

Cdk9 (phospho Thr186) Polyclonal Antibody

Catalog No: YP0365

Reactivity: Human; Mouse; Rat

Applications: WB;ELISA

Target: Cdk9

Fields: >>Viral life cycle - HIV-1;>>Transcriptional misregulation in cancer

Gene Name: CDK9

Protein Name: Cyclin-dependent kinase 9

P50750

Q99J95

Human Gene Id: 1025

Human Swiss Prot

Tullian Swiss F

No:

Mouse Gene ld: 107951

Mouse Swiss Prot

No:

Rat Gene Id: 362110

Rat Swiss Prot No: Q641Z4

Immunogen: The antiserum was produced against synthesized peptide derived from human

CDK9 around the phosphorylation site of Thr186. AA range:152-201

Specificity: Phospho-Cdk9 (T186) Polyclonal Antibody detects endogenous levels of Cdk9

protein only when phosphorylated at T186.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

Dilution: WB 1:500 - 1:2000. ELISA: 1:5000. Not yet tested in other applications.

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Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 42kD

Cell Pathway: Cell Growth

Background: cyclin dependent kinase 9(CDK9) Homo sapiens The protein encoded by this

gene is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of S. cerevisiae cdc28, and S. pombe cdc2, and known as important cell cycle regulators. This kinase was found to be a component of the multiprotein complex TAK/P-TEFb, which is an elongation factor for RNA polymerase II-directed transcription and functions by phosphorylating the C-terminal domain of the largest subunit of RNA polymerase II. This protein forms a complex with and is regulated by its regulatory subunit cyclin T or cyclin K. HIV-1 Tat protein was found to interact with this protein and cyclin T, which suggested a possible involvement of this protein in AIDS.

[provided by RefSeq, Jul 2008],

Function: catalytic activity:ATP + [DNA-directed RNA polymerase] = ADP + [DNA-directed

RNA polymerase] phosphate.,catalytic activity:ATP + a protein = ADP + a phosphoprotein.,function:Member of the cyclin-dependent kinase pair

(CDK9/cyclin-T) complex, also called positive transcription elongation factor b (P-TEFb), which facilitates the transition from abortive to production elongation by phosphorylating the CTD (C-terminal domain) of the large subunit of RNA polymerase II (RNAP II), SUPT5H and RDBP. The CDK9/cyclin-K complex has also a kinase activity toward CTD of RNAP II and can substitute for P-TEFb in vitro.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.,similarity:Contains 1 protein kinase

domain., subunit: Associates with CCNT1/cyclin-T1 to form P-TEFb. P-TEFb forms a complex with AFF4/AF5Q31. Also associates with CCNK/cyclin-K.

Subcellular Location:

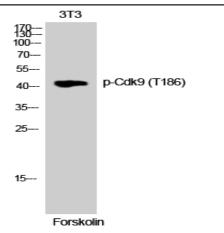
Nucleus. Cytoplasm. Nucleus, PML body. Accumulates on chromatin in response to replication stress. Complexed with CCNT1 in nuclear speckles, but

uncomplexed form in the cytoplasm. The translocation from nucleus to cytoplasm

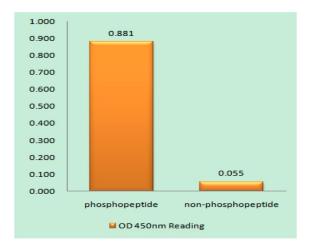
is XPO1/CRM1-dependent. Associates with PML body when acetylated.

Expression: Ubiquitous.

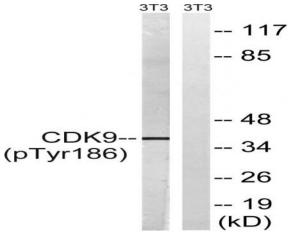
Products Images



Western Blot analysis of 3T3 cells using Phospho-Cdk9 (T186) Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003,Inventbiotech,MN,USA).



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CDK9 (Phospho-Thr186) Antibody



Western blot analysis of lysates from NIH/3T3 cells treated with Forskolin 40nM 30', using CDK9 (Phospho-Thr186) Antibody. The lane on the right is blocked with the phospho peptide.