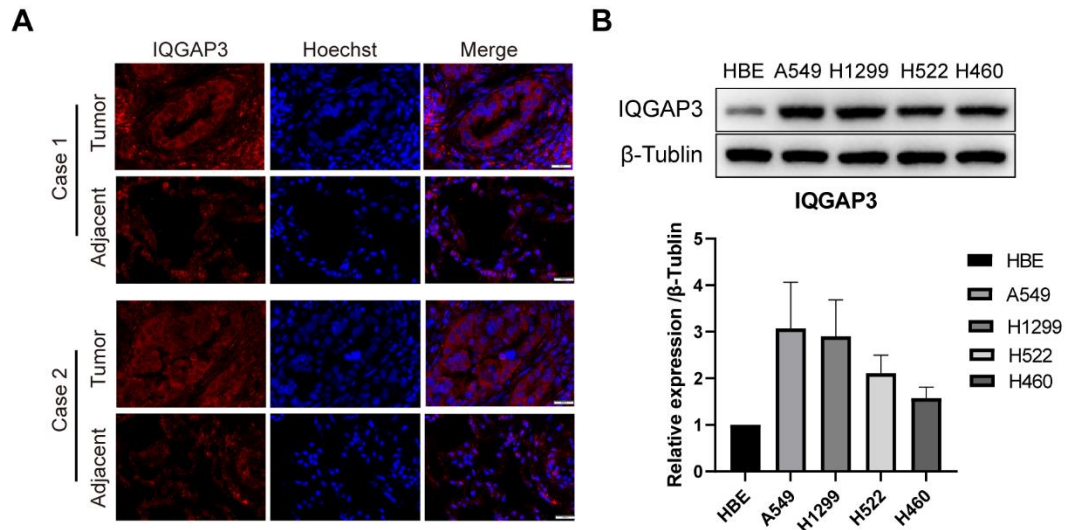


Gene	Sequence (5'-3')
SHH	F: CCAATTACAACCCCGACATC
	R: GCATTTAACTTGTCTTTGCACCT
POU5F1	F: GTGGAGGAAGCTGACAACAA
	R: AGTGGGTTGTTTGCCTTTGG
NANOG	F: GGATATTAGCTCCAGCGGTGT
	R: GACAGTCTCCGTGTGAGGCAT
VIM	F: CCTGTGATTTGTGGGCCTG
	R: ACCGCCGAACATCCTACGA
CDH2	F: GTCAGCAGAAGTTGAAGAAATAGTG
	R: GCAAGTTGATTGGAGGGATG
CDH1	F: GCCATCGCTTACACCATCCTCAG
	R: CTCTCTCGGTCCAGCCCAGTG
GAPDH	F: GAACGGGAAGCTCACTGG
	R: GCCTGCTTCACCACCTTCT
GLI1	F: GCGATCTGTGATGGATGAGATTCCC
	R: TGCCTTGTACCCTCCTCCCGAA
IQGAP3	F: ATGAGCAGAGGCGGCAGAAT
	R: GAACCACGGAGGGTGCAAAA

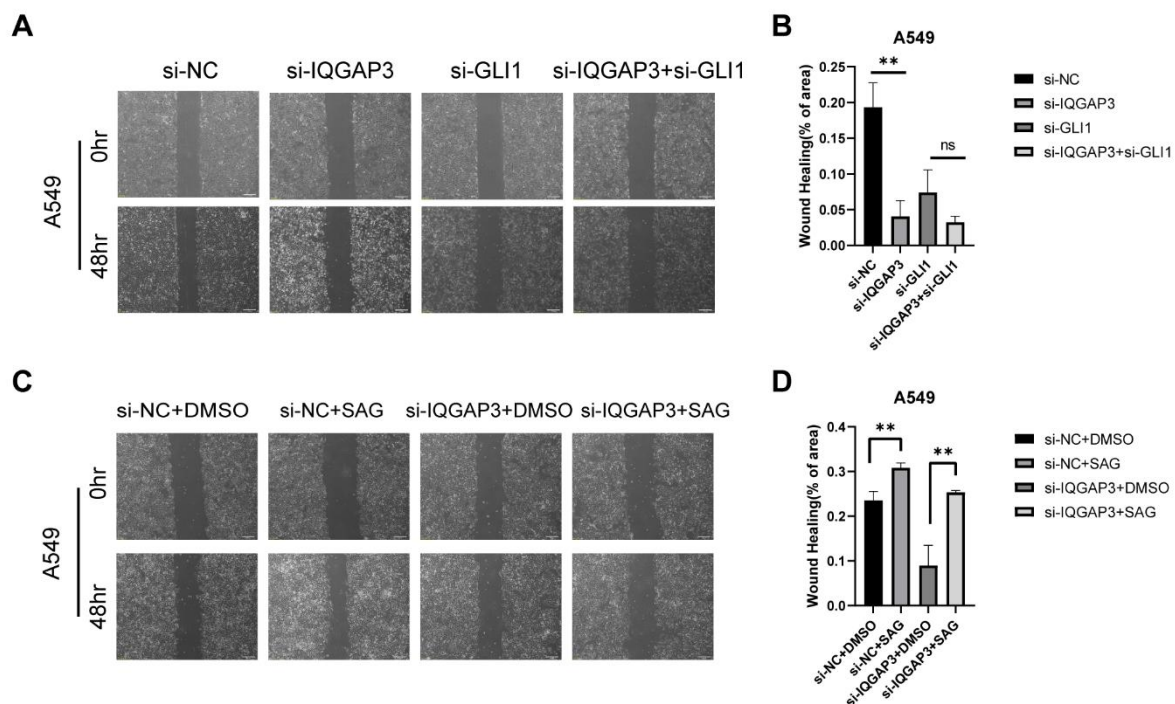
**Table S1.** The list of primer sequences.

	Univariate analysis HR (95% CI)	P value	Multivariate analysis HR (95% CI)	P value
<b>TCGA-LUAD (n=486)</b>				
age	1.007(0.992-1.022)	0.387		
gender	1.081(0.805-1.452)	0.605		
pathologic_N	<b>1.633(1.378-1.935)</b>	<b>&lt;0.001</b>	1.118(0.881-1.420)	0.358
pathologic_T	<b>1.461(1.218-1.753)</b>	<b>&lt;0.001</b>	1.131(0.928-1.378)	0.222
tumor_stage	<b>1.609(1.395-1.855)</b>	<b>&lt;0.001</b>	<b>1.471(1.182-1.831)</b>	<b>&lt;0.001</b>
IQGAP3	<b>1.194(1.029-1.385)</b>	<b>0.020</b>	<b>1.224(1.040-1.442)</b>	<b>0.015</b>

**Table S2.** Multivariate analyses showed that IQGAP3 is both a risk factor for lung cancer and an independent prognostic factor.



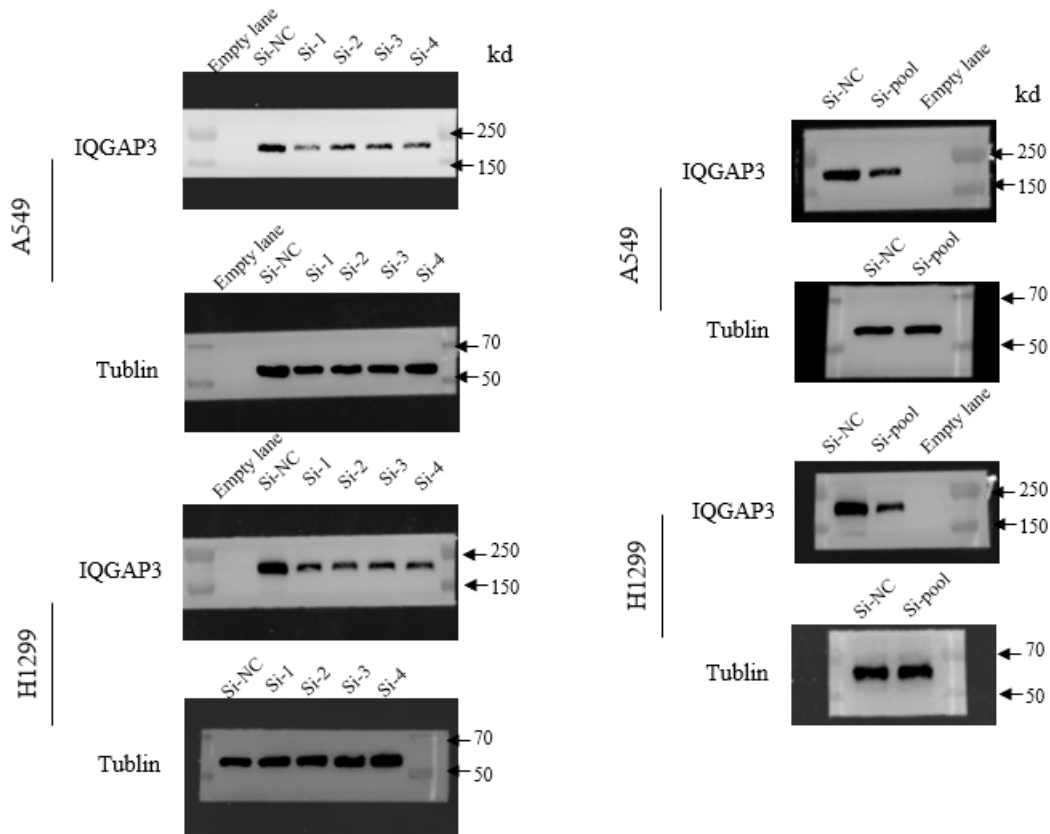
**Supp Fig 1. IQGAP3 is up-regulated in lung cancer tissues as well as in lung cancer cell lines. A** Representative immunofluorescence staining images depicting IQGAP3 expression in matched lung cancer and para-cancer tissues. Scale bar = 100  $\mu$ m. **B** Increased protein levels of IQGAP3 in lung cancer cell lines, particularly in A549 and H1299 cells, compared to normal lung epithelial HBE cells. original blots/gels are presented in Supplementary Figure 3.



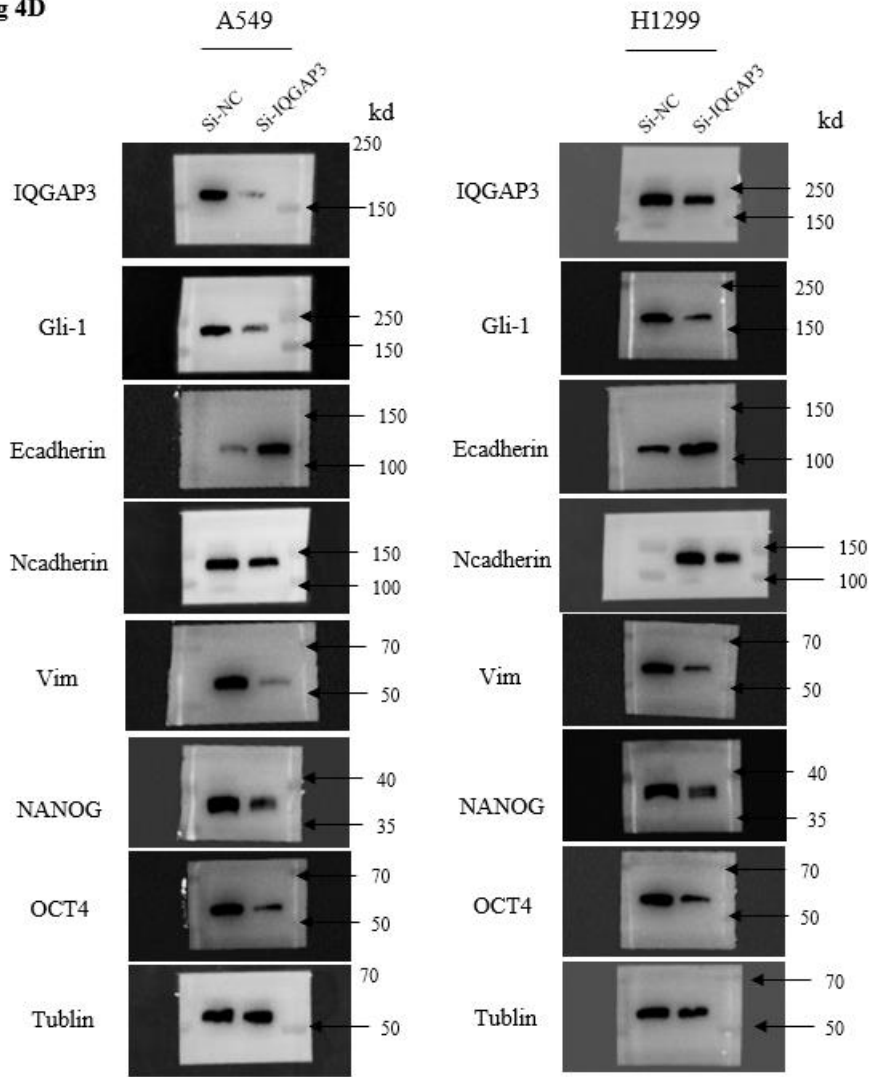
**Supp Fig 2. Activation of the Hedgehog pathway restores IQGAP3 knockdown-induced inhibition of lung cancer migration. A** Representative images and quantified data from wound healing assays conducted in A549 cells after down-regulating IQGAP3 and GLI1. **B** The recovery of

migration ability assessed via wound healing assays in A549 cells after treatment with IQGAP3 siRNA and SAG.

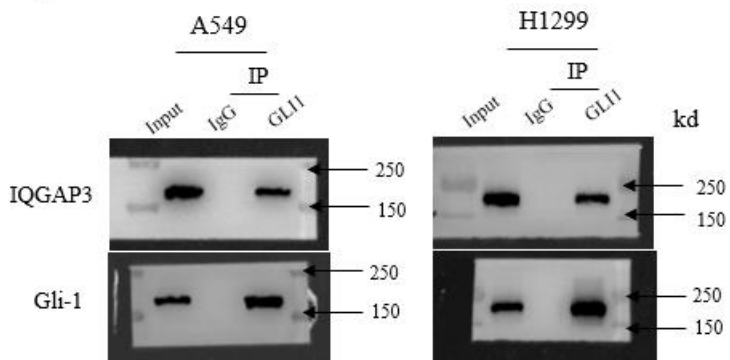
**Fig 3A**



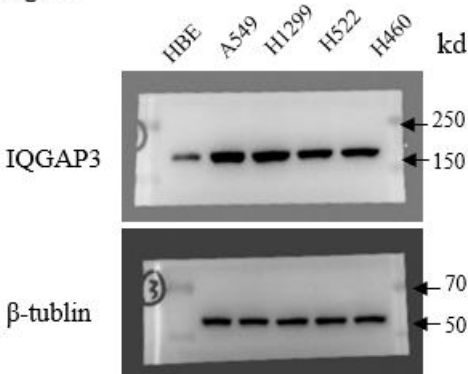
**Fig 4D**



**Fig 4F**



Supp Fig1 B



Supp Fig3. The whole Western blot.