

SUPPLEMENTAL DATA

Wen et al: CACYBP knockdown inhibits LUAD progression

Silencing CACYBP suppresses lung adenocarcinoma growth via CDK1 inhibition

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Table S1. The primer sequences used for qRT-PCR

Gene	Forward primer sequence (5'-3')	Reverse primer sequence (5'-3')
GAPDH	TGACTTCAACAGCGACACCCA	CACCCTGTTGCTGTAGCCAAA
CACYBP	ACAGATCCTAGTGAGGGATTGATG	TCCGTGTCTCCTTTGGCTTG
ATF4	CCCTTCACCTTCTTACAACCTC	TTCACTGCCCAGCTCTAAACTA
BRCA1	TGGCAACATAACCATCTTCAACC	TGTCAATTCTGGCTTCTCCCT
CCNA2	AGCCTGCGTTCACCATTCA	GGGCATCTTCACGCTCTATTTT
CCNB2	AAGTTCCAGTTCAACCCACCA	GCAGAGCAAGGCATCAGAAAA
CCND1	AGCTGTGCATCTACACCGAC	GAAATCGTGCGGGGTCATTG
CDK1	CCATACCCATTGACTAACTAT	ACCCCTTCCTCTTCACTTTC
DUSP1	ACCACCACCGTGTTCAACTT	AGAGGTCGTAATGGGGCTCT
EGR1	CACCTGACCGCAGAGTCTTTT	TGGTTTGGCTGGGGTAACTG
EZH2	GTTGGTGAATGCCCTTGGT	GCGGCTTTCTTTATCATCTCG
ITGA3	CCCACTCACTGCCCACAAGG	CCACAGTCACTCCAAGCCACAT
MAP4K4	TGAGCAATGGTGAAACGGAA	TCTGGCGGACGATTAGAGTG
MDM2	GGTGAGGAGCAGGCAAATGT	CGAAGCTGGAATCTGTGAGGT
MYC	TGCTGCCAAGAGGGTCAAGT	GCTCCGTTTTAGCTCGTTCC
PAK2	TGCTGGATGTCCTAAAGTTCTAC	CTCTGTCACTACTGCGGGTG
PLK1	AGAGGAGGAAAGCCCTGACT	TAACTCGGTTTCGGTGCAGG
PPP2CA	GTTCCCCATGAGGGTCCAAT	TTGCCCAAAGGTGTAACCAG
PRKCD	CGTTTCTCCTGGTGGTTGGT	TAGGAGTTGAAGGCGATGCG
PTK2	ACATTTAGACAATTTGCCAACC	TTCCACTGAAATAATCCAGCT

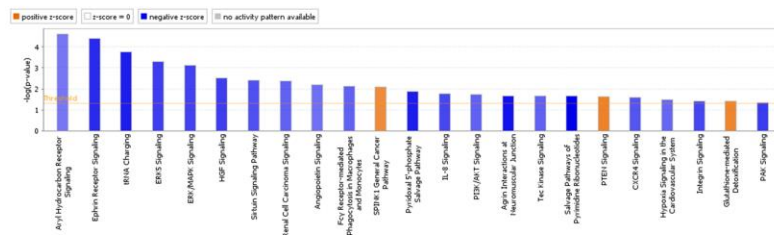
RAC1	CCATCATCCTAGTGGGAACTAAAC	CCGAGCACTCCAGGTATTTTA
RHOB	TGTGTGTCTGTTCTGACTCCC	TATCAAGCTCCCGCTGGTGA

qRT-PCR: Quantitative reverse transcription polymerase chain reaction.

Table S2. Antibodies used for western blotting

Primary antibodies	Dilution	Source species	Company	Catalog No.
CACYBP	1:3000	Rabbit	Abcam	ab171972
GAPDH	1:3000	Rabbit	Bioworld	AP0063
CDK1	1:3000	Rabbit	Bioss	bs-0542R
CCND1	1:2000	Rabbit	CST	2978
PLK1	1:1000	Mouse	Abcam	ab17057
EGR1	1:500	Rabbit	Bioss	bs-1076R
DYKDDDDK Tag	1:50/1:1000	Rabbit	CST	14793
Secondary antibodies	Dilution		Company	Catalog No.
HRP Goat Anti-Rabbit IgG	1:3000		Beyotime	A0208
HRP Goat Anti-Mouse IgG	1:3000		Beyotime	A0216

A



B

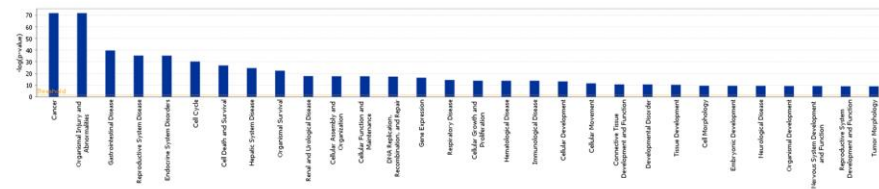


Figure S1. (A) Histogram of canonical pathway enrichment analysis for differentially expressed genes; (B) Histogram of enrichment analysis for differentially expressed genes in diseases and functions.

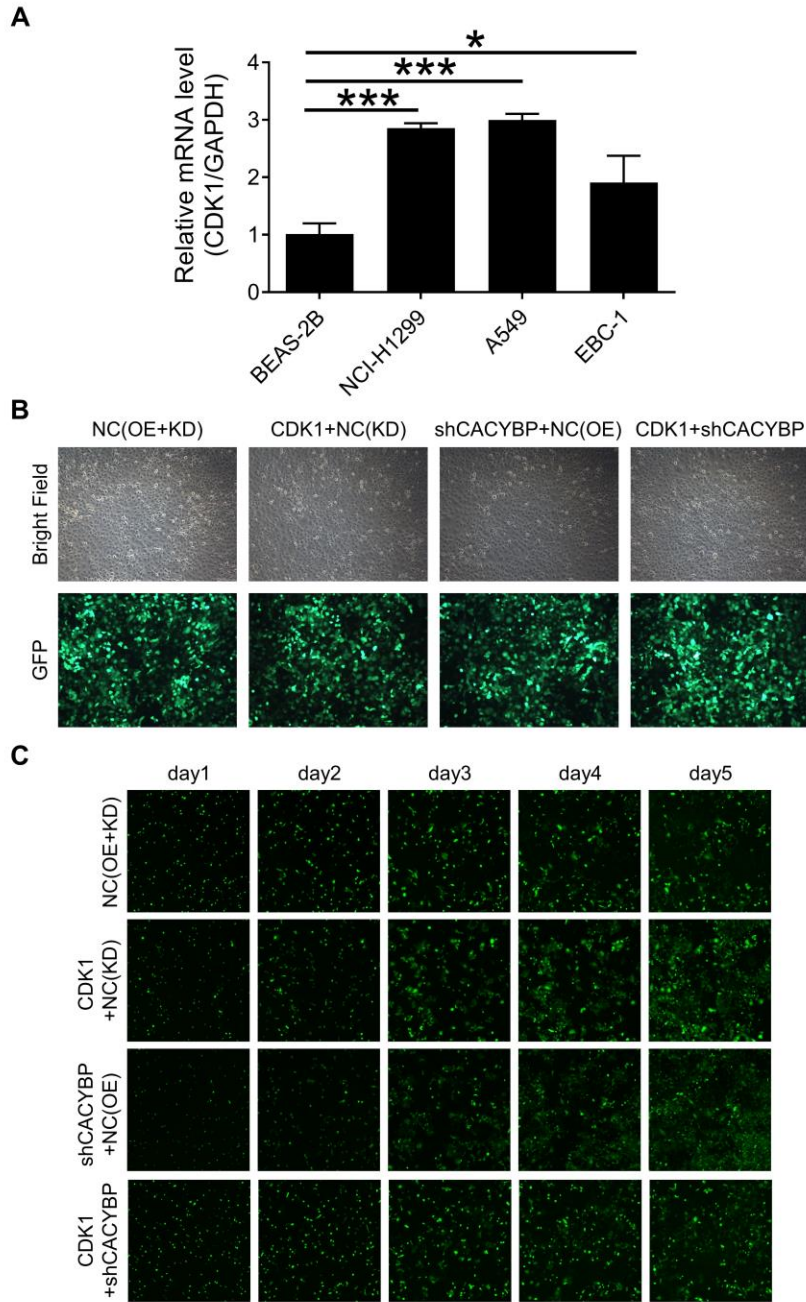


Figure S2. (A) Relative expression of CDK1 mRNA in a human normal lung epithelial cell line (BEAS-2B) and non-small cell lung cancer cell lines (NCI-H1299, A549, and EBC-1) was detected by qRT-PCR; (B) Representative images of GFP expression in lentivirus-transfected NCI-H1299 cells used to evaluate transfection efficiency (magnification, $\times 100$); (C) Representative fluorescence microscopy images of NCI-H1299 cell proliferation in each group taken daily after infection with control and target lentiviruses. $*p < 0.05$, $***p < 0.001$. CDK1: Cyclin dependent kinase 1; qRT-PCR: Quantitative reverse transcription polymerase chain reaction; GFP: Green fluorescent protein.

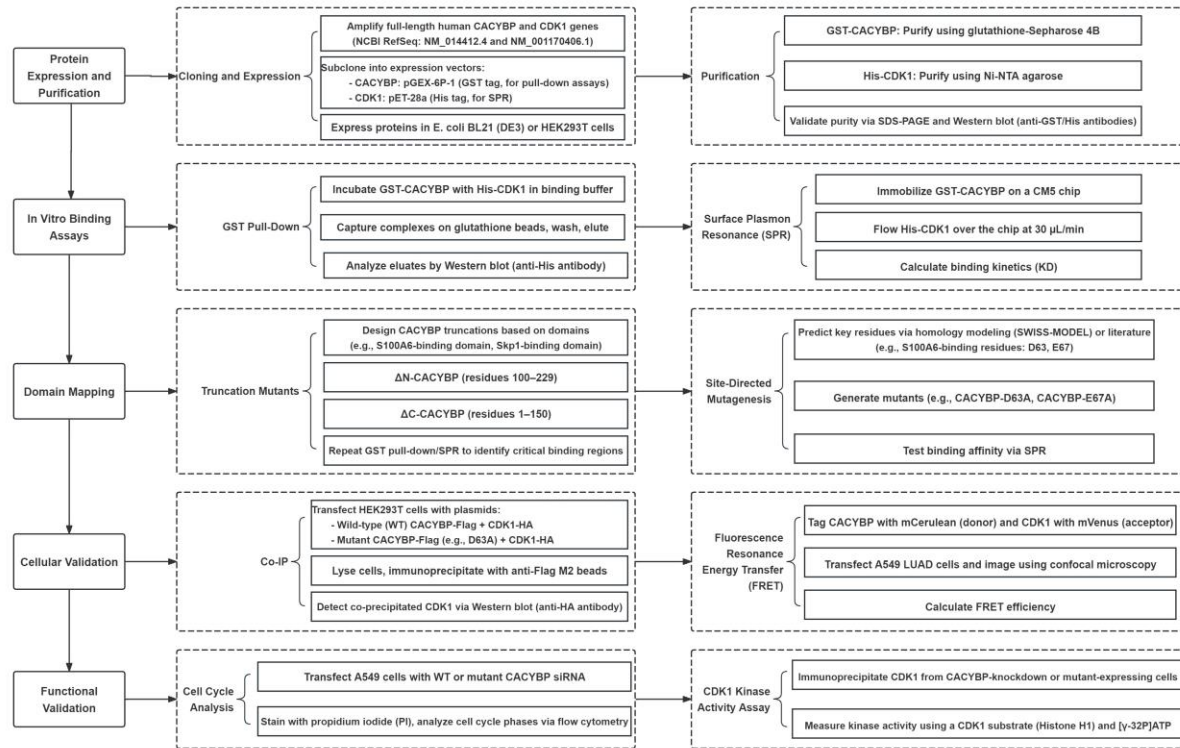


Figure S3. Technology roadmap for exploring CACYBP-CDK1 binding sites. CACYBP: Calcyclin-binding protein; CDK1: Cyclin dependent kinase 1.

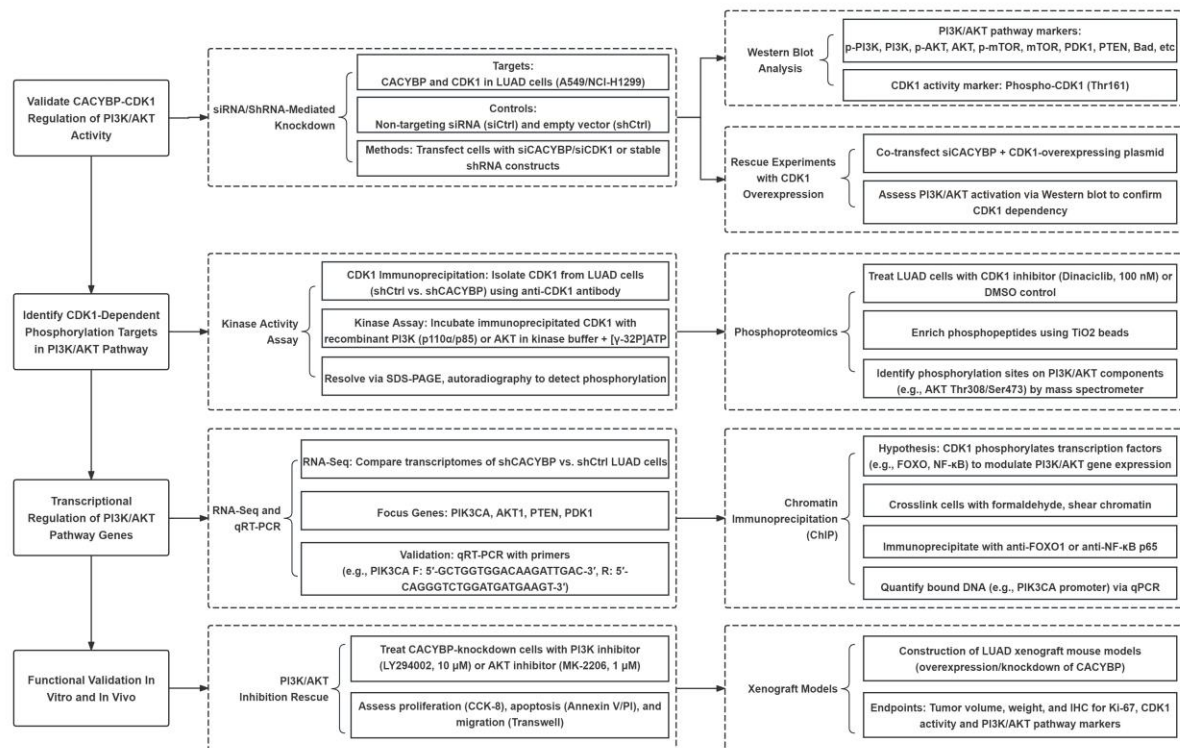


Figure S4. Technology roadmap for exploring the mechanisms of CACYBP-CDK1 Axis regulating PI3K/AKT pathway. CACYBP: Calcyclin-binding protein; CDK1: Cyclin dependent kinase 1; PI3K: Phosphatidylinositol 3-kinase; AKT: protein kinase B.