

Figure 2—Figure Supplement 2

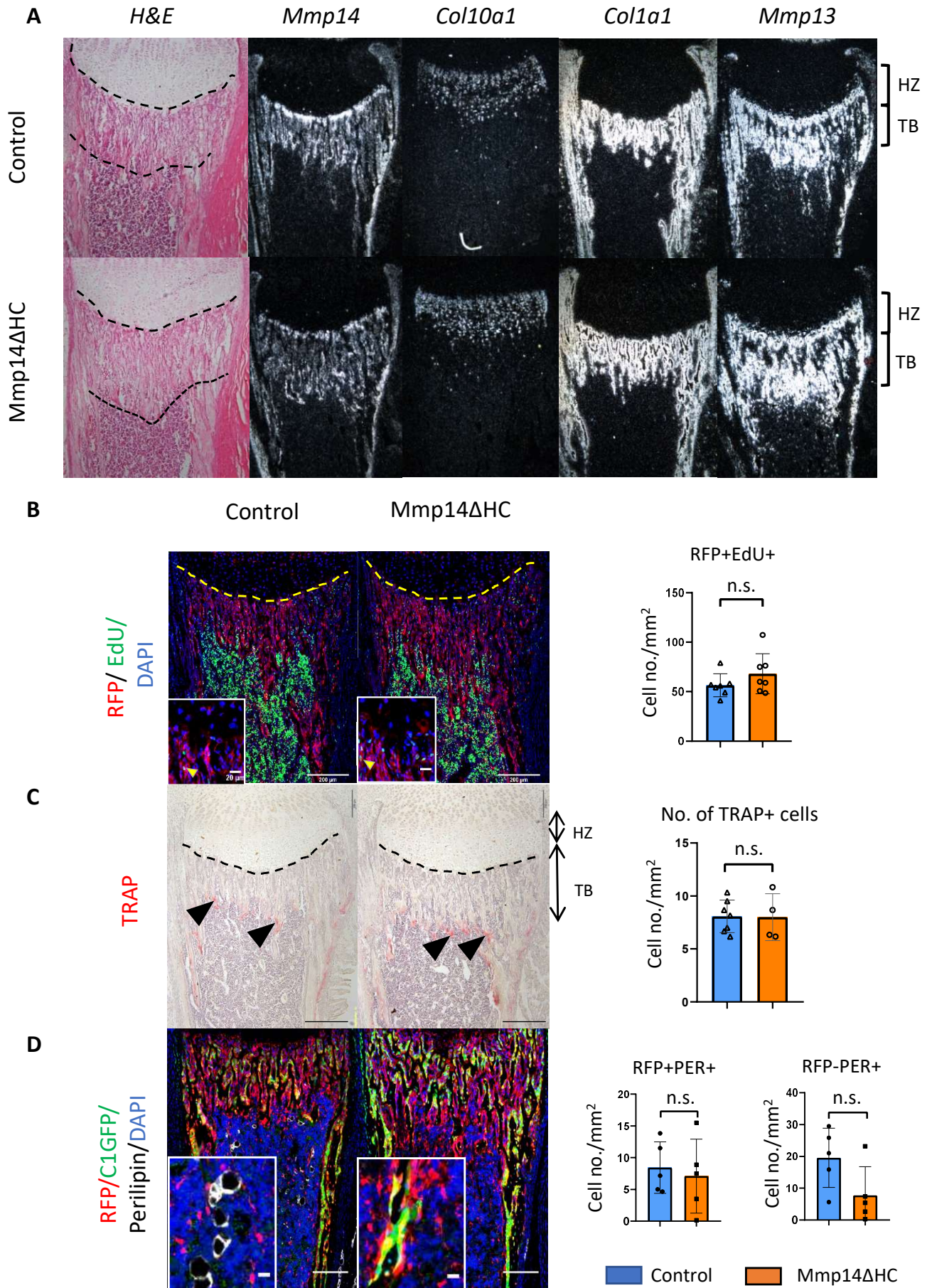


Figure 2—figure supplement 2. Molecular characterization of skeletal phenotype in Mmp14 Δ HC mice. Molecular characterization of skeletal phenotype in Mmp14 Δ HC mice. (A), H&E staining and in situ hybridization of *Col10a1*, *Col1a1*, *Mmp13*, *Mmp14* in Mmp14 Δ HC and control mice at P10. White signals marks mRNA expression of corresponding genes. HZ, hypertrophic zone; TB, trabecular region. (B), Edu labeling assay in Mmp14 Δ HC and control mice. HC-descendants, nucleus and proliferating cells were labeled with by RFP(red), DAPI(blue) and Edu(green). (C), Tartrate-resistant acid phosphatase (TRAP) staining comparing Mmp14 Δ HC and control mice. Black arrows mark TRAP+ cells HZ, Hypertrophic Zone. TB, Trabecular bone. Counting of TRAP+ cells suggests the number of osteoclasts are not significantly affected in the mutants(n=6 for control, n=4 for Mmp14 Δ HC mutants). (D), Immunofluorescence staining of RFP, Perilipin, GFP and DAPI labeling tdTomato(Red), adipocytes(white), osteoblasts(green) and nucleus at P10. Quantitation of RFP+PER+, RFP-PER+, and PER+ cells at distal tibia comparing Mmp14 Δ HC mutants and control at P10. Unpaired student's t-test are used for PER+RFP- and PER+RFP+ and cells. Quantitation is shown in (n=5) (p<0.05).