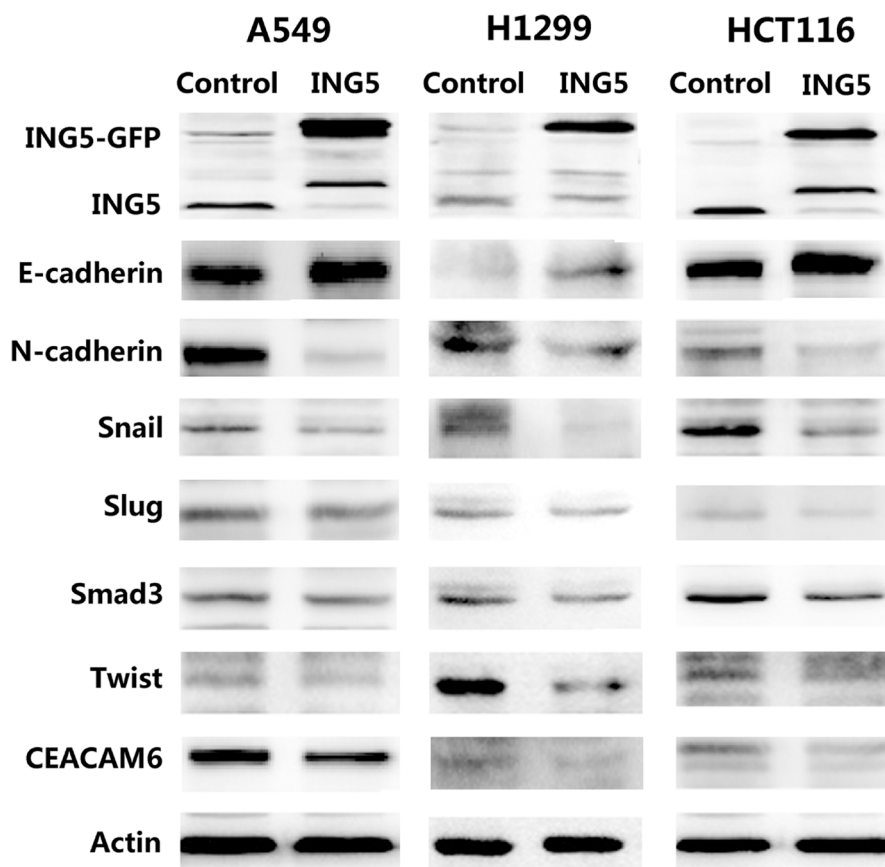


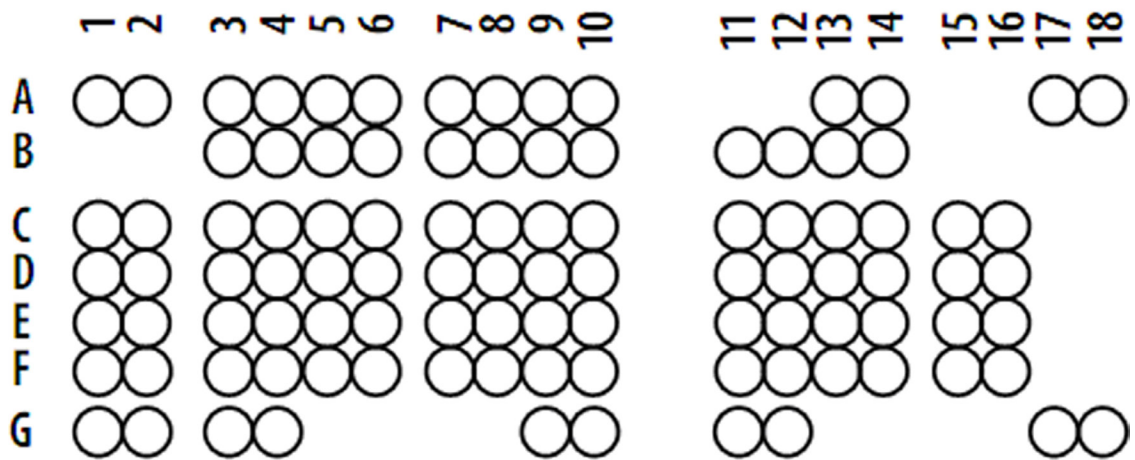
## ING5 knockdown enhances migration and invasion of lung cancer cells by inducing EMT via EGFR/PI3K/Akt and IL-6/STAT3 signaling pathways

### Supplementary Materials



Supplementary Figure 1: Effects of ING5 overexpression on protein level of EMT markers and related proteins in A549, H1299 and HCT116 cells by western blot. Actin was used as an internal loading control.

## Human Phospho-Kinase Array Coordinates



Supplementary Figure 2: Human Phospho-Kinase Array coordinates.

**Supplemental Table 1: Human phosphor-kinase array coordinates and ratio of shING5/shControl**

Coordinate	Target	Phosphorylation site	shING5/shControl
A1, A2	Reference Spot		1
A3, A4	P38 $\alpha$	T180/Y182	0.89
A5, A6	ERK1/2	T202/Y204, T185/Y187	1.66
A7, A8	JNK1/2/3	T183/Y185, T221/Y223	1.09
A9, A10	GSK-3 $\alpha/\beta$	S21/S9	1.01
A13, A14	p53	S392	2.12
A17, A18	Reference Spot		1
B3, B4	EGFR	Y1086	1.19
B5, B6	MSK1/2	S376/S360	1.25
B7, B8	AMPK $\alpha$ 1	T183	0.96
B9, B10	Akt1/2/3	S473	1.65
B11, B12	Akt1/2/3	T308	1.83
B13, B14	p53	S46	1.96
C1, C2	TOR	S2448	1.54
C3, C4	CREB	S133	0.80
C5, C6	HSP27	S78/S82	1.06
C7, C8	AMPK $\alpha$ 2	T172	1.62
C9, C10	$\beta$ -Catenin	***	1.23
C11, C12	p70 S6 Kinase	T389	1.13
C13, C14	p53	S15	1.67
C15, C16	c-Jun	S63	1.18
D1, D2	Src	Y419	1.17
D3, D4	Lyn	Y397	1.32
D5, D6	Lck	Y394	1.08
D7, D8	STAT2	Y689	2.36
D9, D10	STAT5a	Y694	1.59
D11, D12	p70 S6 Kinase	T421/S424	1.63
D13, D14	RSK1/2/3	S380/S386/S377	1.35
D15, D16	eNOS	S1177	1.30
E1, E2	Fyn	Y420	1.21
E3, E4	Yes	Y426	1.08
E5, E6	Fgr	Y412	1.10
E7, E8	STAT6	Y641	1.62
E9, E10	STAT5b	Y699	1.72
E11, E12	STAT3	Y705	1.79
E13, E14	p27	T198	1.16
E15, E16	PLC- $\gamma$ 1	Y783	1.34
F1, F2	Hck	Y411	1.28
F3, F4	Chk-2	T68	1.17
F5, F6	FAK	Y397	1.15
F7, F8	PDGF R $\beta$	Y751	1.16
F9, F10	STAT5a/b	Y694/Y699	1.98
F11, F12	STAT3	S727	1.62
F13, F14	WNK1	T60	1.37
F15, F16	PYK2	Y402	1.15
G1, G2	Reference Spot		
G3, G4	PRAS40	T246	2.58
G9, G10	PBS (Negative Control)		
G11, G12	HSP60	***	1.14
G17, G18	PBS (Negative Control)		

\*\*\*Antibody against total protein was used.