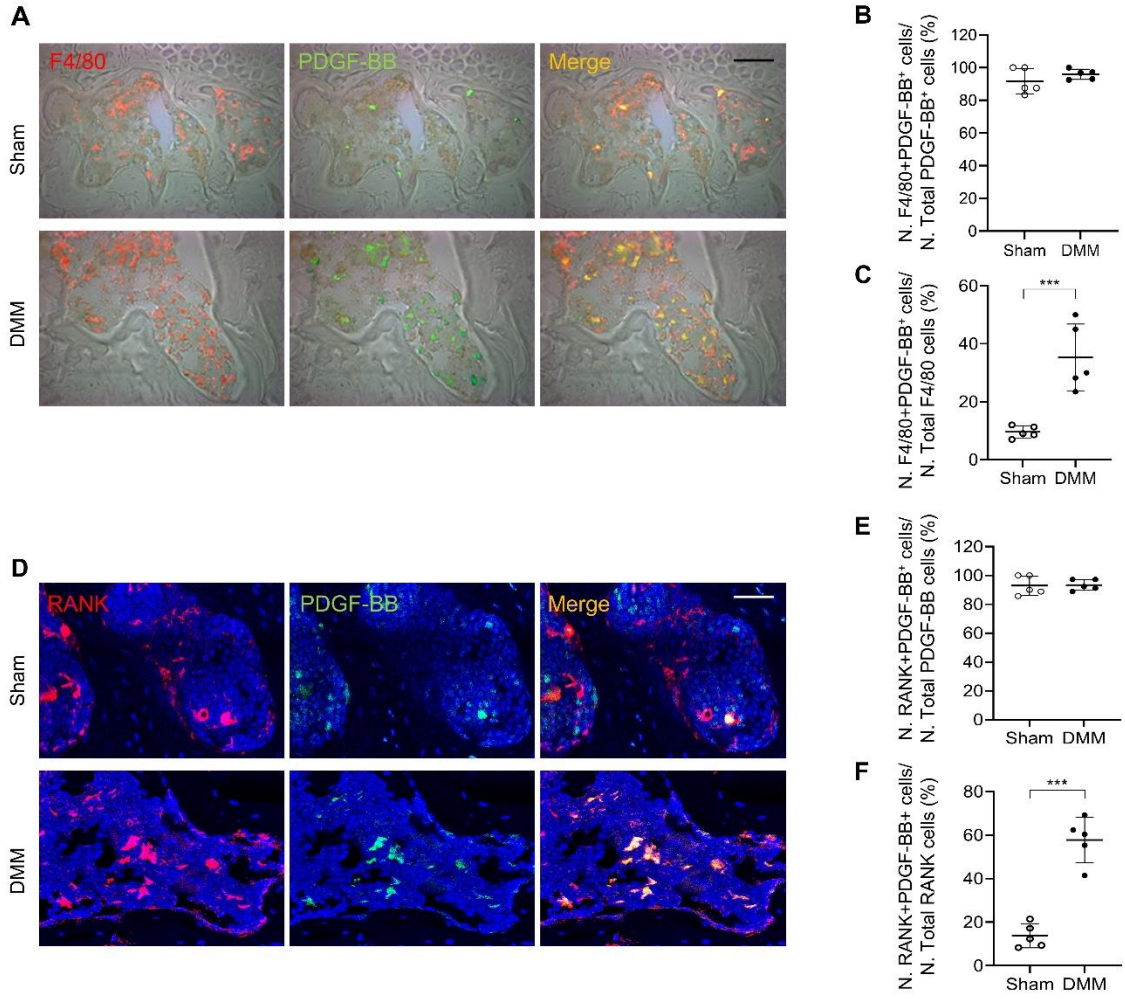
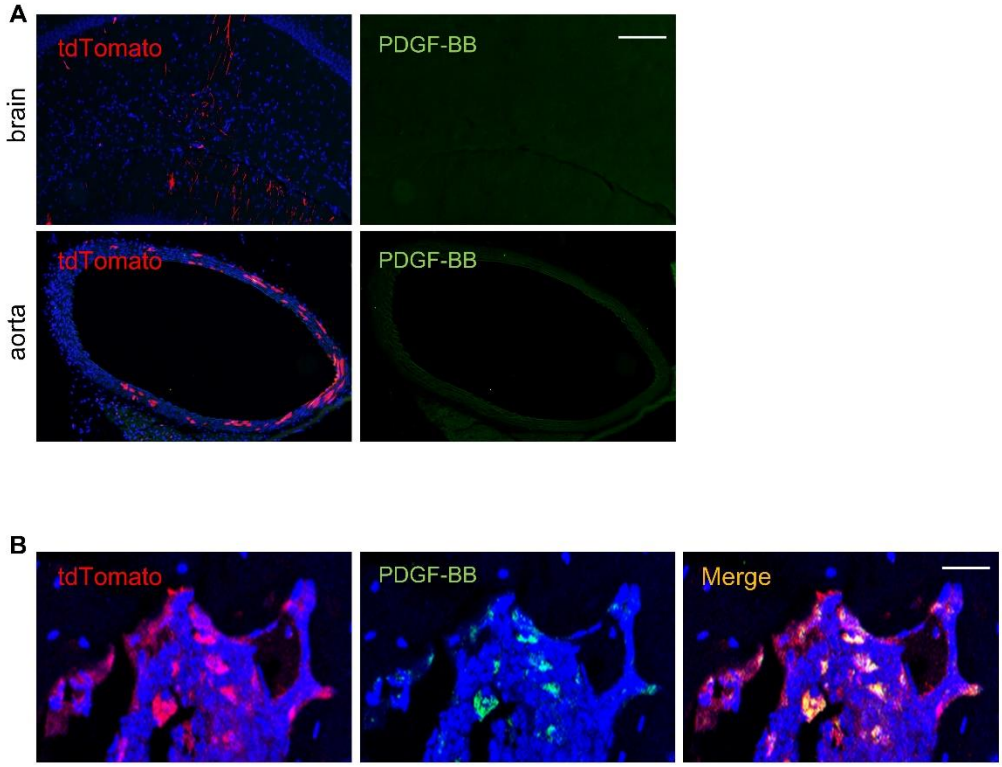


Supplemental Figure. 1 Three-month-old C57BL/6 mice underwent destabilization of the medial meniscus (DMM) or sham surgery. n=5 mice per group. Immunofluorescence staining of F4/80 (red) and PDGF-BB (green) (**A**) with quantifications of the percentage of F4/80^{+}PDGF-BB^{+} cells/ Total PDGF-BB^{+} cells (**B**) and the percentage of F4/80^{+}PDGF-BB^{+} cells/ Total F4/80^{+} cells (**C**) per tissue area, respectively in subchondral bone of the tibia. Scale bar, 40μm. Immunofluorescence staining of RANK (red) and PDGF-BB (green) (**D**) with quantifications of the percentage of RANK^{+}PDGF-BB^{+} cells/ Total PDGF-BB^{+} cells (**E**) and the percentage of RANK^{+}PDGF-BB^{+} cells/ Total RANK^{+} cells (**F**) per tissue area, respectively, in subchondral bone of the tibia. Scale

bar, 40μm. ***$p < 0.001$. Statistical significance was determined by unpaired, 2-tailed Student's t test.



Supplemental Figure. 2 Brain, aorta and knee joints were harvested from three-month-old *TRAP-Cre; Rosa26-tdTomato* mice (**A**) Immunofluorescence staining of tdTomato (red) and PDGF-BB (green) in brain and aorta, Scale bar, 100μm. (**B**) Immunofluorescence staining of tdTomato (red) and PDGF-BB (green) in subchondral bone. Scale bar, 40μm.