



**Supplementary Figure S1 Characterization of HM-, HF-, and KS-derived human induced pluripotent stem cells.** (A) Alkaline phosphatase (AP) positive colonies were counted at Day 15 after transfection and reprogramming efficiency calculated. For both laminin 521 (LN521) and Matrigel conditions, between 66 and 113 colonies were counted from  $2.5 \times 10^4$  reseeded cells. Average percentage of three independent experiments with  $\pm$ SD,  $P < 0.05$ . (B) Quantitative PCR with genomic DNA shows no integration of episomal plasmids at passage 5 for all human-induced pluripotent stem cell (hiPSC) lines. Negative control of untransfected gDNA with calculated 20K cells (G20K) and positive control of mixture of plasmid and untransfected gDNA in calculated ratio of 1 copy/cell (1 COPY/CELL). (C) Representative images of chromosomal G-band analysis for hiPSC lines. (D) Expression of *POU Class 5 Homeobox 1* (*POU5F1*), *Nanog Homeobox* (*NANOG*), *SRY-Box 2* (*SOX2*) and stage-specific embryonic antigen-4 (*SSEA4*) for undifferentiated hiPSCs and alpha-smooth muscle actin (aSMA) and neuron-specific class III beta-tubulin (TUJ1) as well as alpha fetoprotein (AFP) for *in vitro* differentiated hiPSCs, with DAPI (blue) as counterstaining. H&E staining of paraffin embedded teratomas with representative structures of meso-, endo- and ectoderm. Scale bars are equal to 100  $\mu$ m. (See also Fig. 1.)