

SUPPLEMENTARY MATERIALS

Materials	Sources	Concentration
Dulbecco's modified Eagle's Medium (DMEM)	Invitrogen, Grand Island, NY	DMEM/F-12 (1:1)
F-12 nutrient mixture (F-12)	Invitrogen, Grand Island, NY	DMEM/F-12 (1:1)
Knockout Serum Replacement	Invitrogen, Grand Island, NY	10%
Fetal Bovine Serum (FBS)	Invitrogen, Grand Island, NY	5%
Newborn Calf Serum	Invitrogen, Grand Island, NY	10%
Human Fibroblast Growth Factor-Basic	Invitrogen, Grand Island, NY	4 ng/ml
Leukemia inhibitory factor (LIF)	Invitrogen, Grand Island, NY	10 ng/ml
Dimethyl Sulfoxide	Sigma-Aldrich, St. Louis, MO	0.5%
Cholera Toxin	Sigma-Aldrich, St. Louis, MO	1 nM
Hydrocortisone	Sigma-Aldrich, St. Louis, MO	5 µg/ml
Insulin-Transferrin-sodium selenite media supplement	Roche, Indianapolis, IN	5 µg/ml insulin, 5 µg/ml Transferrin, 5 ng/ml sodium selenite
Human Epithelial Growth factor (EGF)	Invitrogen, Grand Island, NY	10 ng/ml
Mitomycin C	Roche, Indianapolis, IN	4 µg/ml
Hank's Balanced Salt Solutions (HBSS)	Invitrogen, Grand Island, NY	1 x
Phosphate-Buffered Saline pH7.4 (PBS)	Invitrogen, Grand Island, NY	1 x
Amphotericin B	Invitrogen, Grand Island, NY	50 µg/ml
Gentamicin	Invitrogen, Grand Island, NY	1.25 µg/ml
Dispase II	Roche, Indianapolis, IN	10 mg/ml
Collagenase A	Roche, Indianapolis, IN	1 mg/ml
5-ethynyl-2'-deoxyuridine (EdU)	Invitrogen, Eugene, OR	10 µM
Qdot [®] nanocrystals (Qtracker)	Invitrogen, Eugene, OR	10 nM
Matrigel [™] Basement Membrane Matrix	BD Biosciences	50%
Trypsin and EDTA (T/E)	Invitrogen, Grand Island, NY	0.25% and 1 mM

Table 2: Antibodies Used for Immunofluorescence Staining (IF) and Western Blotting (WB)		
Antibodies	Sources	Dilution
Cytokeratin 12 (L-20)	Santa Cruz (Santa Cruz, CA)	1:500
p63 α	Cell Signaling (Danvers, MA)	1:1000
Pan-cytokeratins (AE1/AE3) (PCK)	Dako (Carpinteria, CA)	1:50
Oct4	Millipore (Billerica, MA)	1:100
Nanog	Abcam (Cambridge, MA)	1:100
Sox2	Abcam (Cambridge, MA)	1:100
Rex1	Abcam (Cambridge, MA)	1:100
CD34	Abcam (Cambridge, MA)	1:100
N-cadherin	Santa Cruz (Santa Cruz, CA)	1:50
Vimentin (SP20)	Abcam (Cambridge, MA)	1:100
β -actin	Sigma-Aldrich (St. Louis, MO)	1: 5000
Alexa Fluor 488 anti–mouse IgG	Invitrogen (Carlsbad, CA)	1:100
Alexa Fluor 555 anti–Rabbit IgG	Invitrogen (Carlsbad, CA)	1:100
Polyclonal Rabbit Anti-Mouse Immunoglobulins/HRP	Dako (Carpinteria, CA)	1:1000
Polyclonal Swine Anti-Rabbit Immunoglobulins/HRP	Dako (Carpinteria, CA)	1:1000
Polyclonal Rabbit Anti-Goat Immunoglobulins/HRP	Dako (Carpinteria, CA)	1:1000
Hoechst 33342	Sigma-Aldrich (St. Louis, MO)	1:1000

Table 3. Assay ID and Probes Sequence Use for Real-time PCR			
Gene Name	Assay ID (Taqman Expression Assay)	UniID	Product Length
GAPDH	Hs02758991_g1	Hs.598320	93
p63	Hs00978344_m1	Hs.137569	68
K12	Hs01057907_m1	Hs.66739	71
Oct4	Hs00999634_gH	Hs.249184	64
Nanog	Hs02387400_g1	Hs.635882	109
Sox2	Hs01053049_s1	Hs.518438	91
Rex1	Hs00381890_m1	Hs.192477	109
CD34	Hs00990734_g1	Hs.374990	101
N-cadherin	Hs01032817_m1	Hs.113684	74
Vimentin	Hs00185584_m1	Hs.455493	73