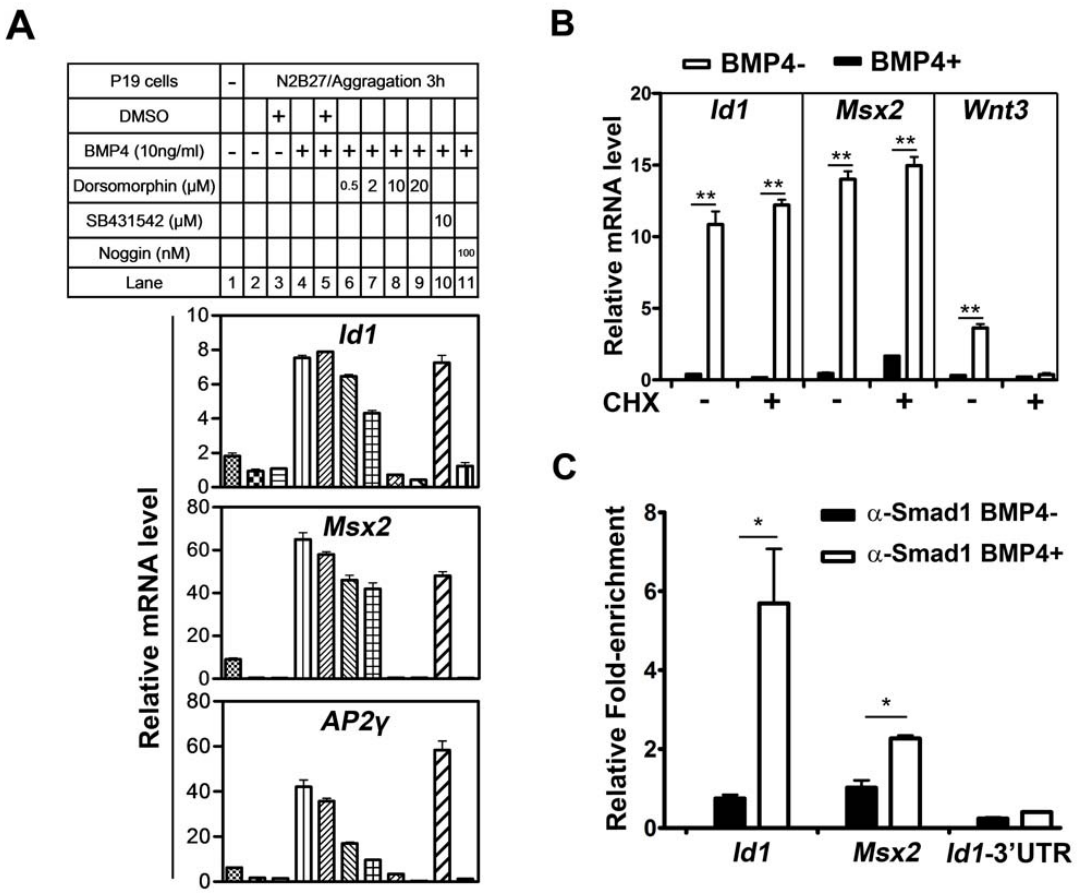

Supplementary information, Figure S9 AP2γ might be directly regulated by BMP4.

(A) qRT-PCR analysis of *AP2γ*, *Id1* and *Msx2* expression in BMP4 (10 ng/ml) and its antagonist treated P19 cells in N2B27 serum free medium. BMPR1a inhibitor dorsomorphin, Noggin (served as positive control) and SB431542 (TGFβ inhibitor, served as negative control) were added to the medium 30 minutes prior to BMP4 treatment to block BMP signaling activity dose-dependently as indicated concentrations. DMSO group served as control. The cells were continuously cultured for 2.5 hours and subjected to analysis.

(B) qRT-PCR analysis of *Id1*, *Msx2*, and *Wnt3* expression following the culture condition in Fig. 7B. n.s, non-significant.

(C) The ChIP analysis for known Smad1 binding sites on *Id1* and *Msx2* promoter region following the condition in Fig. 7E. The primer for Id1-3'UTR served as negative control.