

# CDK2AP1 (N-18): sc-48130

## BACKGROUND

CDK2AP1 (also designated p12 and DOC-1) is a growth suppressor that binds to and inhibits DNA pol  $\alpha$ /primase. When bound, CDK2AP1 affects the initiation step, but not the elongation phase, of replication. CDK2AP1 also binds to cyclin-dependent kinase 2 (Cdk2) and targets it for proteolysis. CDK2AP1 promotes cell cycle arrest by regulating the S phase of the cycle, and may trigger apoptosis. The growth factor TGF $\beta$ 1 transcriptionally-induces CDK2AP1 expression, which, in turn, mediates the growth inhibitory activity of TGF $\beta$ 1 by modulating Cdk2 activities and pRB phosphorylation. Due to its ability to trigger apoptosis, CDK2AP1 may be a good candidate for a tumor suppressor in oral cancer.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: CDK2AP1 (human) mapping to 12q24.31; Cdk2ap1 (mouse) mapping to 5 F.

## SOURCE

CDK2AP1 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CDK2AP1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-48130 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CDK2AP1 (N-18) is recommended for detection of CDK2AP1 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CDK2AP1 (N-18) is also recommended for detection of CDK2AP1 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for CDK2AP1 siRNA (h): sc-60343, CDK2AP1 siRNA (m): sc-60344, CDK2AP1 shRNA Plasmid (h): sc-60343-SH, CDK2AP1 shRNA Plasmid (m): sc-60344-SH, CDK2AP1 shRNA (h) Lentiviral Particles: sc-60343-V and CDK2AP1 shRNA (m) Lentiviral Particles: sc-60344-V.

Molecular Weight of CDK2AP1: 12 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.