



**SUPPLEMENTARY FIG. S5.** mESCs transiently transfected with *Lefty1*-expressing plasmid were spontaneously differentiated for 3 days (RA-D3). Differentiating cells were stained for alkaline phosphatase and cell morphology was examined by light microscopy. *Lefty1* OE, mESCs transiently transfected with *Lefty1*-expressing plasmid; WT, wild-type mESCs.