Supporting Information

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SI Methods

Plasmid Vector Construction. To make PB-TRE, PB-MSCV, and PB-CAG vectors, the TRE was amplified from pTight (Clontech), the MSCV LTR was amplified from pMSCV-Neo (Clontech), and the CAGG promoter was amplified from a pBluescript-CAG vector, and cloned into a PB-bpA vector. cDNAs of the four mouse and human Yamanaka factors were amplified (primers in Table S3) from original retroviral vectors (Addgene) and cloned into the PB-TRE, PB-MSCV, and PB-CAG transposon vectors, respectively. Mouse and human Rarg, Lrh1 and Sf1 were amplified from IMAGE clones (Geneservice) and cloned into transposon vectors.

Preparation of MEF Cells and HDFn Cells for Reprogramming. MEFs were prepared from 12.5 d postcoitum Oct4-IRES-Puro-Egfp embryos. To minimize variation among embryos, MEFs from several embryos with the same genotype were mixed together for expansion in M10 media. MEFs were passaged once before they were counted, divided into aliquots, and frozen down. Before electroporation, 1×10^6 MEFs were plated onto one gelatinized 15-cm tissue culture plate. When MEFs were 70% to 80% confluent, they were trypsinized and collected for electroporation. M10 was knockout DMEM, 10% FBS (HyClone), 1× glutamine-penicillin-streptomycin (Invitrogen), and 1× NEAA (Invitrogen).

HDFn cells (neonatal, lot nos. 709590 and 2007100654) and HDFa cells (adult, lot nos. 439656 and 617769) were purchased from Invitrogen and maintained in media 106 supplemented with low serum growth supplement (Invitrogen). The primary HDFn or HDFa culture was passaged once before being counted, divided into aliquots, and frozen. Before electroporation, 5×10^5 HDFn or HDFa cells were plated onto three T75 tissue culture flasks. When HDFn or HDFa cells were 70% to 80% confluent, they were trypsinized and collected for electroporation.

Transfection and Cell Culture. MEF transfection was performed using an Amaxa machine (Lonza) according to the manufacturer's protocol (program A-023). One million MEFs were usually transfected. After electroporation, MEFs were seeded in M15 plus LIF on STO feeders. For Tet-On experiments, M15 containing Dox (1.0 μ g/mL) was added after transfection and was changed every other day. iPSC colonies were usually picked at day 7 to day 10; 96-well plates and cells were expanded according to standard mouse ES cell culture conditions.

Transfection of HDFn and HDFa cells was achieved using an Amaxa machine according to the manufacturer's protocol (program U-020 for HDFn and program P-022 for HDFa). One million HDFn or HDFa cells were usually used in a transfection. After electroporation, HDFn or HDFa cells were seeded in M15 plus LIF on STO feeders. For Tet-On experiments, PB-TREcDNA transposons and PB-CAG-rtTA and PBase plasmids were transfected into HDFs, which were plated onto STO feeders. M15 containing Dox (1.0 µg/mL) was added 24 h after transfection and was changed every other day. Dox induction usually lasted for 10 to 20 d. Human iPSC colonies reprogrammed by PB-CAG vectors were usually picked at day 10, and dissociated with trypsin to single-cell suspensions before seeding into in 24-well formats. Human iPSC colonies reprogrammed by PB-TRE vectors were usually picked at day 20 to 30, and dissociated with Accutase to single-cell suspensions before seeding in 24-well plates. Stable lines were established from secondary colonies and maintained according to standard mouse ES cell culture conditions.

Mouse and human iPSC colonies were visualized by AP staining using the Leukocyte Alkaline Phosphatase kit (Sigma).

Cell Proliferation Assay. Cell proliferation assay was performed using Click-iT EdU Flow Cytometry Assay Kit (Invitrogen) according to the manufacturer's recommendations. Briefly, MEFs transfected with different combinations of reprogramming factors on the PB were stained with 10 μ M EdU for 1 h after transfection. EdU-incorporated cells were stained with Alexa Fluor 647 dye and analyzed by flow cytometry.

Bisulfite Genomic Sequencing. Bisulfite treatment was performed by using the EpiTect Bisulfite Kit (Qiagen) according to the manufacturer's recommendations. PCR primers are listed in Table S3. Amplified products were cloned into pGEM-T-easy (Promega). Randomly selected clones were sequenced with the M13 forward and M13 reverse primers for each promoters.

RT-PCR. RNA was isolated using the RNeasy Mini Kit (Qiagen). The samples were subsequently quantified and treated with gDNA WipeOut. First-strand cDNA was prepared by using the QuantiTect Reverse Transcription Kit (Qiagen). For each RT-PCR, we used 50 to 100 ng of cDNA and primers listed in Table S3. Standard PCR conditions were: 94 °C for 30 s, 60 °C for 30 s, and 68 °C for 30 s for 30 cycles. For real-time PCR, we used TaqMan Gene Expression Assays. TaqMan probes were purchased from Applied Biosciences or custom-designed and synthesized by Applied Biosciences (Table S4). All quantitative PCR was performed in a 9700HT Fast Real-Time PCR System (Applied Biosciences). X-linked human gene expression was determined using SYBR Green RT-PCR kit (Applied Biosciences). Primers are listed in Table S3. Mouse gene expression was determined relative to mouse β -actin using the Δ Ct method. Human gene expression was determined relative to human GADPH gene using the Δ Ct method.

Luciferase Assay. *Oct4*-luc2 plasmid $(1.0 \ \mu\text{g})$ and 100 ng of hRluc/ TK (Promega) were transfected into MEFs, together with different combinations of reprogramming factors. Forty-eight hours after transfection, cells were lysed with 1× passive lysis buffer (Promega). Luciferase activities were measured with a Dual-Luciferase reporter assay system (Promega) according to the manufacturer's protocol.

In Vitro Differentiation of iPSCs. For monolayer differentiation, mouse iPSCs were harvested by trypsinization and transferred to six wells at adensity of 1 to $1.5 \times 10^4/\text{cm}^2$ in N2B27. Medium was changed every other day. On day 6, cells were fixed for immunostaining of Tuj1. For EB differentiation, mouse iPSCs were harvested and transferred to a 6-cm Petri dish at density of $1.5 \times 10^4/\text{cm}^2$ in M15 medium without LIF. After 3 d, the aggregated cells were harvested and plated onto a gelatin-coated six-well plate for another 3 d, then proceed to immunostaining of α -smooth muscle actin (α -SMA) and α -fetoprotein (AFP).

For EB differentiation, human iPSCs were harvested by trypsinization and transferred to a 6-cm Petri dish at density of 1.5×10^4 /cm² in mouse ES medium without LIF. Medium was changed every other day. After 8 d, the aggregated cells were harvested and plated onto gelatin-coated six wells for another 8 d. Cells were fixed for immunostaining of Tuj1, α -SMA, and AFP.

Immunostaining. For dual staining of SSEA-1 and Nanog, mouse iPSCs were fixed in 4% PFA/PBS solution, blocked in PBS solution with 3% goat serum and 1% BSA, incubated with anti-SSEA-1 antibody (gift from Peter W. Andrews, the Centre for Stem Cell Biology, University of Sheffield, Sheffield, United Kingdom) at 4 °C overnight. Cells were then rinsed with PBS solution, incubated with Alexa 488-conjugated goat anti-mouse IgM (Invitrogen) for 1 h at room temperature. After permeabilization with PBST (PBS solution with 0.3% Triton), cells were incubated with anti-Nanog antibody (Abcam) at 4 °C for overnight. The third day, cells were rinsed with PBST, incubated with Alexa 594-conjugated goat anti-rabbit IgG (Invitrogen) for 1 h at room temperature, and counterstained with DAPI.

For dual staining of H3K27 and Oct4, cells were plated at 2×10^3 onto laminin-coated slides in M15 medium with or without LIF (differentiated and undifferentiated mouse iPSCs). After 5 d, cells were fixed and incubated with anti-H3K27 (Cell Signaling) and anti-Oct4 (Santa Cruz) antibodies at 4 °C for overnight. The next day, cells were rinsed with PBS solution and incubated with Alexa 594-conjugated goat anti-rabbit IgG and Alexa 488-conjugated goat anti-mouse IgG (Invitrogen) for 1 h at room temperature and counterstained with DAPI.

For Tuj1, α -SMA, and AFP immunostaining, differentiated moue iPSCs were fixed and incubated with anti-Tju1, α -SMA, or AFP antibody (R&D Systems), respectively, at 4 °C overnight. Cells were rinsed with PBS solution and incubated with Alexa 488conjugated goat anti-mouse IgG, and counterstained with DAPI.

For human pluripotency markers immunostaining, human iPSCs were fixed in 4% PFA/PBS solution, blocked in PBS solution with 3% goat serum and 1% BSA (for cell surface markers) or PBS solution with 3% goat serum, 1% BSA and 0.1% Triton (for intracellular markers), incubated with cell surface antibodies, SSEA-1, SSEA-3, SSEA-4, Tra-1–60, Tra-1–81 (gifts from Peter W. Andrews, the Centre for Stem Cell Biology, University of Sheffield, Sheffield, United Kingdom) or intracellular antibodies, Oct4, Nanog, Tuj1, α -SMA, and AFP at 4 °C for overnight. Cells were rinsed and incubated with Alexa 488-conjugated goat anti-mouse, rat IgM, goat anti-mouse IgG or Alexa 594-conjugated goat anti-mouse, rabbit IgG, and counterstained with DAPI.

Flow Cytometry. Mouse iPSCs growing in 96-well feeder plates were trypsinized and resuspended in M15. iPSCs were centrifuged at $200 \times g$ (Eppendorf centrifuge 5702R, A-4-38 rotor) for 3 min, and the medium was removed by putting the plate upside down on tissue. iPSCs were resuspended in PBS solution and analyzed by Cytomics FC-500 (Beckman Coulter).

Human iPSCs growing in six-well plates were trypsinized and resuspended in M15. iPSCs were subsequently washed once with PBS solution, centrifuged, and incubated with SSEA-4-FITC, TRA-1–60-PE, or TRA-1–81-FITC antibodies (BD Bioscience) for 1 h. iPSCs were then washed and resuspended in PBS solution and analyzed by Cytomics FC-500 (Beckman Coulter).

Teratoma Formation. Mouse iPSCs were suspended in M10, and 1×10^6 cells were injected s.c. into both dorsal flanks of F1 (12985/C57B6) hybrid mice. Teratomas were dissected, fixed overnight in 10% buffered formalin phosphate, and embedded in paraffin before sectioning. Human iPSCs (1×10^6) were injected s.c. into both dorsal flanks of NSG mice (NOD.Cg-Prkdcscid Il2rgtm1Wjl/SzJ; Jackson Laboratory). Teratomas were harvested 8 wk after injection for fixation and sectioning. Sections were stained with H&E. All animal experiments were performed in accordance with the United Kingdom 1986 Animals Scientific Procedure Act and local institute ethics committee regulations.

Microarray Analysis. Total RNA from human ES cells, human iPSCs cultured in 2i/LIF medium, and FGF-cultured HiPSCs were hybridized onto human HT-12 v3 and v4 Expression BeadChip (Illumina) according to manufacturer instructions. Arrays were then scanned using the BeadXpress Reader (Illumina). Raw expression files were exported directly from BeadStudio and loaded into R/Bioconductor. Sample data were normalized, and then the mean value was calculated for each transcript from samples in the same group. Pearson correlation analysis of global gene expression (47,232 transcripts) was performed on these arrays.

Statistical Analyses. Data are shown as mean and SD. All statistical analyses were done with Excel 2008 (Microsoft) or Prism (GraphPad).



Fig. S1. (*A*) PB transposons carrying various cDNAs. TR, terminal repeats of the PB; MSCV, LTR of MSCV; CAG, CAG promoter; pA, polyadenylation signaling sequence; 2A, foot-and-mouth disease virus 2A self-cleaving peptide; rtTA, reverse tetracycline response transcriptional activator. (*B*) Oct4-IRES-Puro-Egfp knock-in allele. The IRES-Puro-Egfp cassette was targeted to the 3'UTR of the Oct4 locus to monitor and select for activation of the locus. Arrows indicate primers used to genotype the knock-in alleles. External primers were located outside of the genomic regions used to make the targeting vector. (*C*) Long-range PCR genotyping of the Oct4-IRES-Puro-Egfp knock-in allele. Arrows represent primer position. Primers sequences are listed in Table S3. (*D*) Flow cytometric analysis of the Oct4-IRES-Puro-Egfp knock-in cells for GFP expression. ES cells are GFP⁺ whereas MEFs are GFP⁻. (*E* and *F*) Most AP⁺ cells reprogrammed by expressing 4F or 4F+Rarg were not fully reprogrammed and resistant only to 1.0 µg/mL puromycin. Those few colonies resistant to 2.0 µg/mL or higher concentrations of puromycin appeared to be fully reprogrammed iPSCs based on expression of pluripotency genes (*E*) and on DNA methylation at the Nanog and Rex1 loci (*F*). ES, Oct4-IRES-Puro-Egfp knock-in ES cells; MEF, Oct4-IRES-Puro-Egfp reporter MEF cells. (G) Treatment using RAR agonists CD437 or AM580 on the quality of partially reprogrammed iPS cells (4F) based on Oct4 expression levels. Activation of the endogenous Oct4 locus was measured by GFP expression in flow cytometry. No obvious difference was observed between cells treated with CD437 or AM580, and the control (DMSO).



Fig. 52. Rarg and Lrh-1 synergistically promote reprogramming. (A) Immunostaining of small colonies induced by 4-d expression of the exogenous factors. Nanog and SSEA-1 were expressed by most if not all of the cells in the colonies by 6F, whereas in 4F colonies, Nanog was not detectable and SSEA-1 expression was only in some cells. (B) Activation of the endogenous *Oct4* locus measured by GFP expression in flow cytometry. *Oct4-GFP* reporter MEFs transfected with the 4F or the 6F were harvested for FACS analysis. The number of small GFP⁺ cells increased rapidly by 6F expression. There were two types of GFP⁺ cells: small and large. (C) The rapidly increased GFP⁺ cells were those smaller ones that eventually became iPSCs. (D) Diagram of the reporter construct for the luciferase reporter assay. A 460-bp *Oct4* promoter in MEFs in the luciferase reporter assay (*Left*). The reporter constructs were also tested in mouse ES cells (*Right*). Bars are mean \pm SD. (F) No obvious effect of Rarg and Lrh-1 on cell proliferation. pBluescript plasmid was used as the control.



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Fig. S3. Characterization of mouse iPSCs from expressing 6F. (*A*) Immunostaining of iPSCs (passage 5) to detect Oct4, Nanog, and SSEA1. (Scale bars: 20.0 μ m.) (*B*) Expression of endogenous pluripotency genes in mouse iPSCs by RT-PCR with β -actin as the PCR control. MEF, Oct4-IRES-Puro-Egfp knock-in MEFs; ES, Oct4-IRES-Puro-Egfp knock-in ES cells. (*C*) qRT-PCR analysis of expression of Nanog, Oct4, and Rex1. Expression was relative to Gapdh and normalized against gene expression in parental Oct4-GFP reporter mouse ES cells. MEF, Oct4-GFP reporter MEF cells. (*D*) In vitro differentiation of iPSCs to cell types representing the three germ layers detected by immunostaining. Antibodies: Tuj, neuron-specific class III β -tublin; SMA, smooth muscle α -actin; AFP, α -fetoprotein. (Scale bars: 10.0 μ m.) (*E*) Teratomas derived from the iPSCs contained cells types of all three germ layers. Panels show chondrocytes (*Upper Left*), keratinocytes (*Upper Right*), gut-like epithelial cells (*Lower Left*), and neuronal cells (*Lower Right*). All photographs were taken at the same magnification (200×). (*F*) RT-PCR analysis of expression of the exogenous reprogramming factors in mouse iPSC lines. Most lines were free of expression of these factors. Control, mouse iPSCs growing in the presence of Dox to induce exogenous factor expression; ES, parental Oct4-IRES-Puro-Egfp knock-in ES cells. Three primer pairs—Oct4-cMyc-exogenous, *CMyc-Klf4*-exogenous, *Klf4-Sox2*-exogenous, cwere used to detect junction fragment between cDNAs in PB-TRE-OCKS construct. Expression of RL from PB-TRE-RL construct used a pair of primers (*Rarg-Lrh-1*-exogenous) to detect a junction fragment between R and L. Most iPSC lines did not express the exogenous factors.



Fig. 54. Production of human iPSCs cells using 6F (CAG promoter version). (*A*) Conservation of RAREoct sequence in several mammalian species. (*B*) Human iPSCs colonies formed in M15 plus LIF media. *Upper Left*: Typical colony reprogrammed with the four Yamanaka factors. *Upper Right*: Typical iPSC colony reprogrammed using 6F. Images were taken 10 d after transfection. *Bottom Left*: iPSC colonies after the primary colonies were dissociated and replated onto feeder cells; *Lower Right*: Typical iPSC colony after subcloning at the single cell density. (*C*) Expression of endogenous pluripotency protein in human iPSCs detected by immunostaining. (*D*) Expression of pluripotency genes in human iPSCs detected by RT-PCR. HiPS1-3 and 4, HiPS6-4 and 16 were four independent iPSC lines. HDF, human dermal fibroblast cells; hESC, H1 human ESCs. (*E*) Differentiation of human iPSCs to cell types of the three germ layers in treatomas. *Upper Left*: Neural tissue with occasional rosettes (arrow). *Upper Right*: Fibromuscular fibers (arrows). *Lower Left*: Loose mesenchyme (arrow). *Lower Right*: Ciliated glandular epithelia (arrow). All photographs were taken at the same magnification (×200). (*F*) Normal karyotype in the human iPSCs after extensive passaging (>20 passages). *Upper*: DAPI. *Lower*: multicolor FISH.



Fig. S5. Characterization of the Dox-independent human iPSCs from neonatal fibroblast cells. (A) NANOG expression in primary iPSC colonies (8 d of Dox induction) detected by immunostaining. (Scale bars: 20.0 μ m.) (B) RT-PCR analysis of gene expression in human iPSCs with GADPH as the control. HDF, human neonatal dermal fibroblast cells; hESC, H1 human ES cells. (C) FACS analysis of human iPSCs for SSEA-4, Tra-1–60, and TRA-1–81 expression. *Left*: HDF control, which did not express SSEA-4, TRA-1–60, or TRA-1–81. (D) No exogenous factor expression was seen in human iPSCs in RT-PCR analysis. Control, expression of the exogenous factors induced by Dox; hESC, H1 human ES cells. (E) Normal karyotype in human iPSCs after extensive passaging (>20 passages). *Upper*: DAPI. *Lower*: MFISH. (F) In vitro differentiation of human iPSCs. (*Left*) cartilage (mesoderm); (*Center*) neural tissues (ectoderm); ciliated glandular epithelia (endoderm). All photographs were taken at the same magnification (×200).



Fig. S6. Dox-independent human iPSCs from adult fibroblast cells. (A) Human iPSC colonies formed at two time points (day 10 and day 14 of Dox induction) during reprogramming. HDFa (709590) and HDFa (439656) are two adult primary fibroblast cell lines. HDFn (617769) and HDFn (200710654) are two neonatal primary fibroblast cell lines. *Top*: Parental HDF cell lines used for reprogramming at the day for transfection. These iPSC colonies were growing in M15 plus LIF medium staining. (Scale bars: 10.0μ m.) (B) qRT-PCR analysis of key genes in parental HDFa, human iPSCs (passage 10), and H1 hESC cells. SH-iPS20-1 and -3 are two independent iPSC lines derived from a female adult dermal fibroblast line (439656). Expression was relative to GAPDH and normalized against gene expression in H1 hESCs growing in KSR/FGF medium. Error bars are mean \pm SD. (C) Global gene expression analysis of nine independent SH-iPSC lines derived

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from three individuals (two adults and one neonatal). SH-iPS20-1, -3, and -9 lines were derived from HDFa (439656); SH-iPS24-1, -2, and -11 lines were derived from HDFa (709590); and SH-iPS28-23, -25, and -27 lines were derived from HDFn (617769). 1-PCC, Pearson correlation coefficient. (*D*) qRT-PCR analysis of key pluripotency genes during establishment and passaging of SH-iPS24-1, which was derived from adult fibroblast cells. HDFa, parental fibroblast cells. P4, P10, P15, and P20 are passaging numbers. Expression was relative to *GAPDH* and normalized against gene expression in H1 hESCs growing in KSR/FGF medium. Error bars are mean \pm SD. (*E*) Normal karyotype of SH-iPS24-1 cells (female) at passage 20. *Top*: DAPI staining. *Bottom*: Spectral karyotype. (*F*) Detection of two X chromosomes in SH-iPS20-1 cells (red arrows) in FISH analysis using chromosome painting. (G) qRT-PCR analysis of *XIST* in SH-iPSCs. *XIST* expression in male dermal fibroblast cells, SH-iPS20-1 and SH-iPS20-3 lines had little *XIST* expression. When the SH-iPSCs were differentiated or grew in FGF-medium for two passages, the levels of *XIST* expression were comparable to that of the parental female dermal fibroblast cells. Error bars are mean \pm SD. (*H*) Expression of a subset of X-IPSC. *XIST* expression of a subset of X-IPSC.



Fig. 57. Signaling dependency and gene expression analysis of human iPSCs growing in various conditions. (*A*) SH-iPSCs (passage 20) maintained in KSR/2i/LIF medium had more dividing cells than H1 hESCs cultured in KSR/FGF (10.7% vs. 1.5%). (*B*) Nearly complete demethylation in the promoters of *OCT4* and *NANOG* in human iPSCs (passage 20). (*C*) Robust expression of pluripotency genes (qRT-PCR) in human iPSCs in the presence of FGFRi, but not if a JAKi was added. H1 human ESCs growing in KSR/FGF or in KSR/2i/LIF medium were used as the controls. H1 human ESCs were differentiated in the KSR/2i/LIF medium. (*D*) Gene expression in the human iPSCs that were cultured in KSR/FGF medium but then switched to KSR/2i/LIF medium. Expression in H1 hESCs growing in KSR/FGF medium was used as the control. Bars are mean ± SD. (*E*) Immunostaining of SH-iPSCs cultured in FGF medium shows that they are SSEA-1–negative (top three Legend continued on following page

panels) but SSEA-3-positive (bottom three panels). NANOG staining was also performed to detect pluripotent cells. (Scale bars: 20.0 μ m.) (F) Global gene expression analysis of SH-iPSCs (passage 40, KSR/2i/LIF), human ESCs, and SH-iPSCs that were cultured first in KSR/2i/LIF medium but then in KSR/FGF. Expression profiles are clustered based on correlation. Three RNA samples (S1–S3) from each growth condition or cell type were used in the array analysis. The numbers represent the correlation value of three levels. (G) Telomerase activity in human ESCs, SH-iPSCs (passage 40) cultured in KSR/2i/LIF medium (2i), and the FGF-cultured human iPSCs (FGF). The arbitrary telomerase units of each sample were calculated based on TSR8 control template amplification.

Table S1.	Υ	chromosome	pol	ymor	phisms	in	HDFn	and	human	iPSCs
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YSTRs	HDFn	HiPS1, 3–1	HiPS1, 3–5	HiPS1, 4–3	HiPS1, 4–5
B_DYS456	14	14	14	14	14
B-DYS389I	12	12	12	12	12
B_DY\$390	23	23	23	23	23
B_DYS389II	28	28	28	28	28
G_DYS458	15	15	15	15	15
G_DYS19	15	15	15	15	15
G_DYS385	13, 14	13, 14	13, 14	13, 14	13, 14
Y_DY\$393	12	12	12	12	12
Y_DY\$391	11	11	11	11	11
Y_DY\$439	8	8	8	8	8
Y_DY\$635	23	23	23	23	23
Y_DY\$392	11	11	11	11	11
R_Y_GATA	11	11	11	11	11
R_DY\$437	16	16	16	16	16
R_DY\$438	11	11	11	11	11
R_DYS448	20	20	20	20	20

Sixteen human Y chromosome markers were used for the genotyping (copy numbers in parentheses): B_DYS456 (14), B_DYS389I (12), B_DYS390 (23), B_DYS389II (28), G_DYS458 (15), G_DYS19 (15), G_DYS385 (13,14), Y_DYS393 (12), Y_DYS391 (11), Y_DYS439 (8), Y_DYS635 (23), Y_DYS392 (11), R_Y_GATA (11) R_DYS437 (16), R_DYS438 (11), R_DYS448 (20).

Table S2.	Summary of	experimental	data on	reprogramming	human	fibroblast	cells
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Electroporation	Parental cells	Cell no. seeded per 10-cm plate	DOX induction time, d	No. of DOX-free iPS colonies	No. of picked colonies	No. of established colonies
15–1	HDFn (2007100654)	250,000	16	93	12	8
19–1	HDFn (709590)	250,000	8	2	0	0
19–2	HDFn (709590)	250,000	10	24	0	0
19–3	HDFn (709590)	250,000	12	39	0	0
19–4	HDFn (709590)	250,000	14	56	0	0
19–5	HDFn (709590)	250,000	16	76	0	0
19–6	HDFn (709590)	250,000	18	102	0	0
20–3	HDFa (439656)	250,000	20	204	15	4
21–1	HDFa (439656)	250,000	16	125	9	2
24–2	HDFa (617769)	250,000	14	196	24	6
24–2	HDFa (617769)	250,000	20	148	0	0
28–1	HDFn (709590)	250,000	10	175	18	7
28–1	HDFn (709590)	250,000	16	213	24	12

Table S3. Primers used in cDNA cloning, RT-PCR, and DMR analysis

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Mousduman DNA loning primes mOct4 ARATCTCTCCACCTTGCCCAGGCTGACACC mOct4 ORF cloning moc44 FEGNI GGAATTCTTGATCACCAGCTCACTGACGTC mOct4 ORF cloning moc44 FEGNI GGAATTCTTTGATCACCAGGCTCACGGAGGGA mSol2 ARColl molt4 FEGNI GGAATTCCATCACCAGGGGAATTGACGAGGGC mKI44 ARColl mMid4 FEGNI GGAATTCCACTGCCCAGAGGTGAACGTGACG mKI44 ORF cloning mKif4 FEGNI GGAATTCCACTGCCCAGAGGTGAACGTGACG mKI40 ORF cloning mRay-FLWN-FEGNI GGAATTCCCCTGCCCGAAGGTGAACGTGACG mRarg-FLDN cloning mRay-FLWN-FEGNI GGGAATTCCCCCCGAGGCTACCAGCGAGG mRarg-FLDN cloning mRarg-FLWAbal GCTCTAAGATCATCATCGTGCTGGCAGGCAGG mRarg-FL cloning mRarg-FLWAbal GCTCTAAGATCATCATCGTGTGTGAGGCAGGCAGGGGAT mRarg-FL cloning mRarg-FLWAbal GCTCTAAGATCATCATCGTGTGTGAGGCAGGGCAT mRarg-FL cloning mMarg-FLWAbal GCTCTAAGATCATCATCGTGTGTGAGGGGAT mRarg-FL cloning mMarg-FLWAbal GCTCTAAGATCATCGTGTGTGAGGGGAT mRarg-FL cloning mMarg-FLWAbal GCTCTAAGATCATCATCGTGTGTGAGGGGAT mLh1 ORF cloning mth1+F-EcoRI GGGGAATTCCACCAGGGGGGGATTGCGGGGGAT mLh1 ORF cloning mth1+	Primer name	Primer sequence	Purpose
m0cH-F-Bglil GAAGATCTTCCCACCTTCCCAGTGGCAGACCC m0cH 0-FEORI m0cH-F-Bglil GAAGATCTTGTAAACAGGCTACTGCAGGGCGC m5x22-FEGRIC m5x22-FEGRIC GGAATCTGTGCAACGGGCGCGGG m5x22-FEGRIC mKH4F-Bglil GAAGATCTCTGTCACCAGGCGTCAGCGAGCGCTGGC mKH4 Detech mKH4F-Bglil GGAATTCCACCATGCGCGATCAAGCGGACGC mMyc OBF cloning mBarg-FLR0N-FEORI GGGAATTCCCCCCACCAGGATTGGAAGCTGTGC mBarg-FLON cloning mBarg-FLR0N-FEORI GGGAATTCCCCCCAGAGCTGGGAGGGGGG mBarg-FLON cloning mBarg-FL-RXbal GCTCTAGATGCTGCTGTGGCAGGCCAGCA mBarg-FLON cloning mBarg-FL-RXbal GCTCTAGATGCTGCTGTGTGGCAGGCCAGC mBarg-FL-No cloning mBarg-FL-RXbal GCTCTAGATGCTGCGGGGGGATTGCGGCAGGCAGCG mBarg-FL-No cloning mBarg-FL-RXbal GCTCTAGATGCTGCGGGGGGGATTGTCGTGC mBarg-FL-No cloning mBarg-FL-RXbal GCTCTAGATGCTCGCCGGGGGATTGTCGTGC mBarg-FL-No cloning mBarg-FL-FEORI GGGAATTCCCCCGGGGGGATCTGCTGTGTG mCh1 ORF cloning mStar-FL-FEORI GGGAATTCCCCCGGGGGGGGGCATCGCGTGTGTGTGG hCh1 ORF cloning mStar-FL-FEORI GGGAATTCCCCCGGGGGGGGCACCTGGCTTGGTG hCh2 ORF cloning mStar-FL-	Mouse/human cDNA clon	ing primers	
mOd4-REcRI CGGAATTCTTGATCAACAGCATCACTGAGCTG m5022-RECRI CGGAATTCTTGATCAACAGCAGGACGGGCAGT m5022-RECRI CGGAATTCTTCACCATGCCGCACGGGGCAGT mKH4-RECRI CGGAATTCACTCACTGCGGGAATTCACC mKId OR doning mKH4-RECRI CGGAATTCACTCACTGCGCGACGTGGAATTCACC mMyc OR doning mMyc-RECRI CGGAATTCCACTGCGCTCACTGGCGCAC mRarg-FUD N cloning mRarg-FUD N-FEGRI GGGAATTCCGCACGCACCTCACTGGCCACC mRarg-FUD N cloning mRarg-FUD N-FEGRI GGGAATTCCGCACGCACGCACC mRarg-FUD N cloning mRarg-FU-NAbal GCTCTAGAGCACCCACACGCCACGCAC mRarg-FUD N cloning mRarg-FU-NAbal GCTCTAGAGTCCCCACAGCGCAGGCA mRarg-FUD N cloning mRarg-FU-NAbal GCTCTAGAGTCCCCCACAGGCGAGTCTCCTCACA mRarg-FUD N cloning mRarg-FU-NAbal GCTCTAGAGTCCCCACAGCGCAGCCACCTCTCCA mRarg-FUD N cloning mS1-R-FU-NAbal GCTCTAGAGTCCCCCACGCCCCACGCAC mRarg-FUD N cloning mS1-R-FU-NAbal GCTCTAGAGTCCCCCACGCCCCAGCCCCCCCCCCCCCCC	mOct4-F-Bglll	GAAGATCTCTCCACCTTCCCCATGGCTGGACACC	mOct4 ORF cloning
mbox2+ReglilGAAGATCTITIGATAACATGATGGAGAGGmbox2+Reglilmbox2+ReglilGAAGATCITIGACTAGGGAGTGAGGGAGTmKH4 PeglilmKH4+ReglilGAAGATCICACCATGGGGGATAAAAmKH4mKH4+ReglilGAAGATCICACCATGGCGGATAAAAmcMyc-ReglilmArg-FLON-FLORIGGGAATTCCCCCACCAGAGTTGAGAAGGTGTCGmRarg-FLON FLORINGmMarg-FLON-FLORIGGGAATTCCCCCCACGAGATTGAGAGGTGTCGmRarg-FLON cloningmRarg-FLON-FLORIGGGAATTCCCCCCACGCGAGCACAmRarg-FLON cloningmRarg-FLANAGCTCTAGAGCCCACAGGTGCGAGGGGmRarg-FLON cloningmRarg-FLANAGCTCTAGAGCCCACAGCGCCCCCCACGGGGGmRarg-FLON cloningmRarg-FLANAGCTCTAGAGCGCCCCCAGGCCCAGGGGGGGGGGGGGGGG	mOct4-R-EcoRI	CGGAATTCTTGATCAACAGCATCACTGAGCTTC	-
mbox2-8.EcoRICGGAATTCTTCACATGTGCGACAGGGCCAGTmKH4-REARICGGAATTCCACATCAGGCGACGCAGCTGTCCmKH4 ORF doningmKH4-REARICGGAATTCCACATCAGGTGGACTGAACTCACCmcMyc-REARImKyc-REARICGGAATTCCGCACGCAGGGGGACTGACACmcMyc-REARImRarg-DU-R-XbalGCTCTAGACTCACATCGCCCTACAGGCCACCmRarg-LDN cloningmRarg-DN-R-XbalGCTCTAGACCCACACCGGCACCGmRarg-LDN-FEORIGGGAATTCCGCACACCGCACACCGGGGGmRarg-LDN-FEORIGGGAATTCGCCGCACCGmRarg-DN-R-XbalGCTCTAGACGCTACATGGCGCACCAmRarg-LDN-FEORImRarg-DN-R-XbalGCTCTAGACGCTACATGGCGCCACCAmRarg-DL-RoingmRarg-L-R-XbalGCTCTAGACGTCATCATCGGGGCTCATGGGGACmRarg-LDN-GoingmRarg-L-R-R-XbalGCTCTAGACGCTCACGGCCAAGCTACGGmSarg-LDN-GoingmSi1-R-XbalGCTCTAGACGCTAGGCCTAGGCCTACGGmL1 ORF doningmSi1-R-XbalGCTCTAGACGCACCAGGCTAGGCCTCAGGmL1 ORF doningmL1 -FEORIGGGAATTCCCACCATGGCGGGACACCTGGCTCAGGhDCT4 ORF doninghDCT4R-XbalGCTCTAGACGACAGCTGGCTCAGGhDCT4 ORF doninghDCT4R-XbalGCTCTAGACCACAGCAGTGCTCAGGhDCT4 ORF doninghDCT4R-XbalGCTCATGACCACAGCAGTGCTCAGGhDCYA ORF doninghDCT4R-XbalGCTCATGACACAGCAGGGACATCGGGGGCAGTGCChLRH ORF doninghDCT4R-XbalGCTCATGACACAGGCGTCACAGGGGGCAGTGCChLRH ORF doninghDCYA XXbalGCTCATGACTCACAGGCGGGACATCAGGGCGGGGCGTGCChLRH ORF doninghDCYA XXbalGCTCATGACTACAGCTGGACACCGAGGCGTGChLRH ORF doninghLRH F-FCRGGGAATTCCCACCAGCGCGGGACGTGGGGGCGTGCChLRH ORF doninghLRH F-FF	mSox2-F-Bglll	GAAGATCTCTTGTATAACATGATGGAGACGG	mSox2 ORF cloning
mKH4-F-Bglil GAAGATCTCACCATGGCTGTCAGCGAGGCTTGTAG mKH4-F-Bglil GAAGATCTCATCATGGGGAGTTAAAA mcMyc-F-Bglil GAAGATCTCATCACTCACTGGAGGTTGAAGCTGTTGCA mRarg-DNH-FEORI GGGAATTCCGCAGCGACCCCAATGGCGAGC mRarg-FL0NI-FEORI GGGAATTCCGCAGCGTCCAATGGCGAGC mRarg-FL0NI-FEORI GGGAATTCCGCGAGCGCACGCGACCGCAATGGCGAGC mRarg-FLR-Xbal GCTCTAGAAGTGTCATCATGCGTGATGGCGAGC mRarg-FLR-Xbal GCTCTAGAAGTGTCACTCATGGGGAT mRara-FL0NI-FEORI GGGAATTCCGCGGGGGCAGGCATGGCGAGC mRara-FL0NI-FEORI GGGAATGCGCGGGGCGGGCATGGCTTGG mRara-FLR-Xbal GCTCTAGAAGGGGCAGGGCATGGCATGGGGAT mRara-FLR-Xbal GCTCTAGAGGGGCAGGGCATGGCATGGGGAT mS11-FEORI GGGAATTCCGCGGGGCGGGGCTGAGCTTGGTGGTTG mLh1-F-KCRI GGGAATTCCGCGGGGCAGGGCATGGCATGGCAGGC bCT4-FKcRI GGGAATTCCGCGGGGAGGCACTGGCTGTG bCT4-FKcRI GGGAATTCCGCGGGGACGGCAGGCCTGGCGGGGG bCT4-FKcRI GGGAATCCCCCGGGCTGAGGCTGGCGGGGAGGCG bCT4-FKcRI GGGAATCCCCCGTGGCGGGAGGCATGGCGGGGAGGC bCT4-FKcRI GGGAATCCCCCGTGGCGGGAGGCATGGCGGGGGAGGC bCT4-FKcRI GGGAATCCCCCGTGGCGGGAGGCGTG bCC2+FK-Kbal GCTCTAGAAGCTGGGGGGACGCGGGGGGGGGGGG bCC2+FK-Kbal GCTCTAGAACCTCAGGTGGCGGAGGCG bCC2+FK-Kbal GCTCTAGAACCTCGGCGGGACGCGGGGGGGGGGGGGGGG	mSox2-R-EcoRI	CGGAATTCTTTCACATGTGCGACAGGGGCAGT	-
mKHVF-REDRI CGGAATTCACACTCACTGCGTGGATTTAAAA mKHVF-REDRI CGGAATTCACACTGCCGTGACGTGACCTCACC mKHVF ORF cloning mArty-FebRI CGGAATTCGCGCAGCGTGCGGCACCC mRarg-FLDN cloning mRarg-DN-RXbal GCTCTAGAGCCAACCGGGCACC mRarg-FLDN cloning mRarg-DN-RXbal GCTCTAGAGCCCACCCCCACCACGGGG mRarg-DN-RXbal GCTCTAGAGCCGTCGTGTGCAACGGGGG mRarg-DN-RXbal GCTCTAGAGCCGACCCACCGGGCAGCACG mRarg-DN-RXbal GCTCTAGAGCTGCTGGCAGCGCACG mRarg-DN-RXbal GCTCTAGAGCGCGCCGCCGGGCACGGGGACG mRarg-DN-RXbal GCTCTAGAGCGGCACGACGGGGACT mRarg-L0-RXbal GCTCTAGAGCGCCCCCCGGGCACGGGGACG mRarg-DN-RXbal GCTCTAGAGCGCCCCGGGCACGGGGACGCTGCC mRarg-DN-RXbal GCTCTAGAGCGCCCCGCGGGCACGCTGCTGC mth-1-FEoRI GGGAATTCCCCCGGGCACGCTGGCTGC mth-1-FEoRI GGGAATTCCCCCCGGGCACGCTGGCCG hCUC4-FEoRI GGGAATTCCCCCCGGGCACGCTGGCGC hCUC4-FEoRI GGGAATTCCCCCAGGCCAAGCTGGGCGGCGGCGGCG hS0V2-FEORI GGGAATTCCACCATGCCGGGACACCTGGCTTCAG hCUC4-FEORI GGGAATTCCACCATGCCGGGACACCTGGCTGC hKLF4-FEORI GGGAATTCCACCATGCCGGGACACCTGGCTGCC hKLF4-FEORI GGGAATTCCACCATGCCCGCCACGCTGGCCG hCUC4-FEORI GGGAATTCCACCATGCCCGCCACGTGGCGGCGGCGGCG hLRH1 ORF cloning hLH1+-RXbal GCTCTAGAGCGCACGCGCGCGCGCGCGCGCGCGCGCGCGC	mKlf4-F-Bglll	GAAGATCTCACCATGGCTGTCAGCGACGCTCTGCTC	mKlf4 ORF cloning
mcMyc-F4gill GAAGATCTACCATGCCCTCAACGTGAACGTGAACGTGTCACC mcMyc DF cloning mcMyc-F4RCR GGAATTCCCGCAGCCACCATGCCCCAAGCGCAACGCGAAGCGCAGGGTGC mRarg-FLUD kloning mRarg-DLR-F4CRI GGGAATTCCGCCAGCTACCATGGCCAACC mRarg-FLUD kloning mRarg-DLR-Kbal GCTCTAGAGCATCATCCTCTGCAGGGGG mRarg-LON kloning mRarg-DLR-Kbal GCTCTAGAGCATCACCTGCGAGCTGCCACC mRarg-LON kloning mRarg-DLR-Kbal GCTCTAGAGCATCACCTGCGGGCAT mRarg-LON kloning mRarg-DLR-Kbal GCTCTAGAGGGCCGGGCATGGCATGCGCATCGCACT mRarg-LON kloning mRarg-DLR-Kbal GCTCTAGAGGGCCTAGGGCATTGGCATTCGTAGC mS10 DF cloning mRarg-DLR-Kbal GCTCTAGAGGGCCTAAGATTCGTCGCGGGCAT MRarg-LON kloning mRarg-DLR-Kbal GCTCTAGAGGGCCTAAGATTCGTCGCGGGCATGGACTTGGCATTGGCA hDCT4-FKbal GCTCTAGAGGGCATGAGCTTGCTGCAGTTGG hDCT4-FKbal GCTCTAGAGGGCATGAGCTTGCGCGGACGGCATGGC hDCT4-FKbal GCTCTAGAGGGCATGAGCTGCTGCTGC hDCT4-FKbal GCTCTAGAGGGGCATGAGCCCTGGCTGCA hDCT4-FKbal GCTCTAGAAGGGGCCTGAGCTGGCG hDCT4-FKbal GCTCTAGATGCAGGGGGAGGCGTGGC hSD22-FkcRI GGGAATTCCACCATGGCGGCAGCGCGTGGC hKLF4-FkcRI GGGAATTCCACCATGGCGGCAGCAGGGGGGGGG hSD22-FkcRI GGGAATTCCACCATGGCGGCAGGAGCGG hKLF4-FkcRI GGGAATTCCACCATGGCGGCGCAGGGGGG hKLF4-FkcRI GGGAATTCCACCATGGCGGCGCGCGGGCGGGGGGGGGGG	mKlf4-R-EcoRI	CGGAATTCACATCCACTACGTGGGATTTAAAA	-
mcMyc-R-EoRI CGGAATTCTTATGCACCAGACTTTCGAAGCTTGCG mRarg-DLR-FEORI GGAATTCCCCCCAGCTACATGGCCACCC MRarg-FLDN cloning mRarg-DN-R-Xbal GCTCTAGATCATCATCATCCCCTCATGTGCTGATGC mRarg-FLDN-FEORI GGGAATTCGCCGACCCACCACGGGG mRarg-FLANbal GCTCTAGAGCTGCCATGGGGACTCCCACCT mRarg-FLANbal GCTCTAGAGCTGCCAGGCAGGCT mRarg-FLANbal GCTCTAGAGCTGCCCAGGCA mRarg-FLANbal GCTCTAGAGCTGCCCAGGCATGGCCATCG mRarg-FLANbal GCTCTAGAGCTGCCCAGGCTAGGCCATCGC mRarg-FLANbal GCTCTAGAGCTGCCCAGGCTAGGCCATTCGTACG mth-1-FEORI GGGAATTCCCCCCGGGCATGGCCTATCGTACG mth-1-FEORI GGGAATTCCCCCCGGGCATGCTGCTGCT mth-1-FEORI GGGAATTCCCCCCGGGCATGGCCTATGGCGAGCT mth-1-FEORI GGGAATTCCCCCCAGGCTAAGCTGGCTTCAG hCHT4-FEORI GGGAATTCCCCCAGGCTAAGCTGGCTTCAG hCHT4-FEORI GGGAATTCCCCCAGGCTAAGCTGGCTCAGG hCMCC-FEORI GGGAATTCCCCCAGGCTAAGCTGGCTCAGG hCMCC-FEORI GGGAATTCCCCCAGGCTCAAGCTGGCTGCC hKLF4-FEORI GGGAATTCCCCCATGGCGGGCAGTGCC hKLF4-FEORI GGGAATTCCCCCATGGCGGCAGCTGCCC hKLF4-FEORI GGGAATTCCCCCATGGCCGTCAGGCGGGGGGGGGG hCMCC-FEORI GGGAATTCCCCCATGCCCTCAAGCTGGCTGCGGG hLRH1-FEORI GGGAATTCCCCCATGCCCTCAAGCTGGCTGCGG hLRH1-FEORI GGGAATTCCCCCCAGCACAAGCGCG hLRH1 ORF doning hLRH1-FEORI GGGAATTCCGCCACAAAGCTCCGTAGCGCGG hLRH1 ORF doning hLRH1-FEORI GGGAATTCCCGCCGCCACAAAGCGCG hLRH1 ORF doning hLRH1-FEORI GGGAATTCCGCCCCGCACAAAGCGCG hRAGG DF doning hLRH1-FEORI GGGAATTCCGCCGCCCCCGGCCCT mSv22ATE-D-F TGCCTTAGACACGCGGGGAGTTCCAGGCG hARG ORF doning hRAGG-FXbaI GCTCTGAGCTCGGGGGAGTCC mSv22ATE-D-F TGCCTTAGACCACGGGGGGGCCC mSv22ATE-D-F TGCCTTAGACCACGGGGGAGCTC mSv22ATE-D-F TGCCTTAGCCCGGGCGATGA mKI4ATE-FR TGCCTGAACGCAGGGGGAGCTC mSv22ATE-D-F TGCCTGACGCCGGGGAGTC mSv22ATE-D-F TGCGTGACGCCCGGGGAGTGC mSv22ATE-D-F TGCGTGACGCTCGGGGAGTGC mSv22ATE-D-F TGCGGGGAGCTGGGGGAGTGC mSv22ATE-D-F TGCGGGGAGCGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	mcMyc-F-Bglll	GAAGATCTCACCATGCCCCTCAACGTGAACTTCACC	mcMyc ORF cloning
mRarg-FLDN-F-EcoRl GGGAATTCCCCCAGCTACCATGGCCACC mRarg-DN-R-Xbal GCTCTAGACCCATCATCATCCTCTAGACCCACAACGGGG mRarg-DN cloning mRarg-DN-R-Xbal GCTCTAGAGCCCAACCCCACAACGGGG mRarg-DL cloning mRarg-DN-R-Xbal GCTCTAGAGTCATCATCATCGGGATCACGGGGAT mRarg-DN-R-Xbal GCTCTAGAGTGCTGCAGGGGCATGGCAACGCAGCA mRarg-DN-R-Xbal GCTCTAGAGTGCGGGCATGGCATGGGGAT mRarg-DN-R-Xbal GCTCTAGAGGGCCCGGGGCATGGCATGTGGTAG mRarg-DN-R-Xbal GCTCTAGAGGCGCCAGGGGCATGAGGGAT mRarg-DN-R-Xbal GCTCTAGAGGCGCCAGGGCATGAGGGAT mRarg-DN-R-Xbal GCTCTAGAGGGCACCCAGGCTCAAGCTGCTTG mLth1-F-EcoRl GGGAATTCCTCGCTAGGAGTGCTGCTGCTAGTTGG hCT4-R-Xbal GCTCTAGAGGCACCTAGGCTGCAACCTGGCTTCAG hCCT4-R-Xbal GCTCTAGAGGCGCATGTGGCGACTGGCGAGGGGGAGG hCCT4-R-Xbal GCTCTAGATCACTGTGCAGACCTGGCTGCC hKLP4-R-Xbal GCTCTAGATCACGTGGGGGGCAGCTGGGGGGGGGG hSOX2-R-Xbal GCTCTAGATCACGTGGGCGTGCAGGGGGGGGG hKLP4-R-Xbal GCTCTAGATCACGTGGCGTGCAGGGGGGGGGG hKLP4-R-Xbal GCTCTAGATCACGTGGGCGTGCAGGGGGGGGGG hKLP4-R-Xbal GCTCTAGATCACGTGGGCGTGCAGGGGGGGGG hKLP4-R-Xbal GCTCTAGATCACGTGGGGTGCTCCC hKLP4-R-Xbal GCTCTAGATCACGCAGGAGGGCGGGG hLM1+F-EcoRl GGGAATTCCACCATGGCGTGCAGGGGGGGGG hLM1+R-Xbal GCTCTAGATCACGCAGAGAGGTGCGG hLM1+R-Xbal GCTCTAGATCAGGCGCGCGCGGGGGGG hLM1+R-Xbal GCTCTAGATCAGGCGGGGAGCTGCGGGGGGGG hLM1+R-Xbal GCTCTAGATCAGGCGGGGAGCTGCGGGGGGGGGGGGGGG	mcMyc-R-EcoRI	CGGAATTCTTATGCACCAGAGTTTCGAAGCTGTTCG	
mRarg-DN-R-Xbal GCTCTAGAGCCACCCACCCCGACGGGG mRarg-FL cloning mRarg-FL-Xbal GGCATAGGCCACCCCCACCCCCCACGGGG mRarg-FL cloning mRarg-FL-R-Xbal GCTCTAGAGTCGTCGGCATGGCCAGGGCAGGCCAG mRarg-FL-R-Xbal GCTCTAGAGTGGCAGGGCATGGCCTCCAA mRarg-FL cloning mStra-FL-R-Xbal GCTCTAGAGTGGCAGGGCATGGGCATGGGGAT mRarg-FL cloning mStra-FL-R-Xbal GCTCTAGAGGCAGCCCGGGCCAGGGCAT mLh1-R-Xbal GCTCTAGAGGCGCATGGGCTTGGC hCT4-FEoRI GGGAATTCCCCCCGGGCACAGGCGCTTCG hCT4-FEORI GGGAATTCCCCCAGGTCGAAGTCGCTTCG hCT4-FEORI GGGAATTCCCCCAGGGCAACCTGGCCTCCG hSOX2 R-Xbal GCTCTAGAGCGCACTGGGCTCCCGC hSOX2 R-Xbal GCTCTAGAGCCACTGGCTCCAGGGGGACCGGGCGG hSOX2 R-Xbal GCTCTAGAGCCACTGGCTCCAGTGGAGGCGG hSOX2 R-Xbal GCTCTAGAGCCAGTGGCCC hCT4-FEORI GGGAATTCCCCCAGGGCGACCGGCGCCC hKLF4-FEORI GGGAATTCCCCCAGGGCGACCGGCGCGC hKLF4-FEORI GGGAATTCCCCCAGGCGCACGTGGCCC hKLF4-FEORI GGGAATTCCCCCAGGCGCCCCCCGTCCCC hKLF4-R-Xbal GCTCTAGATCACGCGCCCGCCCCCCCCCC hKLF4-R-Xbal GCTCTAGATCACGCGCCCCCCCCCCCCCCCCC hKLF4-R-Xbal GCTCTAGATCACGCCCCCCGCTCCCC hKLF4-R-Xbal GCTCTAGATCAGCGCCCGCCCCCCCCCC hKLF4-R-Xbal GCTCTAGATCAGCGCCCGCCCCCCCCCCCCCCCCCCCCC	mRarg-FL/DN-F-EcoRI	GGGAATTCCCGCAGCTACCATGGCCACC	mRarg-FL/DN cloning
mRarg-FL-RXbal GCTCTAGAGCCCAACCCCACACACGGG mRarg-FL/DN cloning mRarg-DVR-FLoRI GGGAATTGCTGCTTGGCAGGCCAGCA mRarg-FL/DN cloning mRarg-DVR-Xbal GCTCTAGAGTGCTGGGGGGTGGGGGGGGGGGGGGGGGGG	mRarg-DN-R-Xbal	GCTCTAGATCATCATCATCCCTTAGTGCTGATGC	mRarg-DN cloning
mRara-FLUDNF-EcoRI GGGAATTCGCTGCCTGCCATGGCCAGGCA mRara-FLP.Nc looning mRara-DN-Rxbal GCTCTAGAGTGTCGAGTGTCATGGGGAT mSf1-F.EcoRI GGGAATTCGCTCGCGGGCATGGGCATGGGGAT mth1-F.EcoRI GGGAATTCCTCCGCGGGCATGGGCATGGGCATGGGTCAGGTCTGC mth1-F.EcoRI GGGAATTCCCCCGGGGCATGGGCCTTGGGC hCT4-F.EcoRI GGGAATTCCCCCAGGCTCAGGTCTTGCG hCT4-F.EcoRI GGGAATTCCCCCAGGTCAGTCTTGCG hCT4-F.EcoRI GGGAATTCCCCCATGGCGGGACCGGGCCTGCG hCC4-F.EcoRI GGGAATTCCCCCATGGCGGGACCGGGCGCTGC hCC4-F.EcoRI GGGAATTCCCCCATGGTGCAGGGCGATGC hCC4-F.EcoRI GGGAATTCCCCCATGGTGCAGGGGCAGTGC hCC4-F.EcoRI GGGAATTCCCCCATGGTGCAGGGGCAGTGC hCC4-F.EcoRI GGGAATTCCCACCATGGTCGAGGGGCAGTGC hCMYC-F.EcoRI GGGAATTCCACCATGGTCGAGGGGCAGTGC hCMYC-F.EcoRI GGGAATTCCACCATGGTCGCAGGGGCAGTGC hCMYC-F.EcoRI GGGAATTCCACCATGGTCGCAGGCGGGC hLRH1-F.EcoRI GGGAATTCCACCATGGTCCGTCAGGGGCAGTGC hLRH1-F.EcoRI GGGAATTCCACCATGGTCGCAGGCGG hLRH1-F.EcoRI GGGAATTCCACCATGGTCCGTCAGGC hLRH1-F.EcoRI GGGAATTCCACCATGGTCCGTCCCCA hCMYC-F.EcoRI GGGAATTCCACCATGGCCCCCACACA hCMYC R-Xbal GCTCTAGGTCGCCCCCACACACGGG hLRH1-F.EcORI GGGAATTCCCGCCCCCACACCACGCCCCCACACC hCMYC-R-Xbal GCTCTAGGCCGCCCCCCCCCCCCCCCCCCCCCCCCCCCC	mRarg-FL-R-Xbal	GCTCTAGAGCCCAACCCCACAACGGGG	mRarg-FL cloning
mRara-DN-R-Xbal GCTCTAGATCATCATGGGATCTCCATGGGAT mRara-L-R-Xbal GCTCTAGAGTGCGAGGGGCATGCATGGGGAT mSf1-F.EORI GGGAATTCCCGGGGGCATGGACTGTCGTGG mLrh1-F.KORI GGGAATTCCCCGGGGCATGGACTGTCGCTG mLrh1-R-Xbal GCTCTAGAGGGGACCCTGGCTGGCTG mLrh1-R-Xbal GCTCTAGAGGGGGCATGGACCTGGCTTGG hOCT4-F.EORI GGGAATTCCCCATGGCGGGACCACTGGCTTCAG hOCT4-F.EORI GGGAATTCCACCATGGCGGACACCTGGCTTCAG hOCT4-F.EORI GGGAATTCCACCATGGCGGACACCTGGCTCC hKLF4-F.EORI GGGAATTCCACCATGGCGGACACTGGCGTCC hKLF4-F.EORI GGGAATTCCACCATGGCGGACACTGGCGTCC hKLF4-F.EORI GGGAATTCCACCATGGCGGACACTGGCGCTG hKLF4-F.EORI GGGAATTCCACCATGGCGGACACTGGCGTCC hKLF4-F.EORI GGGAATTCCACCATGGCGGACGTGGCG hKLF4-F.EORI GGGAATTCCACCATGGCGGACGTGGCGC hKLF4-F.EORI GGGAATTCCACCATGGCGGAGTCCGACGCGGGCG hCMYCF-ECORI GGGAATTCCACCATGGCCGCATGGCGC hLRH1-F.EORI GGGAATTCCACCATGGCCCCCACGTTAGGTCCACCAA hLRH1-F.EORI GGGAATTCACGCACGGCGCGCG hLRH1-F.EORI GGGAATTCAGGCCGGGGACGCG hLRH1-F.EORI GGGAATTCAGGCCGGGGACTCCAGGCC hCMYC-R-EORI GGGAATTCAGGCCCCCGGGCA hCMYC-R-EORI GGGAATTCAGGCCCGGGGCATGGGGACTCCAGGC mSousPhuma RT-CPQ primers mOCt4-RT-En-F TCTTTCCACCAGGCCCCCGGGCA mSousPhuma RT-CPQ primers mOCt4-RT-En-F TCGCGTCGGACCCCGGGGCATGCA mSousPL-FR TGCGGCGGACTCCAGGCCCCGGGCA mSousPL-FR TGCGGCGGACTCCGGGGACTCC mSouz-RT-En-R TGCGGCGGCACTGGGGACTCC mSouz-RT-En-R TGCGGCGGCACTGGGGGACTC mSouz-RT-En-R TGCGGCGGCACGGGGAGACC mSouz-RT-En-R TGCGTGCGCCCCGGGCT mSouz-RT-En-R TGCGGGGGACTCC mSouz-RT-En-R CGGTTCGTCGCGGGGGGGGAG mRang-RT-En-R CGGTTCGTCGCGGGGGGGG mRang-RT-FR CGGTTCGTCGCGGGGGGGG mRang-RT-FR CGGTTCGTCGCGGGGGGGGG mRang-RT-FR CGGTTCGTCGCGGGGGGGGGG mMang-RT-FR CGGTTCGTCGCGGGGGGGGGGGGG mGd3-RT-FR GGGGGAGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	mRara-FL/DN-F-EcoRI	GGGAATTCGCTGCTTGGCATGGCCAGCA	mRara-FL/DN cloning
mRar=HL=RXbal GCTCTAGAGTGTGCAGGGGAT mBar=HL cloning mSf1H=Xbal GCTCTAGAGGCCGGGGCAGCAGCTGTCGTAG mLrh1=RXbal GCTCTAGAGGGCACCCAGGCTCAGCTGCTGCT mLrh1=RXbal GCTCTAGAGGGACTCTAGGCTGCTGCTGG hOCT4=FEcRI GGGAATTCCACCATGGCGGGACACCTGGCTTCAG hOCT4=FEcRI GGGAATTCCACCATGGTGCAGGCTGGCTCAG hOCT4=FECRI GGGAATTCCACCATGGTGCAGGGGGAGCGTG hSOX2=FECRI GGGAATTCCACCATGGTGTGCAGGGGGGGGGGG hSOX2=FECRI GGGAATTCCACCATGGTGTGCAGGGGGGGGGG hSOX2=FECRI GGGAATTCCACCATGGTGTGCAGGGGGGGGGG hKLF4=FECRI GGGAATTCCACCATGGTGTGCAGGGGGGGGGG hKLF4=FECRI GGGAATTCCACCATGGTGTGCAGGGGGGGGGG hKLF4=FECRI GGGAATTCCACCATGGTGTGCAGGGGGGGGG hKLF4=FECRI GGGAATTCCACCATGGTGTCAGTGGGGGGGGGG hKLF4=FECRI GGGAATTCCACCATGGTGTCAGTGGGGGGGGGG hKLF4=FECRI GGGAATTCCACCATGGCTGTCAGTGGGGG hLRH1=RXbal GCTCTAGATCACGFACCACGTGCGCTGCC hKLF4=FECRI GGGAATTCATGGCGACCCAGGGGGGGGG hLRH1=RXbal GCTCTAGATGACGCCCCAGGGGGGGGGG hLRH1=RXbal GCTCTAGATCACGFACGGGGGCTC mOcuGeTFE-FF FT TGCCTTAGACGGCGGGGGGGGGGGGGGGC mOcuGeTFE-FF TTGCCTTAACAGGGCGGGGGGGGGGGGGGGC mSt02=FTE-FF TGCGTCAGGTGGGGGGGGGGGGGGGGGGGGGGGGGC mSt02=FTE-FF FT TGGCTTAACAGAGCCCGGGGCGGCC mSt02=FTE-FF FT TGGCTTAACCAGGCCGGGGGGGGGGGGGGGGGGGGGGG	mRara-DN-R-Xbal	GCTCTAGATCATCATGGGATCTCCATCTTCAA	mRara-DN cloning
msf1+F-EcoRIGGGAATTCCCCGGGCATGGACTAGCTCGmsf1+F-EcoRIGGGAATTCCCCAGATCTGCTTGmLrh1-F-EcoRIGGGAATTCCCACCATGGCGACCCAGGCTCAGGTTGGhOCT4 ORF doninghDCT4+F-EcoRIGGGAATTCCCCCCATGGCGGGACACCTGGCTTCAGhOCT4 ORF doninghDCT4+F-EcoRIGGGAATTCCCCCCATGGCAGCATGAGGACACCTGGCTTCAGhOCT4 ORF doninghDCT4+F-EcoRIGGGAATTCCCCCATGTGCACACATGATGGGAGACGGAGCGChSOX2 ORF cloninghSOX2-R-XbalGCTCTAGATCACATGTGGAGACACGGGACGCGCCCChKLF4 ORF doninghKLF4-FEORIGGGAATTCCACCATGGCTGCCCCCAGTGCCCCChKLF4 ORF doninghKLF4-R-XbalGCTCTAGATTAAAAATGTCTCTTCATGTGTAAGGCGAGhCMYC ORF doninghKLF4-R-XbalGCTCTAGATTAACAATGTCTCTTGATGGTAAGGCGGAGhLRH1 ORF doninghLRH1-FEORIGGGAATTCCACCGCCCCCAGAGAGCGhLRH1 ORF doninghLRH1-FEORIGGGAATTCCACGGCCCCCATAAGGAGGGhLRH1 ORF doninghLRH1-FEORIGGGAATTCCACGGCCCCCATAAGGAGGGhLRH1 ORF doninghLRH1-FEORIGGGAATTCCACGGCCCCCAGATAAGGAGGGhRARG ORF doninghARAG-FECORIGGGAATTCCACGGCCCCGGGCTRT-PCR for endogenous mOct3/4mOct4RT-En-FTCCTGCGGCGGGACATCGGGGAGATCCmsoagRT-En-RmSot2-RT-En-FTGCGGTCGGGCATGGGGAGACTCRT-PCR for endogenous mSo2mSot2-RT-En-FTGCGGTCCTCTCCCGGCATGART-PCR for melogenous mSo2mSot2-RT-En-RCGGGACTGTCCCCCGCGCTCRT-PCR for mEsq1mNanog-RT-En-RCGGGCACTGTCGCGGGAGGGGAGACCRT-PCR for mEsg1mSot2-RT-En-RCGGGACTGTGCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	mRara-FL-R-Xbal	GCTCTAGAGTGTCGAGGTGGTCATGGGGAT	mRara-FL cloning
mS11-RXbal GCTCTAGAGSGCACCCAGGCTCAAGTCTGCTG mLrh1-REvoRI GGGAATTTTCGCTAAGAAGTGTGCTAGTGTGG mLrh1 ORF cloning mLrh1-RXbal GCTCTAGAGGGACTTAGGCGGACACTGGCTTAGG hOCT4-F.EcoRI GGGAATTCCACCATGGCGGAGCACCTGGCTTAGG hOCT4-F.EcoRI GGGAATTCCACCATGTGCAGAGGGGAGGTG hS0X2-F.EcoRI GGGAATTCCACCATGTGCAGAGGGGGAGGTG hKLF4-F.EcoRI GGGAATTCCACCATGTGTGAGGGGGAGGTG hKLF4-F.EcoRI GGGAATTCCACCATGTGTGAGGGGGAGGTG hKLF4-F.EcoRI GGGAATTCCACCATGGTGTAGTGACGGCGGGGG hKLF4-F.EcoRI GGGAATTCCACCATGGTGTAGTGACGGCGGGG hKLF4-F.EcoRI GGGAATTCCACCATGGTCGTGG GGGATTCCACCATGGCTGCCCCGACGTTGGGGAGGTG hKLF4-F.EcoRI GGGAATTCCACCACGGCGCCGCGGAGG hKLF4-F.EcoRI GGGAATTCAGGCGACACGGGAGGTG hKLF4-F.EcoRI GGGAATTCAGGCGCCCCGGAGG hRARG-F.EcoRI GGGAATTCAGGCCACCAAGAGGTGGGAGG hRARG-F.EcoRI GGGAATTCAGGCCACCAAAGGAGGG hRARG-F.EcoRI GGGAATTCAGGCCCCGGGACT mOct4-RT-En-F TCTTCCCCACAGGCGCGGGGCTC RT-PCR for endogenous mOct3/4 mOct4-RT-En-F TGCGTGAGCACCCGGGACTCAGGGGAGTCC mSox2-RT-En-F TGCGTTAAGGCGGGGAGTCC mSox2-RT-En-F TGCGTTAAGGCGGGGAGTCC mNanog-RT-En-F CGGGGCGGCAGTCGGGGAGTCC mNanog-RT-En-R TAGAGGTGGGGAGTCCG mNanog-RT-En-R CAGGTGGTGGAGGCGCC mNanog-RT-En-R CGGTGCTCCGCGGCAGT mNanog-RT-En-R CGGGTGGTGCCGGGAGT mRex1-RT-F CGGTGCTCTCCCGCGGCACT mNanog-RT-En-R CGGTGGTGCGGAGGTGC mNanog-RT-En-R CGGTGGTGCGGAGGAGTCC mNanog-RT-En-R CGGTGGTGGGGAGGTCC mNanog-RT-En-R CGGTGGTGGGGAGGTCC mNanog-RT-En-R CGGTGGTGGGGAGGTCC mNanog-RT-En-R CGGTGGTGGGGGGGGGG mNanog-RT-En-R CGGTGGTGGGGGGGGGGCGC mNanog-RT-En-R CGGTGGTGGCGGGGGGGCGC mNanog-RT-En-R CGGTGGTGGCGGCGGCGC mNanog-RT-En-R CGGGGGGGGGGGGGGG mLTH-PCR for mBcg1 mEg1-RT-R CGTGTGGCGCCGGTTCTTGTGGGGGGGGG mLTH-PCR for mbcg1 mEg1-RT-R CGGTGGGGGCACTCGGGGGGGGG mLTH-PCR for mbcg1 mGd3-RT-F GGGGGGGGTGCGGGGGGGGGGGGGGGGGGGGGGGGGGG	mSf1-F-EcoRI	GGGAATTCCCGCGGGCATGGACTATTCGTACG	mSf1 ORF cloning
mLrh1+FE0RI GGGAATTCGTTGCTAAGAATGTCTGCTAGTTGG mLrh1 ORF cloning MLrh1-R-Kbal GCTCTAAGAGGGACTTAGGCATGCATGC hOCT4-FE0RI GGGAATTCCACCATGGCAGGGACTAGCATGGC hOCT4-R-Xbal GCTCTAGAACCACTGTGCAACGACGGAGGCG hSDX2-FE0RI GGGAATTCCACCATGTGCAACGACGGAGGGCG hKLF4-FE0RI GGGAATTCCACCATGTGCAACGACGGAGGGCG hKLF4-FE0RI GGGAATTCCACCATGGTCAACGACGGGCGCTGC hKLF4-R-Xbal GCTCTAGATCACCATGGTGAGGGCGGCGTGCTCC hKLF4-R-Xbal GCTCTAGATCACCATGGTGCAGGCGGCGCTGCTCC hKLF4-R-Xbal GCTCTAGATCACGCACGAGGCGTGCTCCC hKLF4-R-Xbal GCTCTAGATCACGCACGAGAGGCGTGGTCCC hLRH1-FE0RI GGGAATTCCACCAGGCCGTGCTCCCACA hRH1-FE0RI GGGAATTCCACCGCCGCGCTGCTCCACAC hRH1-FE0RI GGGAATTCCACGCACGAGAGCG hRH1-FE0RI GGGAATTCCACGCACGAGAGCG hRH1-R-Xbal GCTCTAGATCAGCCCCGGCGCCC mOct4-RT-En-F TCTTCCACCAGGCCCGCGCCCC mOct4-RT-En-F TCGCTGCAGCCGCGGGGGGAGTCC mOct4-RT-En-F TCGCTGCAACGCCGGGGGGGGAGTCC mNanog-RT-En-F TGCGGGGCGGCACTGGGGGAGTCC mNanog-RT-En-F TGCGTGCCACCAGGCC mNanog-RT-En-F TGCGGGCGCACTGGGGGAGTCC mNanog-RT-En-F CGGGACTCCCGGGCGCTC mNanog-RT-En-F CGGGACTCCCGGGCGATGA mNanog-RT-En-F CGGGGCGCCCCGGGCCC mNanog-RT-En-F CGGGGCGCACTGGGGGAGTGCC mNanog-RT-En-F CGGGGCGCCCCGGGCCC mNanog-RT-En-F CGGGTCCCCCGGCCCC mNanog-RT-En-F CGGGGCGCACTGGGGGAGTGCC mNanog-RT-En-F CGGGTCCCCCGGCCCC mRex1-RT-R TAGGGGCGGCACTC mRex1-RT-R TAGGGGCGGCACTC mRex1-RT-R TAGGGGCGGCGTGCC mRex1-RT-R TGCGTCCCTCTCCCCGGCCGCCC mRex1-RT-R CGGTCCCTCTCCCCGGCCACA mNanog-RT-En-F CGGTTCCCTCTCCCGGCGCACC mNanog-RT-En-R GGGGCACTCC mRex1-RT-R GGGGCACTCC mRex1-RT-R GGGGCACTCC mRex1-RT-R GGGGCACTCTCCCGGCCCCCCGCCCCC mGdf3-RT-F GGGGGACTGCC mGdf3-RT-F ACGCGGGCCCCGCCCCCCCCCCCCCCCCCCCCCCCCCC	mSf1-R-Xbal	GCTCTAGAGGCACCCAGGCTCAAGTCTGCTTG	
mLrh1-RXbal GCTCTAGAGGGACTTAGGCTCTAGA hOCT4-R-Xbal GCTCTAGAACCCCACCATGGCGGACACCTGGCTCAG hOCT4-R-Xbal GCTCTAGACCCACTGTGCGACACCTGGCGAGAGCG hSOX2-F-EcoRl GGGAATTCCACCACTGTGCAACATGGGAGAGCG hSOX2-F-EcoRl GGGAATTCCACCATGTGCGAGAGGGGCACCTGGC hKLF4-F-EcoRl GGGAATTCCACCATGGTGAGAGGGGCAGCTG hKLF4-R-Xbal GCTCTAGATCCACTGTGTGAGGCGGCGGG hCMYC-F-EcoRl GGGAATTCCACCATGGTCGCC GGGAATTCCACCATGGCTGCCCCACGTTAGCTCACGT hKLF4-R-Xbal GCTCTAGATCAGCACGACGACGGG hCMYC-F-EcoRl GGGAATTCCACCATGGTCGCG hKLF4-R-Xbal GCTCTAGATCAGCCACAAGGTTCGGTGAGGGGA hLRH1-R-Xbal GCTCTAGATCAGCCACAAGAGTTCCGTAGCTGGGG hLRH1-R-Xbal GCTCTAGATCAGCCACACAAGAGTTCGGGGA hRARG-F-EcoRl GGGAATTCATGCCCACCAATAAGGAGGG hRARG-F-EcoRl GGGAATTCATGGCCACCATAAGGGCG MOsteHuman RT-PCR primers mOct4-RT-En-F TCTCCCCAGGCCCCGGGCTC RT-PCR for endogenous mOct3/4 mCt4-RT-En-F TGCGGGGGACATGGGGAGATCC mSox2-RT-En-F TGCCCTAGACCCAGGGGGAGACCC RT-PCR for endogenous mOct3/4 mKlf4-RT-En-F GCGAACTCACCACAGGGGGGAGACCC RT-PCR for endogenous mSox2 mNanog-RT-En-F GGGAACTCCGGGCGCCC RT-PCR for endogenous mKlf4 mKlf4-RT-En-F TGCGGGGGGACATCG mNanog-RT-En-F GGGAACTCCGGGCGCCC RT-PCR for mNanog mNanog-RT-En-F GGGAGCTCCCGGGTGA mKlf4-RT-En-F GGGAACTCCACAGGGGGGACACC RT-PCR for mNanog mNanog-RT-En-F GGGAGCTCCCGGGTGA mKlf4-RT-En-R TGCGTCCGTCCCGGGGGACATCC mRex1-RT-R TAGGCTGACGGGGGGCACT mRex1-RT-R TAGGACTACGGGGGGGCACT mRex1-RT-R TAGGACTGAGGGGGGCACT mRex1-RT-R TAGGACTGCGGGGGGCACT mGg13-RT-F GGGGGGGGGCACT mGg13-RT-F GGGGGGGGCACT mGg13-RT-F GGGGGGGGCACCC RT-PCR for mBsg1 mGg13-RT-F GGGGGGCACTCTCGGGGGGCACT mGg13-RT-F GGGGGGCACGGGGGCACG mGg13-RT-F GGGGGGGCACGGGGGCCGGGGCCGG mGg13-RT-F GGGGGGGGCCAGGGGGGGGGGGGGGGGGGGGGGGGGGG	mLrh1-F-EcoRI	GGGAATTCTTTCGCTAAGAATGTCTGCTAGTTTGG	mLrh1 ORF cloning
hOCT4-F.EcoRI GGGAATTCCACCATGGCGGGACACCTGGCTTCAG hOCT4 ORF cloning hOCT4-F.EcoRI GGGAATTCCACCTAGTTGAATGATGGAGAGAGC hSOX2-F.EcoRI GGGAATTCCACCACTGGTGACAACATGATGGAGAGCG hSOX2-F.EcoRI GGGAATTCCACCATGGTGAGAGGGGCAGTGTGC hKLF4-F.EcoRI GGGAATTCCACCATGGTGCAGGTGCGCGTGCTCCC hKLF4 ORF cloning hKLF4-F.EcoRI GGGAATTCCACCATGGTGTCAGGAGCGGTGCTCCC hKLF4 ORF cloning hCMYC-F.EcoRI GGGAATTCCACCATGGTCGTCCAACGTTAGCGTGACGTGA hLRH1-F.EcoRI GGGAATTCCACCATGGTCGTCAACGTAGGCGGCAGC hLRH1-F.EcoRI GGGAATTCCACCACTGCGCTGCTCAACGTAGGCGC hLRH1-F.EcoRI GGGAATTCCACGCACCACAAGAGTCCGTAGCAAC hRARG-F.EcoRI GGGAATTCCAGGCGGGGGCACTTCAGGCA hRARG-F.EcoRI GGGAATTCCAGGCGGGGGACTTCAGGCC Mousefhuman RT-PCR primers mOct4-RT-En-F TCTTCCACCAGGCGGGGGCACTCC mSox2-RT-En-F TCGCGCCGGGCACCCGGGGGGAGCCC mSox2-RT-En-F TGCGGACGCCACCAGGGGGGAGGCC mNanog-RT-En-F TGGCGTCCGCACCAGGGGGAGGACC mNanog-RT-En-F TGGGGTCGCACCAGGGGGAATGC mNanog-RT-En-F CGGGTCCACCAGGGGGACTC mNanog-RT-En-F CGGGTCCACCAGGGGGAGTG mNanog-RT-En-F CGGGTCCTCCCGGGGCATGA mNanog-RT-En-F CGGGTCCTCCCGGGGCATGA mNanog-RT-En-F CGGGTCCTCCCGGGCGATGA mNanog-RT-En-F CGGGTCCTCCCGGGCAGTG mNanog-RT-En-F CGGGTCCTCCCGGGCGATGA mNanog-RT-En-F CGGGTCCTCCCGGCGATGA mNanog-RT-En-F CGGGTCCTCCCGGCGCACA mSang-RT-En-R CGGGTCCTCCCCCGGCGCTC mRex1-RT-R TATGACTCACGGGGGACTC mRex1-RT-R TATGACTCACGGGGGACTC mRex1-RT-R TATGACTCACGGGGGACTC mGdf3-RT-R ACCGGGGGACTCCCCCCGGCCCCCCGGTCCC mGdf3-RT-R ACCGGGGGCGCTC mGdf3-RT-R ACCGGGGCGCTCCCCCCGCCCCCCCGCCCCCCCCGCCCCCC	mLrh1-R-Xbal	GCTCTAGAGGGGACTTAGGCTCTTTTGGCATGC	
hOCT4R-Xbal GCTCTAGAACCTCAGTTTGAATGCATGGGAGAGC hS0X2-R-Xbal GCTCTAGATCACATGTGTGAAGGGGGAGGTGG hS0X2 0RF cloning hS0X2-R-Xbal GCTCTAGATCACCATGTGTGAGGGGGCAGTGTGC hKLF4 0RF cloning hKLF4-R-Xbal GCTCTAGATTAAAAATGTTGCTCTTCTGTAGGCGGAG hKLF4-R-Xbal GCTCTAGATTAAAAATGTTGCTGTCATGTAAGGCGAG hKMYC-F-EoRI GGGAATTCATCATCATGCCCCTCAACGTTAAGCGCAG hKMYC-R-Xbal GCTCTAGATCACGCACAGGAGGTGCCGTGTCAGG hKRH1-R-Xbal GCTCTAGATCACGCACAGGAGGTGCGTGTCAGG hKRH1-F-EoRI GGGAATTCATGCTTCTATGTCATGCGGG hKRH1-R-Xbal GCTCTAGATCAGGCCACAGGAGGGG hRARG-R-Xbal GCTCTAGATCAGGCCGGGGACATAGGGAGG hRARG-R-Xbal GCTCTAGATCAGGCTGGGGACATCG mOct4-RT-En-R TCCTTCCACCAGGCCGGGGCACTCAGGCG mOct4-RT-En-R TCCGCTCCAGGCACATAGGGAGACC mSox2-RT-En-F TTGCCTTAGATCAGGCGGGGAGATCC mSox2-RT-En-R TGCGGGGGGACATGGGGAGATCC mSox2-RT-En-R TGCGCTGCGGGGACATGGGGAGATCC mNanog-RT-En-R CGGTCCTGCAGCACAG mKlf4-RT-En-R CGGGTCGAGCACAGGGGGAGAACC mNanog-RT-En-R CGGTTCCTCCGGCGACAA mKlf4-RT-En-R CGGTTCCTCCCGGCGACA mRex1-RT-F AGAGCTAGACTCCGGGGGGAGAACC mNanog-RT-En-R CGGTTCCTCTCCGGACACA mRex1-RT-F MAGGGTGTGTCCTCTCCGGACACA mRex1-RT-F MCGGATTCACCCAGGGGGGGGGGGGGCGCT mBag1-RT-F MCGGTCCCCTCCGGCCGCGGGGACATG mRex1-RT-F MCGGTGCCCCCCGGCGCCTG mBag1-RT-F MCGGTGCCCCCCGGCGCGCGCGCG mBag1-RT-F MCGGTGCCCCCCCGGCGCCCCG mGGT3-RT-F mGGT3-RT-F MCGGTGCCCCCCGGCGCGCGCGCGCGCGCGCGCGCGCGCG	hOCT4-F-EcoRI	GGGAATTCCACCATGGCGGGACACCTGGCTTCAG	hOCT4 ORF cloning
hS0X2-FEcoRIGGGAATTCCACCATGTACAACATGATGAAGAGGGAGCTGhS0X2 ORF cloninghS0X2-FEcoRIGGGAATTCCACCATGTGCAGAGAGGGCACATGTGChKLF4-F-EcoRIGGGAATTCCACCATGTGCTGACAGAGGGCACGTGTChKLF4-R-XbalGCTCTAGATTAAAAATGTCCTTCATGTGTAAGGCGAGhCMYC-R-XbalGCTCTAGATTAAAAATGTCCTTCAATGTGAGCGGACTGTAAGhCMYC-FeoRIGGGAATTCCACCATGCCCTCAACGTAGCTGTCAAGhLRH1 ORF cloninghLRH1-FEcoRIGGGAATTCACAGCCCCCCACACAAGAGTTCCGTAGCTGTCAAGhLRH1 ORF cloninghLRH1-R-XbalGCTCTAGATACTGGCCACCAATAAGGAGCGhRARG P.EcoRIGGCAATTCATGCCCCCCGGCTMCMAGR-R-XbalGCTCTAGATCAGGCGGGGGGGCGCGCGRT-PCR for endogenous mOct3/4MCd4-RT-En-FTCTTCCACCAGGCCCGGGCTCRT-PCR for endogenous mOct3/4mOct4-RT-En-RTGGCGGCGGACGGGGGAGATCCST-PCR for endogenous mSoz2mSoz2-RT-En-RTGAGCTAACACGGGCGAGTAGART-PCR for endogenous mSoz2mSoz2-RT-En-RTGAGCTCAACAAGGCCACGAAART-PCR for endogenous mKIf4mKIf4-RT-En-RTGGCTTCTCTCCCGGACACART-PCR for endogenous mKIf4mKIf4-RT-En-RTGGCTTCTTGCACGAGCAGCART-PCR for mNanogmNanog-RT-En-FCAGGTGTTCTGAGGCAGCTCRT-PCR for mRex1mRex1-RT-FACGAGTGGCAGTTTCTTCTGGGGART-PCR for mEsg1mEsg1-RT-RGGTCCAGGCCAACGAGGAGCGRT-PCR for mEsg1mEsg1-RT-RGGTCCAGCCCGCGCCATGAGART-PCR for mEsg1mEsg1-RT-RGGTCCAGGTCCAGGCCATCAGGGRT-PCR for mCdf3mDax1-RT-RGGGCGACTGGCCAGGGAGCGAGCAGMT-PCR for mCdf3mDax1-RT-RGGCGACTGGTCCAGCGCCATCAGGGRT-PCR for mUtf1mDax1-RT-RGGCGGCGGCGGGG	hOCT4-R-Xbal	GCTCTAGAACCTCAGTTTGAATGCATGGGAGAGC	
hS02:R-XbalGCTCTAGATCACATGTGTGAGAGGGCAGTGTGChKLF4-R-XbalGGGAATTCCACCATGCGCTGTCAGTAGCGGCGCTCCChKLF4 ORF cloninghKLF4-R-XbalGCTCTAGATTAAAAATGTCTCTTCATGTGTAAGGCGAGhCMYC ORF cloninghCMYC-F-EcoRIGGGAATTCCACCATGCCCCCAACGTTAGCTTCAACGhCMYC ORF cloninghLRH1-F-EcoRIGGGAATTCATGTCTTCAATGTAGCTGAGGGGhLRH1 ORF cloninghLRH1-R-XbalGCTCTAGATTATGCTCTTTGCAGAGGAGCGhRARG PChRARGF-EcoRIGGGAATTCATGCCCACCAATAAGGAGCGhRARG PCMouse/human RT-PCR primersmOct4-RT-En-FTCTTTCCACCAGGCCCCGGGCAGTCmOct4-RT-En-FTCTTTCCACCAGGCCCCCGGCGAGAART-PCR for endogenous mOct3/4mOct4-RT-En-FTCGCTCTCACATGGGGAGATCCmSo2:ART-En-FmSo2:ART-En-FTGCGCTAACAACAGCCCCGGCGAGAART-PCR for endogenous mKI/4mKIf4-RT-En-RGCGGGGCCAGGGGCGGGGGGGGGGGGGGGGGGGGGGGG	hSOX2-F-EcoRI	GGGAATTCCACCATGTACAACATGATGGAGACGGAGCTG	hSOX2 ORF cloning
hKLF4-F.EcoRIGGGAATTCCACCATGCTGTTCAGTGACGCGCTGCTCCChKLF4 ORF cloninghKLF4-F.EcoRIGGGAATTCCACCATGCCCTCAACGTTAGCATGGTGTGAGGCGGGhCMYC P.EcoRIhCMYC-F.EcoRIGGGAATTCCATGCGCCACAAGAGTTCCGTAGCTGTTCAACGhCMYC ORF cloninghLRH1-F.EcoRIGGGAATTCCATGGTCTAATTCAGTACTGGGGGhLRH1 ORF cloninghLRH1-R-XbalGCTCTAGATCATGGCCACCAAGAGTTCGGACGhRARG P.EcoRIGGGAATTCCATGGCCACCAATAAGGAGGhRARG ORF cloninghRARG-F.EcoRIGGGAATTCCATGGCCACCAATAAGGAGGhRARG ORF cloningMCt4-RT-En-FTCTTTCCACCAGGCCCCCGGCTCRT-PCR for endogenous mOct3/4MOct4-RT-En-RTGCGGGGGACATGGGGAGATCCmSox2-RT-En-FmOct4-RT-En-RTGGCGGCGACATGGGGAGAGACCRT-PCR for endogenous mSox2mSox2-RT-En-FTGGCTTCCACCAGGCGCAGGAGAACCRT-PCR for endogenous mSox2mSox2-RT-En-RTAGAGCTAGACTCCGGCGAGAAACCRT-PCR for endogenous mKIf4mKlf4R-RT-En-RGCGATCCTCCTCTCCGCGACACART-PCR for mNanogmNanog-RT-En-FCAGGTGTTGAGGTAGACTCRT-PCR for mNanogmNanog-RT-En-FCAGGTGTTGAGGGTACGTCRT-PCR for mRex1mRex1-RT-RTATGACTCACTGGCCAGCACTTAGGTGACTGTTCCTTGGCAGGGACTmRex1-RT-RGGGGACTTCGGGGGAGCGRT-PCR for mEsg1mFgf4-RT-RCCTGCGGTCCAGGCATCAAGAGCRT-PCR for mDax1mBay1-RT-RGGGGCACTGTCCGGGTCAAGGCATCAAGAGCRT-PCR for mDax1mbay1-RT-RGGGGGGGGGGGAGGACGMT-PCR for mGdf3mGff3-RT-RGGCGGGCGCGGGGAGGAGGAGGAGGAGGAGGAGGAGGAGG	hSOX2-R-Xbal	GCTCTAGATCACATGTGTGAGAGGGGGCAGTGTGC	
http://t.kbailGCTCTAGATTAAAAATGTCTCTTCATGTGTAAGGCGAGhttp://t.kbailGGGAATTCACGCACCCCCCTCAACGTAGCTGACCAAhttp:/t.kbailGCTCTAGATCACGCACCAAGAGTTCCGTAGCTGTCCAAGhttp:/t.kbailGCTCTAGATTAGCTCTTCTAATTCAGATACTGGGGhttp:/t.kbailGCTCTAGATTCATGCTCTTGGAAGCAGCAAChttp:/t.kbailGCTCTAGATCAGGCCCCCGGCACChttp:/t.kbailGCTCTAGATCAGGCCCCCGGCACCMouse/human RT-PCR primersmOct4.RT-En-FTCTTTCCACCAGGCCCCCGGCCCRT-PCR for endogenous mOct3/4mOct4.RT-En-FTCTTTCCACCAGGCCCCCGGCAGAmSoz2-RT-En-FTTGCCTTAACATGGGAGAATCCmSoz2-RT-En-RTGCGGGCGGACAGCGGGAGGAAmKlf4-RT-En-RTGCGTCACCAGGGGAGAGACmKlf4-RT-En-RTGCGTCACCACAGGCGAGAAACCmNang-RT-En-RCGGTCCTCCTCCTCCGCACCAAmNang-RT-En-RCGGTCATCATCAGGGGAGAGCCmNang-RT-En-RCGGTCATCATCAGGGGAGAGCCmNang-RT-En-RCGGTCATCATCAGGGGAGACTmRex1-RT-RACGAGTGGCAGTTCTTGGGAAmRex1-RT-RCGGTGATCATCATGGGGAGACTmRex1-RT-RCGGTGGTGACCATCCCCGGCGCATGAmFgf4-RT-RCGTGGTGACACTTCCGGGGGACTmFgf4-RT-RCGTGCGTGCCAGGCCATCAGGGAGCGmfgf4-RT-RCGTCGGTGACACTCTGGCAGGAGCGGAGAGCmGdf3-RT-RGGCGCATGTCAGGCGCCCCGGCGTCTTAmDax1-RT-FGGGGGAGCGGGAGGAGGGGGAGGAGGmGdf3-RT-RGGGGGATGCGTGAGCATCGTCGGGACTACGTCGGGGATGAGGGGAGAGGGGGAGGAGGGGGAGGAGGGGGAGGA	hKLF4-F-EcoRI	GGGAATTCCACCATGGCTGTCAGTGACGCGCTGCTCCC	hKLF4 ORF cloning
hCMYC-FEORIGGGAATTCCACCATGCCCCTCAACGTTAGCTTCAACGAhCMYC ORF cloninghCMYC-R-XbalGCTCTAGATCAGCACAAGAGTTCCGTAGCTGTCAAGGhLRH1-F-ECORIGGGAATTCCATGCCCAAGAGTCCGCTAGCGACHRARG-R-XbalGCTCTAGATTATGCTCTTTGGCATGCAACMRARG-R-XbalGCTCTAGATCATGCCCCCAATAAGGAGCGhRARG ORF cloningmOct4-RT-En-FTCTTTCCACCCAGGGGGGACTTCAGGCCMC-PCR for endogenous mOct3/4mOct4-RT-En-FTGCGGGCGGACATGGGGGAGATCCMC-PCR for endogenous mOct3/4mOct4-RT-En-FTGCGGGCGGACATGGGGGAGATCCMC-PCR for endogenous mSox2mSox2-RT-En-RTAGGGGCTGACACCCGGGCGATGAMKIf4-RT-En-FmKlf4-RT-En-FTGCGGTCCTCCTCCTCCGACACART-PCR for endogenous mSox2mNavg-RT-En-RTGGGTTCATCACACAGGGGAGAACCRT-PCR for endogenous mKlf4mKlf4-RT-En-RTGGCTTCCTCTCTCCGACACACMNavg-RT-En-RmNavg-RT-En-RCGGTTCATCATGGTAGCTCRT-PCR for mNavogmNavg-RT-En-RCGGTTCATCATGGTACAGTCRT-PCR for mRex1mRex1-RT-RACGAGTGGCAGTTTCTTGGCAGGACATmRex1-RT-RmEsg1-RT-FGAAGTCTGGTCCTTGGCAGGAGGRT-PCR for mEg1mEsg1-RT-FGAAGTCTGGTCCTGGCAGGAGGAGCACTmFgf4-RT-RmGdf3-RT-RACTCGATACACTGGCCCGGTCTTRT-PCR for mGf3mGdf3-RT-RGGCGACTGGTACAGGGGGAGCAGGMC-PCR for mGf3mGdf3-RT-FGTCCAACCTGTGCCTCGCGCTCTTRT-PCR for mGdf3mGdf3-RT-FGGCGGATCTGGTTATCGAAGGAGGGGAGCAGGMC-PCR for mUtf1mUtf1-RT-RGGCGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	hKLF4-R-Xbal	GCTCTAGATTAAAAATGTCTCTTCATGTGTAAGGCGAG	
hCMYC-R-XbalGCTCTAGATCACGCACAGAGATTCCGTAGCTGTTCAAGhLRH1-F-EcoRIGGGAATTCATGGCTCTCTAAATTCAGATACTGGGGhLRH1 ORF cloninghLRH1-R-XbalGCTCTAGATTATGCTCTTTTGGCATGCAAChRARG ORF cloninghRARG-R-XbalGCTCTAGATTAGGCCACCATAAGGAGCGhRARG ORF cloningMOuse/human RT-PCR primersmOct4-RT-En-FTCTTTCCACCAGGCCCCGGCTCRT-PCR for endogenous mOct3/4mOct4-RT-En-FTGCGGGCGGACATGGGGAGATCCmOct4-RT-En-FTGCGGGCGGACATGGGGAGATCCmSoz-RT-En-FTGCGGCCGGACATGGGGGAGAACCRT-PCR for endogenous mSox2mSox2-RT-En-RTAGAGCTAGACTCCGGGCGATGAmKlf4-RT-En-FmKlf4-RT-En-FGCGAACTCCACACGGCGAGAAACCRT-PCR for endogenous mKlf4mKlf4-RT-En-RTGGCTTCCTCTCCTCCGCACACAmNanog-RT-En-FGGGTCATCATCATGGTAGGGAGATCCRT-PCR for mNanogmNanog-RT-En-FCAGGTGTTTGAGGGAGTCCRT-PCR for mRex1mRex1-RT-RTAGACTCACTTCCAGGGGGACCTmEsg1-RT-FmRex1-RT-RCGGTGAGCATCTTCTGGCAGGGGCACTmEsg1-RT-FmEsg1-RT-FGGGGACTCGCCCCCAGCCRT-PCR for mEsg1mFgf4-RT-FGGGGGGCGCCTAGCmGf3-RT-RmGdf3-RT-RGGCCACTGTTCAGGCCCTCAGCCRT-PCR for mDax1mDax1-RT-FGGCGGGCACTGGCCCCGCCCGCTCTTRT-PCR for mDax1mGf3-RT-RGGCGACTGCGGGCAGAGAGCAGmUtf1-RT-FmGf3-RT-RGGCGACTGCGGTCAGCCCCACGAGAGAGCAGGMUtf1-RT-FmGGAGACGCAGGACGAGGGAGGAGCAGGMT-PCR for mUtf1mUtf1-RT-FGGACGGCGCGGGGGGGGGGGGGGGGGGGGGGGAGGAGAGAGMR primers for mOct4 promotermNanog-DMR-RCTAAAACCAAAATTCCAACCCTCATATCAAA	hCMYC-F-EcoRI	GGGAATTCCACCATGCCCCTCAACGTTAGCTTCACCAA	hCMYC ORF cloning
hLRH1-F-EcoRIGGGAATTCATGTCTTCTAATTCAGATACTGGGGhLRH1 ORF cloninghLRH1-R-XbalGCTCTAGATTATGCTCTTTGGCATGCAAChRARG-F-EcoRIGGGAATTCATGCCCACATAAGGAGGhRARG ORF cloningMRARG-R-XbalGCTCTAGATCAGGCTGGGGACTTCAGGCCMOuse/human RT-PCR primersmOct4-RT-En-FTCTTTCCACCAGGCCCGGGCACTCGGGCAGTCCRT-PCR for endogenous mOct3/4MOct4-RT-En-RTGCGGGCGGACATGGGGGAGATCCmSox2-RT-En-FTTGCCTTAAAACAAGACCACGGACAGAART-PCR for endogenous mSox2mSox2-RT-En-RTAGGGCTGAGACTCCGGGCGATGAmKlf4-RT-En-FGCGAACTCACACAGGCGAGAAACCRT-PCR for endogenous mKlf4mKlf4-RT-En-RTCGCTTCTCTTCCTCCGACAACAmNanog-RT-En-RCGGTTCATCATGTAGACTCCGGCGATGAmNanog-RT-En-RmRex1-RT-FCAGGTGTCATCATGGTACAGTCRT-PCR for mNanogmKlf4mR1-FACGAGTGGCAGGTTCTTCTTGGGGGAACTmRex1-RT-FCGGTTCATCATCGGGGGGCACTmRex1-RT-FCGGTTCATCACTGGCTCAGGGGGCACTmFgf4-RT-RCCTGTGTGAGCACTCTGGCAGGGGGCACTmFgf4-RT-RCCTGTGTGAGCACTTCGGCGCGGGGCACTmFgf4-RT-RCCTGTGTGAGCACTCTCGGCGTCAGCmFgf4-RT-RCCTTGCGGTCCAGGCCATCAAGAGRT-PCR for mEg1mEsg1-RT-RGGGCACTGTCCAGCCCGCTCTTRT-PCR for mDax1mDax1-RT-FGGGGAGTCGGAGAGAGAGCGGGAGCAGmUtf1-RT-FmGdf3-RT-RGGCGATCGGCGTGACCACGCCATCAAGAGGRT-PCR for mUtf1mUtf1-RT-FGGGGAGTCGGGGAGAGAGCAGGGACTAGMUtf1-RT-FmManog-DMR-RCTAAAACCAAATATCCAACCATAMR primers for mNanog promotermNanog-DMR-RAACCAAAAAACCCAACCTCATATCAATATAMR primers for mNanog promotermNanog-DMR-RAACCACT	hCMYC-R-Xbal	GCTCTAGATCACGCACAAGAGTTCCGTAGCTGTTCAAG	
hLRH1-R-Xbal GCTCTAGATTATGCTCTTTGGCATGCAAC hRARG-F-KoRl GGGAATTCATGGCCACCAATAAGGAGCG hRARG ORF cloning hRARG-R-Xbal GCTCTAGATCATGGCCACCAATAAGGAGCG hRARG ORF cloning mCtd4-RT-En-F TTCTCCACCAGGCCGCCCGGGCTC RT-PCR for endogenous mOct3/4 mCtd4-RT-En-F TGCGTAGACATGGGGAGATCC mSox2-RT-En-F TTGCCTTAAACAAGACCACGGACAA RT-PCR for endogenous mSox2 mSox2-RT-En-F TTGCCTTAAACAAGACCACGGAGAA RT-PCR for endogenous mSox2 mSox2-RT-En-R TAGAGCTAGGGCGAGAGACC mKlf4-RT-En-R TCGCTTCCTCACACAGGGCGAGAAACC RT-PCR for endogenous mKlf4 mKlf4-RT-En-R TCGCTTCCTCACACAGGCGAGAAACC RT-PCR for endogenous mKlf4 mKlf4-RT-En-R TCGCTTCCTCTCCCGACACA mNanog-RT-En-F CAGGTGTTCATCACGGCGAGAACC RT-PCR for mNanog mNanog-RT-En-F CAGGTGGCAGTTTCTTCTGGGA RT-PCR for mRex1 mRex1-RT-F ACGAGTGGCAGTTTCTTCTGGGAGCACT mEsg1-RT-F GAAGTGGCAGTTCCTTCGGCAGGATG RT-PCR for mEsg1 mEsg1-RT-F GAAGTGGGCAGTTCCTTGGCAGGATG RT-PCR for mEsg1 mEsg1-RT-F GGTGGAGCACTTCGGCAGGATG RT-PCR for mFgf4 mFgf4-RT-R CCTTCTGGTCCAGCGCAGTACC mFgf4-RT-R CCTTCTGGTCGCCCGCTCTTC mGd73-RT-R GGGCACTGTCCGGCCATCAAGAG RT-PCR for mDax1 mDax1-RT-R GGGCACTGTCCAGGGGAGCACT mGd73-RT-R GGCGCATGTCAGGGGAGCACT mGd73-RT-R GGCGGCATGTCAGGGGAGCAG mUtf1-RT-F GGATGTCCCGGGTGCTGCGCGGGATC mUtf1-RT-F GGATGTCCCGGGGACTCTC mGd73-RT-R GGCGGCATGGAGAGAGCGGGAGCAG mUtf1-RT-F GGATGTCCCGGTGCTGGCTCTT RT-PCR for mDdf3 mDax1-RT-R GGCGGATGTCAGGGAGCAGGGAGCAG mUtf1-RT-F GGATGTCCCGGCGTGTCT RT-PCR for mUtf1 mUtf1-RT-F GGATGTCCCGGTGCTCGCGCTTT RT-PCR for mUtf1 mUtf1-RT-F GGATGTCCCGGTGACTACGTCGG mUtf1-RT-F GGATGTCCCGGTGACTACGTCGG mUtf1-RT-F GGATGTCCCGGTGACTACGTCGG mNUT1-RT-F GGATGTCCCGGTGACTACGTCGG mNanog-DMR-F CTAAACCAAATATTCGAACCAATTGGAATATT mNanog-DMR-F CTAAACCAAATATTCGAACCAATTAATTGGAATATT mNanog-DMR-F AACCAAAAAACCCAACTCATATTCAATATA mRex1-DMR-F TATATTGTAAGTGGGAGGAGGGAGGCAGG RT-PCR for endogenous hOCT3/4 hOCT4+RT-Fn-F GACAGGGGAGGGAGGGGGGGGGGGGGGGGGGAGGCAGG RT-PCR for endogenous hOCT3/4	hLRH1-F-EcoRI	GGGAATTCATGTCTTCTAATTCAGATACTGGGG	hLRH1 ORF cloning
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mOttA+R1-En-FICITICCACCAGGCCCCCGGCICR1-PCR for endogenous mOtt3/4mOttA+R1-En-RTGCGGGGGACATGGGGAGATCCmSox2-RT-En-RTAGAGCTAGACTCCGGGCGATGAmKlf4-RT-En-RTGCGTTCAACACAGGCGAGAAACCRT-PCR for endogenous mSox2mNanog-RT-En-FCGGACTCCACACAGGCGAGAAACCRT-PCR for endogenous mKlf4mKlf4-RT-En-RTCGCTTCCTCTCCCGCACACART-PCR for mNanogmNanog-RT-En-RCGGTTCATCATGGTACAGTCRT-PCR for mNanogmNanog-RT-En-RCGGTTCATCATGGTACAGTCRT-PCR for mRex1mRex1-RT-FGACGCAGTTCTTGGCAGGAGTGRT-PCR for mEsg1mEsg1-RT-RTATGACTCACTTGCGGAGAGTGGRT-PCR for mEsg1mEsg1-RT-RCGTGGTGAGCATTTCTGGCAGGATGRT-PCR for mSg1mDax1-RT-RCGTGCGGCCCAGCCCCTTAmDax1-RT-RmGdf3-RT-FGGCGACTGTCCGGGCGCGGCGAGAGGRT-PCR for mGf3mUtf1-RT-FGGGGGACTGGCGCCGGGGAGCAGGRT-PCR for mGf3mUtf1-RT-FGGGGACTGGCCCCGGCGCTCTART-PCR for mGf3mGf3-RT-RAGCGAGGCATGGAGAGAGCGGAGCAGRT-PCR for mUtf1mUtf1-RT-FGGGTTGAAATATTCGAAGGGTTPCR for mUtf1mUtf1-RT-FGGGGATCTGGCTTATDMR primers for mOct4 promotermOct4-DMR-FTGGGTTGAAAATATCCAACCATADMR primers for mNanog promotermNanog-DMR-RACCCAAAAAAACCCACACATATACAATATAMNanog-DMR-FmNanog-DMR-RACCCAAAAAAACCCCCTCCTTTTAAAACCAAATATAMNR primers for mRex1 promotermNanog-DMR-RACCCAAAAAAACCCCCCCCTCTTTAAAAACCCACACACTCCTTCAACCCGTTGCAACACAGGmNanog-DMR-RACCCAAAAAAACCCCCCCCTCTTTAAAAAAAAMNR primers for mRex1 promoter<	Mouse/human RI-PCR prin	mers	
mOtd+R1-En-RIGCGGGCGGACAIGGGGAGAICCmSox2-RT-En-FTTGCCTTAAACAGACCCGGAAART-PCR for endogenous mSox2mSox2-RT-En-FTGGAGCTAGACACGGGGGAGAART-PCR for endogenous mSox2mKlf4-RT-En-FGCGAACTCACACAGGCGAGAAACCRT-PCR for endogenous mKlf4mKlf4-RT-En-RTCGCTTCCTCTCCTCCGACACART-PCR for mNanogmNanog-RT-En-FCAGGTGTTGAGGTACAGTCRT-PCR for mNanogmRex1-RT-FACGAGTGGCAGTTTCTTCTGGGART-PCR for mRex1mRex1-RT-FGAAGTCTGGTTCCTTGCCAGGGGCACTmEsg1-RT-RmEsg1-RT-FGAAGTCTGGTCACGCCTAGCmFgf4-RT-FmFgf4-RT-FCGTGGTGAGCATCTTCGGAGGGGRT-PCR for mEsg1mfsg1-RT-RACTCGATACACTGGCCTAGCmFgf4-RT-FmDax1-RT-FTGCTGGCGGCCAGGCATCAGCGATCmGdf3-RT-FmGdf3-RT-FGTTCCAACCTGGCCCGCGCTTTRT-PCR for mDax1mDax1-RT-RGGCGACTGGTGAGAGAGCGGAGCAGmUtf1-RT-FmGdf3-RT-FGTTCCAACCTGTGCCTCGCGTCTTRT-PCR for mUtf1mUtf1-RT-FGGGGATCTGGGAACACGTGGRT-PCR for mUtf1mUtf1-RT-RGGCGGATCCAGGAGAGAGGGGmOtf4-DMR-FmOct4-DMR-FTGGGTTGAAATATTGGGTTAATTGAAATATTGGATTATDMR primers for mOct4 promotermOct4-DMR-FTATATTAAGTGTGGAAAAAGCCACACAATATCCAACCAATATDMR primers for mRex1 promotermNanog-DMR-RACCCAAAAAAACCCACACCACCATATATAMR primers for mRex1 promotermNanog-DMR-RACCCAAAAAAACCCACACCACCACCACCACCACCACACCACA	mOct4-R1-En-F		RI-PCR for endogenous mOct3/4
mSox2-R1-En-FTIGCCTTAAACAAGACCACGACGATAAR1-PCR for endogenous mSox2mSox2-R1-En-FTAGAGCTAGACTCCGGGGGAGAAACCRT-PCR for endogenous mKlf4mKlf4-RT-En-RTCGCTTCCTCTCCTCCGCACACART-PCR for mNanogmNanog-RT-En-RCAGGTGTTGAGGTACAGTCRT-PCR for mNanogmRex1-RT-FACGAGTGGCAGTTCTTCTTGGGART-PCR for mRex1mRex1-RT-FGAGATCGCAGTTCCTTGGCAGGAGCACTmsg1-RT-FmSg1-RT-FGAAGTCTGGTTCCTTGGCAGGAGAGGRT-PCR for mEsg1mSg1-RT-FGAAGTCTGGTTCCTTGGCAGGAGTGRT-PCR for mFgf4mFgf4-RT-FCGTGGTGAGCATCTTCGGAGGAGGGRT-PCR for mFgf4mJgf4-RT-FGGGGAGCCGCCGTTCTTAmDax1-RT-FmDax1-RT-FTGCTGCGGCTCAGGCCGATCAAGAGGRT-PCR for mGdf3mddf3-RT-FGTTCCAACCTGTCCCGGGCCGTCTTRT-PCR for mGdf3mGdf3-RT-FGTTCCAACCTGTGCCTCGCGTCTTRT-PCR for mUtf1mUtf1-RT-RGGCGGATCTGGTAACACTGTCGGAGGAGCAGmUtf1-RT-FmOct4-DMR-FTGGGTTGAAATATTGGGTTACCAACCATADMR primers for mOct4 promotermOct4-DMR-FGACTTGTGGGAAAAAACCCACAATAATCCAATAAMR primers for mNanog promotermNanog-DMR-RACCAAAAAAACCCACACTCATATCAATATADMR primers for mNanog promotermNanog-DMR-FTATATAAGTGGGAAAAAGTTAAGGTAAATDMR primers for mNanog promotermNanog-DMR-RACCCAAAAAAACCCACCTCCTTTTAAATAAAACTCCTTAACCCCTCCTTTTAAATAAhOCT4-RT-En-FGACAGGGGGAGGAGGCAGGCAGGRT-PCR for endogenous hOCT3/4hOCT4-RT-En-FGACAGGGGAAGGAGGCAGCAGGRT-PCR for endogenous hOCT3/4	mOct4-RT-En-R		
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mkIt4-R1-En-PGCGAACLCACACAGGCGAGAAACCRT-PCR for endogenous mkIt4mkIt4-R1-En-RTCGCTTCCTCCTCCCGACACART-PCR for mNanogmNanog-R1-En-FCAGGTGTTTGAGGGTAGCTCRT-PCR for mRex1mRex1-RT-FACGAGTGGCCAGTTTCTTCTGGGAGRT-PCR for mRex1mRex1-RT-RTATGACTCACTCCAGGGGCACTmEsg1-RT-RmEsg1-RT-FGAAGTCTGGTTCCTTGGCAGGATGRT-PCR for mEsg1mfg4-RT-FCGTGGTGAGCATCTTCGGAGGGGCACCmFgf4-RT-FmGf3-RT-RCCTTCTTGGTCGCCCCGTTCTTAmDax1-RT-FmDax1-RT-FTGCTGCGGTCCAGGCATCAAGAGGRT-PCR for mDax1mDax1-RT-RGGGCACTGTTCAGTCAGCGGAGCAGmUtf1-RT-FmGdf3-RT-RACCGAGGCATGGAGAGAGAGGGGAGCAGRT-PCR for mGdf3mUtf1-RT-FGGATGTCCCGGTGACTACGTCTGRT-PCR for mUtf1mUtf1-RT-FGGGGGATCTGGTATCGAGGAGAGGGGAGCAGmUtf1-RT-FmOct4-DMR-FTGGGTTGAAATATTGGATTATCGAAGGGTDMR primers for mOct4 promotermNanog-DMR-FGATTTGTAGGTGGAATAATCCAACCATADMR primers for mNanog promotermNanog-DMR-FAACCCAAAAAAACCCACACTCATATCAATATADMR primers for mRex1 promotermNanog-DMR-RACCAAAAAAACCCCACACCCCTTTTAAAACCATATADMR primers for mRex1 promotermNanog-DMR-RAACCCCTAAAAAAACCCCACCCCCTTTTAAAACCATATADMR primers for mRex1 promotermNanog-DMR-RAACCCCTAAAAAAACCCCCCCCCCTTTTAAAACCCACACT-PCR for endogenous hOCT3/4hOCT4-RT-En-FGAAGGGGGAGGGAGGAGCTAGGRT-PCR for endogenous hOCT3/4hOCT4-RT-En-FGAAGGGGGAGGGAGGCAAACCCTTCCCTCCAACCACACCACCCCACACCCCACACC	mSox2-RT-En-R		DT DCD for and non-our mKlf4
mkIr4-R1-En-RTGGCTTCCTCCTCGGACAGCAmNanog-RT-En-FCAGGTGTTTGAGGGTACAGTCmRex1-RT-FACGAGTGGCAGTTTCTTCTTGGGAmRex1-RT-RTATGACTCACTTCCAGGGGGGCACTmEsg1-RT-FGAAGTCTGGTTCCTTGGCAGGAGTGGmFsg1-RT-RACTGGATACACTGGCTCAGCmFgf4-RT-FCGTGGTGAGCATCTTCGGAGGGGmFgf4-RT-RCCTTCTTGGTCCGCCGTTCTTAmDax1-RT-RGGCACTGTTCAGTCCGCCGTTCTTAmDax1-RT-RGGGCACTGTTCAGTCCGCGGCGTCmGdf3-RT-RGGGCACTGTCCGGCCGTCTTmGdf3-RT-RGGGCACTGGAGAGAGGCGGAGCAGmUtf1-RT-FGGGCGATCGGGTCACGCGTCTTmOtt1-RT-FGGGGATCTGGTTATCGGAGAGAGGGGAGCAGmUtf1-RT-FGGGGGATCTGGTTATCGAGGGGAGCAGmUtf1-RT-FGGGGGATCGGGTACTACGTCGmOct4-DMR-FTGGGTTGAAATATTCGAAGGGTmOt4-DMR-FTGGGTTGAAATATTCGAGGGATTAATTCmNanog-DMR-FGATTTTGTAGGTGGGATTAATTCGAACTCATACATCAmRex1-DMR-FTATATTAATGTTGGAAAAACCCACATAmRex1-DMR-FTATATTAATGTTGGAAAAAGTTTAGGTAATmRex1-DMR-RAACTCCTTAAAACCCACACTCATTTAGATAATMRex1-DMR-RAACTCCTTAAAACCCCACTCCTTTTAAAAChOCT4-RT-F-FGACAGGGGAGGAGGAGGAGGAGGAGGAGGAGhOCT4-RT-F-FGACAGGGGAGGAGGAGGAGGAGGAGCTAGGhOCT4-RT-F-FGACAGGGGAGGAGGAGGAGCTAGGhOCT4-RT-F-FGACAGGGGAGGAGGAGGAGCTAGGhOCT4-RT-F-FGACAGGGGAGGAGGAGGAGCTAGGhOCT4-RT-F-FGACAGGGGAGGAGGAGGAGCTAGGhOCT4-RT-F-FGACAGGGGAGGAGGAGGAGCTAGGhOCT4-RT-F-FGACAGGGGAGGAGGAGGAGCTAGGhOCT4-RT-F-RCTTCCCTCCACCCACTCCTTTTAAAACCCAACCA<	MKIT4-RI-EN-F		RI-PCR for endogenous mkit4
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ImperiationActage regregationRT-PCR for mixes TmRex1-RT-RTATGACTCACTTCCAGGGGGCACTRT-PCR for mEsg1mEsg1-RT-RGAAGTCTGGTTCCTTGGCAGGAGTGGRT-PCR for mEsg1mEsg1-RT-RACTCGATACACTGGCCTAGCmFgf4-RT-RmFgf4-RT-RCCTTCTTGGTCCGCCCGTTCTTAmDax1-RT-FmDax1-RT-FTGCTGCGGTCCAGGCCATCAAGAGRT-PCR for mDax1mDax1-RT-RGGGCACTGTTCAGTTCAGCGGATCmGdf3-RT-RmGdf3-RT-RACCGAGGCATGGAGAGAGCGGAGCAGRT-PCR for mUtf1mUtf1-RT-FGGATGTCCCGGTGACTACGTCTGRT-PCR for mUtf1mUtf1-RT-FGGCGGATCTGGTATCGAAGGGGTDMR primers for mOct4 promotermOct4-DMR-FTGGGTTGAAATATTGGGTTTATTTDMR primers for mNanog promotermNanog-DMR-RACCAAAAAACCAAATATCCAACCATAADMR primers for mRex1 promotermNanog-DMR-RACCCAAAAAAACCCACCTCTTTTAAATTADMR primers for mRex1 promotermRex1-DMR-RAACTCCTTAAACCCCTCCTTTTAAATTAADMR primers for mRex1 promotermRex1-DMR-RAACTCCTTAAACCCTCTTTTAAATTAAAAACTCCTTAAACCCTTAAACCCTTTTAAATTAAAAAAACCAAAAACCCAAATATAAAAAA			
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model + DMR-F TGGGTTGAAATATTGGGTTTATTT DMR primers for mOct4 promoter mOct4-DMR-F TGGGTTGAAATATTGGGTTTATTT DMR primers for mOct4 promoter mOct4-DMR-R CTAAAACCAAATATCCAACCATA DMR primers for mNanog promoter mNanog-DMR-F GATTTTGTAGGTGGATTAATTGTGAATTT DMR primers for mNanog promoter mNanog-DMR-F TATATTAATGTTGGAAACACTCATATCAATATA DMR primers for mRex1 promoter mRex1-DMR-F TATATTAATGTTGGAAAAAGTTTAGGTAAT DMR primers for mRex1 promoter mRex1-DMR-R AACTCCTTAAACCCCTCCCTTTTTAAATAA DMR primers for mRex1 promoter hOCT4-RT-En-F GACAGGGGGAGGGAGGGAGGAGCTAGG RT-PCR for endogenous hOCT3/4 hOCT4-RT-En-R CTTCCCTCCAACCAGTTGCCCCAAAC TTCCCTTCAACCAGTTGCCCCAAAC	mlltf1-RT-R	GGCGGATCTGGTTATCGAAGGGT	
mOct4-DMR-R CTAAAACCAAATATCCAACCATA DMR primers for mNanog promoter mNanog-DMR-F GATTTTGTAGGTGGGATTAATTGTGAATTT DMR primers for mNanog promoter mNanog-DMR-F TATATTAATGTTGGAAAAAGCTCAATATCAATATA DMR primers for mNanog promoter mRex1-DMR-F TATATTAATGTTGGAAAAAGTTTAGGTAAT DMR primers for mRex1 promoter mRex1-DMR-R AACTCCTTAAACCCCTCCTTTTTAAATAA DMR primers for mRex1 promoter hOCT4-RT-En-F GACAGGGGGAGGGGAGGGAGGCTAGG RT-PCR for endogenous hOCT3/4 hOCT4-RT-En-R CTTCCCTCCAACCAGTTGCCCCAAAC CTTCCCTCCAACCAGTTGCCCCAAAC	mOct4-DMR-F	TGGGTTGAAATATTGGGTTTATTT	DMR primers for mOct4 promoter
mNanog-DMR-F GATTTGTAGGTGGGATTAATTGTGAATTT DMR primers for mNanog promoter mNanog-DMR-R ACCAAAAAACCCACACTCATATCAATATA DMR primers for mRanog promoter mRex1-DMR-F TATATTAATGTTGGAAAAAGTTTAGGTAAT DMR primers for mRex1 promoter mRex1-DMR-R AACTCCTTAAACCCCTCCCTTTTTAAATAA DMR primers for mRex1 promoter hOCT4-RT-En-F GACAGGGGGAGGGGAGGGAGGAGCTAGG RT-PCR for endogenous hOCT3/4 hOCT4-RT-En-R CTTCCCTCCAACCAGTTGCCCCAAAC NOCT3/4	mOct4-DMR-R	CTΑΑΑΑ(CΑΑΑΤΑΤ(CΑΑ(CΑΤΑ	
mNanog-DMR-R ACCAAAAAAACCCACACTCATATCAATATA DMR primers for mRex1 promoter mRex1-DMR-F TATATTAATGTTGGAAAAAGTTTAGGTAAT DMR primers for mRex1 promoter mRex1-DMR-R AACTCCTTAAACCCCTCCCTTTTTAAATAA DMR primers for mRex1 promoter hOCT4-RT-En-F GACAGGGGGAGGGGAGGGAGCTAGG RT-PCR for endogenous hOCT3/4 hOCT4-RT-En-R CTTCCCTCCAACCAGTTGCCCCAAAC CTTCCCTCCAACCAGTTGCCCCAAAC	mNanog-DMR-F	GATTTTGTAGGTGGGATTAATTGTGAATTT	DMR primers for mNanog promoter
mRex1-DMR-F TATATTAATGTTGGAAAAAGTTTAGGTAAT DMR primers for mRex1 promoter mRex1-DMR-R AACTCCTTAAACCCCTCCCTTTTTAAATAA hOCT4-RT-En-F GACAGGGGGAGGGGAGGAGGAGCTAGG RT-PCR for endogenous hOCT3/4 hOCT4-RT-En-R CTTCCCTCCAACCAGTTGCCCCAAAC RT-PCR for endogenous hOCT3/4	mNanog-DMR-R	ΑΓΓΑΑΑΑΑΑΑΓΓΓΑΤΑΤΓΑΤΤΑΑΤΑΤΑ	
mRex1-DMR-R AACTCCTTAAACCCCTCCCTTTTTAAATAA hOCT4-RT-En-F GACAGGGGGAGGGGAGGAGGAGCTAGG hOCT4-RT-En-R CTTCCCTCCAACCAGTTGCCCCCAAAC	mRex1-DMR-F	ΤΑΤΑΤΤΑΑΤGTTGGAAAAAGTTTAGGTAAT	DMR primers for mRex1 promoter
hOCT4-RT-En-F GACAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	mRex1-DMR-R	ΑΑCTCCTTAAACCCCTCCCTTTTTAAATAA	
hOCT4-RT-En-R CTTCCCTCCAACCAGTTGCCCCAAAC	hOCT4-RT-En-F	GACAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	RT-PCR for endogenous hOCT3/4
	hOCT4-RT-En-R	CTTCCCTCCAACCAGTTGCCCCAAAC	

Table S3. Cont.

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Primer name	Primer sequence	Purpose
hSOX2-RT-En-F	GGGAAATGGGAGGGGTGCAAAAGAGG	RT-PCR for endogenous hSOX2
hSOX2-RT-En-R	TTGCGTGAGTGTGGATGGGATTGGTG	
hKLF4-RT-En-F	ACGATCGTGGCCCCGGAAAAGGACC	RT-PCR for endogenous hKLF4
hKLF4-RT-En-R	GCGTCCTGGGAAGGGAGATCCGGAGC	
hCMYC-RT-En-F	GCGTCCTGGGAAGGGAGATCCGGAGC	RT-PCR for endogenous hCMYC
hCMYC-RT-En-R	TTGAGGGGCATCGTCGCGGGAGGCTG	
hNANOG-RT-F	CAGCCCCGATTCTTCCACCAGTCCC	RT-PCR for hNANOG
hNANOG-RT-R	CGGAAGATTCCCAGTCGGGTTCACC	
hREX1-RT-F	CAGATCCTAAACAGCTCGCAGAAT	RT-PCR for hREX1
hREX1-RT-R	GCGTACGCAAATTAAAGTCCAGA	
hTERT-RT-F	CCTGCTCAAGCTGACTCGACACCGTG	RT-PCR for hTERT
hTERT-RT-R	GGAAAAGCTGGCCCTGGGGTGGAGC	
hDNMT3B-RT-F	TGCTGCTCACAGGGCCCGATACTTC	RT-PCR for hDNMT3
hDNMT3B-RT-R	TCCTTTCGAGCTCAGTGCACCACAAAAC	
hUTX-RT-F	ATTCATAGCAGCGAACAGCC	qRT-PCR for hUTX by SYBR
hUTX-RT-R	CTGGACAGCCGCCTCTT	
hCXORF15-RT-F	TAGCCCACAAATTCCAGCTT	qRT-PCR for hCXORF15 by SYBR
hCXORF15-RT-R	GCCGAAGAGGCGACTGAG	
hRBBP7-RT-F	CCACCAGATGATTCTGCTCA	qRT-PCR for hRBBP7 by SYBR
hRBBP7-RT-R	CTTACCGTTCAGTGGCTTCC	
hPLS3-RT-F	TTGCAAAGGCCTCTTTGAGT	qRT-PCR for hPLS3 by SYBR
hPLS3-RT-R	CCCAGGACTCTGCGACTTTA	

numan genes		
Assay ID	Target	Applied Bioscience gene name
Predesigned qPCR assays		
Mm00658129_gH	mOct4	POU domain, class 5, homeobox 1
Mm00516104_m1	mKlf4	Kruppel-like factor 4
Mm02384862_g1	mNanog	Nanog homeobox
Mm03053975_g1	mRex1	Zinc finger protein 42
4352341E	β-actin	Mouse ACTB Endogenous Control
Hs00999632_g1	hOCT4	POU class 5 homeobox 1
Hs01053049_s1	hSOX2	SRY (sex determining region Y)-box 2
Hs02387400_g1	hNANOG	Nanog homeobox
Hs00358836_m1	hKLF4	Kruppel-like factor 4
Hs01931905_g1	hSTELLA	Developmental pluripotency associated 3
Hs00415443_m1	hNODAL	Nodal homologue
Hs00232018_m1	hGATA6	GATA binding protein 6
Hs00751752_s1	hSOX17	SRY (sex determining region Y)-box 17
Hs01057642_s1	hSOX1	SRY (sex determining region Y)-box 1
Hs01088114_m1	hPAX6	Paired box 6
Hs01079824_m1	hXIST	X (inactive)-specific transcript
4326317E	GAPDH	Human GADPH endogenous control
Custom qPCR assays		-
Assay ID	Primer/probe name	Primer/probe sequence
hCMYC-endo	hCMYC-taq-endo-F	CCTGAGCAATCACCTATGAACTTG
	hCMYC-taq-endo-R	TTATGCCCAAAGTCCAATTTGA
	hCMYC-taq-endo-probe	CAAATGCAACCTCACAACCTTGGCTG
hKLF4-endo	hKLF4-taq-endo-F	TTTCACACTGTCTTCCCGATGA
	hKLF4-taq-endo-R	TCCTGATTATCCACTCACAAGATGA
	hKLF4-taq-endo-probe	CCAGCCAGAAAGCACTACAATCATGGTCAA
hOCT4-endo	hOCT4-taq-endo-F	CACTGTACTCCTCGGTCCCTTTC
	hOCT4-taq-endo-R	CAACCAGTTGCCCCAAACTC
	hOCT4-taq-endo-probe	CTTTCCCCCTGTCTCCGTCACCACTC
hSOX2-endo	hSOX2-taq-endo-F	ACAGCAAATGACAGCTGCAAA
	hSOX2-taq-endo-R	AAGTCCAGGATCTCTCATAAAAGTTT
	hSOX2-taq-endo-probe	ATCCACACTCACGCAAAAACCGCG
hLRH1-endo	hLRH1-taq-endo-F	AAAGCTGAACTGAAACAATTCTCAAG
	hLRH1-taq-endo-R	GCTCGGGCCTTCAAAGGA
	hLRH1-taq-endo-probe	TGCATCAGCTGTACCTACAATAGCCCCTCC
hRARG-endo	hRARG-taq-endo-F	GAGCCTGGGTTTGGACTCTAAA
	hRARG-taq-endo-R	CCTCTTGCCCTGGGAAGTCT
	hRARG-tag-endo-probe	CTCAGCACTGCCCCATGGGTCC

Table S4.	Applied Bioscience	predesigned	and custom	-designed	TaqMan	probes	for	real-time	RT-PCR	of mous	e and
human gei	nes										

Dataset S1. A list of mouse gene promoters that contain the putative RAREoct element

Dataset S1 (XLS)

PNAS PNAS

Dataset S2. A list of human gene promoters that contain the putative RAREoct element

Dataset S2 (XLS)

Dataset S3. Global gene expression analysis of iPSC lines from human neonatal and adult fibroblast cells

Dataset S3 (TXT)

Dataset S4. Microarray analysis of gene expression in human ES cells, FGF-cultured human iPSCs and human iPSCs growing in 2i/LIF medium

Dataset S4 (TXT)