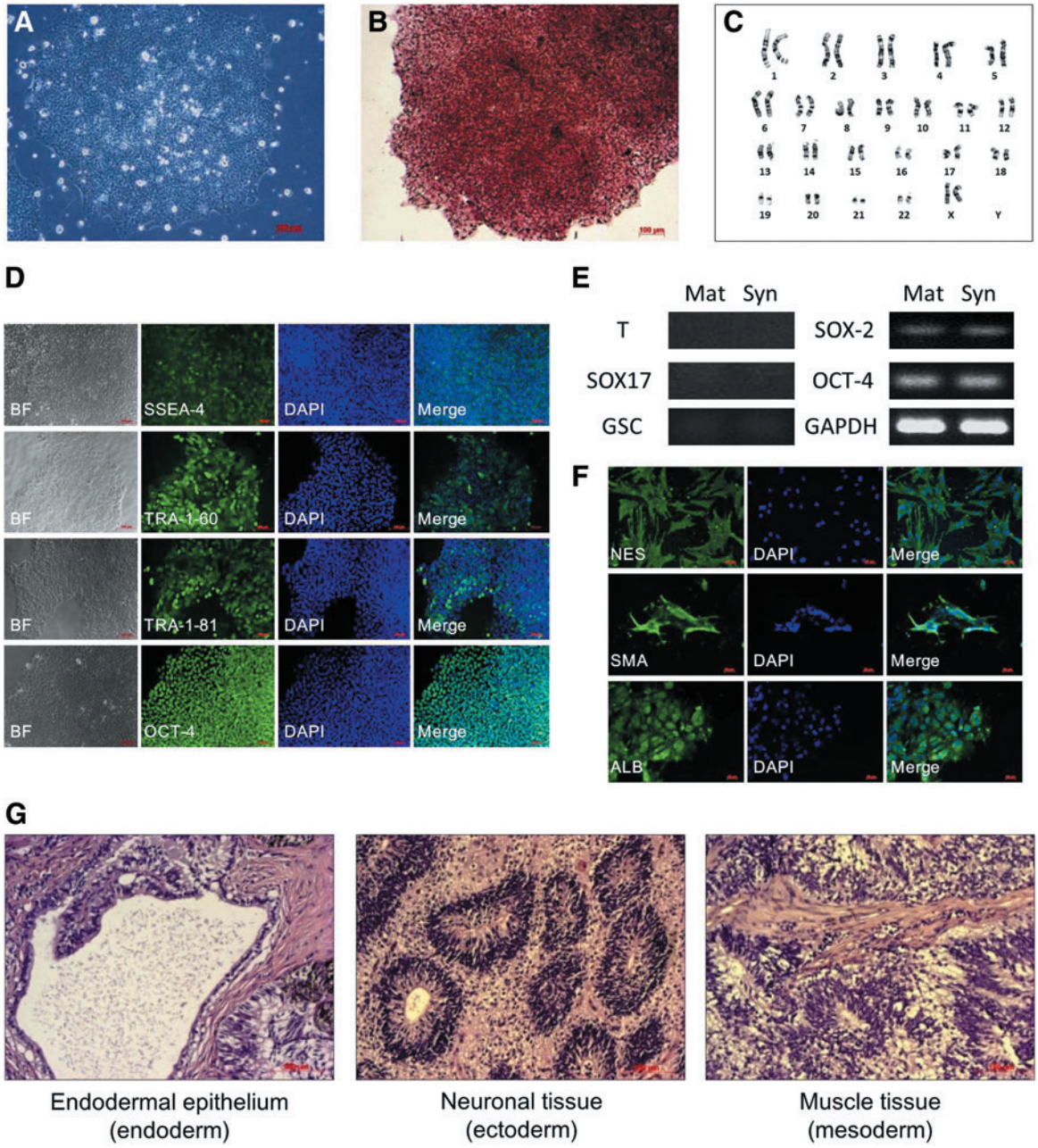
Supplementary Data



SUPPLEMENTARY FIG. S1. Long-term culture of human embryonic stem cells (hESCs) on a synthetic surface. **(A)** Cell morphology of hESCs grown on the Synthemax surface in the mTeSR medium after 10 passages of subculture. **(B)** Staining of alkaline phosphatase activity. **(C)** The cells maintained the normal karyotype after 10 passages of subculture. **(D)** The cells expressed the pluripotent surface markers of SSEA-4, TRA-1-60, and TRA-1-81 and nuclear marker of OCT-4. **(E)** RT-PCR analysis showing that the cells expressed the hESC markers such as *SOX-2* and *OCT-4* and did not express the early differentiation markers such as *Brachyury (T)*, *SOX17*, and Goosecoid (*GSC*) following the 3-day induction. **(F)** The differentiated embryoid bodies expressed Nestin (NES; ectoderm), smooth muscle actin (SMA; mesoderm), and albumin (ALB; endoderm) markers. Hoechst counterstaining was shown for nuclear portion. **(G)** Teratoma formation in severe combined immunodeficient mice after transplantation of hESCs contained tissues representing all three germ layers, endodermal epithelium (endoderm), neuronal tissue (ectoderm), and muscle tissue (mesoderm). Scale bar: 100 μm **(A, B, D, F)**, 50 μm **(E)**.