



Supp. Fig. 1: (A) Tartrate-resistant acid phosphatase stained primary osteoclast (OC) cultures derived from BM-non-adherent cells. \*  $p < 0.05$  versus Control (B) Addition of recombinant human (rh) acid-labile subunit (ALS) protein during this culture of primary OC derived from ALSKO rescued OC formation at a concentration of 25-50 ng/ml; numbers of OC are similar to those from cultures derived from Control mice (see A above). \*  $p < 0.05$  versus ALS-null culture. (C) Conversely, the addition of IGF-1 (10 nM) was unable to rescue OC formation during the culture of primary OC derived from ALSKO. OC numbers in the cases of Control and LID were increased as expected. \*  $p < 0.05$  + versus - IGF-1. *Osteoclast (OC) cultures*- BM cells were isolated as described in Methods from femurs of 10-13 w-old mice, placed into a 10 mm dish and cultured overnight with  $\alpha$ MEM, spun down, counted, and plated in a 96-well plate ( $3 \times 10^4$  cells per well) in  $\alpha$ MEM supplemented with 10% FBS in the presence of M-CSF (30 ng/ml) and RANKL (60 ng/ml) in a 5% CO<sub>2</sub> incubator for 5 d when multinucleated cells typically were observed. Cells were then fixed, stained for TRAP activity and counted as described in Methods.  $n = 6 - 8$  mice per genotype. Data are expressed as mean  $\pm$  SEM.