

## Mouse Cdk9 Antibody (C-term)

Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)  
Catalog # AW5096-400 □

## Specification

### Mouse Cdk9 Antibody (C-term) - Product Information

Application	WB
Primary Accession	<a href="#">Q99J95</a>
Other Accession	<a href="#">Q641Z4</a> , <a href="#">P50750</a> , <a href="#">Q5EAB2</a> , <a href="#">NP_570930.1</a>
Reactivity	Mouse, Rat
Predicted	Human, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	H=43;M=43;Rat=43 KDa
Isotype	Rabbit Ig
Antigen Source	MOUSE

### Mouse Cdk9 Antibody (C-term) - Additional Information

Gene ID 107951

Antigen Region  
251-278

Other Names  
Cdk9; Cyclin-dependent kinase 9; Cell division protein kinase 9

Dilution  
WB~~1:1000

Target/Specificity  
This Mouse Cdk9 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 251-278 amino acids from the C-terminal region of mouse Cdk9.

Format  
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

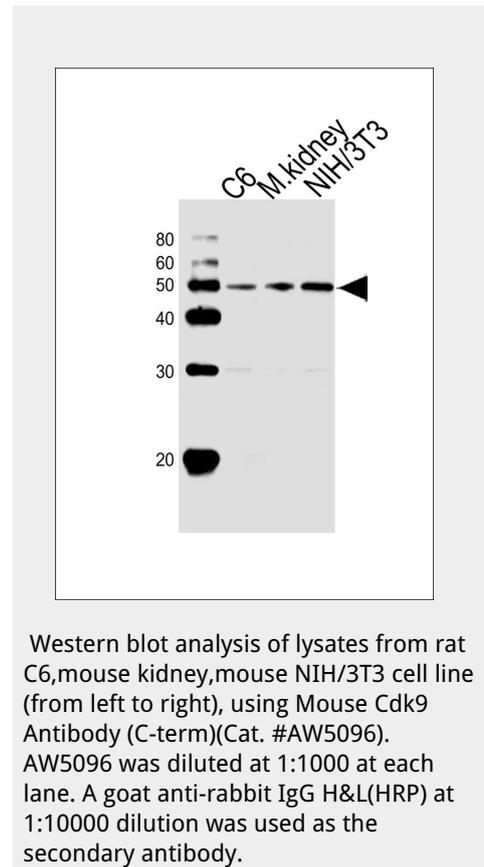
Storage  
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions  
Mouse Cdk9 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### Mouse Cdk9 Antibody (C-term) - Protein Information

Name Cdk9

Function  
Protein kinase involved in the regulation of transcription.



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 productive elongation by phosphorylating the CTD (C-terminal domain) of the large subunit of RNA polymerase II (RNAP II) POLR2A, SUPT5H and RDBP. This complex is inactive when in the 75K snRNP complex form. Phosphorylates EP300, MYOD1, RPB1/POLR2A and AR, and the negative elongation factors DSIF and NELF. Regulates cytokine inducible transcription networks by facilitating promoter recognition of target transcription factors (e.g. TNF-inducible RELA/p65 activation and IL-6-inducible STAT3 signaling). Promotes RNA synthesis in genetic programs for cell growth, differentiation and viral pathogenesis. P-TEFb is also involved in cotranscriptional histone modification, mRNA processing and mRNA export. Modulates a complex network of chromatin modifications including histone H2B monoubiquitination (H2Bub1), H3 lysine 4 trimethylation (H3K4me3) and H3K36me3; integrates phosphorylation during transcription with chromatin modifications to control co-transcriptional histone mRNA processing. The CDK9/cyclin-K complex has also a kinase activity towards CTD of RNAP II and can substitute for CDK9/cyclin-T P-TEFb in vitro. Replication stress response protein; the CDK9/cyclin-K complex is required for genome integrity maintenance, by promoting cell cycle recovery from replication arrest and limiting single-stranded DNA amount in response to replication stress, thus reducing the breakdown of stalled replication forks and avoiding DNA damage. In addition, probable function in DNA repair of isoform 2 via interaction with KU70/XRCC6. Promotes cardiac myocyte enlargement. RPB1/POLR2A phosphorylation on 'Ser-2' in CTD activates transcription. AR phosphorylation modulates AR transcription factor promoter selectivity and cell growth. DSIF and NELF phosphorylation promotes transcription by inhibiting their negative effect. The phosphorylation of MYOD1 enhances its transcriptional activity and thus promotes muscle differentiation (By similarity).

#### Cellular Location

Nucleus. Cytoplasm. Nucleus, PML body Note=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 (By similarity).

#### Tissue Location

Expressed at high levels in brain and kidney.

### Mouse Cdk9 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [□ Western Blot](#)
- [□ Blocking Peptides](#)
- [□ Dot Blot](#)
- [□ Immunohistochemistry](#)
- [□ Immunofluorescence](#)
- [□ Immunoprecipitation](#)
- [□ Flow Cytometry](#)
- [□ Cell Culture](#)

### Mouse Cdk9 Antibody (C-term) - Background

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 (By similarity).

#### Mouse Cdk9 Antibody (C-term) - References

Yokoyama, S., et al. *Dev. Cell* 17(6):836-848(2009) Alarcon, C., et al. *Cell* 139(4):757-769(2009) Takaya, T., et al. *Circ. J.* 73(8):1492-1497(2009) Kohoutek, J., et al. *Mol. Cell. Biol.* 29(12):3280-3285(2009) Elagib, K.E., et al. *Blood* 112(13):4884-4894(2008)