

Cdk9 rabbit pAb

Catalog No :	YT7825
Reactivity :	Human;Rat;Mouse;
Applications :	WB;ELISA
Target :	Cdk9
Fields :	>>Viral life cycle - HIV-1;>>Transcriptional misregulation in cancer
Gene Name :	CDK9 CDC2L4 TAK
Protein Name :	Cdk9
Human Gene Id :	1025
Human Swiss Prot No :	P50750
Mouse Gene Id :	107951
Mouse Swiss Prot No :	Q99J95
Rat Gene Id :	362110
Rat Swiss Prot No :	Q641Z4
Immunogen :	Synthesized peptide derived from human Cdk9
Specificity :	This antibody detects endogenous levels of Human Cdk9
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:1000-2000 ELISA 1:5000-20000
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)

Molecularweight : 41kD

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.

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