

CDK9 Antibody FITC Conjugated

Catalog No: #C02853F

Package Size: #C02853F 100ul

Description

Product Name	CDK9 Antibody FITC Conjugated
Host Species	Rabbit
Clonality	Polyclonal
Isotype	IgG
Purification	Purified by Protein A.
Applications	IF
Species Reactivity	Hu Ms Rt
Immunogen Description	KLH conjugated synthetic peptide aa 250-300 372 derived from human CDK9
Conjugates	FITC
Target Name	CDK9
Other Names	TAK; C-2k; CTK1; CDC2L4; PITALRE; Cyclin-dependent kinase 9; Cell division cycle 2-like protein kinase 4; Cell division protein kinase 9; Serine threonine-protein kinase PITALRE; Tat-associated kinase complex catalytic subunit; CDK9
Accession No.	Swiss-Prot#P50750NCBI Gene ID1025
Cell Localization	Cytoplasm, Nucleus
Concentration	1mg ml
Formulation	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Application Details

IF=1:50-200

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.

Note: This product is for in vitro research use only and is not intended for use in humans or animals.