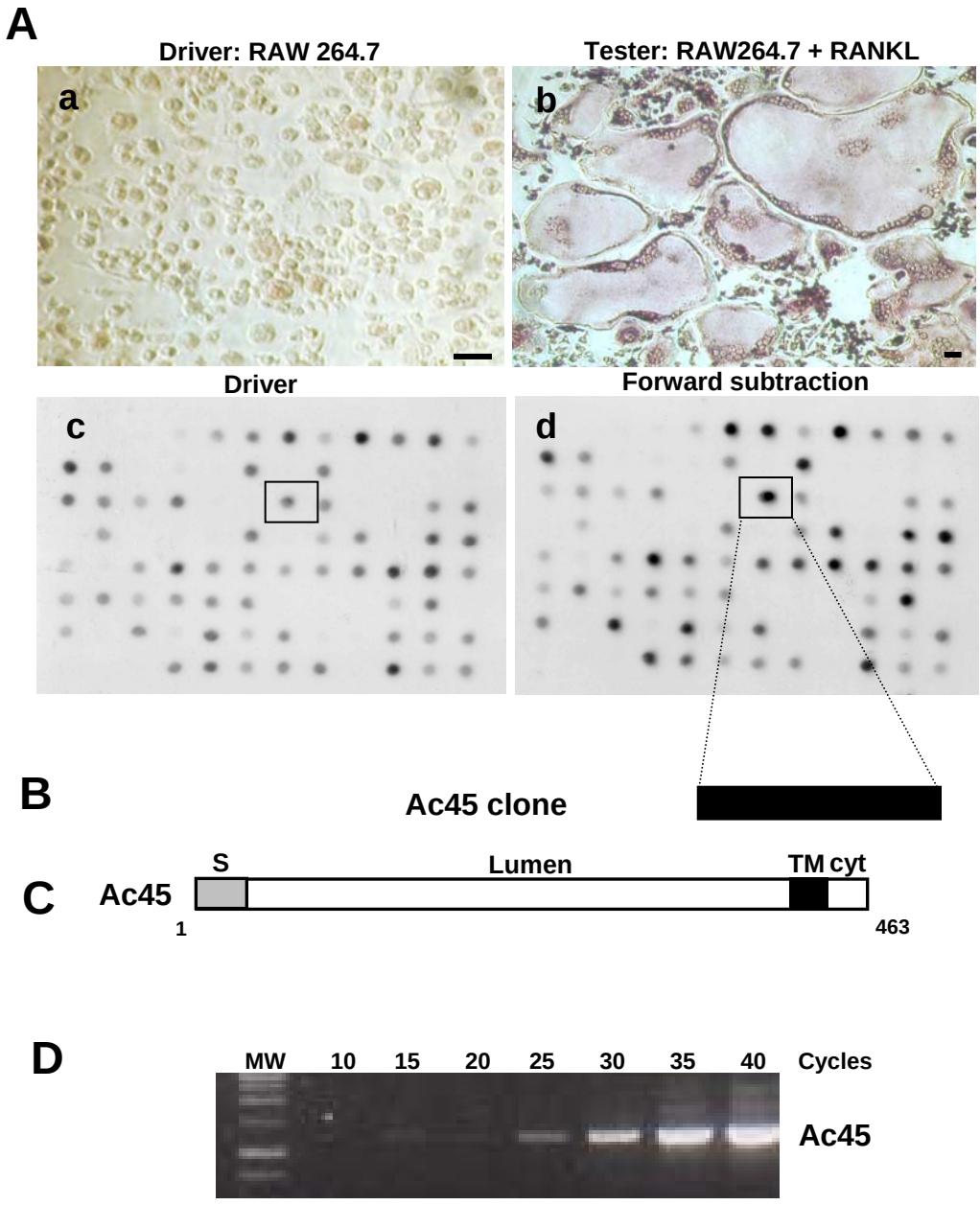
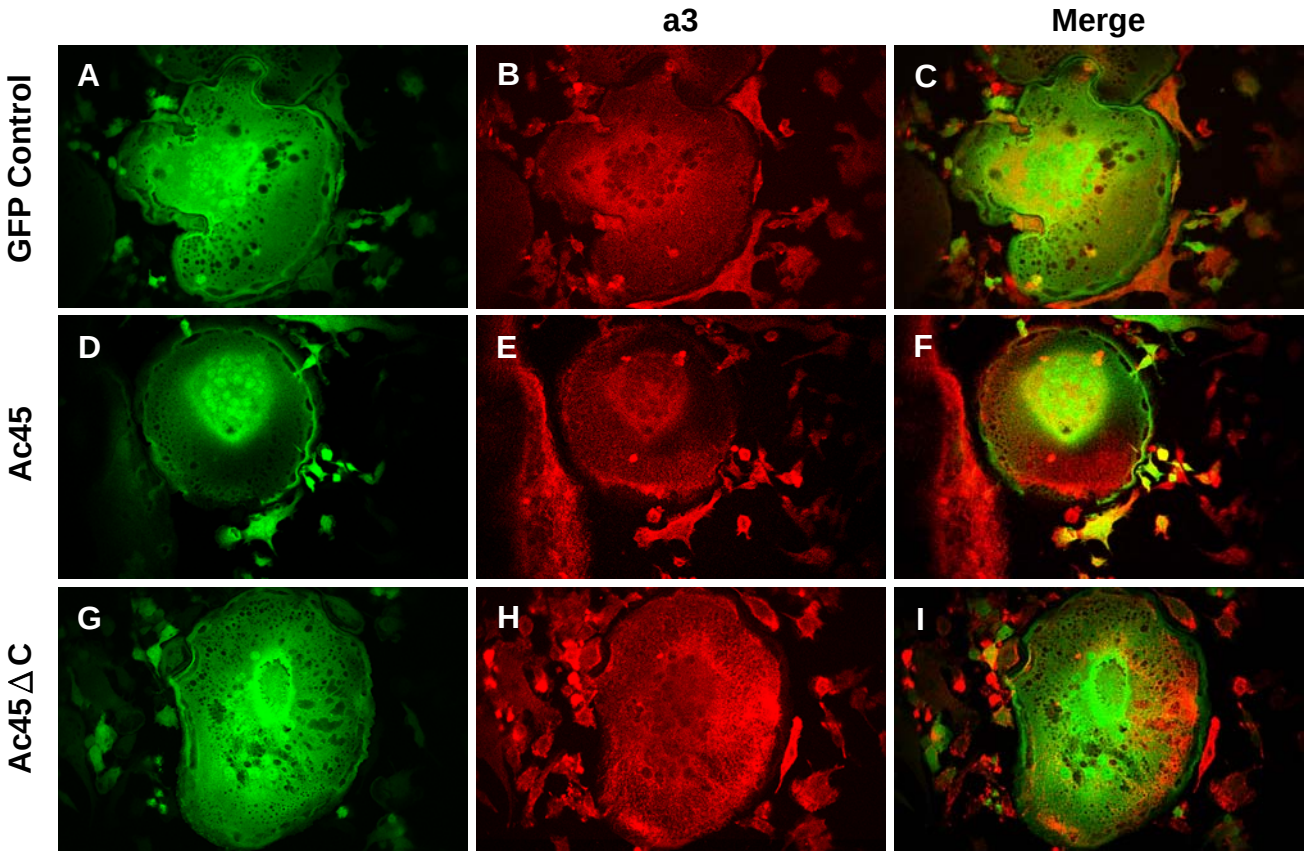


Supplementary Fig. 1. (A: a-b) Microscopic images of RAW264.7 cells that were treated with RANKL for 5 days (b) or left untreated (a) and stained for TRAP activity. cDNA samples derived from paralleled experiments were subjected to PCR-selected cDNA subtractive hybridization by using RAW264.7 (driver) and RAW264.7 -derived osteoclasts (tester). (A:c-d) Radiographs showing cDNA clones that were hybridized with subtractive cDNA from RAW264.7 (c) and RAW264.7 -derived osteoclasts (d). (B) A cDNA clone encoding a fragment of Ac45 gene that was identified by PCR-selected cDNA subtractive hybridization. (C) Schematic illustration of Ac45 coding region. S=signal sequence; TM=transmembrane region; cyt=cytoplasmic tail. D) Cycle dependent RT-PCR analysis of Ac45 transcripts using total RNA isolated from RAW cell-derived osteoclasts



Supplementary Fig.2. Bone marrow derived osteoclasts transduced with GFP (A), Ac45-IRES-GFP (D) or Ac45Δ C-IRES-GFP (G) retroviruses. Confocal analysis was carried out after transduced cells were stained with a guinea pig anti-a3 antibody (red) (B, E, and H).