Fig S2

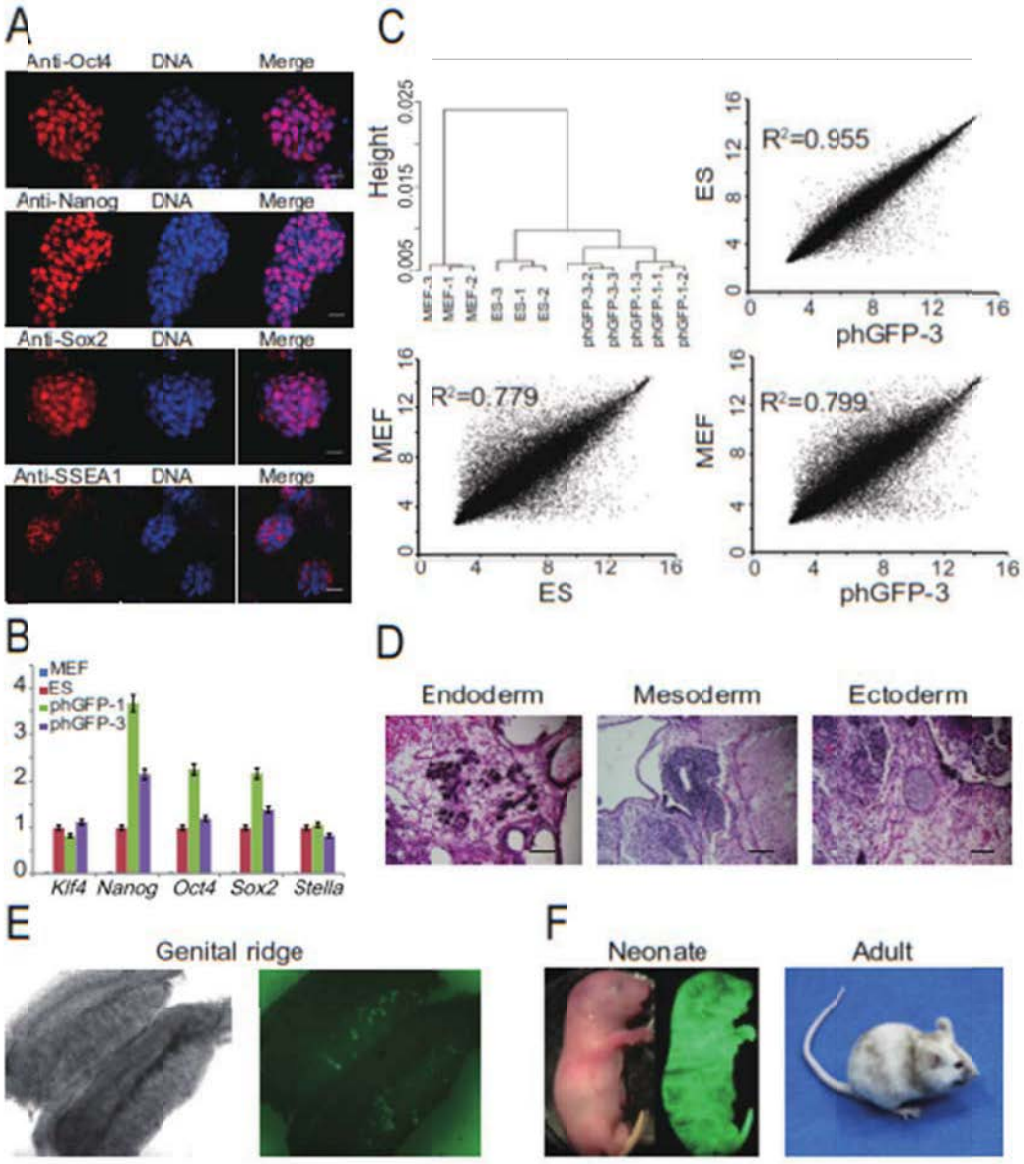


Figure S2. The pluripotency of parthenogenetic haploid ES cells.

(A) Immunostaining of pluripotent markers Oct4 (red), Nanog (red), Sox2 (red) and SSEA-1 (red) in phES cells. Hoechst 33342 was used to stain the DNA (blue). Scale bar, 50 μm.

(B) Real-time PCR analysis of the expression of pluripotent marker genes in haploid and diploid ES cells. Error bars represent mean +/- standard deviation (s.d.) of triplicate reactions.

(C) Hierarchical clustering analysis of global gene expression patterns of phES cells, diploid ES cells and mouse embryonic fibroblasts (MEF). Euclidean distance among cell lines is shown in the Y axis.

(D) Formation of teratoma from phES cells (phGFP-3). Teratoma dissection slices representing all the three germ layers (Endoderm, Mesoderm and Ectoderm) that were identified by staining with

haematoxylin and eosin. Scale bar, 500 μm.

(E) Fluorescence detection of the gonads (female) of an E13.5 Oct4-EGFP phES cells (phES OG-1) derived chimaeric embryo.

(F) Chimaeric mouse produced by microinjection of G0- or G1-phase haploid phGFP-3 cells into diploid CD1 blastocysts. Left shown was a new born chimaeric mouse (bright field) under fluorescence field,, and in the right shown an adult chimaeric mouse.