

SUPPLEMENTAL MATERIAL

Table S1. Effect size measurement for FN staining area in carotid arteries after TAC in mice from main figure 1. Effect size computed for pairwise comparisons using Cohen’s d calculator (the difference between two means divided by a standard deviation for the data). Effect size score was assigned as follows, >0.2 small, >0.5 medium, and >0.8 large effect size

	Effect size for comparison of WT TAC right carotid to WT sham carotid	Effect size for comparison of WT TAC left carotid to WT sham carotid
FN staining area	0.9668	0.1609

Table S2. Effect size measurement for lumen area and vessel area in carotid arteries after TAC in mice from main figure 1. Effect size computed for pairwise comparisons using Cohen’s d calculator (the difference between two means divided by a standard deviation for the data). Effect size score was assigned as follows, >0.2 small, >0.5 medium, and >0.8 large effect size.

	Effect size for comparison of WT TAC right carotid to WT TAC left carotid	Effect size for comparison of WT TAC right carotid to $\alpha 5/2$ TAC right carotid	Effect size for comparison of $\alpha 5/2$ TAC right carotid to $\alpha 5/2$ TAC left carotid
Lumen area	0.8562	0.8277	0.5598
Vessel area	0.7829	0.5098	0.5706

Table S3. Effect size measurement for fibronectin, VCAM, ICAM, CD68 and p-NFkb staining areas in carotid arteries after TAC in mice from main figure 2. Effect size computed for pairwise comparisons using Cohen’s d calculator (the difference between two means divided by a standard deviation for the data). Effect size score was assigned as follows, >0.2 small, >0.5 medium, and >0.8 large effect size.

	Effect size for comparison of WT TAC right carotid to WT TAC left carotid	Effect size for comparison of WT TAC right carotid α 5/2 TAC right carotid	Effect size for comparison of α 5/2 TAC right carotid to α 5/2 TAC left carotid
FN staining area	0.8044	0.777	0.6082
VCAM staining area	0.7524	0.8176	-0.553
ICAM staining area	0.8331	0.8249	0.2535
CD68 staining area	0.8131	0.8262	0.1961
p-NFkB staining area	0.8748	0.8748	0

Table S4. Effect size measurement for lumen area in carotid arteries after PCL in mice from main figure 3. Effect size computed for pairwise comparisons using Cohen's d calculator (the difference between two means divided by a standard deviation for the data). Effect size score was assigned as follows, >0.2 small, >0.5 >0.8 large effect size

	Effect size for comparison of WT pcl right carotid to WT pcl left carotid	Effect size for comparison of $\alpha 5/2$ pcl right carotid to $\alpha 5/2$ pcl left carotid
Lumen area	0.751	0.0974

Table S5. Effect size measurement for fibronectin, VCAM, ICAM, CD45, CD68 and p-NFkb staining areas in carotid arteries after PCL in mice from main figures 3 and 4. . Effect size computed for pairwise comparisons using Cohen’s d calculator (the difference between two means divided by a standard deviation for the data). Effect size score was assigned as follows, >0.2 small, >0.5 medium, and >0.8 large effect size.

	Effect size for comparison of WT pcl left carotid to WT pcl right carotid.	Effect size for comparison of WT pcl left carotid to α 5/2 pcl left carotid	Effect size for comparison of WT pcl left carotid to α 5/2 pcl right carotid
Fibronectin	0.7394	0.7203	0.7403
VCAM	0.8246	0.8255	0.8653
ICAM	0.9353	0.9355	0.9209
CD45	0.888	0.8198	0.8795
CD68	0.7846	0.7231	0.7733
p-NFkB	0.6433	0.6433	0.6433

Table S6. Effect size measurement for Oil red staining, plaque area, CD68 staining in carotid arteries after PCL in hypercholesterolemic mice from main figures 5. Effect size computed for pairwise comparisons using Cohen's d calculator (the difference between two means divided by a standard deviation for the data). Effect size score was assigned as follows, >0.2 small, >0.5 medium, and >0.8 large effect size.

	Effect size for comparison of WT.ApoE left carotid to $\alpha 5/2$.ApoE left carotid	Effect size for comparison of WT.ApoE left carotid to WT.ApoE right carotid	Effect size for comparison of WT.ApoE left carotid to $\alpha 5/2$.ApoE right carotid
Oil red staining area	0.7627	0.959	0.959
Plaque area	0.7981	0.8726	0.8719
CD68 staining area	0.7842	0.8621	0.8597

Figure S1. WT mice subjected to sham and TAC surgery. Macroscopic observation revealed thickening of the right carotid artery compared to left and sham carotid arteries.



Figure S2. Fluorescence signal intensity of inflammatory markers in carotid arteries after TAC in mice from main Fig 2: **A.** Fibronectin; **B.** VCAM; **C.** ICAM; **D.** CD68; **E.** p-NF- κ B. Statistical analysis: one-way ANOVA with Tukey's post hoc analysis; values are means \pm SEM; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$ compared with WT mice.

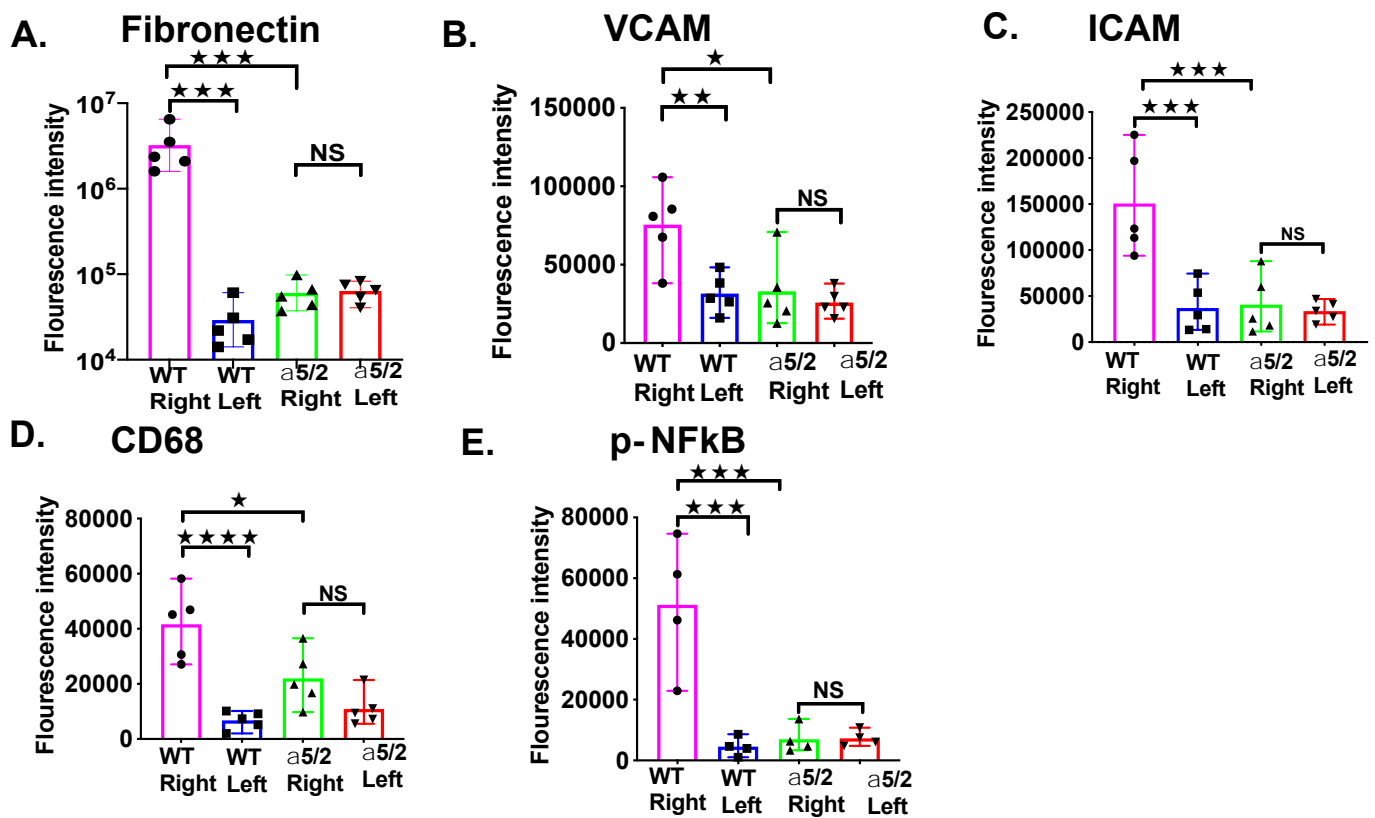


Figure S3. Partial carotid ligation in mice decreases blood flow magnitude and introduces disturbances into the flow patterns in the common carotid, resulting in inflammatory activation of the endothelium and reduced lumen volume. Briefly, 3 out of 4 branches of the left common carotid artery (left external carotid, internal carotid, and occipital artery) were ligated with suture, while superior thyroid artery was left intact.

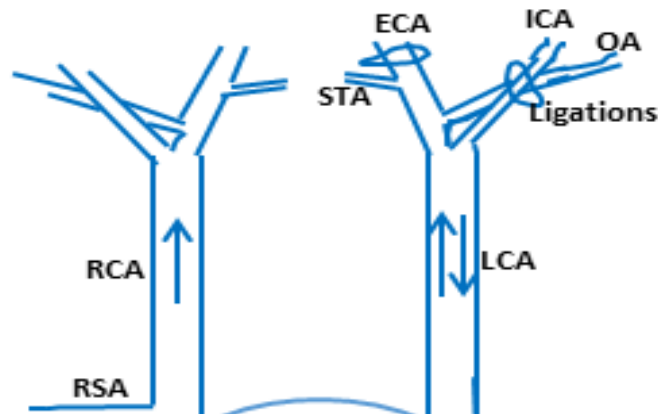


Figure S4. Fluorescence signal intensity of inflammatory markers in carotid arteries after PCL in mice from main figure 4: A. Fibronectin; B. VCAM; C. ICAM; D. CD68; E. CD45; F. p-NF- κ B. Statistical analysis: one-way ANOVA with Tukey's post hoc analysis; values are means \pm SEM; * p <0.05, ** p <0.01, *** p <0.001 compared with WT mice.

