

**SUPPLEMENTARY FIG. S1.** Nestin expression in human mesenchymal stem cells (hMSCs). hMSCs in monolayer culture or three-dimensional (3D) spheroids were cultured in regular growth medium or neurogenic induction medium for 3 and 7 days. (A) Immunofluorescence stain showed that a low fraction of hMSCs expressed nestin before neurogenic induction. After neurogenic induction for 3 and 7 days, higher proportions of nestin-positive cells were found in hMSC spheroids than in monolayer. (B, C) Real-time polymerase chain reaction (PCR) analysis showed higher expression levels of nestin, microtubule-associated protein (MAP)-2, and glial fibrillary acidic protein (GFAP) genes in spheroid hMSCs upon neurogenic induction for 3 and 7 days, compared with monolayer hMSCs (\*P < 0.05; \*\*P < 0.01).