

## Cdk9 Monoclonal Antibody

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| <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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**Tag :** hot

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**Sort :** 3806

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**No4 :** 1

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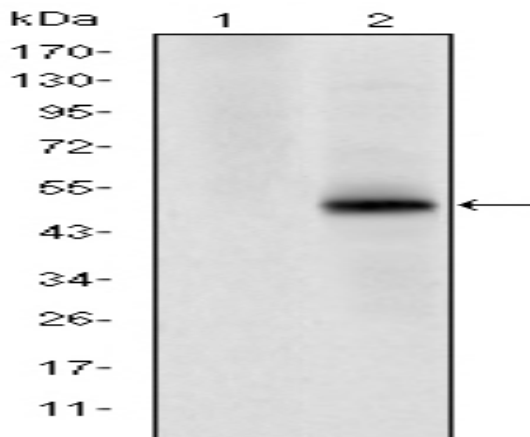
**Host :** Mouse

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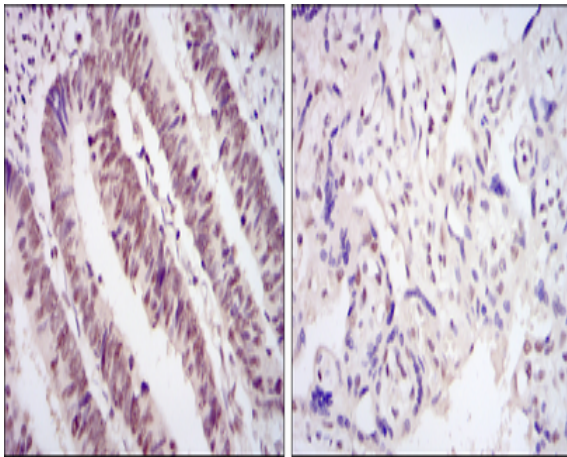
**Modifications :** Unmodified

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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.

