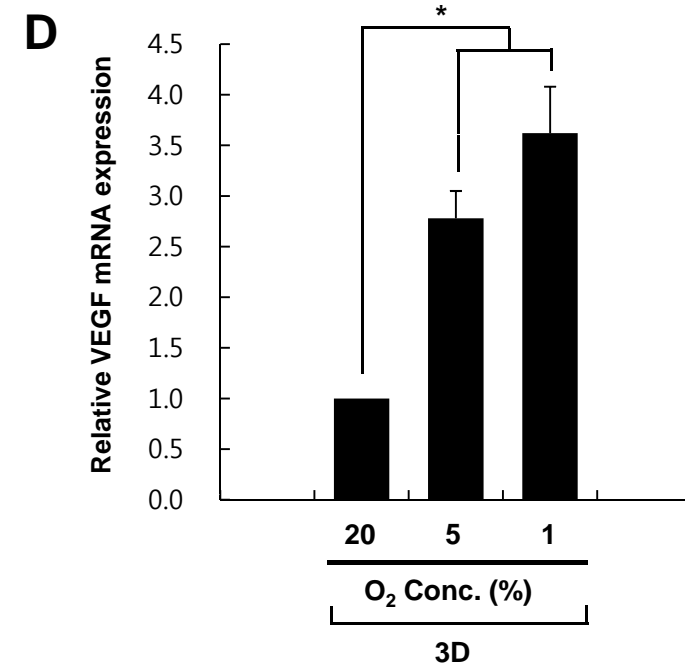
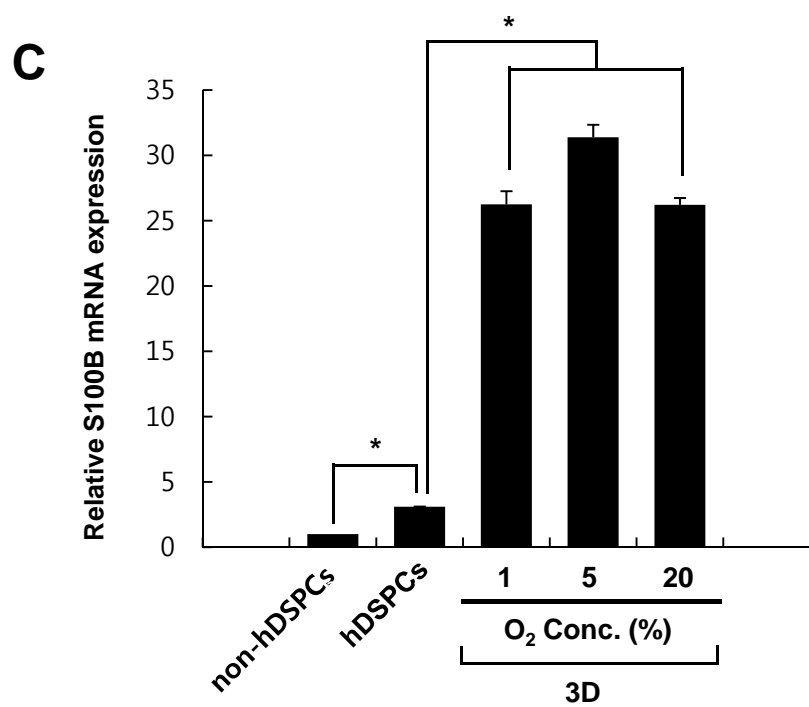
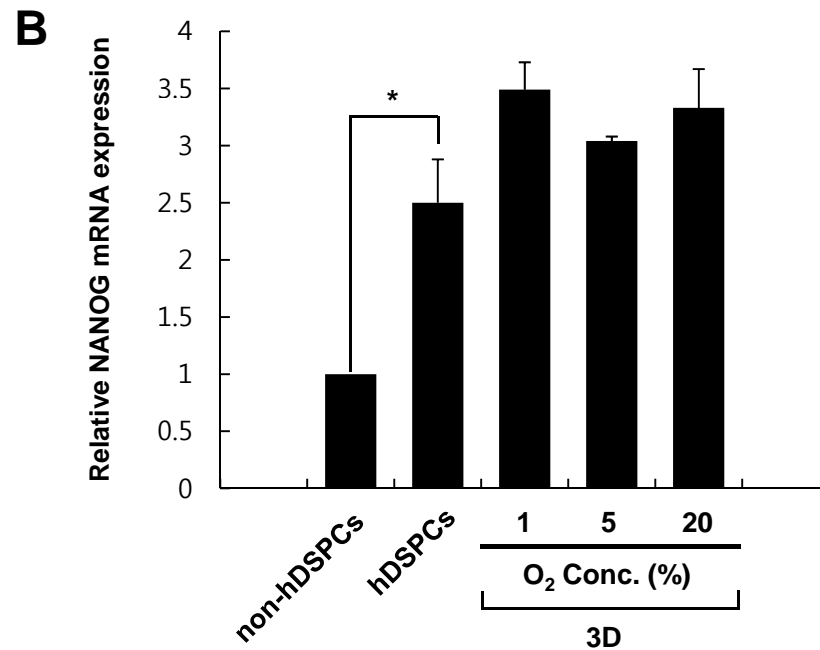
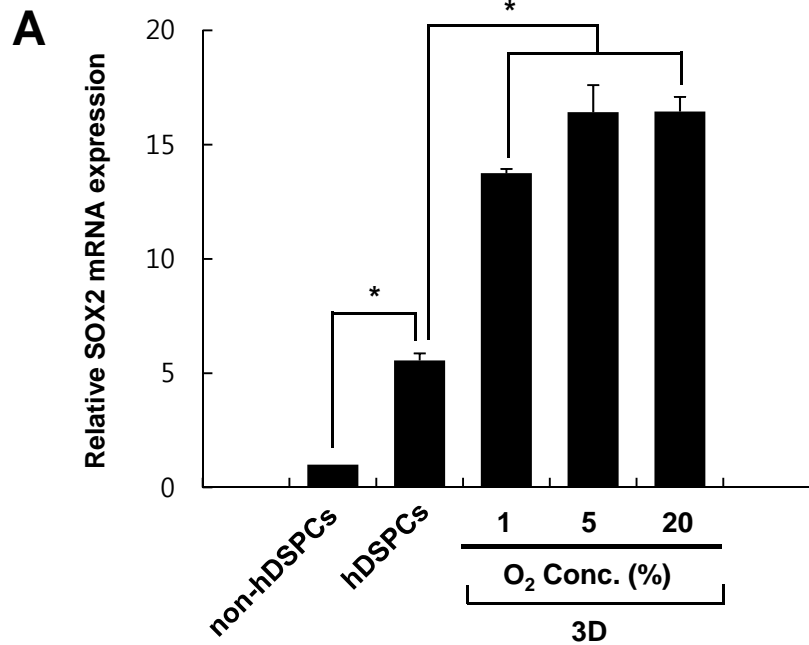
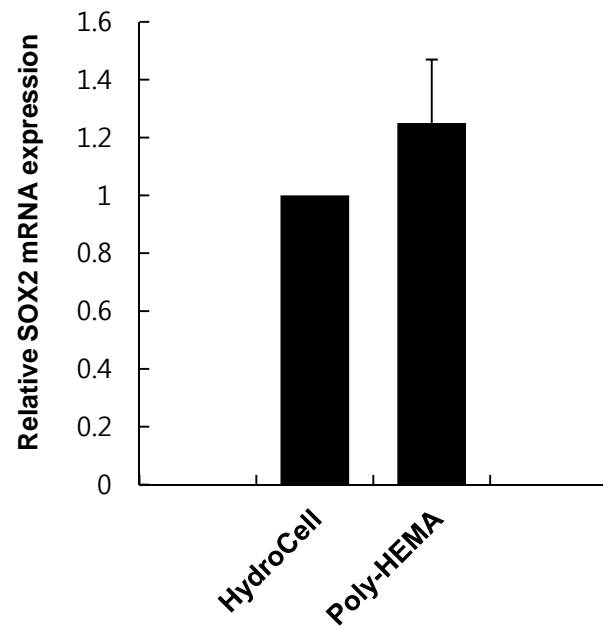


Supplementary Fig. 1

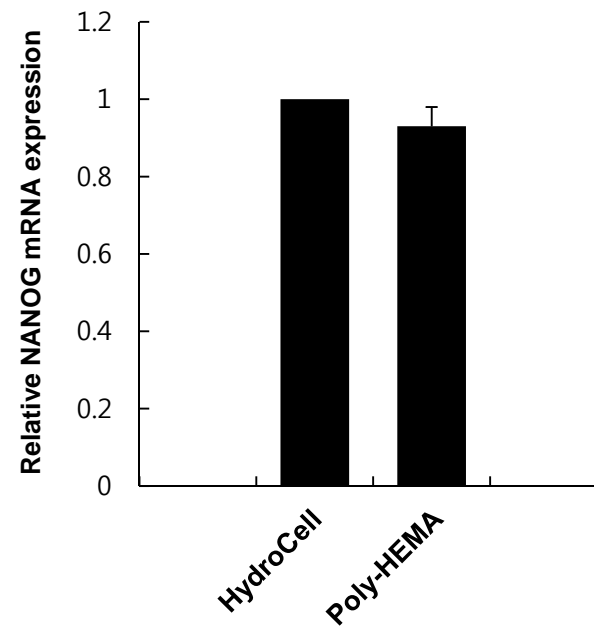


Supplementary Fig. 2

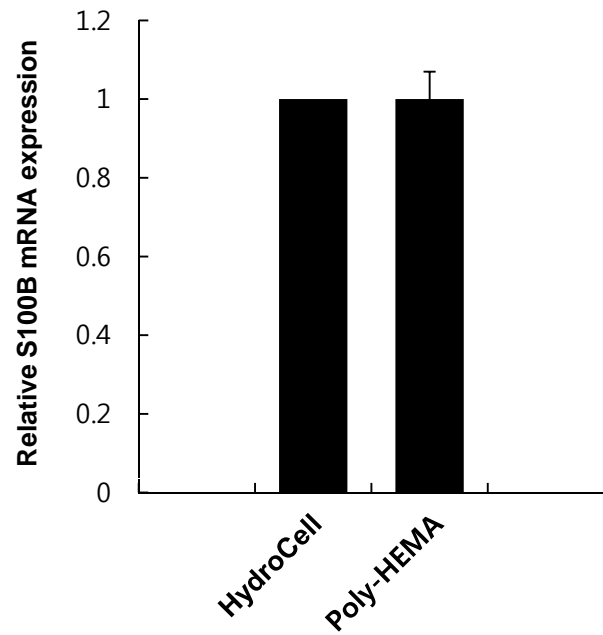
A



B



C



- **Supplementary Materials and Methods**

- *Hypoxic culture conditions*

- For hypoxic conditions, cells were incubated in a hypoxic chamber, a CO₂/Tri-gas incubator (**Astec**, Japan) containing a mixture of 5 % (v/v) CO₂ and 1 or 5 % (v/v) O₂ balanced with N₂ gas. The cells were viable after 48 hr under hypoxic conditions and were analyzed to compare the O₂ concentration conditions.

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- **Supplementary Figure 1.** Effects of oxygen concentration on hDSPCs.

- Collagen type IV-enriched hDSPCs were cultured in normoxic or hypoxic (1 % or 5 % O₂) conditions for 48 hr. Total RNA was extracted, and real-time quantitative RT-PCR was performed to measure expression levels of SOX2 (A), NANOG (B), S100B (C) and VEGF (D). Values represent the mean expression \pm S.D. of three independent experiments. *, p<0.01

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- **Supplementary Figure 2.** Comparison of the effects of two suspension culture conditions on hDSPCs.

- Collagen type IV-enriched hDSPCs were cultured on HydroCell plates or poly-HEMA-treated plates for 48 hr for suspension culture. Total RNA was extracted, and real-time quantitative RT-PCR was performed for SOX2 (A), NANOG (B) and S100B (C). Values represent the mean expression \pm S.D. of three independent experiments.

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