



Cdk9 (phospho Thr186) Polyclonal Antibody

Catalog No	YP-Ab-16605
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;ELISA
Gene Name	CDK9
Immunogen	The antiserum was produced against synthesized peptide derived from human CDK9 around the phosphorylation site of Thr186. AA range:152-201
Specificity	Phospho-Cdk9 (T186) Polyclonal Antibody detects endogenous levels of Cdk9 protein only when phosphorylated at T186.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. ELISA: 1/5000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	C-2K;CDC2 related kinase;CDC2L4;Cdk 9;Cdk9;CDK9_HUMAN;Cell division cycle 2-like protein kinase 4;Cell division protein kinase 9;CTK1;Cyclin dependent kinase 9;Cyclin-dependent kinase 9;PITALRE;Serine/threonine-protein kinase PITALRE;TAK;Tat associated kinase complex catalytic subunit; Tat-associated kinase complex catalytic subunit
Observed Band	42kD
Calculated Molecular Weight	42kD
Cell Pathway	Nucleus. Cytoplasm. Nucleus, PML body. 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 Specificity	Ubiquitous.
Function	catalytic activity:ATP + [DNA-directed RNA polymerase] = ADP + [DNA-directed RNA polymerase] phosphate.,catalytic activity:ATP + a protein = ADP + a phosphoprotein.,function: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.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Associates with CCNT1/cyclin-T1 to form P-TEFb. P-TEFb forms a complex with AFF4/AF5Q31. Also associates with CCNK/cyclin-K.

Background

cyclin dependent kinase 9(CDK9) Homo sapiens The protein encoded by this gene is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of *S. cerevisiae* cdc28, and *S. pombe* cdc2, and known as important cell cycle regulators. This kinase was found to be a component of the multiprotein complex TAK/P-TEFb, which is an elongation factor for RNA polymerase II-directed transcription and functions by phosphorylating the C-terminal domain of the largest subunit of RNA polymerase II. This protein forms a complex with and is regulated by its regulatory subunit cyclin T or cyclin K. HIV-1 Tat protein was found to interact with this protein and cyclin T, which suggested a possible involvement of this protein in AIDS. [provided by RefSeq, Jul 2008],

matters needing attention

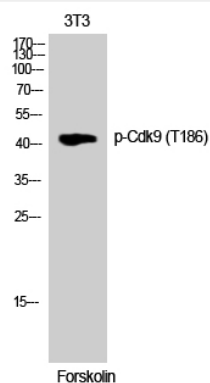
Avoid repeated freezing and thawing!

Usage suggestions

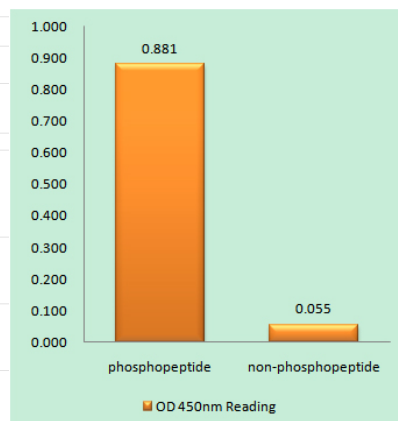
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



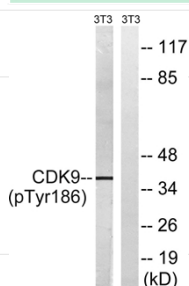
Products Images



Western Blot analysis of 3T3 cells using Phospho-Cdk9 (T186) Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Invent biotech, MN, USA).



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CDK9 (Phospho-Thr186) Antibody



Western blot analysis of lysates from NIH/3T3 cells treated with Forskolin 40nM 30', using CDK9 (Phospho-Thr186) Antibody. The lane on the right is blocked with the phospho peptide.