

Table S1. Reagents and Antibodies.

Carazzi hematoxylin and DPX were from Casa Alvarez (Madrid, Spain). Mouse and Rabbit Specific HRP/DAB (ABC) Detection IHC kit and Von Kossa Stain Kit were from Abcam. General cell culture supplies were purchased from Lonza (Basel, Switzerland); fetal bovin serum was from Gibco (Waltham, Ma, USA); matrigel from Corning (Corning, NY, USA). Cell culture-grade gelatin, hematoxylin-eosin, Alizarin Red, beta-glycerolphosphate, ascorbic acid, AcH and Apocynin from Sigma Aldrich (San Luis, MO, USA). SuperSignal detection system Pierce™ ECL Western Blotting Substrate and Noggin from Thermo Fisher Scientific (Waltham, MA,

USA). Dihydroethidium (DHE), DAF-2, DETA-NONOate, and Dexamethasone from Invitrogen Corporation (Carlsbad, CA, USA). Complet mini, phosphostop, Dispasa II were from Roche (Switzerland). LDN193189 and Fluorsave Reagent from Merck (Darmstadt, Germany). A detail listing of the antibodies used through the study is provided bellow.

Antibody	Supplier	Reference	Dilution
Anti-ILK	RD Systems	MAB374	WB: 1-1000
	Bioss	BS-0317R	IF/IHC: 1-50
Anti-Ve-cadherin	Santa cruz	sc-9989	WB: 1-250
Anti-CD31	Abcam	ab32457	IF: 1-50
			WB:1-500
Anti- a-smooth muscle actin	Thermo Scientific	MA1-06110	IF:1-200 WB:1-1000
Anti-GAPDH	Millipore	MAB374	WB: 1-1000
Anti- Transgelin	Santa Cruz	sc-53932	WB: 1-1000
Anti- SNAI	Santa Cruz	sc-271977	WB: 1-1000
			IF: 1:50
Anti- phospho Smad 2	Cell signaling	18338	WB: 1-500
			IF: 1-50
Anti- phospho Smad 3	Santa Cruz	sc-517575	WB: 1-500
Anti- von Willebran Factor	Santa Cruz	sc-365712	WB: 1-500
Anti-TGFβ	Santa Cruz	sc-130348	IF:1-50
Anti-Smad2/3	BD Biosciences	610842	WB: 1-500
Anti-BMP2	Abcam	ab82511	WB: 1-1000
Anti- RUNX2	Santa Cruz	Sc-390351	WB: 1-500
			IF:1-50
Anti- phospho Smad 5	Cell signaling	9516	WB: 1-500
Anti-Smad 5	Cell signaling	12534	WB: 1-500
anti-GSI I-isoleoctin B4 (IB4)	Vector Laboratories	FL-1201	IF:1-100
eNOS	BD Biosciences	610296	IF:1-50
Anti-Nitrotyrosine	Millipore	06-284	WB:1-1000
			IF: 1-50
HRP-conjugated anti-Mouse secondary antibody	Invitrogen	A16072	WB: 1-20000
HRP-conjugated anti-Rabbit secondary antibody	Invitrogen	31466	WB: 1-50000
Alexa fluor 488 conjugated Goat anti-Rabbit secondary antibody	Abcam	ab150081	IF,;1-500
Alexa fluor 488 conjugated Goat anti-mouse secondary antibody	Abcam	ab150113	IF,;1-500

Alexa fluor 647 conjugated Goat anti-mouse secondary antibody	Abcam	ab150115	IF,:1-500
Alexa fluor 647 conjugated Goat anti-Rabbit secondary antibody	Abcam	ab150083	IF,:1-500