

## SUPPLEMENTAL MATERIALS

<b>Table 1. Materials Used for Cell Culturing and Isolation</b>		
<b>Materials</b>	<b>Sources</b>	<b>Concentration</b>
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%
Human Fibroblast Growth Factor-Basic	Invitrogen, Grand Island, NY	4 ng/ml
Leukemia inhibitory factor (LIF)	Invitrogen, Grand Island, NY	10ng/ml
Vascular Endothelial Growth Factor	PrompCell, Heidelberg, Germany	10ng/ml
Dimethyl Sulfoxide	Sigma-Aldrich, St. Louis, MO	0.5%
L-glutamine	Invitrogen, Grand Island, NY	1 mM
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
Hank's Balanced Salt Solutions (HBSS)	Invitrogen, Grand Island, NY	1x
Phosphate-Buffered Saline pH7.4 (PBS)	Invitrogen, Grand Island, NY	1x
Amphotericin B	Invitrogen, Grand Island, NY	50 µg/ml
Gentamicin	Invitrogen, Grand Island, NY	1.25 µg/ml
DispaseII	Roche, Indianapolis, IN	10mg/ml
Collagenase A	Roche, Indianapolis, IN	2 mg/ml
Trypsin and EDTA(T/E)	Invitrogen, Grand Island, NY	0.25% and 1mM
Matrigel™ Basement Membrane Matrix	BD Biosciences	100%
5-ethynyl-2'-deoxyuridine (EdU)	Invitrogen, Eugene, OR	10 µM
Qdot® nanocrystals (Qtracker)	Invitrogen, Eugene, OR	10nM
DiIAcLDL † (L3484)	Invitrogen, Eugene, OR	10 µg/ml

<b>Table 2: Antibodies Used for Immunofluorescence Staining (IF) and Western Blotting (WB)</b>		
<b>Antibodies</b>	<b>Sources</b>	<b>Dilution</b>
Pan-cytokeratins (AE1/AE3) (PCK)	Dako (Carpinteria, CA)	1:100
Vimentin (SP20)	Abcam (Cambridge, MA)	1:100
Oct-4	Millipore (Billerica, MA)	1:100
Sox2	Abcam (Cambridge, MA)	1:100
Flk-1	Cell Signaling (Danvers, MA)	1:100
CD34	Abcam (Cambridge, MA)	1:100
CD31	Cell Signaling (Danvers, MA)	1:100
$\alpha$ -SMA	Abcam (Cambridge, MA)	1:50
PDGFR $\beta$	Abcam (Cambridge, MA)	1:100
vWF	Abcam (Cambridge, MA)	1:200
Cytokeratin 12 (L-20)	Santa Cruz (Santa Cruz, CA)	1:50 for IF 1:500 for WB
p63 $\alpha$	Cell Signaling (Danvers, MA)	1:100 for IF 1:1000 for WB
SMMHC	Thermo (Rockford, IL)	1:100
S100A4	Abcam (Cambridge, MA)	1:100
$\beta$ -actin	Sigma-Aldrich (St. Louis, MO)	1: 3000
Alexa Fluor 488 anti–mouse IgG	Invitrogen (Carlsbad, CA)	1:100
Alexa Fluor 555 anti–Rabbit IgG	Invitrogen (Carlsbad, CA)	1:100
Alexa Fluor 633 anti–Goat 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

<b>Table 3. Assay ID and Probes Sequence Use for Real-time PCR</b>			
Gene Name	Assay ID (Taqman Expression Assay)	UniID	Product Length
GAPDH	Hs02758991_g1	Hs.598320	93
Oct-4	Hs00999634_gH	Hs.249184	64
Sox2	Hs01053049_s1	Hs.518438	91
Flk-1	Hs00911700_m1	Hs.479756	83
CD34	Hs00990734_g1	Hs.374990	101
CD31	Hs00169777_m1	Hs.376675	65
$\alpha$ -SMA	Hs00426835_g1	Hs.500483	105
PDGFR $\beta$	Hs01019589_m1	Hs.509067	62
$\Delta$ Np63 $\alpha$	Forward: GGCTGTTCATCATGTCTGGACTATT Reverse: CATCCATGGAGTAATGCTCAATCTGA		78
CK15	Hs00267035_m1	Hs.654570	81
CEBP $\delta$	Hs00270931_s1	Hs.440829	107
CK12	Hs01057907_m1	Hs.66739	71
SMMHC	Hs00224610_m1	Hs.460109	78
S100A4	Hs00243202_m1	Hs.654444	101