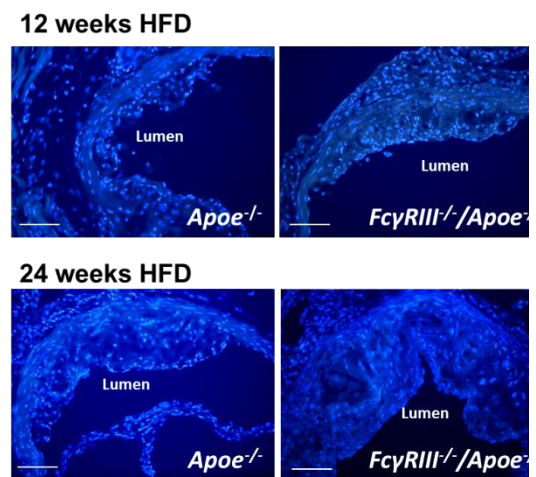
D



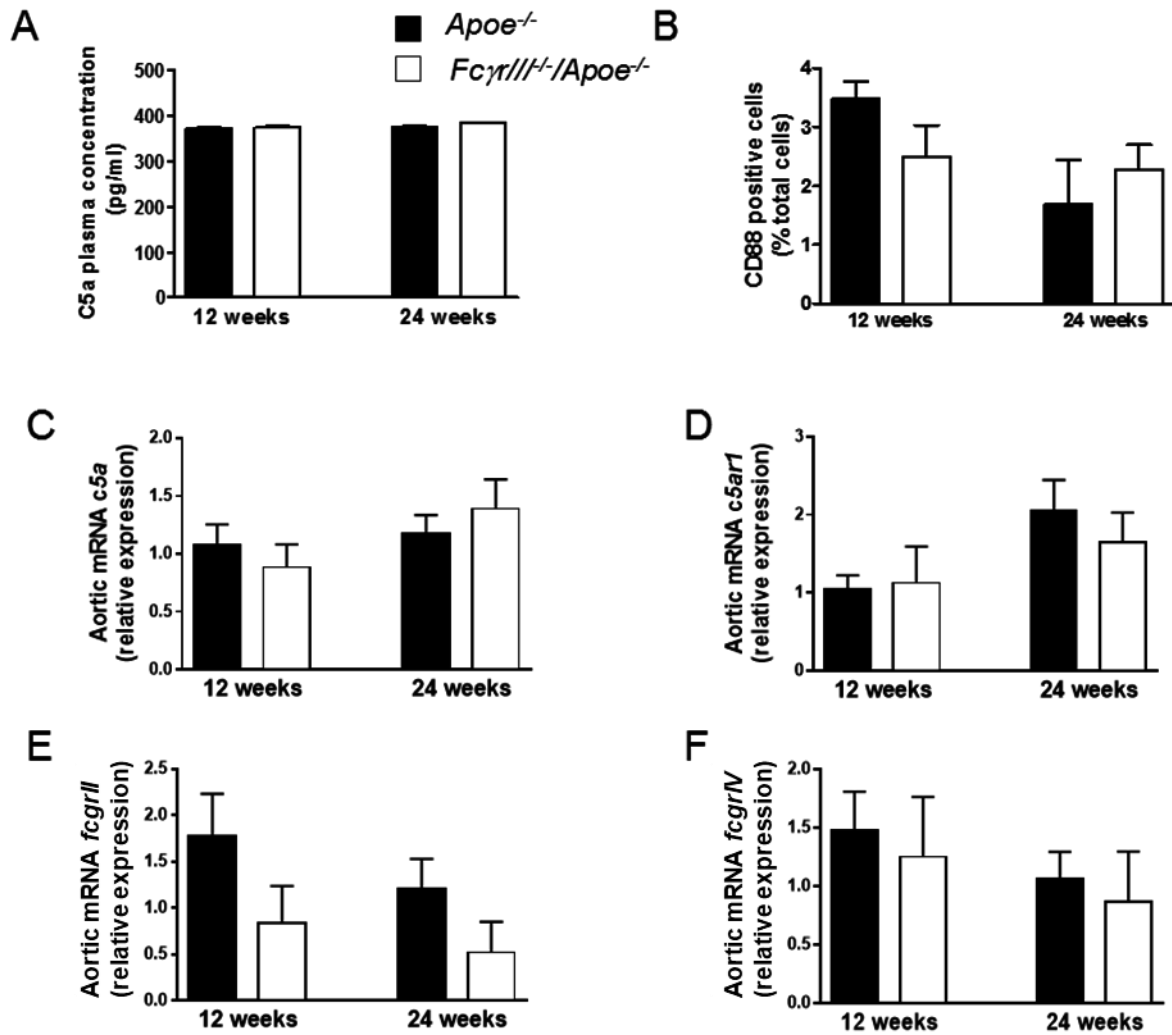
**Supplementary Figure S1. Effect of *FcγrIII* deficiency on neointimal plaque composition.** Quantification of Mac2+ cells (A), α-SMA+ cells (B), collagen content (C), and IgG accumulation (D) in *FcγrIII*<sup>-/-</sup>/*Apoe*<sup>-/-</sup> and *Apoe*<sup>-/-</sup> mice 4 weeks after wire-induced injury in carotid arteries. Graphs represent the mean ± SEM (n=6-7 mice / group). Two-tailed t-test, *FcγrIII*<sup>-/-</sup>/*Apoe*<sup>-/-</sup> vs. *Apoe*<sup>-/-</sup> mice. \*p< 0.05, \*\*p< 0.01, \*\*\*p<0.001. ns indicates not significant.

**A****B****C****D****E**

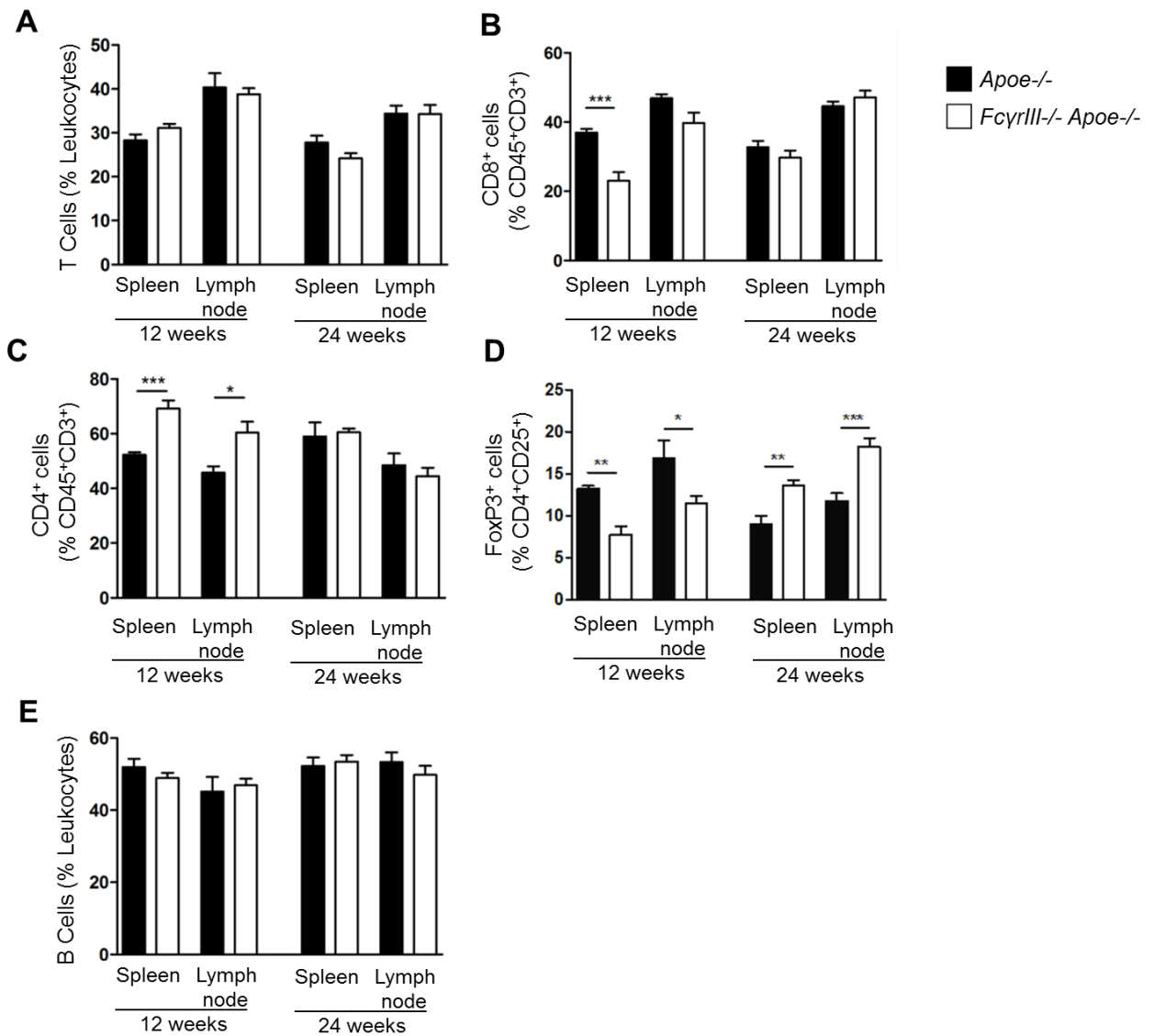
**Supplementary Figure S2. *FcγRIII* deficiency reduces early lesion formation in hyperlipidemic mice.** (A - E) *FcγRIII*<sup>-/-</sup>/*Apoe*<sup>-/-</sup> and *Apoe*<sup>-/-</sup> mice received HFD for 4 weeks. (A) Quantification of aortic root lesion sizes. (B) Representative Oil-Red-O stained lesion. (C) Quantification of lesions in whole aorta. (D) Quantification of lesional macrophage content. (E) Quantification of *Tnf-α*, *Il-1β*, and *Vcam-1* mRNA in lesions. Graphs represent the mean ± SEM (n=6-7 mice per group). Two-tailed t-test, *FcγRIII*<sup>-/-</sup>/*Apoe*<sup>-/-</sup> vs. *Apoe*<sup>-/-</sup> mice. \*p< 0.05.

**A****B**

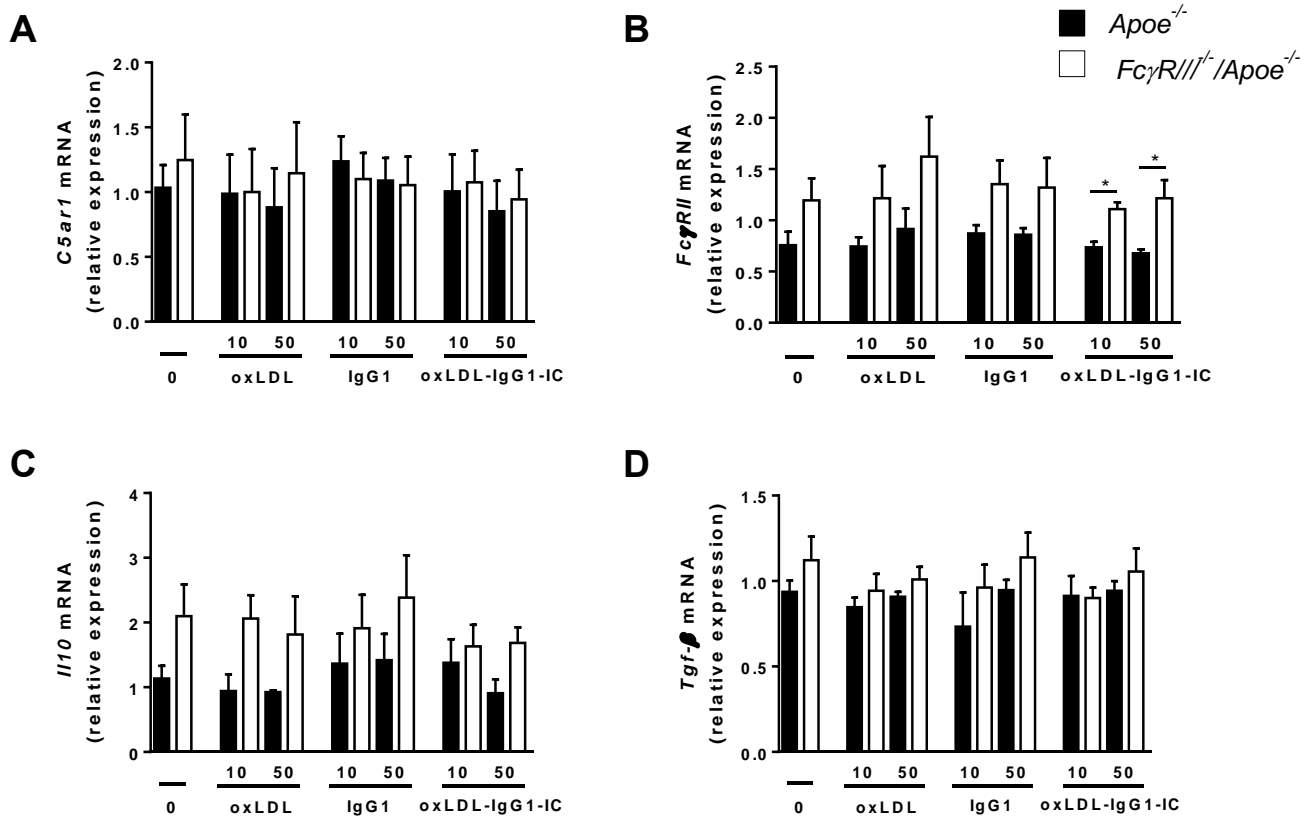
**Supplementary Figure S3. *FcγRIII* deficiency induces necrotic core expansion.** (A) Quantification of noncellular areas in *FcγRIII*<sup>-/-</sup>/*Apoe*<sup>-/-</sup> and *Apoe*<sup>-/-</sup> mice fed HFD for 12- and 24- weeks. Graphs represent the mean ± SEM (n=10-12 mice per group). (B) Representative images of DAPI-staining. Magnification x40; scale bars 100 μm; Two-tailed t-test, *FcγRIII*<sup>-/-</sup>/*Apoe*<sup>-/-</sup> vs. *Apoe*<sup>-/-</sup> mice. \*p < 0.05.



**Supplementary Figure S4. Effect of *FcγIII* deficiency on the expression of C5a, C5ar1, *FcγII* and *FcγIV* in vivo.** (A-F) *FcγIII*<sup>-/-</sup>/*Apoe*<sup>-/-</sup> and *Apoe*<sup>-/-</sup> mice received HFD for 12 and 24 weeks. (A) Measurement of complement component C5a plasma levels (n=6). (B) Quantification of C5ar1-positive cells (CD88<sup>+</sup>) in aortic root lesion (n=6). Quantification of mRNA expression levels of (C) *C5a*, (D) *C5ar1*, (E) *FcγII*, and (F) *FcγIV* in whole aorta as determined by RT-PCR (n=6). Graphs represent the mean ± SEM. Results of 3 repeated measurements.



**Supplementary Figure S5. Effect of *FcγRIII* deficiency on leukocyte subsets.** *FcγRIII*<sup>-/-</sup> *Apoe*<sup>-/-</sup> and *Apoe*<sup>-/-</sup> mice received HFD for 12 and 24 weeks. Thereafter spleen and lymph nodes were harvested for analysis by flow cytometry. Quantification of CD3<sup>+</sup> T cells (A), CD8<sup>+</sup> cells (B), CD4<sup>+</sup> cells (C), CD4<sup>+</sup>CD25<sup>+</sup>FoxP3<sup>+</sup> cells (D), and CD19<sup>+</sup> B cells (E). Data are mean ± SEM (n=6-9). Two-tailed t-test, *FcγRIII*<sup>-/-</sup>/*Apoe*<sup>-/-</sup> vs. *Apoe*<sup>-/-</sup> mice. \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001.



**Supplementary Figure S6. Effect of *FcγRII* deficiency pro-inflammatory responses in macrophages.** (A-D) Bone marrow-derived macrophages (BMDMs) from *FcγRII*<sup>-/-</sup>/*Apoe*<sup>-/-</sup> and *Apoe*<sup>-/-</sup> mice were isolated and stimulated with 10 μg/ml or 50 μg/ml oxLDL, IgG1 and oxLDL-IgG1 immune complexes (IC) for 6 h. Quantification of mRNA for *C5ar1* (A), *FcγRII* (B), *Il-10* (C), and *Tgf-β* (D) by RT-PCR. Graphs represent the mean ± SEM (n=3 repeated experiments). Two-tailed t-test, *FcγRII*<sup>-/-</sup>/*Apoe*<sup>-/-</sup> vs. *Apoe*<sup>-/-</sup> mice. \*p< 0.05.

**Supplementary Table S1 and associated representative images. Quantification of plaque cellular composition.** T lymphocyte (CD3<sup>+</sup>), B Lymphocyte (CD19<sup>+</sup>), neutrophils (MPO<sup>+</sup>), proliferating (Ki67<sup>+</sup>) and apoptotic (TUNEL<sup>+</sup>) cells were stained in aortic root lesions of *FcγRIII<sup>-/-</sup>/Apoe<sup>-/-</sup>* and *Apoe<sup>-/-</sup>* mice. Numbers represent the mean ± SEM (n=10).

	12 weeks HFD		24 weeks HFD	
	% of total cells in plaque area		% of total cells in plaque area	
	<i>Apoe<sup>-/-</sup></i>	<i>FcγRIII<sup>-/-</sup>/Apoe<sup>-/-</sup></i>	<i>Apoe<sup>-/-</sup></i>	<i>FcγRIII<sup>-/-</sup>/Apoe<sup>-/-</sup></i>
<b>CD3<sup>+</sup></b>	0.241 ± 0.160	0.277 ± 0.180	0.172 ± 0.115	0.448 ± 0.159
<b>CD19<sup>+</sup></b>	0.065 ± 0.07	0.007 ± 0.126	0.1363 ± 0.190	0.210 ± 0.190
<b>MPO<sup>+</sup></b>	0.475 ± 0.322	0.390 ± 0.251	0.265 ± 0.104	0.343 ± 0.290
<b>Ki67<sup>+</sup></b>	0 ± 0	0 ± 0	0.174 ± 0.132	0.0334 ± 0.066
<b>TUNEL<sup>+</sup></b>	0.454 ± 0.392	0.311 ± 0.175	0.0613 ± 0.119	0.0722 ± 0.056

Shown below are representative images. CD3<sup>+</sup> T lymphocytes (green), CD19<sup>+</sup> B lymphocytes (green), MPO<sup>+</sup> neutrophils (red), Ki67<sup>+</sup> proliferating (green) and TUNEL<sup>+</sup> apoptotic cells (red) were stained in aortic root lesions of *FcγRIII<sup>-/-</sup>Apoe<sup>-/-</sup>* and *Apoe<sup>-/-</sup>* mice fed HFD for 24 weeks. Cell nuclei staining with DAPI (blue). White arrows indicate positive stained cells. Scale bars 100 μm.

