

Supplemental Methods. Antibodies for immunohistochemical analysis

Primary antibody	ID#	Dilution	Manufacturer
keratin wide	Z622	1:1000	Dako Japan, Tokyo, Japan
vimentin	SP20	1:100	Nichirei, Tokyo, Japan
α SMA	Ab5694	1:1000	Abcam, MA
Ki-67	ab66155	1:1000	Abcam, MA
ER	sc-542	1:1000	Santa Cruz, CA
PR	sc-538	1:1000	Santa Cruz, CA
Pdx1	N/A	1:5000	Gift of Chris Wright, Vanderbilt
Hes1	D6P2U	1:500	Cell Signaling Technology, MA
β -catenin	#9562	1:500	Cell Signaling Technology, MA
Axin2	ab32197	1:1,000	Abcam, MA
Wnt1	Ab15251	1:1000	Abcam, MA
FZD1	BAM11201	1:10	R&D systems, MN
FZD3	Ab75233	1:500	Abcam, MA
FZD4	07-746	1:50	Millipore, MA
FZD6	sc-32148	1:250	Santa Cruz, CA
NFACc1	sc-7294	1:50	Santa Cruz, CA
p-Rock2	Ab83514	1:500	Cell Signaling Technology, MA
p-JNK	#9251	1:50	Cell Signaling Technology, MA
p-Smad2/3	#3101	1:500	Cell Signaling Technology, MA
Smad4	sc-7966	1:50	Santa Cruz, CA
p-Akt (ser 473)	#4060	1:400	Cell Signaling Technology, MA
p-Erk1/2	#9101	1:500	Cell Signaling Technology, MA