

**SUPPLEMENTARY FIG. S6. (A)** The level of *Lefty1* expression in the *Lefty1* OE cell line was analyzed by real-time RT-PCR (*left panel*). The phospho-Smad2 level in *Lefty1* OE cells under self-renewal culture conditions was analyzed by immunoblotting (*right panel*). **(B)** *Lefty1* OE and WT cells were injected into NOD/SCID mice and teratomas were allowed to develop for 8 weeks. Teratomas were stained with hematoxylin-eosin and the epithelium, muscle, cartilage, and epidermis in the teratomas were identified by examination under a light microscope. **(C)** Lineage-specific maker expression in *Lefty1* OE teratomas was compared with that in WT teratomas by real-time RT-PCR. All values are expressed as the mean ± SD from at least three independent experiments. *Lefty1* OE, stable *Lefty1*-overexpressing mESC line; WT, wild-type mESCs.