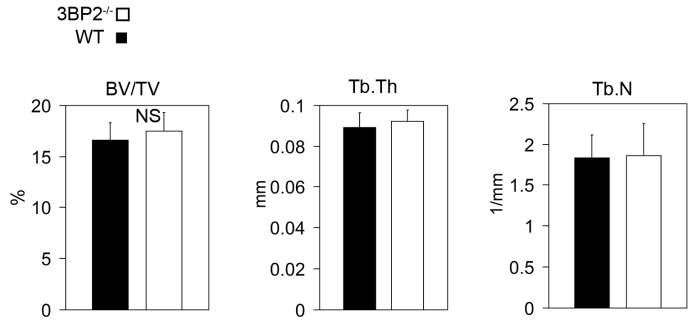
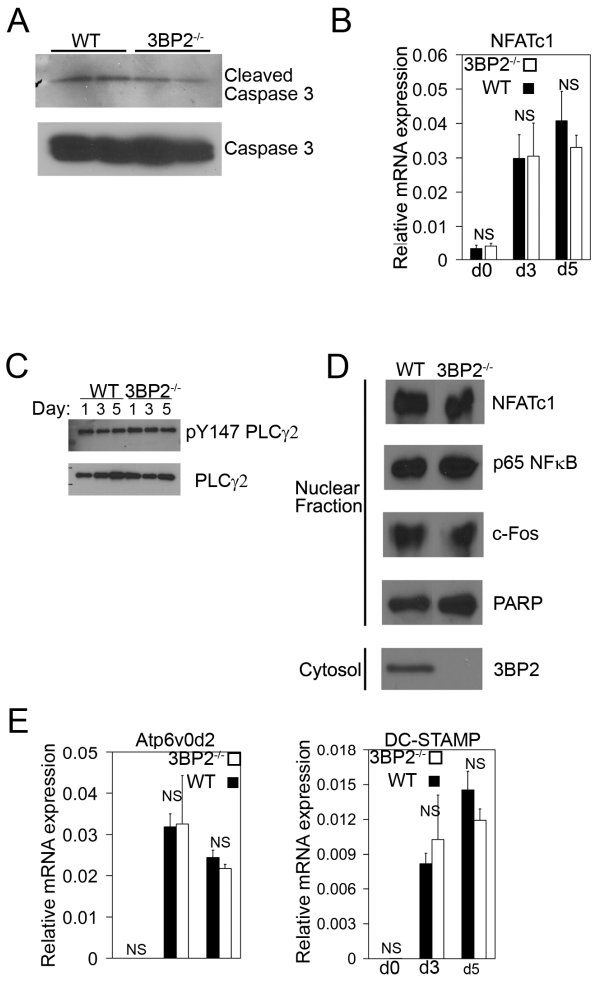
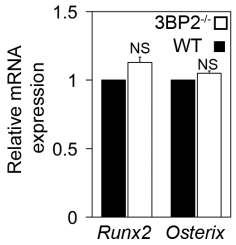


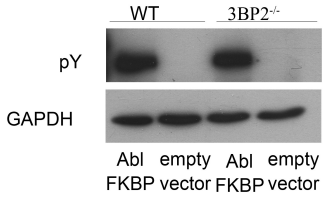
Supplemental Figure 1. CT-derived measurements of the trabecular bone volume fraction (BV/TV),trabecular thickness (Tb.Th) and trabecular number (Tb.N) of 4 weeks old wild type and 3BP2 deficient mice. n=6, *P < 0.05.



Supplemental Figure 2. (A) Western blot analysis of cleaved caspase 3 levels in wild type and 3BP2 deficient osteoclasts after four days incubation in the presence of CSF-1 and RANKL.(B) Quantitative PCR analysis of *Nfatc1* mRNA levels in wild type and *sh3bp2*$^{-/-}$ BMMs cultured for the indicated time. n = 3, NS, no statistical significance. (C) Western blot analysis of pY147 PLCγ2 (upper panel) and PLCγ2 (lower panel) in wild type and 3BP2 deficient osteoclasts cultured for the indicated times. (D) Western blot analysis of NFATc1, NF-kB, and c-Fos nuclear localization during osteoclast differentiation (NFATc1, c-Fos – day5; NF-kB – day1) in wild type and *Sh3bp2*$^{-/-}$ cells. (n = 5-6, * $p < 0.01$).(E) Quantitative PCR analysis of *DC-Stamp* and *Atp6v0d2* mRNA levels in wild type and *sh3bp2*$^{-/-}$ BMMs grown in the presence of CSF-1 and RANKL for the indicated time. n = 3, NS, no statistical significance.



Supplemental Figure 3. Basal expression of *Runx2* and *Osterix*. quantitative PCR analysis of *Runx2* and *Osterix* mRNAs from cultured calvarial osteoblasts in non-osteogenic media, n = 3



Supplemental Figure 4. The Abl-FKBP chimeric protein was expressed in calvarial osteoblasts by retroviral infection. Cells were treated with the FKBP dimerization ligand AP20187. Abl was immunoprecipitated from lysed cells and probed with the phosphotyrosine -specific antibody PY99.