

Supplemental Table 1: Ligands and concentrations used in EMT model screen

Ligand	Concentration	Source	Catalog #
Amphiregulin	100ng/ml	R&D Systems	262-AR
Angiopoietin 2	400 ng/ml	R&D Systems	623-AN-025
BMP4	100 ng/ml	R&D Systems	314BP/CF
BMP7	100 ng/ml	R&D Systems	354BP/CF
CNTF	25 ng/mL	Peprotech	450-13
Collagen-I	5 $\mu$ g/cm <sup>2</sup>	Sigma	C8919
Collagen-IV	5 $\mu$ g/cm <sup>2</sup>	Biochemika	27663
CTGF	20 ng/ml	Peprotech	120-19
Desert Hedgehog	10ug/ml	R&D Systems	4777-DH
EGF	100 ng/ml	R&D Systems	236-EG
Endothelin 1	100 nM	Bachem	H6995
FGF1	10 ng/ml	R&D Systems	232FA/CF
FGF2	10 ng/ml	R&D Systems	234FSE/CF
Fibronectin	1 $\mu$ g/cm <sup>2</sup>	Invitrogen (Gibco)	33010-018
Fulvestrant	1 $\mu$ M	Sigma	I4409
G-CSF	50 ng/ml	Genscript	Z00342
GM-CSF	25 ng/ml	Genscript	Z00349
HGF	100 ng/ml	Peprotech	100-39
HMG B1	50 ng/ml	R&D Systems	1690-HM-025
IFN gamma	50 ng/ml	Peprotech	300-02
IGF-1	50 ng/ml	R&D Systems	291-G1
IGF2	100 ng/ml	R&D Systems	292-G2
IL-11	100ng/ml	Peprotech	200-11
IL-1alpha	10 ng/ml	Peprotech	200-1A
IL1beta	2.5 ng/ml	R&D Systems	201-LB
IL-31	50 ng/ml	Peprotech	200-31
IL-33	50 ng/ml	Peprotech	200-33
IL6	2 ng/ml	Peprotech	200-06
IL8	0.5 ng/ml	R&D Systems	208-IL
Indian Hedgehog	3ug/ml	R&D Systems	1705-HH
Laminin-I	1 $\mu$ g/cm <sup>2</sup>	Sigma	L2020
LIF	20 ng/ml	Genscript	Z00384
LPA	10 $\mu$ M	Biomol	LP-100
M CSF	50 ng/ml	Genscript	Z02001
MCP1	50 ng/ml	Peprotech	300-04
MSP	100 ng/ml	R&D Systems	352-MS
NRG1	50 ng/ml	R&D Systems	377-HB/CF
Oncostatin M	100 ng/ml	R&D Systems	295OM/CF
PAR1	100 $\mu$ M	Anaspec	61530
PAR2	100 $\mu$ M	Anaspec	60217-1
PAR4	100 $\mu$ M	Anaspec	60218-1
PDGF AA	50 ng/ml	R&D Systems	221-AA
PDGF BB	30 ng/ml	R&D Systems	220-BB
Pleiotrophin	25 ng/ml	Peprotech	450-15
Polylysine	100 mg/ml	Sigma	P4832
Prolactin	100 ng/ml	Peprotech	100-07
PTHrP	50 ng/ml	Peprotech	100-09
S1P	1 $\mu$ M	Sigma	S9666
SDF-1alpha	100 ng/ml	Sigma	S190
sIL6R	250 ng/ml	Peprotech	200-06R

Sonic Hedgehog	100 ng/ml	R&D Systems	1314-SH
TGFbeta3	2µM	Made internally	
TGFbeta1	2.5 ng/ml	Calbiochem	616450
TNFalpha	25 ng/ml	R&D Systems	210-TA
Trance	50 ng/ml	R&D Systems	390-TN/CF
Vitronectin	0.1 µg/cm2	Sigma	V8379
WISP1	20 ng/ml	Peprotech	120-18
Wnt1	5 ng/ml	Cell Sciences	CRW001B
Wnt3a	100 ng/ml	R&D Systems	5036-WN
Wnt5a	200 ng/ml	R&D Systems	645-WN

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*Supplemental Table 2:* Densitometry of Figure 4 CFPAC1 immunoblots: Impact of pathway inhibition on ligand-induced fold changes to E-cadherin and vimentin, relative to Untreated/DMSO

CFPAC1		E-cadherin	Vimentin
UNT	DMSO	-	-
	JAKi	-1.6	-4.7
	PI3Ki	-1.9	1.1
HGF	DMSO	-3.2	3.0
	JAKi	-2.2	2.0
	PI3Ki	-6.2	1.9
OSM	DMSO	-6.7	-1.2
	JAKi	-1.9	-3.5
	PI3Ki	-21.8	-1.2
HGF+ OSM	DMSO	-27.5	2.6
	JAKi	-4.4	2.4
	PI3Ki	-86.3	2.2
		E-cadherin	Vimentin
UNT	DMSO	-	-
	MEKi	1.1	-1.3
HGF	DMSO	-1.5	14.1
	MEKi	-1.5	4.4
OSM	DMSO	-2.8	2.0
	MEKi	-4.5	1.8
HGF + OSM	DMSO	-2.3	16.9
	MEKi	-13.0	4.9

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*Supplemental Table 3:* Densitometry of Figure 4 H358 immunoblots: Impact of pathway inhibition on ligand-induced fold changes to E-cadherin and vimentin relative to Untreated/DMSO

H358		E-cadherin	Vimentin
Untreated	DMSO	-	-
	JAKi	-2.1	BLD*
	MEKi	-1.1	BLD
	PI3Ki	-1.3	BLD
HGF	DMSO	-1.7	4.9
	JAKi	-2.5	3.5
	MEKi	-1.2	12.4
	PI3Ki	-2	12.7
OSM	DMSO	-1.9	3.9
	JAKi	-1	BLD
	MEKi	-1.3	14.9
	PI3Ki	-2	BLD
TGF $\beta$	DMSO	-2.4	44.6
	JAKi	-1.7	50.3
	MEKi	-3.1	60.9
	PI3Ki	-3.8	54.3
HGF+ OSM	DMSO	-17.5	33.6
	JAKi	-1.6	33
	MEKi	-11.4	44.7
	PI3Ki	-4.3	35.7
OSM+ TGF $\beta$	DMSO	-70.1	43.3
	JAKi	-3.1	45.8
	MEKi	-27.7	58
	PI3Ki	-241	69.5

\*Below the level of detection

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*Supplemental Table 4:* Densitometry of Figure 4 H1650 immunoblots: Impact of pathway inhibition on ligand-induced fold changes to E-cadherin and vimentin relative to Untreated/DMSO

H1650		E-cadherin	Vimentin	Zeb1
UNT	DMSO	-	-	-
	JAKi	1.0	BLD	BLD*
	MEKi	1.1	BLD	BLD
	PI3Ki	-1.4	BLD	BLD
OSM	DMSO	-2.3	8.0	3.7
	JAKi	1.1	1.1	1.5
	MEKi	-1.9	2.2	9.7
	PI3Ki	-1.2	5.1	3.8
HGF + OSM	DMSO	-2.4	151.0	42.4
	JAKi	1.3	16.2	6.8
	MEKi	-3.4	76.6	31.9
	PI3Ki	-1.2	13.4	19.9
OSM+ TGF $\beta$	DMSO	-2.2	54.6	25.2
	JAKi	1.3	1.9	1.6
	MEKi	-3.2	29.1	20.6
	PI3Ki	-1.8	34.7	12.5

\*Below the level of detection