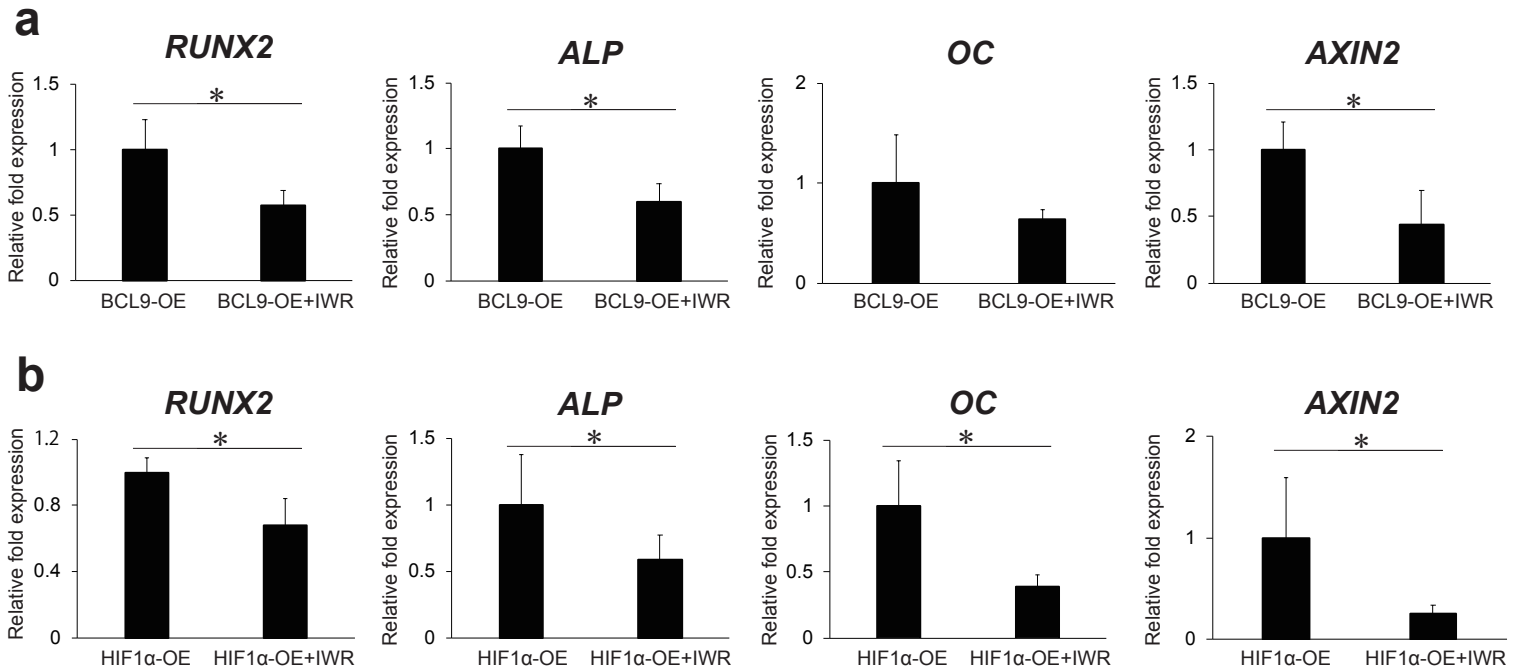


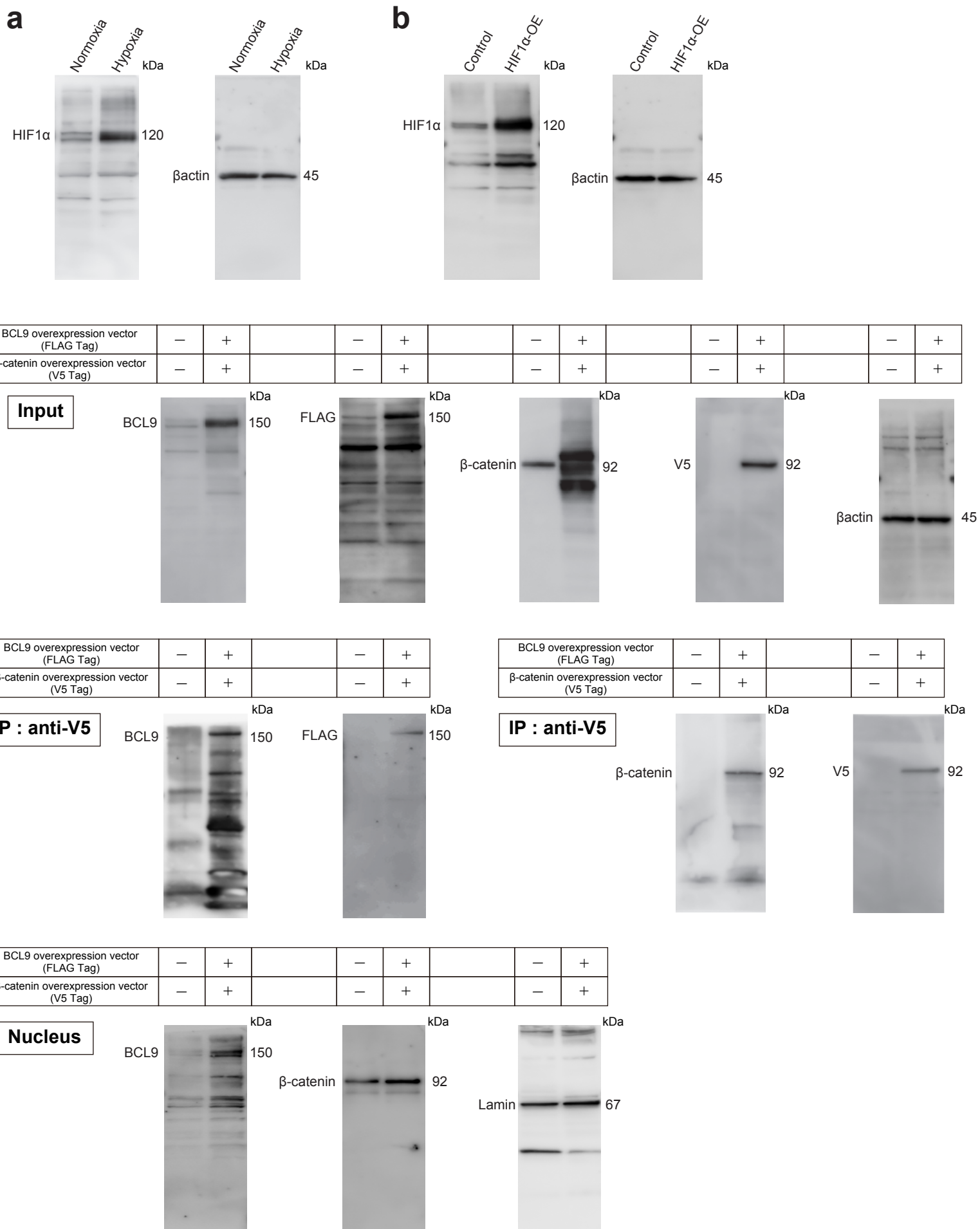
Hypoxia-inducible factor 1 $\alpha$  induces osteo/odontoblast differentiation  
of human dental pulp stem cells via Wnt/ $\beta$ -catenin transcriptional cofactor BCL9

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Supplemental Figure 1



Supplemental Figure 1. Wnt inhibitor (IWR-1-endo) suppresses osteo/odontoblast differentiation and Wnt/ $\beta$ -catenin signaling. (a) IWR-1-endo (10  $\mu$ M) downregulates the mRNA expression of osteo/odontoblast differentiation markers (RUNX2 and ALP) and Wnt/ $\beta$ -catenin target gene (AXIN2) in BCL9-overexpressing hDPSCs for 24 h. (b) IWR-1-endo (10  $\mu$ M) downregulates the mRNA expression of osteo/odontoblast differentiation markers (RUNX2 and ALP) and a Wnt/ $\beta$ -catenin target gene (AXIN2) in HIF1 $\alpha$ -overexpressing hDPSCs for 48 h. Error bars indicate standard deviation (n = 4). \*p < 0.05.



Supplemental Figure 2. Full-length blots. (a, b) HIF1 $\alpha$  protein expression is upregulated in hypoxic culture (1% O<sub>2</sub>) or upon HIF1 $\alpha$  overexpression for 48 h (Fig. 2a, d). (b) Immunoprecipitation to detect the binding of BCL9 to  $\beta$ -catenin in BCL9 (FLAG Tag) and  $\beta$ -catenin (V5 Tag) overexpression for 24 h (Fig. 4e). (d) BCL9 and  $\beta$ -catenin proteins translocate to nucleus of hDPSCs in BCL9 and  $\beta$ -catenin overexpression for 24 h (Fig. 4f).