SUPPLEMENTARY FIGURES:
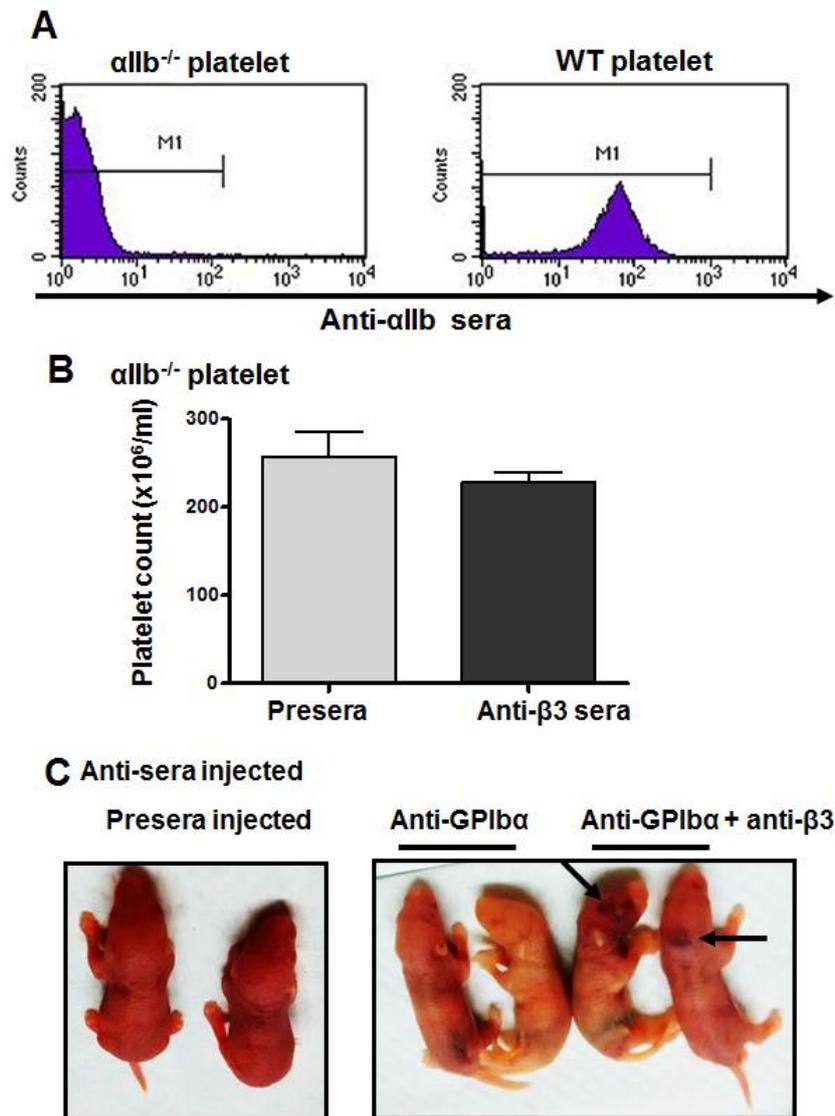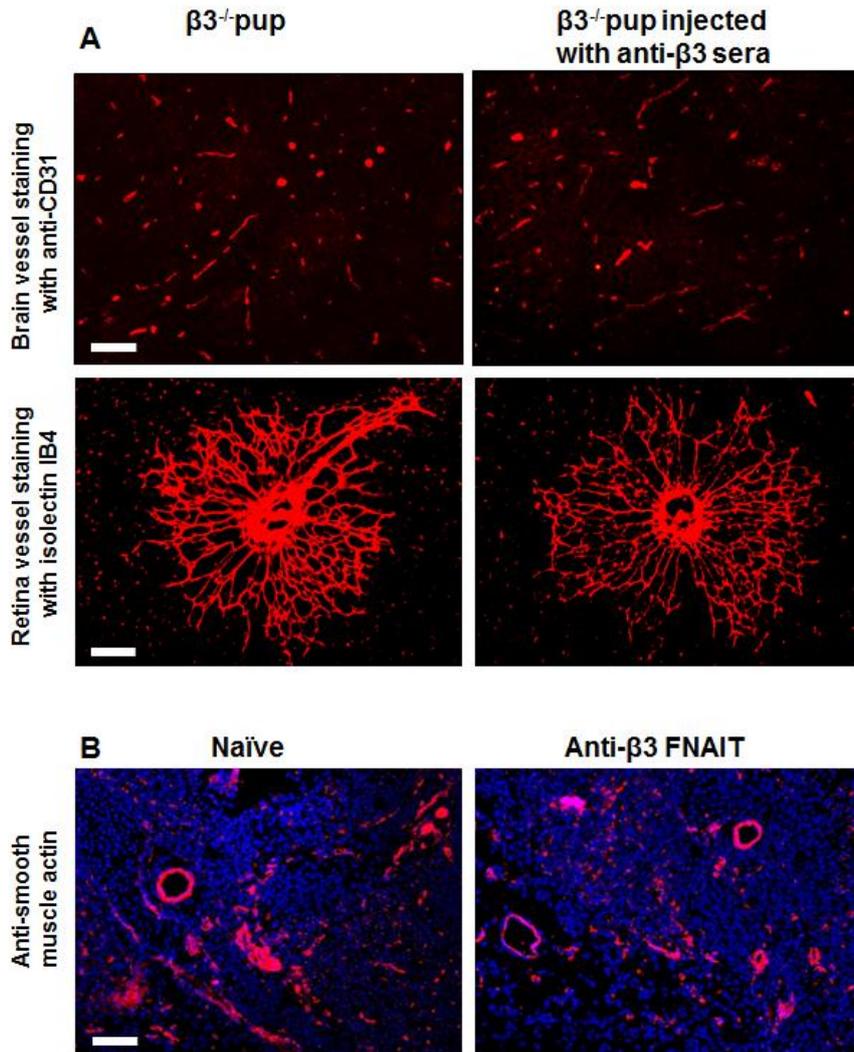

**Supplementary figure 1: Anti-β3 antibodies did not bind to αIIb deficient neonate platelets but induced ICH in anti-GPIbα sera pretreated pups. A)** Anti-β3 antibodies did not appear bind to αIIb deficient neonate platelets as compared to wild-types platelet. **B)** Anti-β3 antibodies did not significantly decreased platelet counts in αIIb deficient neonates. **C)** ICH was observed only in anti-GPIbα pretreated pups injected with anti-β3 sera. No ICH was observed in pups injected with anti-GPIbα sera alone. Statistical analysis was performed using an unpaired 2 tailed Student's t test. n=4-6 mice per group.

Supplementary figure 2: Retinal and brain vascular development in β3 deficient mice and smooth muscle actin staining in the brains of anti-β3-mediated FNAIT pups. A) Representative images of brain sections stained by anti-CD31 antibodies and representative fluorescent images of isolectin (IB4 conjugated to Alexa 594) immunostaining of retinas from $\beta3^{-/-}$ PND2 pups are shown. Blood vessel development in the retina and brain of both naïve and anti-β3 sera injected $\beta3^{-/-}$ neonates was normal. **B)** A decreasing trend of SMA expression was observed in the brains of anti-β3-mediated FNAIT pups. n=3 mice per group. The scale bar represents 200 μm of brain images captured at 10X magnification and 500 μm of retina picture captured at 4X magnification.
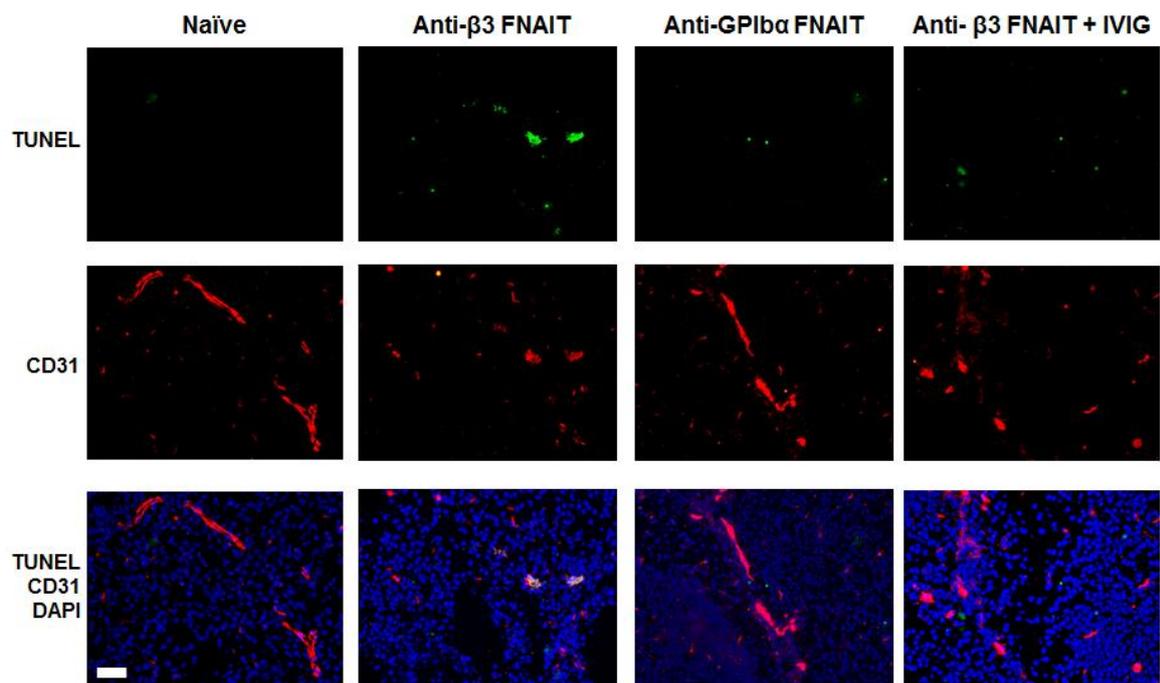
Supplementary figure 3: Increased apoptosis in the brain vessels of anti-β3 integrin-mediated FNAIT pups. Representative images of TUNEL (green) and CD31 (red) co-staining are presented. Increased apoptosis was detected in the brain blood vessels of anti-β3 integrin-mediated FNAIT pups compared to naive controls and anti-GPIbα mediated FNAIT pups. Maternal IVIG administration prevented brain blood vessel apoptosis in anti-β3 integrin-mediated FNAIT pups. n=3 mice per group. The scale bar represents 50 μm of brain images captured at 40X magnification.
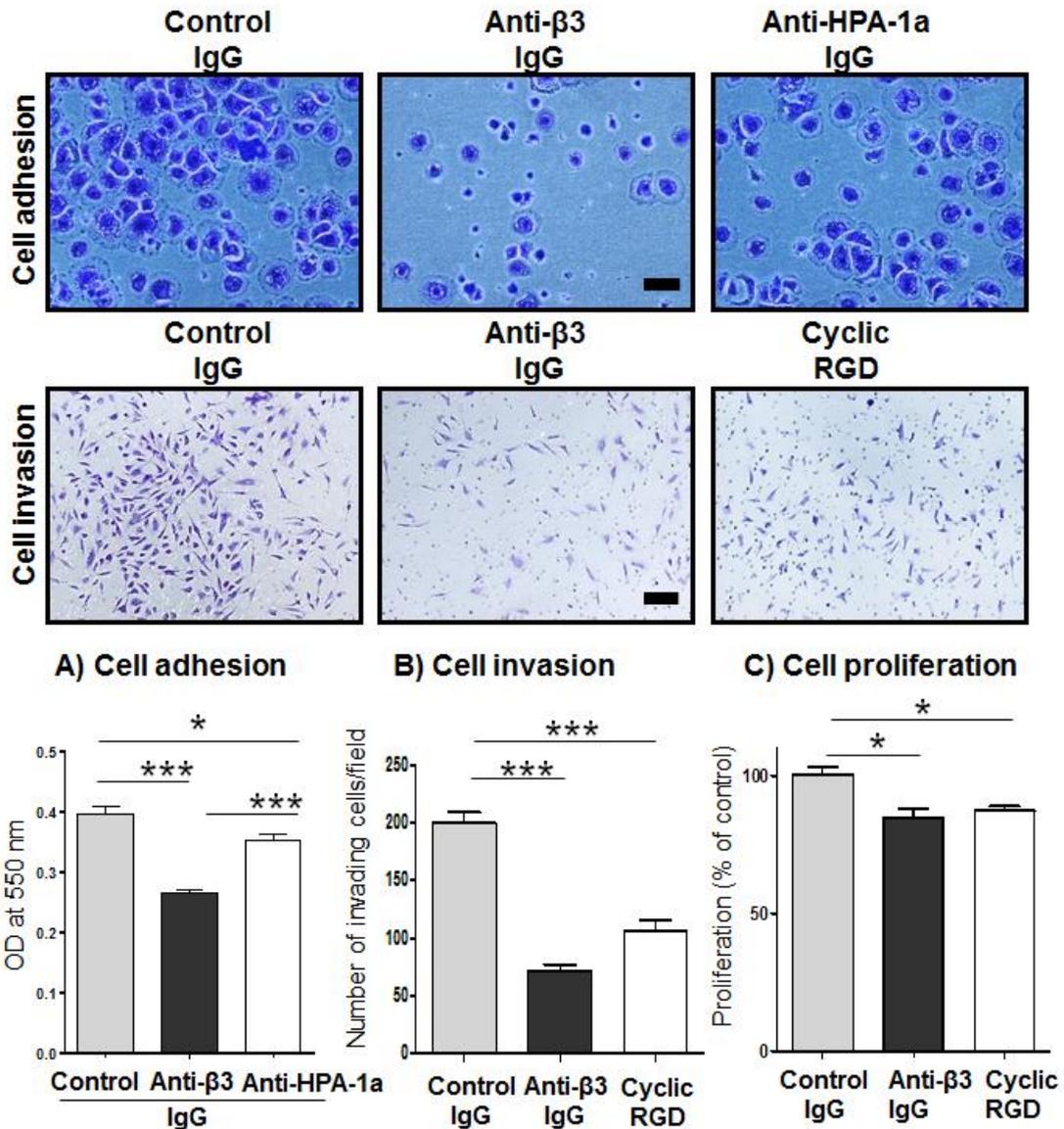
Supplementary figure 4: HUVEC invasion and adhesion in presence of anti-β3 IgG, anti-HPA-1a IgG and cyclic RGD. A) Both anti-β3 integrin IgG and anti-HPA-1a IgG significantly inhibited HUVEC adhesion to fibronectin coated plates. **B and C)** Anti-β3 integrin IgG significantly inhibited HUVEC invasion into Matrigel matrix and proliferation, respectively, in the same manner as cyclic Arginine- Glycine- Aspartic acid (cyclic RGD). The scale bars of the photomicrographs provided represent 100 μm at 20X magnification in the top panel and 200 μm at 10X magnification in bottom panel (experiments were repeated twice in triplicate for each condition).