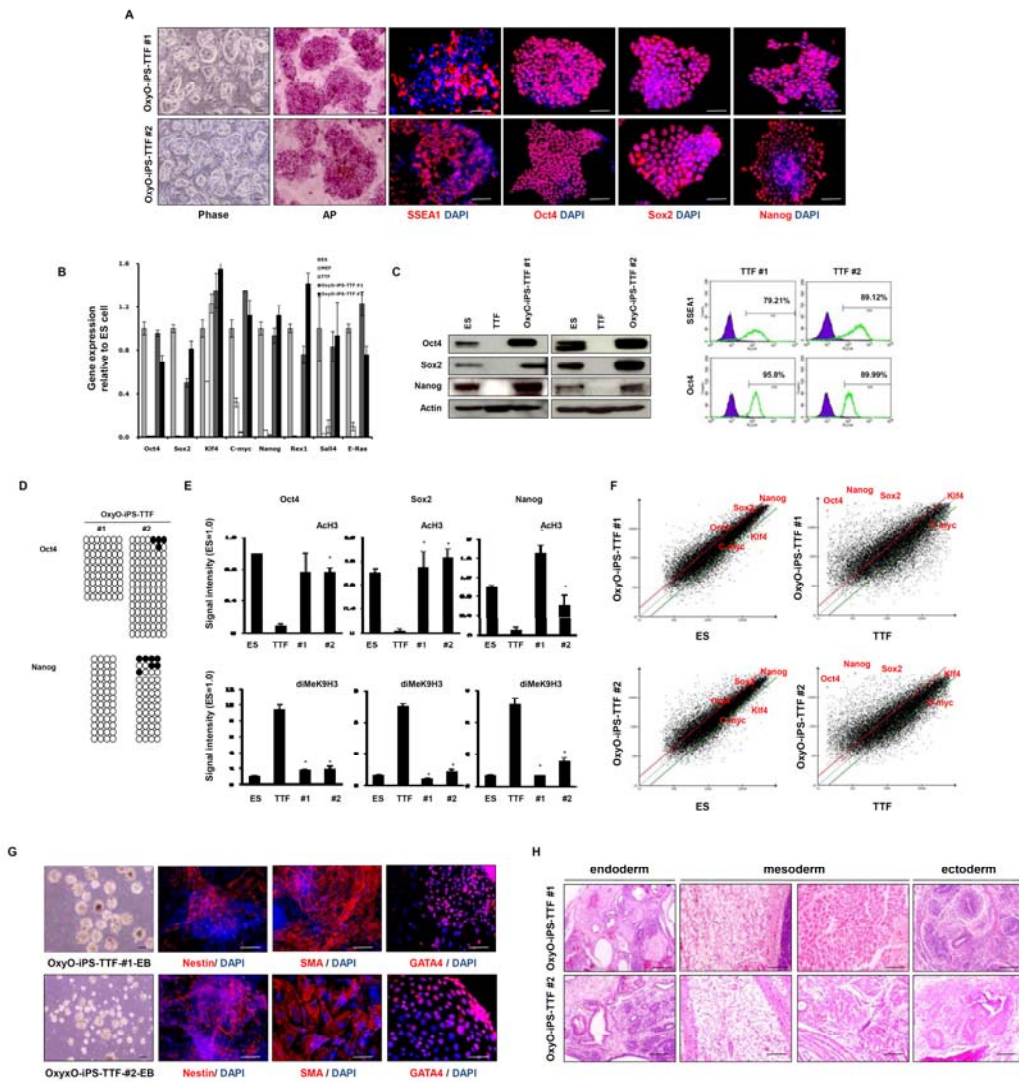


Figure S7



Supplementary information, Figure S7 Generation and characterization of 1F OxyO-iPS-TTF cells. **(A)** Phase contrast images showing the ESC-like morphology of OxyO-iPS-TTF-1 (upper) and OxyO-iPS-TTF-2 clones (lower) on feeder cells and characterization of OxyO-iPS-TTF clones. AP staining, as well as SSEA1, Oct4, Sox2, and Nanog immunoreactivity, was detected in OxyO-iPS-TTF clones. Scale bars, 200 μ m. **(B)** qPCR analysis of ES cell marker genes in mES cells, MEFs, TTF, and OxyO-iPS-TTF clones (1 and 2). * $P < 0.05$ compared to MEFs. **(C)** Western blot (left) and FACS (right) analyses of OxyO-iPS-TTF clones. Protein levels of Oct4, Sox2, Nanog, and SSEA1 were similar to those in mES cells. Antibody control, blue line; SSEA1 and Oct4, green line. **(D)** Bisulfite genomic sequencing of Oct4 and Nanog promoters in OxyO-iPS-TTF clones (1 and 2). Open and filled circles indicate unmethylated and methylated CpG dinucleotides, respectively. **(E)** ChIP analysis of Oct4, Sox2, and Nanog promoters for diMeK9H3 and Ach3 status in mES cells, TTFs, and OxyO-iPS-TTF clones. * $P < 0.05$ compared to MEFs. **(F)** Scatter plots of

the global gene expression comparing OxyO-iPS-TTF clones with either mES cells or TTFs as described previously. **(G)** *In vitro* differentiation of OxyO-iPS-TTF clones. Micrographs show EBs generated from OyxO-iPS-TTF-1 clones (upper) and OxyO-iPS-TTF-2 clones (lower). *In vitro* differentiation of OxyO-iPS-TTF clones into ectodermal, mesodermal, and endodermal cell types was revealed by the immunoreactivity of the tissue-specific markers Nestin, SMA, and GATA4, respectively. Scale bars, 200 μm . **(H)** The *in vivo* developmental potential of OxyO-iPS-TTF clones. Teratomas generated from OxyO-iPS-TTF clones differentiated into epithelium (endoderm; left), muscle and fat (mesoderm; middle), and neural rosettes (ectoderm; right). Hematoxylin and eosin-stained sections of teratomas derived from OxyO-iPS-TTF clones in a nude mouse host after 4 weeks are shown. Scale bars, 200 μm .