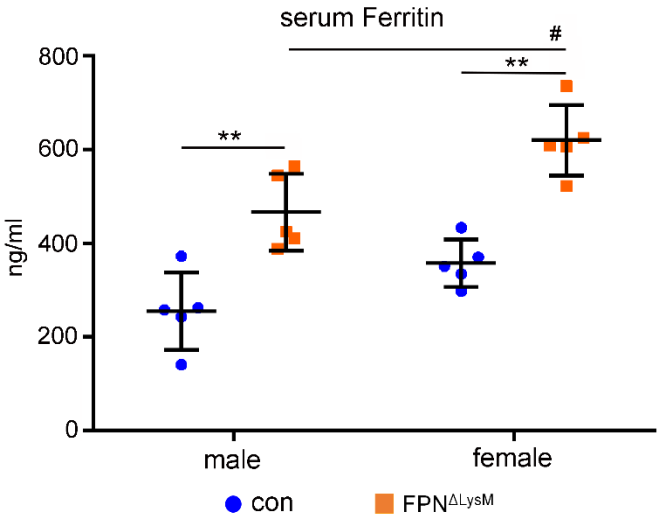
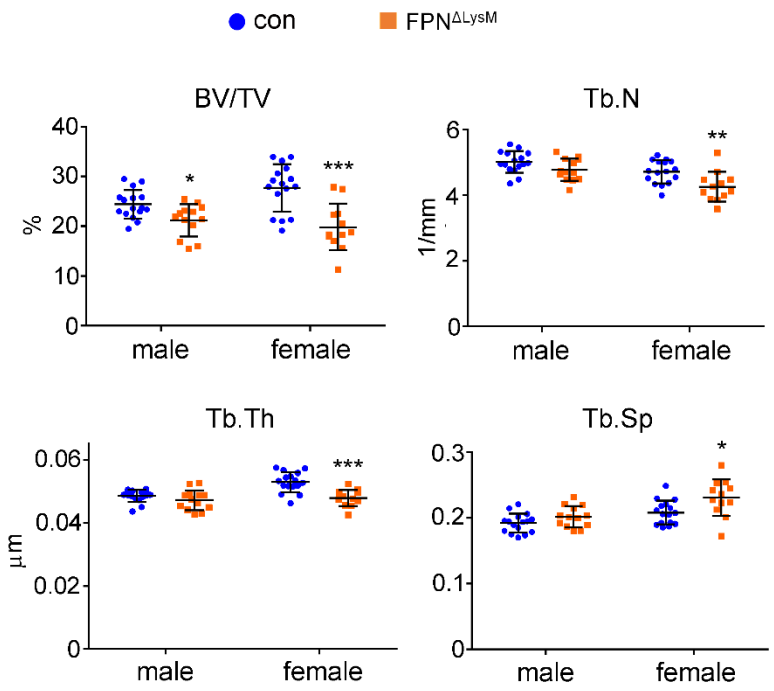
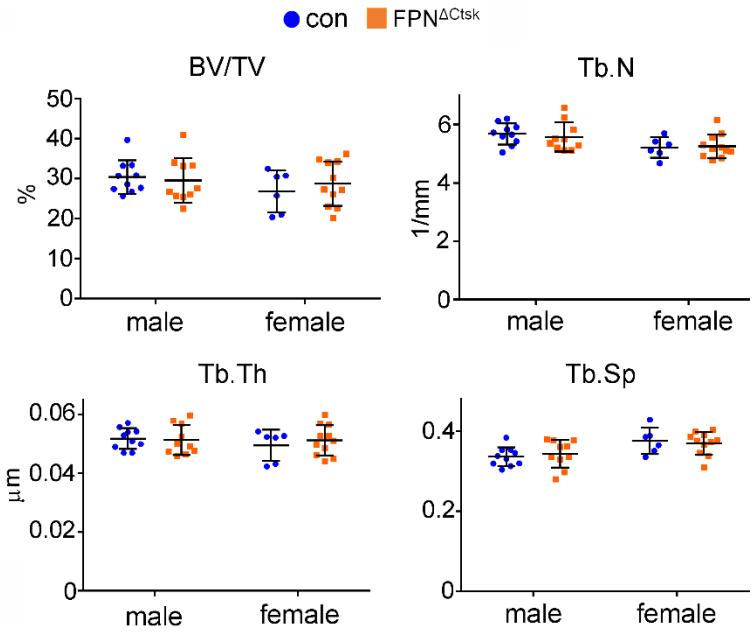
SUPPORTING INFORMATION



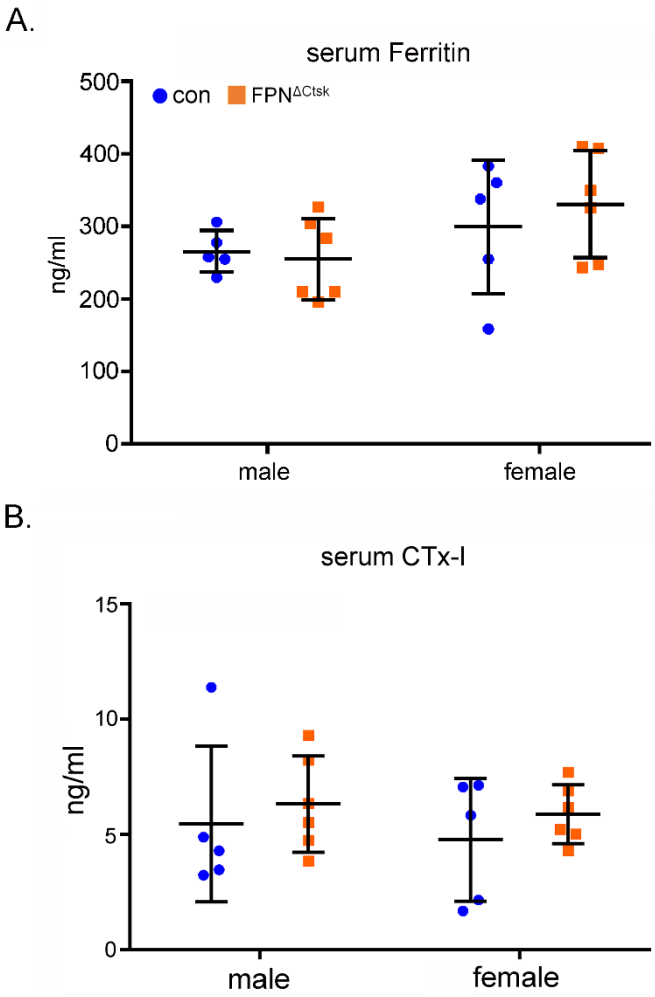
Supplemental Figure 1. Loss of *Fpn* in myeloid cells in mice increases serum ferritin level. Serum were collected from 2-month old control (con) and *Fpn* myeloid-deletion ((*Fpn*$^{\Delta LysM}$) male and female mice. The ferritin level was measured using a Mouse Ferritin ELISA Kit from LifeSpan BioSciences, Inc. n = 5. ** $p < 0.01$ vs con; # $p < 0.05$ vs male by One-Way ANOVA.



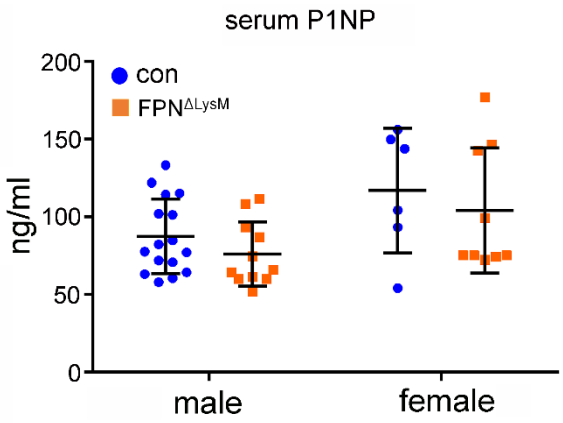
Supplemental Figure 2. *Fpn*-deficiency in osteoclast precursors leads to decreased bone mass in lumber vertebrae in mice. µCT analysis of trabecular bone compartment of L4 vertebra of 2-month old control (con) and *Fpn*-cKO (*Fpn*$^{\Delta LysM}$) male and female mice (male, con n = 16, cKO n = 13; female, con n = 16, cKO n = 12). BV/TV, percentage of trabecular bone volume to tissue volume; Tb. N, trabecular number; Tb. Th, trabecular thickness; Tb.Sp, trabecular separation. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ vs con by student *t-test*.



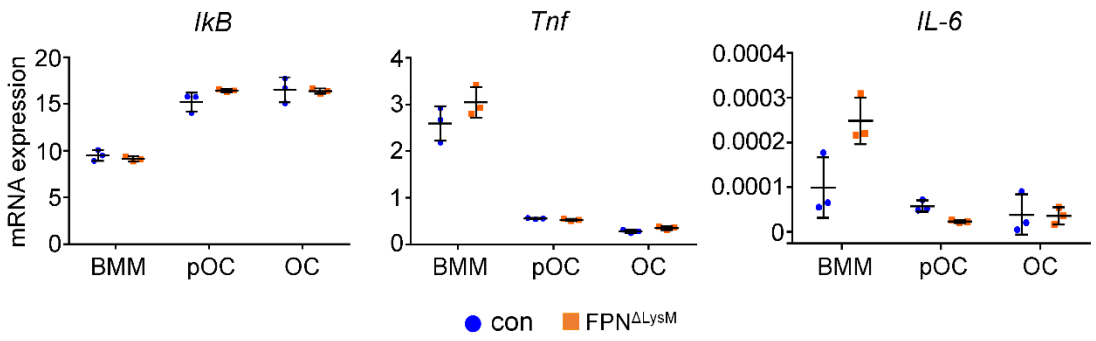
Supplemental Figure 3. Loss of *Fpn* in mature osteoclasts has no effects on vertebral bone mass in mice. µCT analysis of trabecular bone compartment of L4 vertebra of 2-month old con and *Fpn*$^{\Delta Ctsk}$ male and female mice (n = 9 for male con; n = 10 for male cKO; n = 6 for female con; n = 11 for female cKO). BV/TV, percentage of trabecular bone volume to tissue volume; Tb. N, trabecular number; Tb. Th, trabecular thickness; Tb.Sp, trabecular separation.



Supplemental Figure 4. *Fpn*-deficiency in late stage of osteoclast differentiation has no effects on serum ferritin and CTx-I levels. Serum were collected from 2-month old control (con) and *Fpn* osteoclast-deletion ((*Fpn*$^{\Delta Ctsk}$, cKO) male and female mice. The ferritin level was measured using a Mouse Ferritin ELISA Kit from LifeSpan BioSciences, Inc. Serum CTx-I was detected by the RatLaps EIA kit from Immunodiagnosticsystems. n = 5 for con and n = 6 for cKO.



Supplemental Figure 5. Deletion of *Fpn* in myeloid cells in mice has no impact on bone formation in both male and female mice. The serum level of bone formation marker, PINP (amino-terminal propeptide of type I procollagen) in 2-month old control (con) and *Fpn-myeloid* deletion ($Fpn^{\Delta LysM}$, cKO) mice, was measured by the Rat/Mouse PINP EIA kit from Immunodignosticsystems. n = 16 for male con; n = 11 for male cKO; n = 6 for female con; n = 9 for female cKO.



Supplemental Figure 6. Loss of *Fpn* in osteoclast lineage cells had no effects on mRNA expression of NF-κB target genes. Bone marrow monocytes isolated from control (con) and *Fpn* myeloid deletion ($Fpn^{\Delta LysM}$) mice were cultured with M-CSF (BMM) or M-CSF + RANKL for two and four days to generate mononuclear pre-osteoclasts (pOC) and mature multinucleated osteoclasts (OC), respectively. Quantitative real-time PCR analysis of the mRNA expression of NF-κB targeting genes, *IkB, Tnf, and IL-6* was performed. n = 3. The data shown are representatives from three independent experiments.