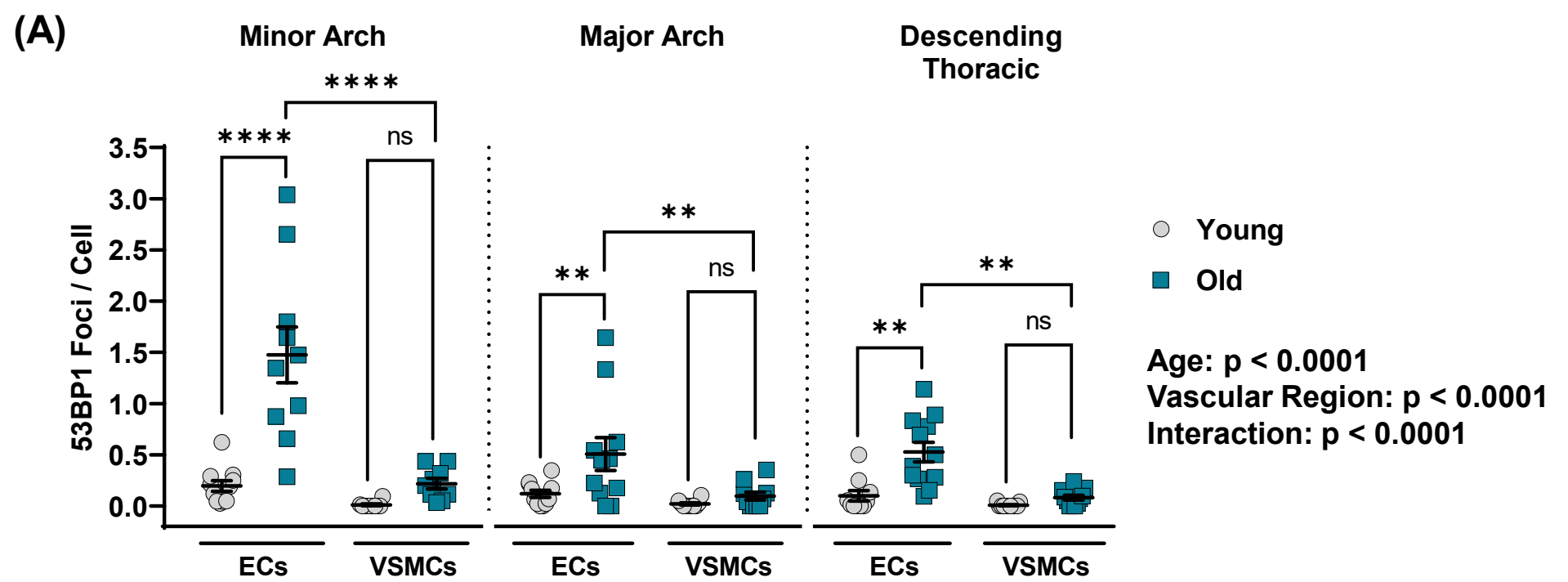
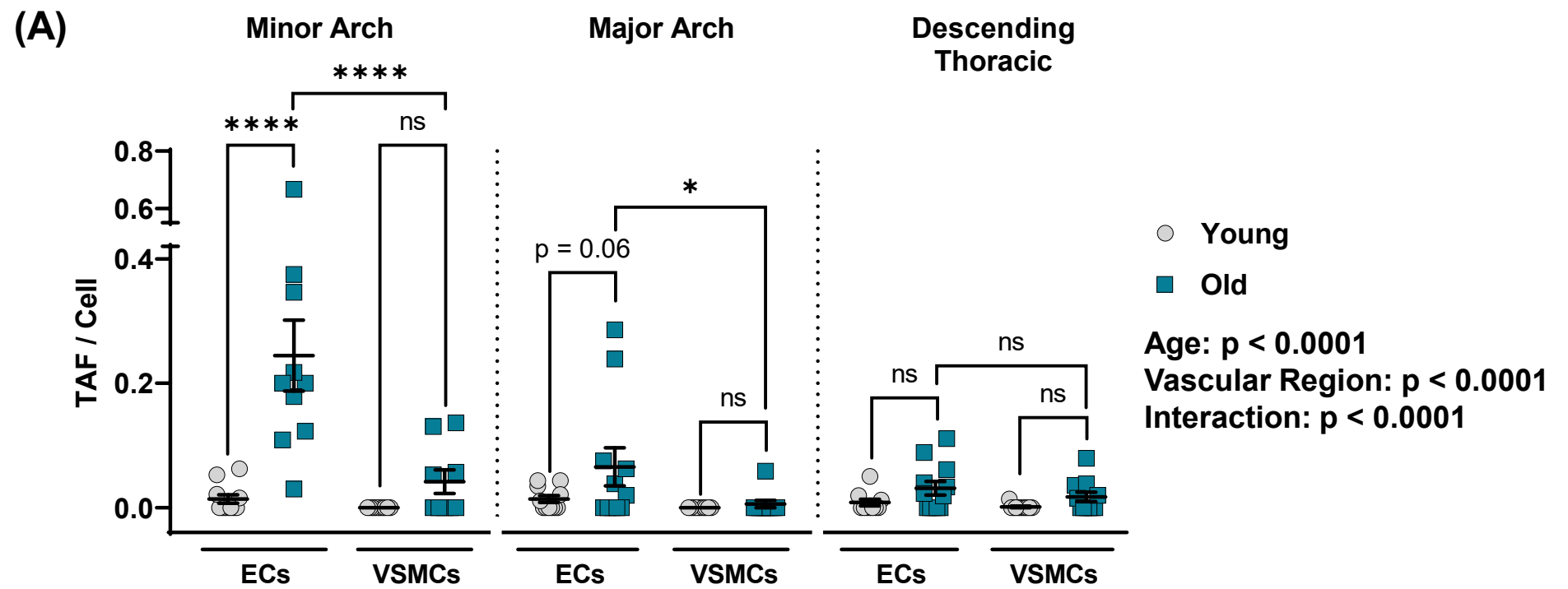


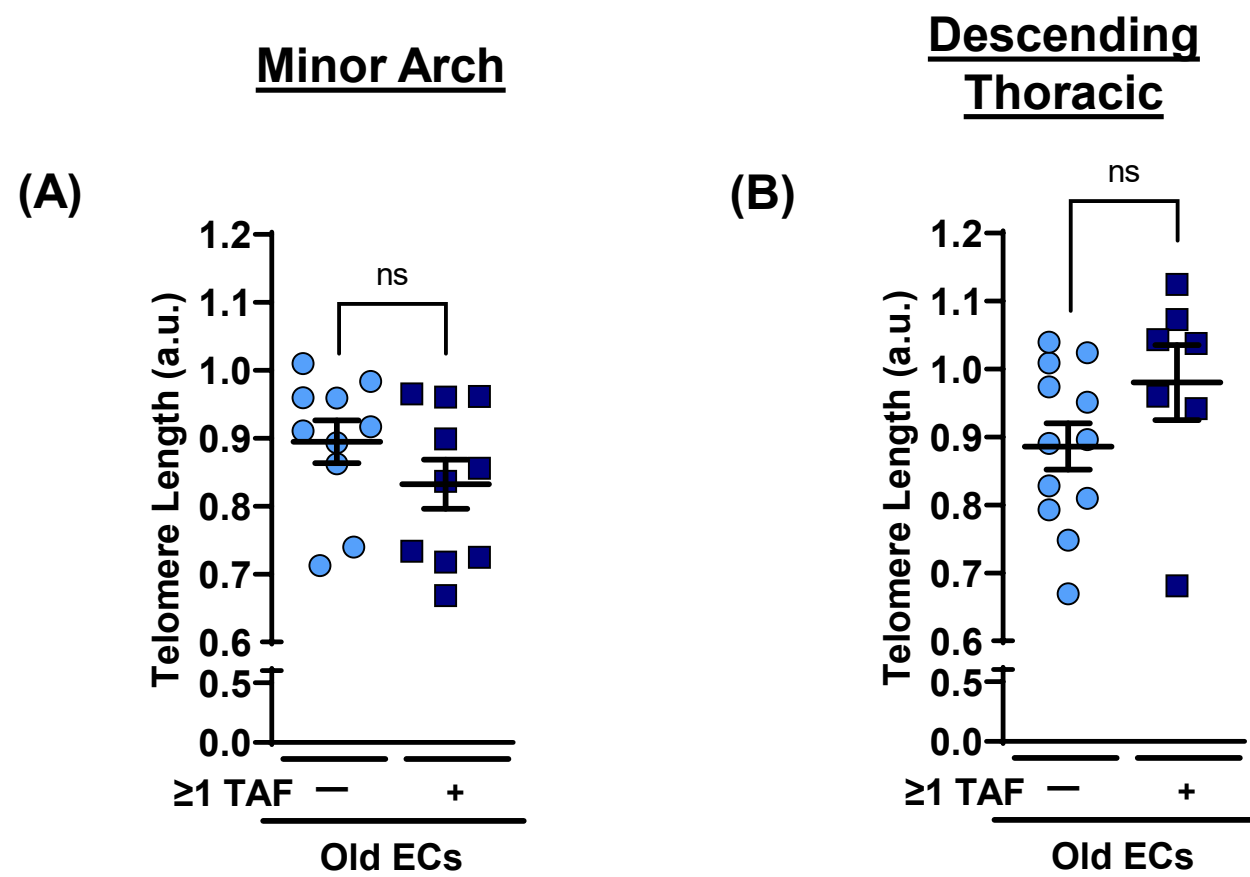
Supplementary Figure 1. Influence of telomere length on telomere dysfunction in aortic endothelial cells (ECs) and vascular smooth muscle cells (VSMCs). (A) Mean telomere length in ECs and VSMCs from old mice with and without (W/O) one or more telomere-associated DDR foci (TAF). (B) Maximum and minimum telomere length in ECs from old mice with and without (W/O) one or more telomere-associated DDR foci (TAF). (C) Maximum and minimum telomere length in VSMCs from old mice with and without (W/O) one or more telomere-associated DDR foci (TAF). N = 11 / 12 per group. Data are mean \pm SEM.



Supplementary Figure 2. Effect of aging on double stranded DNA breaks in aortic endothelial cells (ECs) and vascular smooth muscle cells (VSMCs) at atheroprone and non-atheroprone regions. (A) Number of 53BP1 foci per EC and VSMC. N = 11 / 12 per group. Data are mean \pm SEM. ** $p < 0.01$, ** $p < 0.0001$**

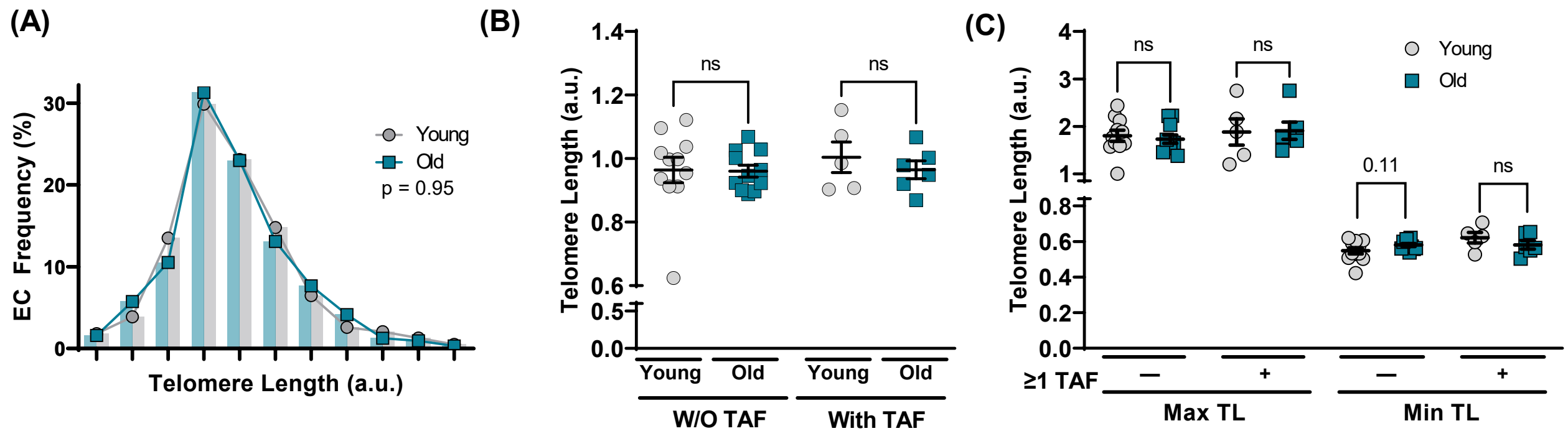


Supplementary Figure 3. Effect of aging on telomere dysfunction in aortic endothelial cells (ECs) and vascular smooth muscle cells (VSMCs) at atheroprone and non-atheroprone regions. (A) Number of telomere-associated DDR foci (TAF) per EC and VSMC. N = 9 – 12 per group. Data are mean \pm SEM. * $p < 0.05$, **** $p < 0.0001$



Supplementary Figure 4. Influence of telomere length on telomere dysfunction in aortic endothelial cells (ECs) at atheroprone and non-atheroprone region. (A) Mean telomere length in ECs from minor arch of old mice with and without (W/O) one or more telomere-associated DDR foci (TAF). (B) Mean telomere length in ECs from descending thoracic aorta of old mice with and without (W/O) one or more telomere-associated DDR foci (TAF). N = 7 – 12 per group. Data are mean \pm SEM.

Major Arch



Supplementary Figure 5. Influence of telomere length on telomere dysfunction in aortic endothelial cells (ECs) at aortic major arch. (A) Frequency distribution of ECs from major arch based on mean telomere length. N=11 per group (B) Mean telomere length in ECs from major arch with and without (W/O) one or more telomere-associated DDR foci (TAF). N = 5 – 11 per group (C) Maximum and minimum telomere length in ECs from major arch with and without (W/O) one or more telomere-associated DDR foci (TAF). N = 5 – 11 per group. Data are mean \pm SEM.