

Cdk9 Monoclonal Antibody

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

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 CENK/cyclin-K.

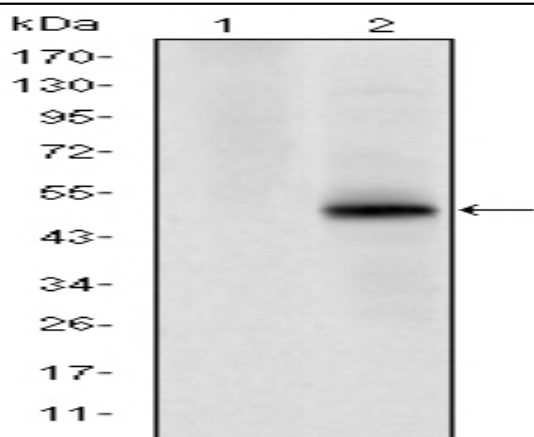
Subcellular Location :

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.

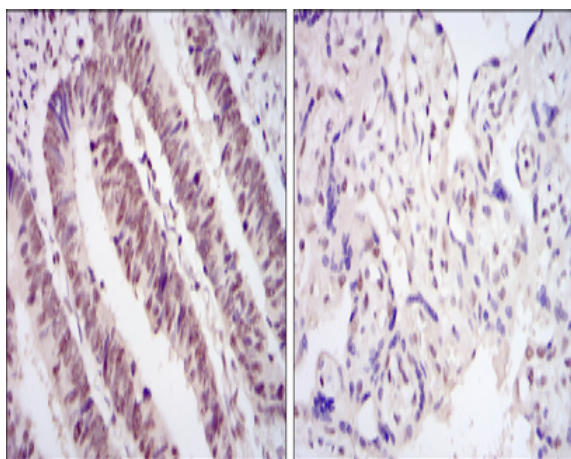
Expression :

Ubiquitous.

Products Images



Western Blot analysis 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.

