

Goat anti-CDK9 (aa86-98) Antibody
Peptide-affinity purified goat antibody
Catalog # AF4459a**Specification**

Goat anti-CDK9 (aa86-98) Antibody - Product Information

Application	WB, Pep-ELISA
Primary Accession	P50750
Other Accession	NP_001252.1
Reactivity	Human, Mouse, Rat, Pig, Dog, Bovine
Host	Goat
Clonality	Polyclonal
Calculated MW	42778

Goat anti-CDK9 (aa86-98) Antibody - Additional Information**Gene ID** 1025**Other Names**

CDK9; cyclin-dependent kinase 9; C-2k; CDC2L4; CTK1; PITALRE; TAK; CDC2-related kinase; cell division cycle 2-like protein kinase 4; cell division protein kinase 9; serine/threonine protein kinase PITALRE; tat-associated kinase complex catalytic subunit

Dilution

WB~~1:1000
Pep-ELISA~~N/A

Format

Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat anti-CDK9 (aa86-98) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat anti-CDK9 (aa86-98) Antibody - Protein Information**Name** CDK9 {ECO:0000303|PubMed:10903437, ECO:0000312|HGNC:HGNC:1780}**Function**

Protein kinase involved in the regulation of transcription (PubMed:10574912, PubMed:10757782, PubMed:10757782, PubMed:10757782).

[11145967](http://www.uniprot.org/citations/11145967), PubMed: [11575923](http://www.uniprot.org/citations/11575923), PubMed: [11809800](http://www.uniprot.org/citations/11809800), PubMed: [11884399](http://www.uniprot.org/citations/11884399), PubMed: [14701750](http://www.uniprot.org/citations/14701750), PubMed: [16109376](http://www.uniprot.org/citations/16109376), PubMed: [16109377](http://www.uniprot.org/citations/16109377), PubMed: [20930849](http://www.uniprot.org/citations/20930849), PubMed: [28426094](http://www.uniprot.org/citations/28426094), PubMed: [29335245](http://www.uniprot.org/citations/29335245)). 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 (PubMed: [10574912](http://www.uniprot.org/citations/10574912) target="_blank">10574912, PubMed: [10757782](http://www.uniprot.org/citations/10757782) target="_blank">10757782, PubMed: [11145967](http://www.uniprot.org/citations/11145967) target="_blank">11145967, PubMed: [11575923](http://www.uniprot.org/citations/11575923) target="_blank">11575923, PubMed: [11809800](http://www.uniprot.org/citations/11809800) target="_blank">11809800, PubMed: [11884399](http://www.uniprot.org/citations/11884399) target="_blank">11884399, PubMed: [14701750](http://www.uniprot.org/citations/14701750) target="_blank">14701750, PubMed: [16109376](http://www.uniprot.org/citations/16109376) target="_blank">16109376, PubMed: [16109377](http://www.uniprot.org/citations/16109377) target="_blank">16109377, PubMed: [16427012](http://www.uniprot.org/citations/16427012) target="_blank">16427012, PubMed: [20930849](http://www.uniprot.org/citations/20930849) target="_blank">20930849, PubMed: [28426094](http://www.uniprot.org/citations/28426094) target="_blank">28426094, PubMed: [30134174](http://www.uniprot.org/citations/30134174) target="_blank">30134174). This complex is inactive when in the 7SK snRNP complex form (PubMed: [10574912](http://www.uniprot.org/citations/10574912) target="_blank">10574912, PubMed: [10757782](http://www.uniprot.org/citations/10757782) target="_blank">10757782, PubMed: [11145967](http://www.uniprot.org/citations/11145967) target="_blank">11145967, PubMed: [11575923](http://www.uniprot.org/citations/11575923) target="_blank">11575923, PubMed: [11809800](http://www.uniprot.org/citations/11809800) target="_blank">11809800, PubMed: [11884399](http://www.uniprot.org/citations/11884399) target="_blank">11884399, PubMed: [14701750](http://www.uniprot.org/citations/14701750) target="_blank">14701750, PubMed: [16109376](http://www.uniprot.org/citations/16109376) target="_blank">16109376, PubMed: [16109377](http://www.uniprot.org/citations/16109377) target="_blank">16109377, PubMed: [20930849](http://www.uniprot.org/citations/20930849) target="_blank">20930849, PubMed: [28426094](http://www.uniprot.org/citations/28426094) target="_blank">28426094). Phosphorylates EP300, MYOD1, RPB1/POLR2A and AR and the negative elongation factors DSIF and NELFE (PubMed: [10912001](http://www.uniprot.org/citations/10912001) target="_blank">10912001, PubMed: [11112772](http://www.uniprot.org/citations/11112772) target="_blank">11112772, PubMed: [12037670](http://www.uniprot.org/citations/12037670) target="_blank">12037670, PubMed: [16427012](http://www.uniprot.org/citations/16427012) target="_blank">16427012, PubMed: [20081228](http://www.uniprot.org/citations/20081228) target="_blank">20081228, PubMed: [20980437](http://www.uniprot.org/citations/20980437) target="_blank">20980437, PubMed: [21127351](http://www.uniprot.org/citations/21127351) target="_blank">21127351, PubMed: [9857195](http://www.uniprot.org/citations/9857195) target="_blank">9857195). 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) (PubMed: [17956865](http://www.uniprot.org/citations/17956865) target="_blank">17956865, PubMed: [18362169](http://www.uniprot.org/citations/18362169) target="_blank">18362169). Promotes RNA synthesis in genetic programs for cell growth, differentiation and viral pathogenesis (PubMed: [10393184](http://www.uniprot.org/citations/10393184) target="_blank">10393184, PubMed: [11112772](http://www.uniprot.org/citations/11112772) target="_blank">11112772). P-TEFb is also involved in cotranscriptional histone modification, mRNA processing and mRNA export (PubMed: [15564463](http://www.uniprot.org/citations/15564463) target="_blank">15564463).

target="_blank">15564463, PubMed:19575011, PubMed:19844166). 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 (PubMed:15564463, PubMed:19575011, PubMed:19844166). 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 (PubMed:21127351). 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 (PubMed:20493174). In addition, probable function in DNA repair of isoform 2 via interaction with KU70/XRCC6 (PubMed:20493174). Promotes cardiac myocyte enlargement (PubMed:20081228). RPB1/POLR2A phosphorylation on 'Ser-2' in CTD activates transcription (PubMed:21127351). AR phosphorylation modulates AR transcription factor promoter selectivity and cell growth. DSIF and NELF phosphorylation promotes transcription by inhibiting their negative effect (PubMed:10912001, PubMed:11112772, PubMed:9857195). The phosphorylation of MYOD1 enhances its transcriptional activity and thus promotes muscle differentiation (PubMed:12037670). Catalyzes phosphorylation of KAT5, promoting KAT5 recruitment to chromatin and histone acetyltransferase activity (PubMed:29335245).

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

Tissue Location

Ubiquitous.

Goat anti-CDK9 (aa86-98) Antibody - 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](#)

Goat anti-CDK9 (aa86-98) Antibody - Images