

Cdk9 (L-19): sc-7331

BACKGROUND

A family of proteins designated cyclin dependent kinases (Cdks) are critical regulators of cell cycle progression. Cdk family members, including Cdc2 p34, Cdk1-9, PISSLRE, KKIALRE, PITSLRE and PCTAIRE-1-3 are constitutively expressed throughout the cell cycle. Cdc2 p34 activity peaks during mitosis and Cdk2 activity rises in late G₁ or early S phase. Cdk4 and Cdk6 are critically involved in G₁ to S phase progression. The functions of Cdk3, Cdk5b, PISSLRE, KKIALRE and PCTAIRE 1-3 are less well defined. Cdk9 (also designated PITALRE) has been shown to specifically phosphorylate the retinoblastoma protein. The more recently cloned *Drosophila* protein, P-TEFb, is thought to be the homolog of mammalian PITALRE. P-TEFb has been shown to be required for HIV Tat transcriptional activation.

CHROMOSOMAL LOCATION

Genetic locus: CDK9 (human) mapping to 9q34.11; Cdk9 (mouse) mapping to 2 B.

SOURCE

Cdk9 (L-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Cdk9 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-7331 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cdk9 (L-19) is recommended for detection of Cdk9 (also designated PITALRE) of mouse, rat 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).

Cdk9 (L-19) is also recommended for detection of Cdk9 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Cdk9 siRNA (h): sc-29268, Cdk9 siRNA (m): sc-35050, Cdk9 shRNA Plasmid (h): sc-29268-SH, Cdk9 shRNA Plasmid (m): sc-35050-SH, Cdk9 shRNA (h) Lentiviral Particles: sc-29268-V and Cdk9 shRNA (m) Lentiviral Particles: sc-35050-V.

Molecular Weight of Cdk9: 43 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, NIH/3T3 whole cell lysate: sc-2210 or Cdk9 (h): 293 Lysate: sc-110469.

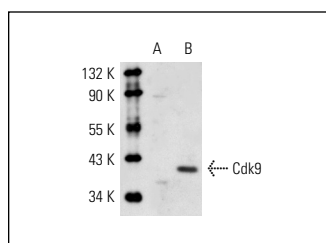
STORAGE

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



Cdk9 (L-19): sc-7331. Western blot analysis of Cdk9 expression in non-transfected: sc-110760 (A) and human Cdk9 transfected: sc-110469 (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

- Eberhardy, S.R., et al. 2001. c-Myc mediates activation of the CAD promoter via a post-RNA polymerase II recruitment mechanism. *J. Biol. Chem.* 276: 48562-48571.
- Wang, D., et al. 2001. Inhibition of human immunodeficiency virus type 1 transcription by chemical cyclin-dependent kinase inhibitors. *J. Virol.* 75: 7266-7279.
- Cook, J.A., et al. 2002. Recruitment of phosphatidylinositol 3-kinase to CD28 inhibits HIV transcription by a Tat-dependent mechanism. *J. Immunol.* 169: 254-260.
- Cabart, P., et al. 2004. BRCA1 cooperates with NUFIP and P-TEFb to activate transcription by RNA polymerase II. *Oncogene* 23: 5316-5329.
- Raha, T., et al. 2005. HIV-1 Tat stimulates transcription complex assembly through recruitment of TBP in the absence of TAFs. *PLoS Biol.* 3: e44.
- Agbottah, E., et al. 2005. Antiviral activity of CYC202 in HIV-1-infected cells. *J. Biol. Chem.* 280: 3029-3042.
- Heredia, A., et al. 2005. Idirubin-3'-monoxime, a derivative of a Chinese antileukemia medicine, inhibits P-TEFb function and HIV-1 replication. *AIDS* 19: 2087-2095.
- Bark-Jones, S.J., et al. 2006. EBV EBNA-2 stimulates Cdk9-dependent transcription and RNA polymerase II phosphorylation on serine 5. *Oncogene* 25: 1775-1785.


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