

Fig. S1. Bone mass loss in osteoblast lineage-specific *Sod2*-deficient male mice aged 12 and 52 weeks.

(A) μ CT-based quantification of the trabecular bone volume per tissue volume ratio (BV/TV), trabecular number (Tb.N), trabecular thickness (Tb.Th) and trabecular separation (Tb.Sp) in the distal femora of male *Runx2CreSod2^{fl/fl}* mice (■) compared to male *Sod2^{fl/fl}* mice (●). (B) μ CT-based quantification of the tissue mineral density (TMD) and cortical thickness (C.Th) of the femora of male *Runx2CreSod2^{fl/fl}* mice (■) compared to male *Sod2^{fl/fl}* mice (●). (C) Histomorphometric quantification of BV/TV, Tb.N, Tb.Th, and Tb.Sp in the vertebral bodies of male *Runx2CreSod2^{fl/fl}* mice (■) compared to male *Sod2^{fl/fl}* mice (●) determined by μ CT. Bars represent mean \pm SD (n=4-10/group). Asterisks indicate statistically significant differences between the groups (* <0.05, ** <0.01, *** <0.001, **** <0.0001).

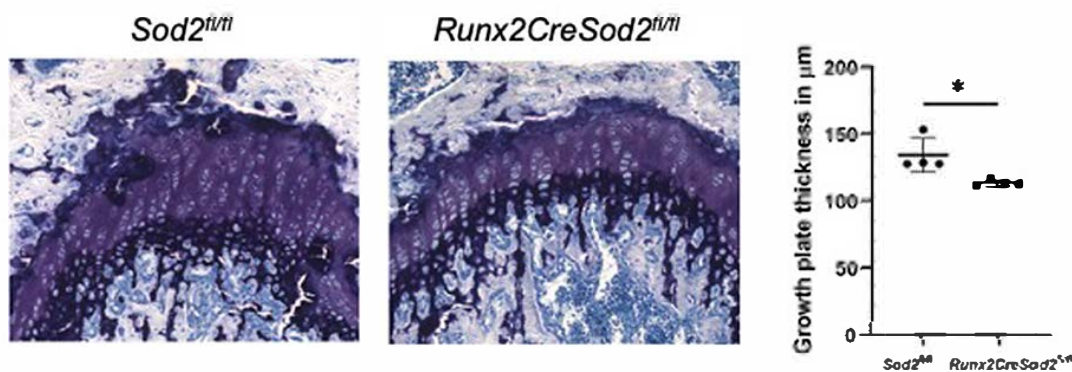


Fig. S2. Decreased growth plate thickness in female mice with osteoblast lineage-specific *Sod2* deficiency. Representative images of femur cross-sections stained with toluidine blue showing the growth plate from female *Sod2^{fl/fl}* mice and *Runx2CreSod2^{fl/fl}* mice. Quantification of growth plate thickness in femur cross-sections from *Sod2^{fl/fl}* mice (●) and *Runx2CreSod2^{fl/fl}* mice (■) Bars represent mean \pm SD (n=4/group). Asterisks indicate statistically significant differences between the groups (* <0.05)