

Supplemental Table S1: Antibodies and reagents for Immuno blots and Immuno-histochemistry

Protein	Company Antibodies	Cat. Number
Id4	Aviva biosystem	ARP38058-T100
Id4	Biocheck	BCH-9/82-12
Id1	Santa Cruz Biotechnology	SC-133103
CD31	thermoscientific	MA1-80069
Ki67	abcam	ab15580
Lamin	abcam	EPR4100
TXNIP	abnova	PAB22506
NUPR1	Biorbyt	orb101189
DDIT3	Abnova	PAB18326
AR	Santa Cruz Biotechnology	Sc-816
PSA	santa cruz biotechnology	Sc-7638
TOPO	santa cruz biotechnology	Sc-271285
NKX3.1	thermoscientific	MA1-16906
GAPDH	Cell Signalling	#51745
p21	Cell Signalling	#2947
gaot anti-rabbit Secondary Antibody	Thermoscientific	#32460
ICC secondary antibodies and reagents		
DyLight 594 goat anti-mouse (red)	Thermoscientific	#35510
DyLight 488 goat anti-rabbit (green)	Thermoscientific	#35552
DyLight 594 goat anti-rabitt (red)	Thermoscientific	#35560
DyLight 488 goat anti-mouse (green)	Thermoscientific	#35502
DAPI (Pro-long Anti-fade)	Invitrogen	#P36935

Supplemental Table S2: Quantitative RT-PCR primer sequences

Gene	5'Primer	3'Primer
mmp2	5' CCGTGGTGAGATCTTCTTCTTC 3'	5' GGTTCTCCAGCTTCAGGTAATAG 3'
mmp13	5' TATCCGAGACTAATAGAAGAAGAC 3'	5' GGAATTTGCTGGCATGACG 3'
TXNIP	5'GATCACCGATTGGAGAGCCC	5'TGCAGGGATCCACCTCAGTA
NUPR1	5'GAAGACAAGCCAGGCACGAT	5'ATGATGAGAGGCCCGAGGTA
DDIT3	5'TTCTCTGGCTTGGCTGACTG	5'TTCTCTGGCTTGGCTGACTG
AR	5'AGTGCTGTACAGGAGCCGAA	5'AGGCACTTTCCTTGCTTCT
PSA	5'TTTCAGGTCAGCCACAGCTT	5'GGTCCATGACCTTCACAGCA

Supplemental Table S3: Pathways identified by IPA Upstream Regulator Analysis

Upstream Regulator	Log Ratio	Molecule Type	Predicted Activation State	Activation z-score	p-value of overlap	Target molecules in dataset
metribolone		chemical reagent	Activated	2.195	8.21E-06	GDF15, LDLR, NDRG1, S100P, SAT1
NUPR1	1.581	transcription regulator	Activated	2.449	5.96E-05	ALDOC, DDIT3, GDF15, HIST1H1B, NDRG1, NUPR1, SAT1
decitabine		chemical drug	Activated	2.195	1.94E-03	CDKN1C, GDF15, LDLR, NDRG1, SAT1
tretinoin		chemical - endogenous mammalian	Activated	2.262	1.85E-02	ALDH1A3, CDCA7, DDIT3, GDF15, ID3, NDRG1, PTMA