

# Cdk3 (S-13): sc-32499

## BACKGROUND

Cell cycle progression is controlled in part by a family of cyclin proteins and cyclin dependent kinases (Cdks). Cdk proteins work in concert with the cyclins to phosphorylate key substrates involved in each phase of cell cycle progression. Another family of proteins, Cdk inhibitors, also plays a role in regulating cell cycle by binding to cyclin-Cdk complexes and modulating their activity. Several Cdk proteins have been identified, including Cdk2-Cdk8, PCTAIRE-1-3, PITALRE and PITSLRE. Cdk3, like Cdk2, is known to be required for the G<sub>1</sub> to S transition. Proteins involved in cell cycle control have become the subject of increased interest with regard to their potential roles in tumorigenesis. Both Cdk3 and Cdk2 have been mapped to regions of a human chromosome that may be altered in a variety of tumors.

## REFERENCES

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- Bullrich, F., et al. 1995. Chromosomal mapping of members of the Cdc2 family of protein kinases, Cdk3, Cdk6, PISLRE and PITALRE, and a Cdk inhibitor, p27Kip1, to regions involved in human cancer. *Cancer Res.* 55: 1199-1205.
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- Hofmann, F., et al. 1996. Differential effects of Cdk2 and Cdk3 on the control of pRb and E2F function during G<sub>1</sub> exit. *Genes Dev.* 10: 851-861.
- Dirks, P.B., et al. 1997. Current concepts in neuro-oncology: the cell cycle—a review. *Neurosurgery* 40: 1000-1013.

## CHROMOSOMAL LOCATION

Genetic locus: CDK3 (human) mapping to 17q25.1; Cdk3 (mouse) mapping to 11 E2.

## SOURCE

Cdk3 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Cdk3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-32499 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Cdk3 (S-13) is recommended for detection of Cdk3 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

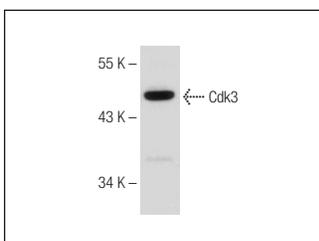
Suitable for use as control antibody for Cdk3 siRNA (h): sc-37578, Cdk3 siRNA (m): sc-37579, Cdk3 shRNA Plasmid (h): sc-37578-SH, Cdk3 shRNA Plasmid (m): sc-37579-SH, Cdk3 shRNA (h) Lentiviral Particles: sc-37578-V and Cdk3 shRNA (m) Lentiviral Particles: sc-37579-V.

Positive Controls: HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

## 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™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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™ Mounting Medium: sc-24941.

## DATA



Cdk3 (S-13): sc-32499. Western blot analysis of Cdk3 expression in MCF7 whole cell lysate.

## STORAGE

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


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Try **Cdk3 (4B6): sc-81836**, our highly recommended monoclonal alternative to Cdk3 (S-13).