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Mouse Cdk9 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5096

Specification

Mouse Cdk9 Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	Q99J95
Other Accession	Q641Z4, P50750, Q5EAB2, NP_570930.1
Reactivity	**Mouse, Rat**
Predicted	**Bovine, Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**H=43;M=43;Rat=43 KDa**
Isotype	**Rabbit IgG**
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 7SK snRNP complex form. Phosphorylates EP300, MYOD1, RPB1/POLR2A and AR and the negative elongation factors DSIF and NELFE. 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. Catalyzes phosphorylation of KAT5, promoting KAT5 recruitment to chromatin and histone acetyltransferase activity.

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.

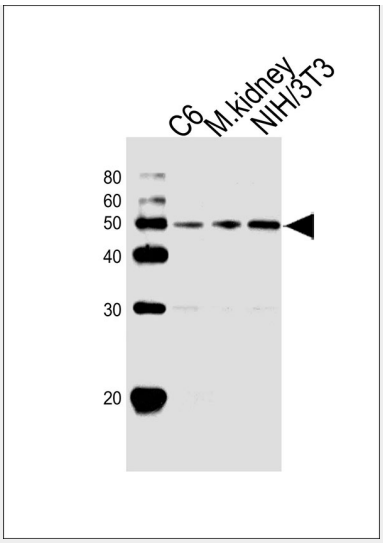
Mouse Cdk9 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Mouse Cdk9 Antibody (C-term) - Images

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Western blot analysis of lysates from rat C6,mouse kidney,mouse NIH/3T3 cell line (from left to right), using Mouse Cdk9 Antibody (C-term)(Cat. #AW5096). AW5096 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.

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

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