

Figure S1. Glucose response to different STZ dosage in WT mice

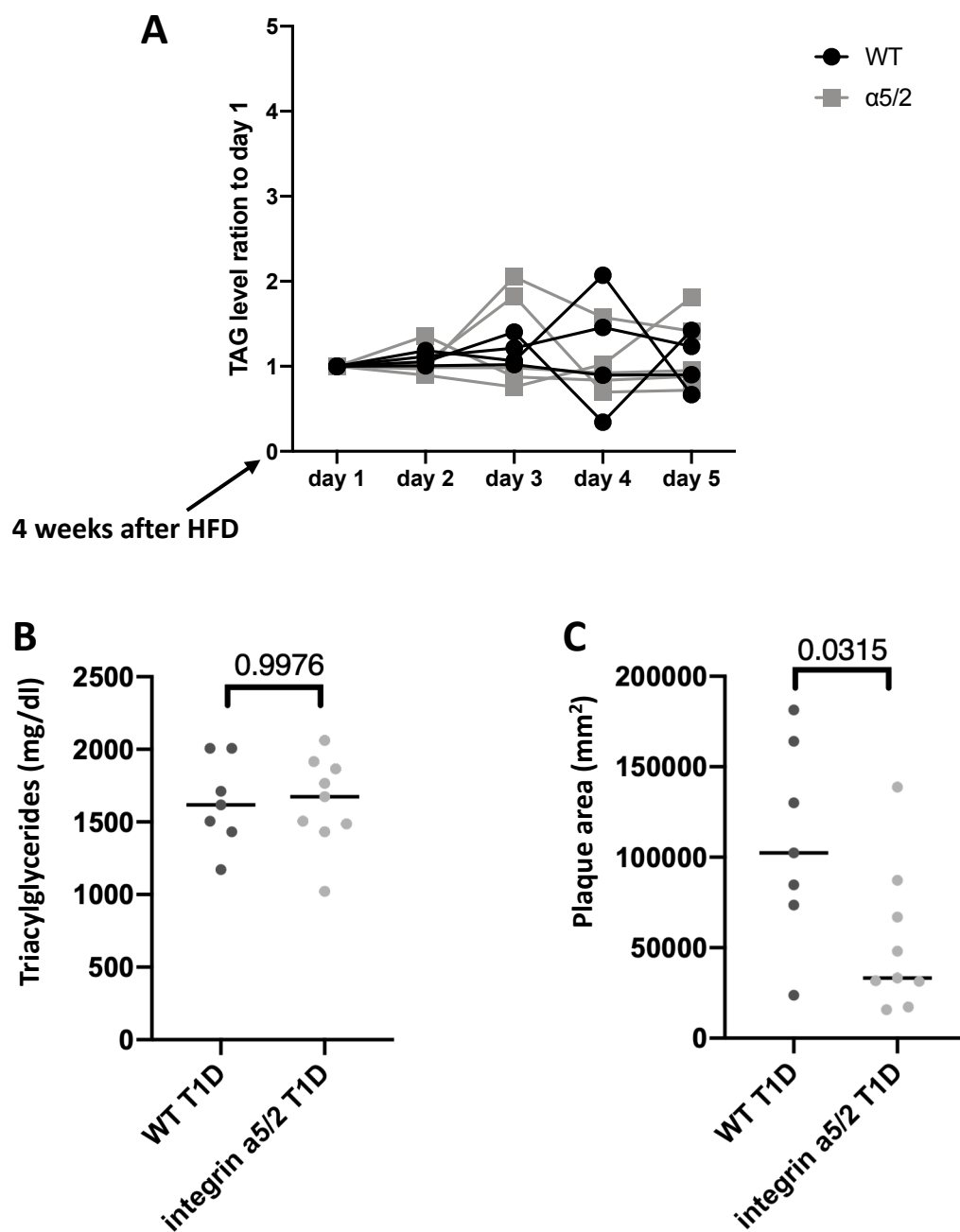


Figure S2. 5-days consecutive TAG level and TAG matched WT T1D and α5/2 T1D mice lesion area in aortic root

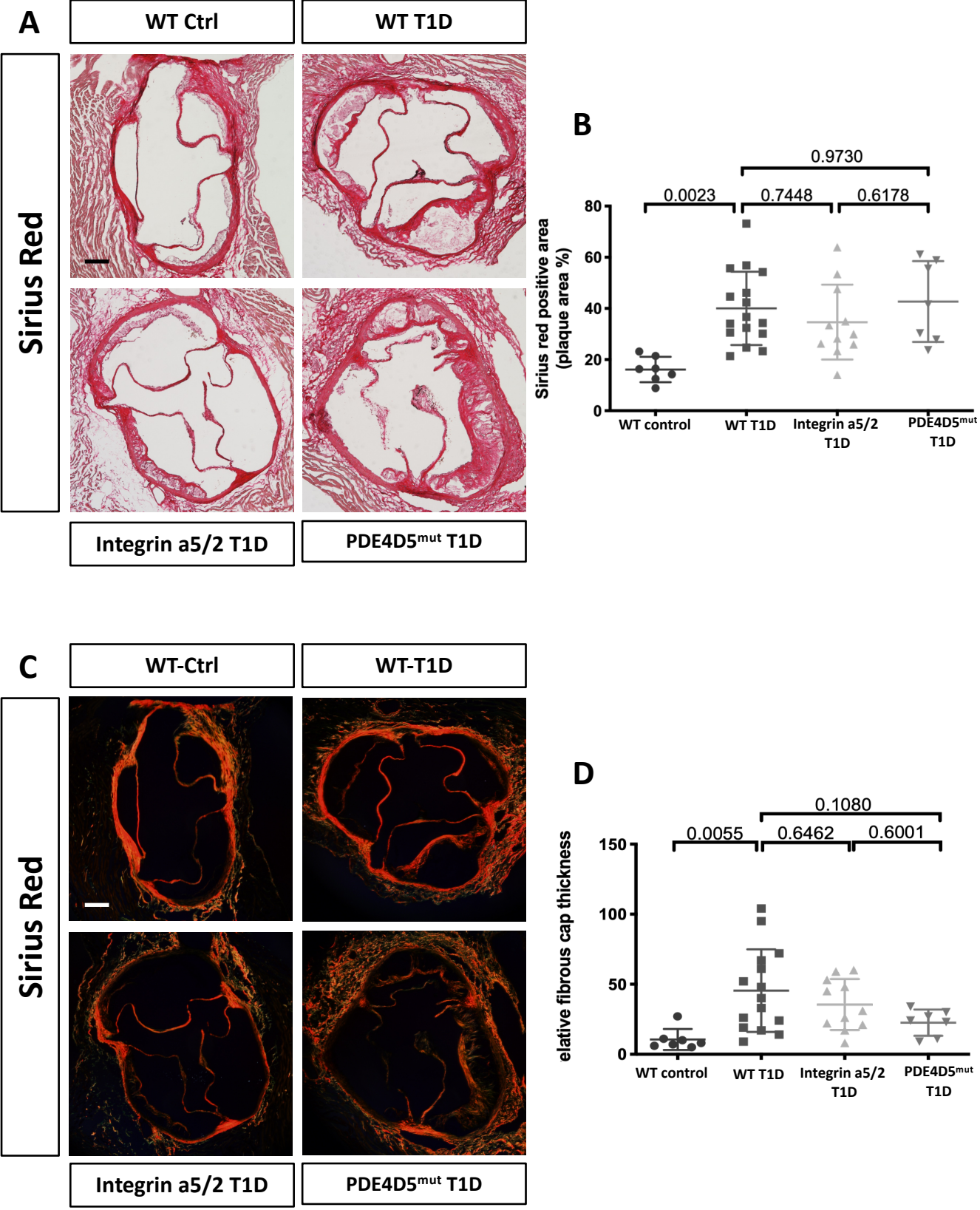


Figure S3 Collagen in the fibrous cap.

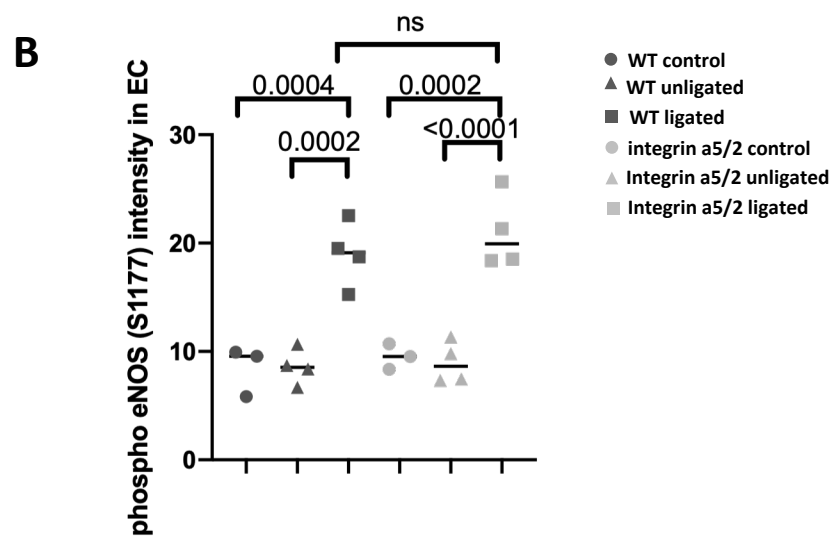
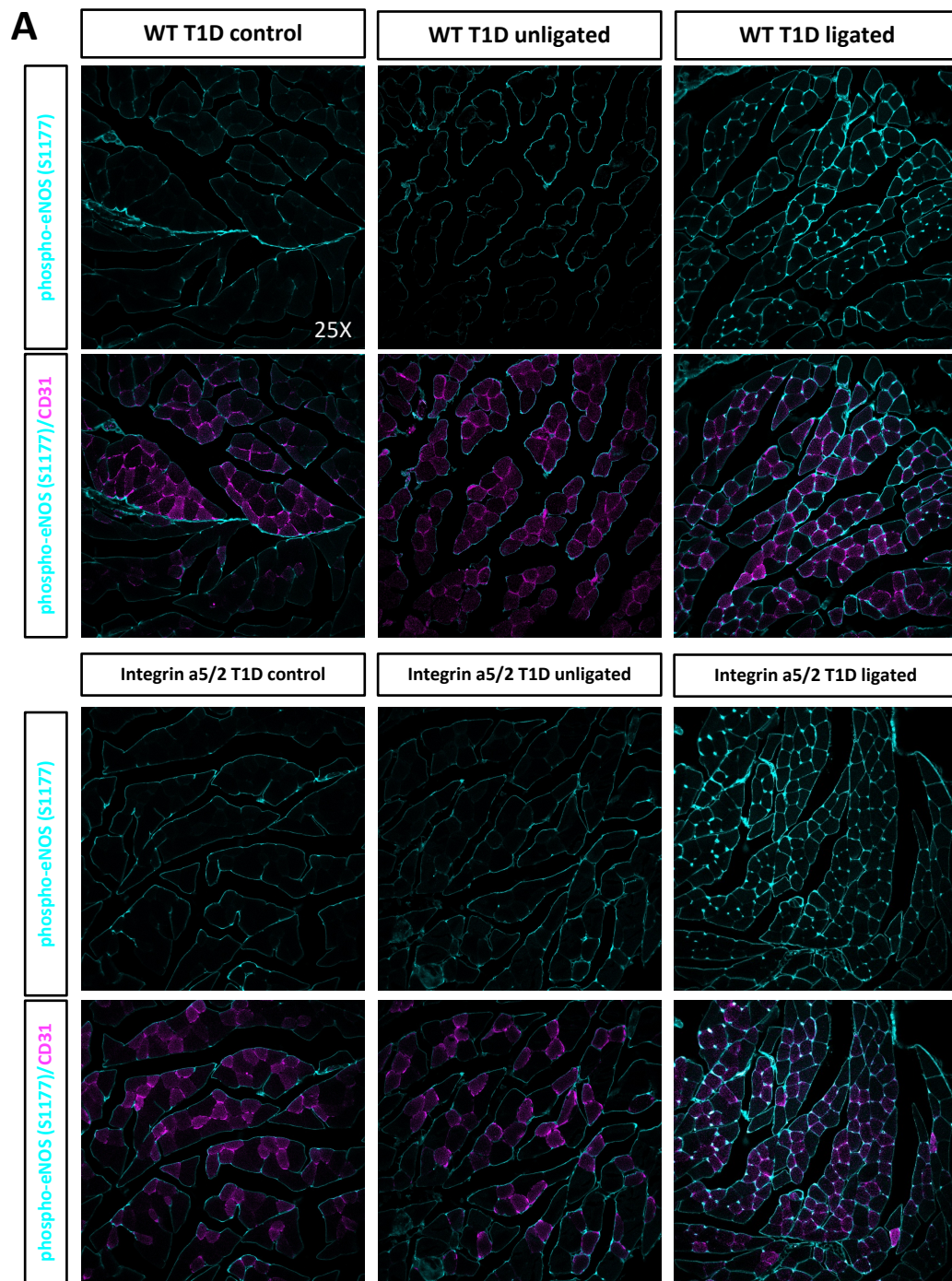


Figure S4 Phospho-eNOS in calf muscle.

20X

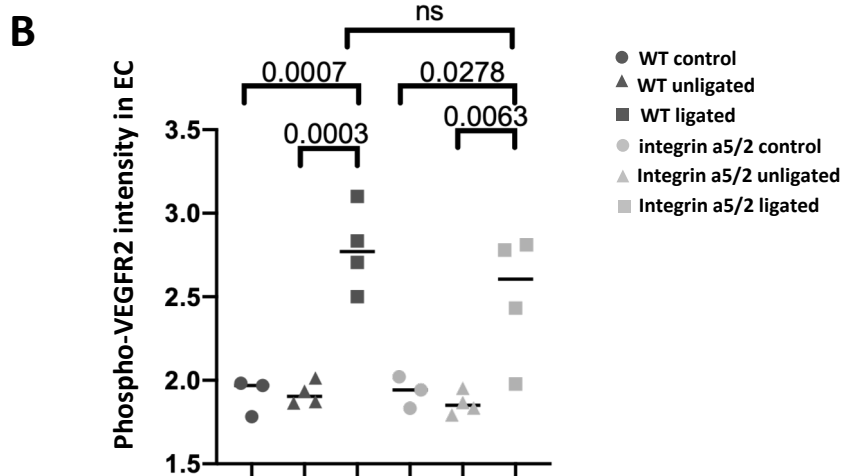
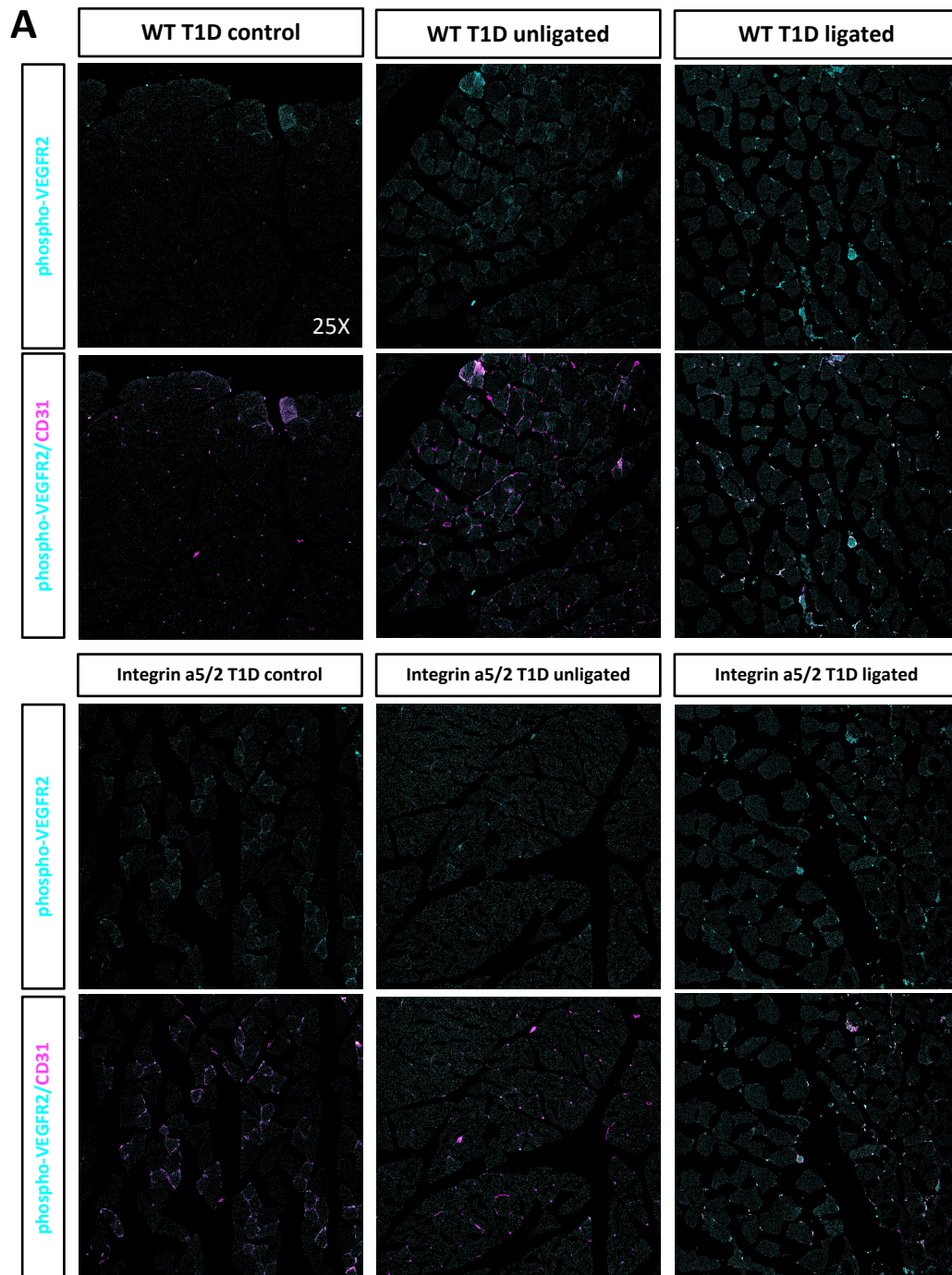
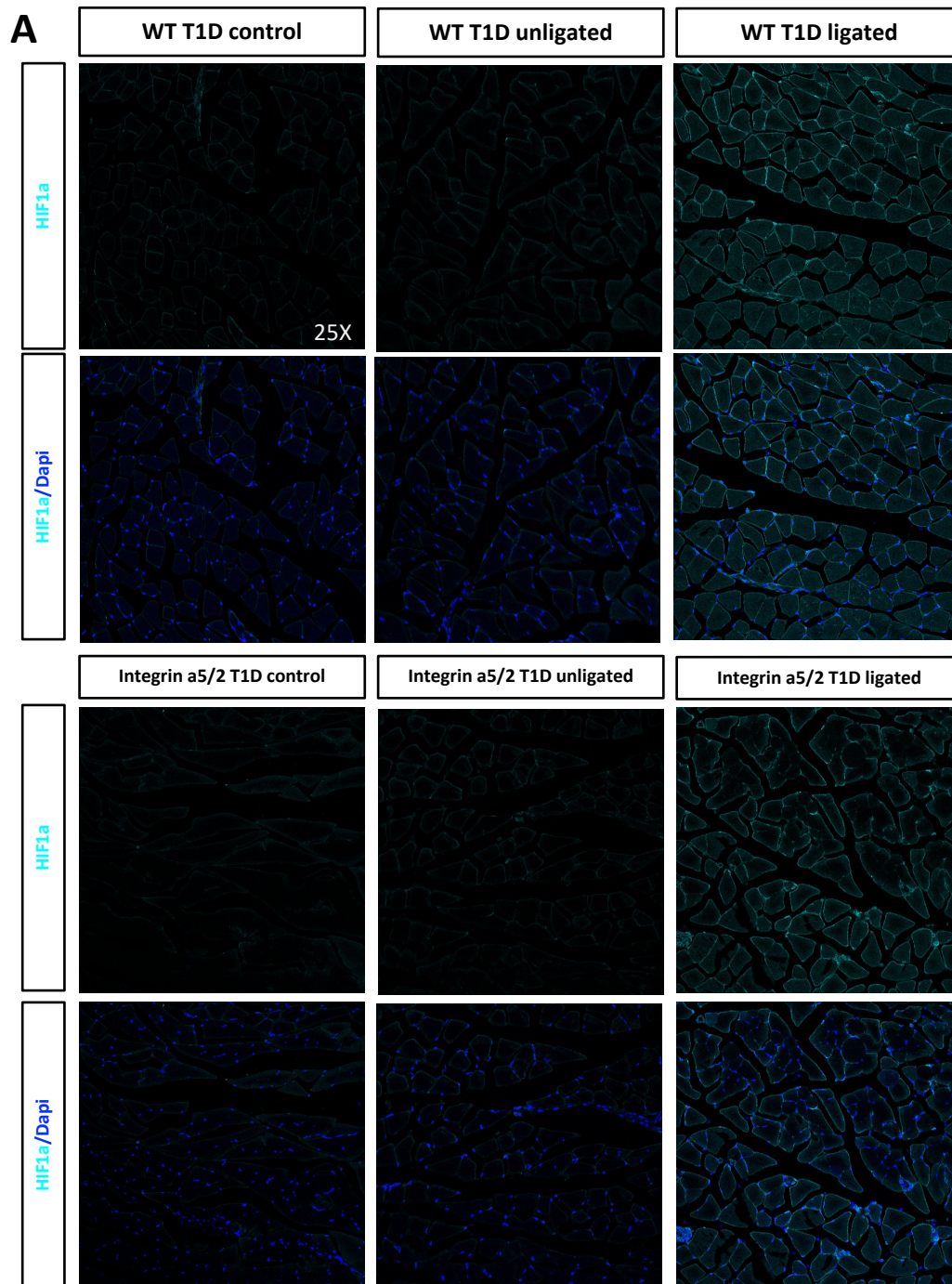


Figure S5 Phospho-VEGFR2 in calf muscle.

20X



B

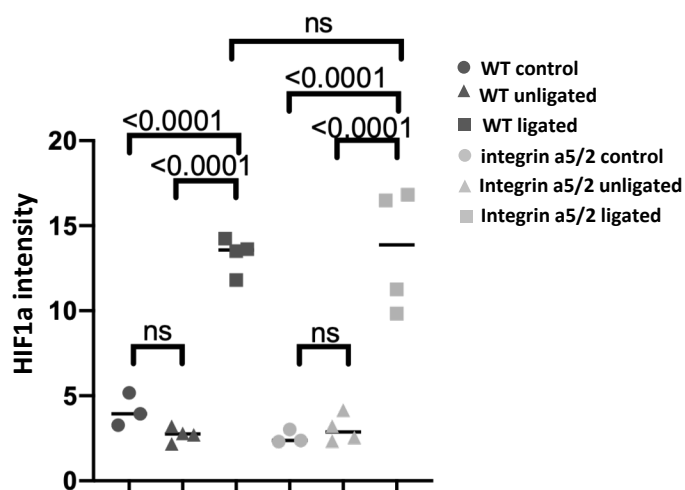


Figure S6 HIF1α in calf muscle.

A

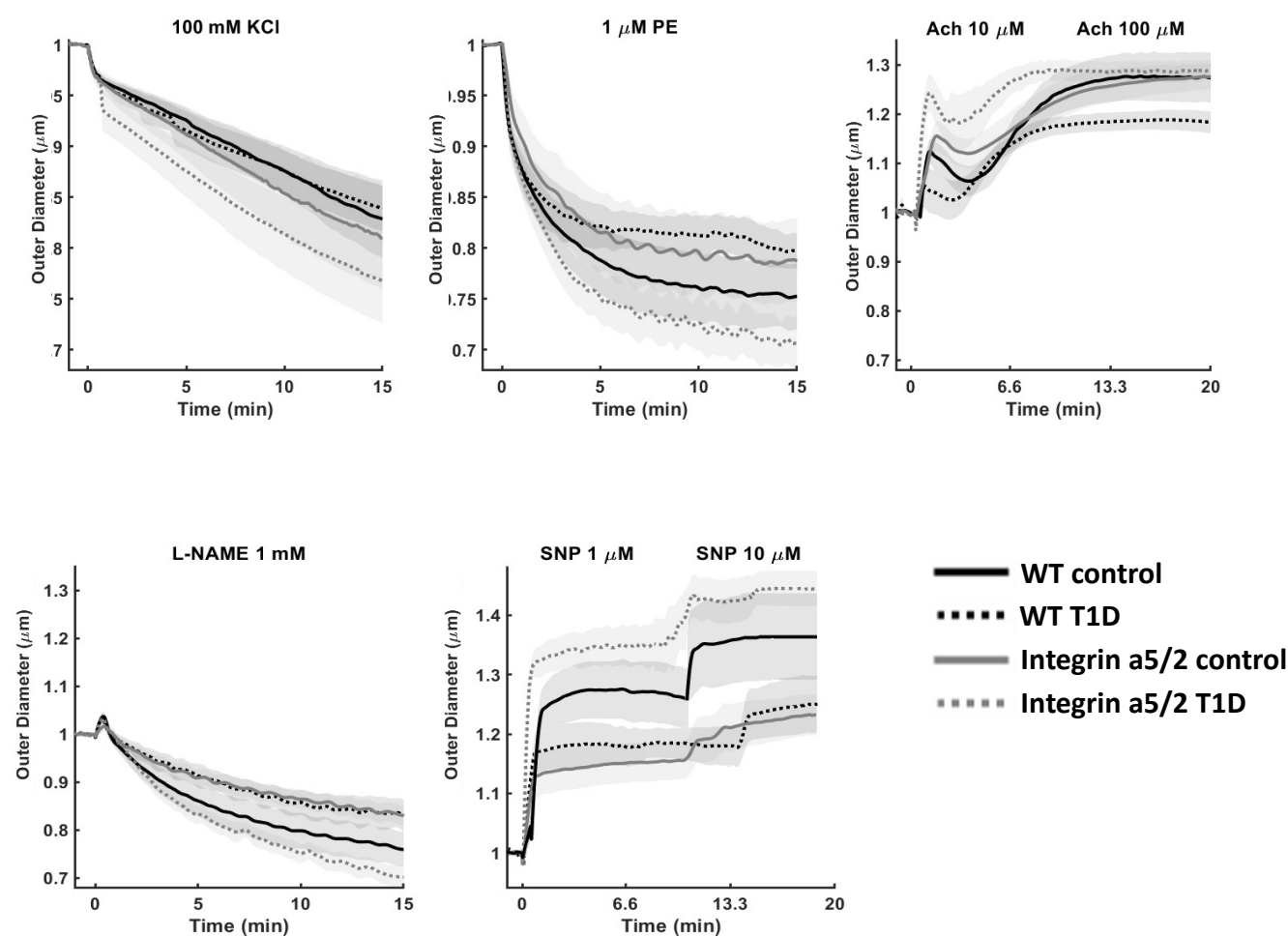


Figure S7. Normalized outer diameter as a function of time during ex vivo vasoactive testing for the right common carotid artery from citric buffer- (Ctrl) or STZ- (DB) injected WT and integrin $\alpha 5/2$ mice. Lines indicate mean values and shaded areas indicate the standard error. KCl, potassium chloride; AngII, angiotensin II; PE, phenylephrine (PE); Ach, acetylcholine; L-NAME, N ω -nitro-L-arginine methyl ester.

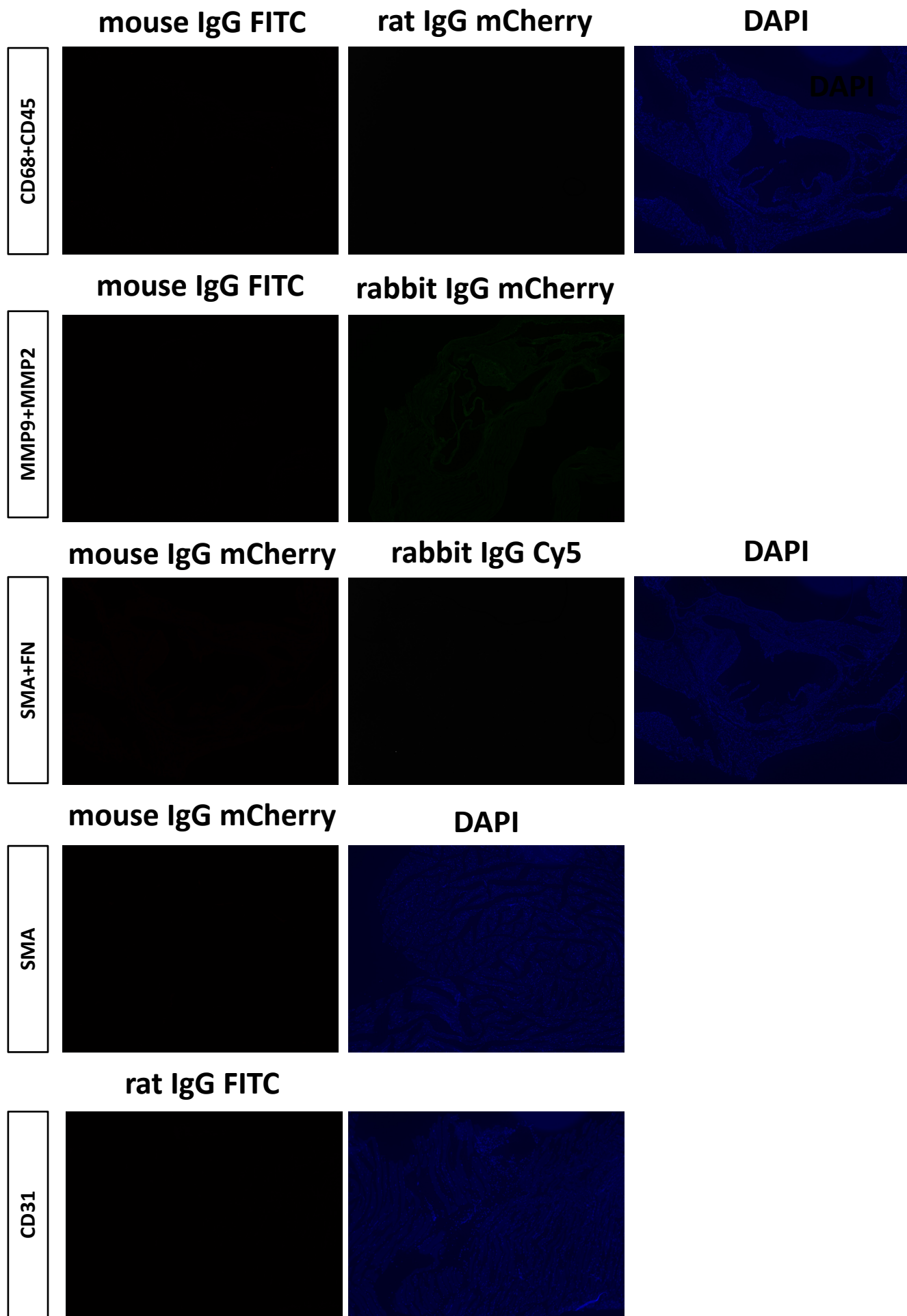


Figure S8. Negative control for IHC with species-matched isotype IgG

Supplementary figure legends

Figure S1. Blood glucose after injection STZ at indicated dosage in WT male and female mice

Figure S2. A. TAG levels on 5 consecutive days; normalized to day 1 B. TG matched WT T1D and integrin $\alpha 5/2$ T1D mice TG level quantification; C. TG matched WT T1D and integrin $\alpha 5/2$ T1D mice aortic root plaque area quantification. Mouse number: WT T1D n=4, integrin $\alpha 5/2$ T1D n=5 for A; WT T1D n=7, integrin $\alpha 5/2$ T1D n=5 for B and C. Student t test was used in Fig. S2 B and C.

Figure S3. A. Representative images of picosirius red staining of aortic root sections; B. Quantification of images in A for multiple mice. C. Representative images of picosirius red staining of aortic root sections by polarized microscopy; D. Quantification of result from C for multiple mice. Mouse number: WT control n=7, WT T1D n=16, integrin $\alpha 5/2$ T1D n=11, PDE4D^{mut} T1D n=7. One-way ANOVA was used in Fig. S3 B and D.

Figure S4. A. Representative images of phospho-eNOS IF staining of calf muscle; B. Quantification of phospho-eNOS intensity in EC from A. Mouse numbers: WT control n=3, WT T1D n=4, integrin $\alpha 5/2$ control n=3, integrin $\alpha 5/2$ T1D n=4. One-way ANOVA was used in Fig. S4 B.

Figure S5. A. Representative images of phospho-VEGFR2 IF staining of calf muscle; B. Quantification of phospho-VEGFR2 intensity in EC. Mouse numbers: WT control n=3, WT T1D n=4, integrin $\alpha 5/2$ control n=3, integrin $\alpha 5/2$ T1D n=4. One-way ANOVA was used in Fig. S5 B.

Figure S6. A. Representative images of HIF1 α IF staining of calf muscle; B. Quantification of images from A. Mouse numbers: WT control n=3, WT T1D n=4, integrin $\alpha 5/2$ control n=3, integrin $\alpha 5/2$ T1D n=4. One-way ANOVA was used in Fig. S6 B.

Figure S7. Normalized outer diameter as a function of time during ex vivo vasoactive testing for the right common carotid artery from citrate buffer- (Ctrl) or STZ- (DB) injected WT and integrin $\alpha 5/2$ mice. Lines indicate mean values and shaded areas indicate the standard error. Normalized outer diameter as a function of time during ex vivo vasoactive testing for the right common carotid artery from citrate buffer control (Ctrl) or STZ (DB) -injected WT and integrin $\alpha 5/2$ mice. Lines indicate mean values and shaded areas indicate standard errors. KCl, potassium chloride; AngII, angiotensin II; PE, phenylephrine (PE); Ach, acetylcholine; L-NAME, N ω -nitro-L-arginine methyl ester.

Figure S8. Negative control images for all the antibodies used in this experiment