

Datasheet for ABIN7148906
anti-CDK9 antibody (AA 153-372)



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2 Images

Overview

Quantity:	100 µL
Target:	CDK9
Binding Specificity:	AA 153-372
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CDK9 antibody is un-conjugated
Application:	ELISA, Immunohistochemistry (IHC)

Product Details

Immunogen:	Recombinant Human Cyclin-dependent kinase 9 protein (153-372AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Antigen Affinity Purified

Target Details

Target:	CDK9
Alternative Name:	CDK9 (CDK9 Products)
Background:	Background: 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 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.

Aliases: C-2K antibody, CDC2 related kinase antibody, CDC2L4 antibody, Cdk 9 antibody, Cdk9 antibody, CDK9_HUMAN antibody, Cell division cycle 2-like protein kinase 4 antibody, Cell division protein kinase 9 antibody, CTK1 antibody, Cyclin dependent kinase 9 antibody, Cyclin-dependent kinase 9 antibody, PITALRE antibody, Serine/threonine-protein kinase PITALRE antibody, TAK antibody, Tat associated kinase complex catalytic subunit antibody

UniProt: [P50750](#)

Pathways: [Cell Division Cycle](#)

Application Details

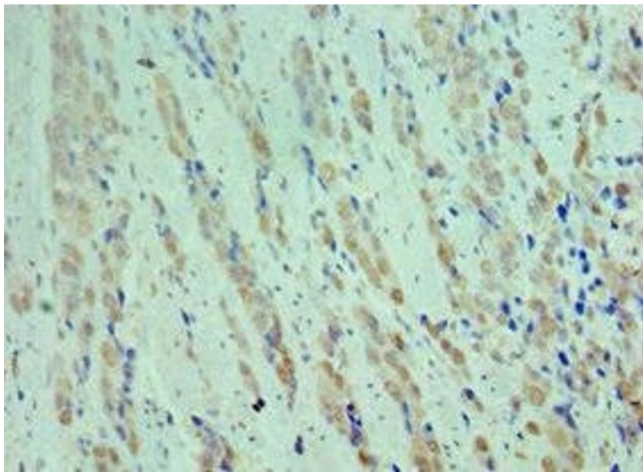
Application Notes: Recommended dilution: IHC:1:20-1:200,

Restrictions: For Research Use only

Handling

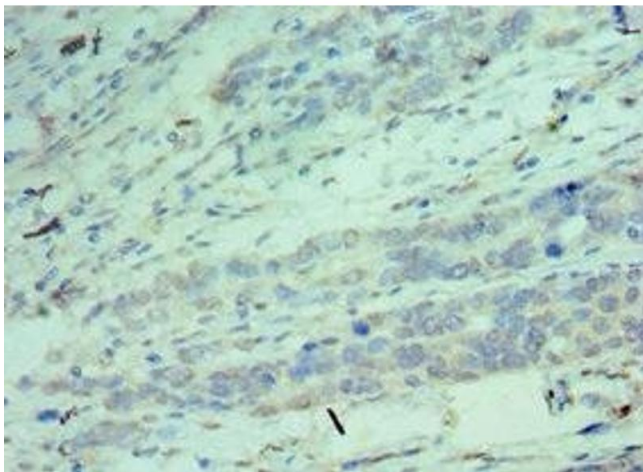
Format:	Liquid
Buffer:	PBS with 0.02 % sodium azide, 50 % glycerol, pH 7.3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Immunohistochemistry

Image 1. Immunohistochemistry of paraffin-embedded human colon cancer using ABIN7148906 at dilution of 1:100



Immunohistochemistry

Image 2. Immunohistochemistry of paraffin-embedded human endometrial cancer using ABIN7148906 at dilution of 1:100