

Cdc2 p34 (PSTAIRES): sc-53

BACKGROUND

In vertebrates, as in yeast, multiple cyclins have been identified, including a total of eight such regulatory proteins in mammals. In contrast to the situation in yeast, the Cdc2 p34 kinase is not the only catalytic subunit identified in vertebrates that can interact with cyclins. While Cdc2 p34 is essential for the G₂ to M transition in vertebrate cells, a second Cdc2-related kinase has also been implicated in cell cycle control. This protein, designated cyclin-dependent kinase 2 (Cdk2) p33, also binds to cyclins and its kinase activity is temporally regulated during the cell cycle. Several additional Cdc2 p34-related cyclin dependent kinases have been identified. These include Cdk3-Cdk8, PSTAIRES-1-3 and KKIALLRE.

REFERENCES

1. Riabowol, K., et al. 1989. The Cdc2 kinase is a nuclear protein that is essential for mitosis in mammalian cells. *Cell* 57: 393-401.
2. Morla, A.O., et al. 1989. Reversible tyrosine phosphorylation of Cdc2: dephosphorylation accompanies activation during entry into mitosis. *Cell* 58: 193-203.

SOURCE

Cdc2 p34 (PSTAIRES) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping epitope mapping within the conserved PSTAIRES domain of Cdc2 p34 of human origin of Cdc2 p34 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-53 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cdc2 p34 (PSTAIRES) is recommended for detection of Cdc2 p34 and other kinases containing the PSTAIRES and PFTAIRES motifs of mouse, rat, human, chicken, *Drosophila melanogaster*, *Xenopus laevis* and zebrafish 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).

Cdc2 p34 (PSTAIRES) is also recommended for detection of Cdc2 p34 and other kinases containing the PSTAIRES and PFTAIRES motifs in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of Cdc2 p34: 34 kDa.

Positive Controls: Cdk2 (h2): 293T Lysate: sc-172351, HeLa nuclear extract: sc-2120 or NAMALWA cell lysate: sc-2234.

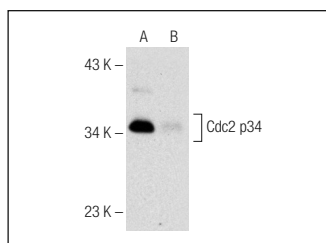
STORAGE

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

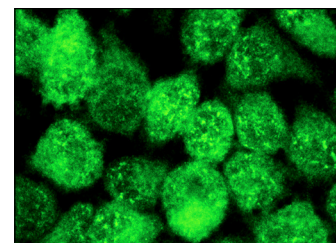
RESEARCH USE

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

DATA



Cdc2 p34 (PSTAIRES): sc-53. Western blot analysis of Cdc2 p34 expression in untreated (A) and Licochalcone-A, Synthetic (sc-319884) treated (B) PC-3 whole cell lysates. Note down regulation of Cdc2 p34 expression in lane B.



Cdc2 p34 (PSTAIRES): sc-53. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

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3. Goshima, T., et al. 2010. Fission yeast germinal center (GC) kinase Ppk11 interacts with Pmo25 and plays an auxiliary role in concert with the morphogenesis Orb6 network (MOR) in cell morphogenesis. *J. Biol. Chem.* 285: 35196-35205.
4. Maciaszczyk-Dziubinska, E., et al. 2010. The yeast permease Acr3p is a dual arsenite and antimonite plasma membrane transporter. *Biochim. Biophys. Acta* 1798: 2170-2175.
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6. Dezor, M., et al. 2011. Expression of 8-oxoguanine DNA glycosylase 1 (OGG1) and the level of p53 and TNF-α proteins in peripheral lymphocytes of patients with Alzheimer's disease. *Folia Neuropathol.* 49: 123-131.
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Try **Cdc2 p34 (17): sc-54** or **Cdc2 p34 (B-6): sc-8395**, our highly recommended monoclonal alternatives to Cdc2 p34 (PSTAIRES). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Cdc2 p34 (17): sc-54**.