

## Cdk9 Monoclonal Antibody

<b>Catalog No :</b>	YM0147
<b>Reactivity :</b>	Human
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	Cdk9
<b>Fields :</b>	>>Viral life cycle - HIV-1;>>Transcriptional misregulation in cancer
<b>Gene Name :</b>	CDK9
<b>Protein Name :</b>	Cell division protein kinase 9
<b>Human Gene Id :</b>	1025
<b>Human Swiss Prot No :</b>	P50750
<b>Mouse Swiss Prot No :</b>	Q99J95
<b>Immunogen :</b>	Purified recombinant fragment of human Cdk9 expressed in E. Coli.
<b>Specificity :</b>	Cdk9 Monoclonal Antibody detects endogenous levels of Cdk9 protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Monoclonal, Mouse
<b>Dilution :</b>	WB 1:500 - 1:2000. IHC 1:200 - 1:1000. ELISA: 1:10000.. IF 1:50-200
<b>Purification :</b>	Affinity purification
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Molecularweight :</b>	43kD
<b>Cell Pathway :</b>	Cell Growth

- P References :**
1. J Biol Chem. 2008 Mar 21;283(12):7368-78.
  2. Mol Cell Biol. 2008 Apr;28(7):2201-12.
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**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],

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**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 CKNK/cyclin-K.

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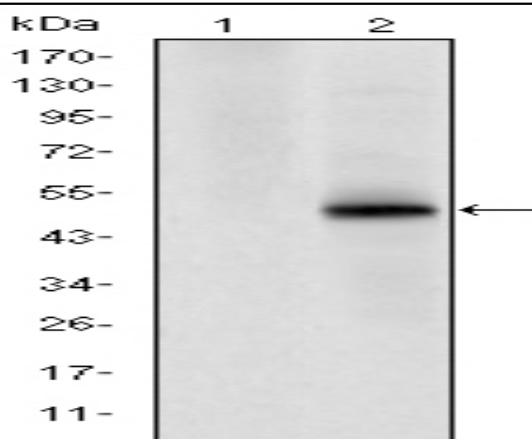
**Subcellular Location :** Nucleus. Cytoplasm. Nucleus, PML body. Accumulates on chromatin in response to replication stress. Complexed with CCNT1 in nuclear speckles, but uncomplexed form in the cytoplasm. The translocation from nucleus to cytoplasm is XPO1/CRM1-dependent. Associates with PML body when acetylated.

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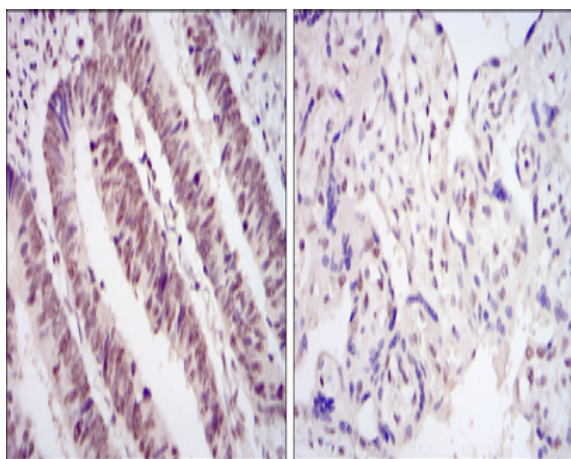
**Expression :** Ubiquitous.

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## Products Images



Western Blot analysis using Cdk9 Monoclonal Antibody against HEK293 (1) and CDK9-hlgGfc transfected HEK293 (2) cell lysate.



Immunohistochemistry analysis of paraffin-embedded rectum cancer tissues (left) and placenta tissues (right) with DAB staining using Cdk9 Monoclonal Antibody.

