

Supplementary Table 1. Primers used for RT-qPCR.

Primers	Forward primer	Reverse Primer
SM22	CCGTGGAGATCCCAACTGG	CCATCTGAAGGCCAATGACAT
IL-6	ACTCACCTCTTCAGAACGAATTG	ACTCACCTCTTCAGAACGAATTG
MMP9	TGTACCGCTATGGTTACTACTCG	TGTACCGCTATGGTTACTACTCG
Bax	GCGAATTGGAGATGAACTGG	GTGAGCGAGGCGGTGAGGAC
Caspase-3	AAGCCGAACTCTTCATCAT	CACTCCCAGTCATTCTTTA
GAPDH	CTGGGCTACTACTGAGCACC	AAGTGGTCGTTGAGGGCAATG

Supplementary Table 2. Reagents and antibodies used for western blot and immunohistochemistry.

Antibody	Company (Cat. No.)	Working dilutions
mTeSR1	Stem cell technology	
TesRE8	Stem cell technology	
Accutase	Stem cell technology	
DMEM	Gibco	
IMDM	Gibco	
F12	Gibco	
Glutamax	Life Technologies	2mM
PVA	Sigma-Aldrich	1mg/ml
Insulin	Roche Diagnostics	7 µg/ml

Transferrin	Roche Diagnostics	15 µg/ml
Monothioglycerol	Sigma-Aldrich	450 µM
Activin A	Peprotech	30 ng/ml
BMP4	Peprotech	40 ng/ml
CHIR99021	Selleck	6 µM
FGF2	Peprotech	20 ng/ml
PIK90	Selleck	100 nM
A83-01	Selleck	1 µM
C59	Selleck	1 µM
PDGF-BB	Peprotech	10 ng/ml
TGF β	Peprotech	2 ng/ml
Y27632	Selleck	10 µM
1XN2 supplement	Life Technologies	
SB431542	Selleck	10 µM
LDN193189	Selleck	1 µM
1XB27 supplement	Life Technologies	
Ascorbic acid	Sigma	50 µg/ml
1-thioglycerol	Sigma	400 µM
SOX2	Cell signaling (#3579)	IF: 1/100

NANOG	Cell signaling (#4903)	IF: 1/100
SSEA4	Cell signaling (#4755)	IF: 1/100
TRA181	Cell signaling (#4745)	IF: 1/100
SSEA4 (FACS)	Biologend (330408)	IF: 1/100
SSEA3 (FACS)	Biologend (330306)	IF: 1/100
NKX2.5	Invitrogen (#701622)	IF: 1/100
PAX6	Biologend (#901301)	IF: 1/100
MEOX1	Invitrogen (#PA5-96640)	IF: 1/100
Calponin	Sigma (C2687)	IF: 1/200
Nestin	BD (611659)	IF: 1/200
SM22	Abcam (ab14106)	WB:1/1000 IF: 1/500
Cleaved-casepase 3	Cell Signaling TECHNOLOGY (9964S)	WB:1/1000
MMP9	Abcam (ab58803)	WB:1/1000
Bax	Proteintech (60267-1-Ig)	WB:1/1000
LY294002	Sigma-Aldrich, #440202	30µm
PI3K	(CST, #4249, Boston, USA)	WB:1/1000
phospho-PI3K	(CST, #4228, Boston, USA)	WB:1/1000
Akt	(CST, #4691, Boston, USA)	WB:1/1000

phospho-Akt	(CST, #4060, Boston, USA)	WB:1/1000
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GAPDH	Abcam (ab8245)	WB:1/6000
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β -actin	Proteintech (HRP-60008)	WB:1/6000
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Alexa Fluor 488	Jackson ImmunoResearch	
Donkey anti Rabbit	(711-545-152)	IF:1/500

Alexa Fluor 488	Jackson ImmunoResearch	
Donkey anti Mouse	(715-545-150)	IF:1/500

Cy TM 3 anti Rabbit	Donkey Jackson ImmunoResearch (712-165-150)	IF:1/500
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