

CDK8 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7524a

Product Information

Application	WB, E
Primary Accession	P49336
Other Accession	Q8R3L8
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB3200
Calculated MW	53284
Antigen Region	1-30

Additional Information

Gene ID	1024
Other Names	Cyclin-dependent kinase 8, Cell division protein kinase 8, Mediator complex subunit CDK8, Mediator of RNA polymerase II transcription subunit CDK8, Protein kinase K35, CDK8
Target/Specificity	This CDK8 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human CDK8.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	CDK8 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CDK8
Function	Component of the Mediator complex, a coactivator involved in regulated

gene transcription of nearly all RNA polymerase II-dependent genes. Mediator functions as a bridge to convey information from gene-specific regulatory proteins to the basal RNA polymerase II transcription machinery. Mediator is recruited to promoters by direct interactions with regulatory proteins and serves as a scaffold for the assembly of a functional pre-initiation complex with RNA polymerase II and the general transcription factors. Phosphorylates the CTD (C-terminal domain) of the large subunit of RNA polymerase II (RNAP II), which may inhibit the formation of a transcription initiation complex. Phosphorylates CCNH leading to down-regulation of the TFIIH complex and transcriptional repression (PubMed:[10993082](#)). Recruited through interaction with MAML1 to hyperphosphorylate the intracellular domain of NOTCH, leading to its degradation (PubMed:[15546612](#)). Selectively regulates the interferon response by phosphorylating the transcription factor STAT1 transactivation domain (By similarity).

Cellular Location

Nucleus.

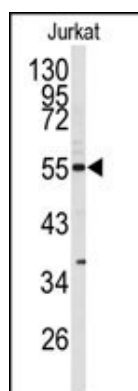
Background

CDK8 is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of *Saccharomyces cerevisiae* cdc28, and *Schizosaccharomyces pombe* cdc2, and are known to be important regulators of cell cycle progression. This kinase and its regulatory subunit cyclin C are components of the RNA polymerase II holoenzyme complex, which phosphorylates the carboxy-terminal domain (CTD) of the largest subunit of RNA polymerase II. This kinase has also been shown to regulate transcription by targeting the CDK7/cyclin H subunits of the general transcription initiation factor IIH (TFIIH), thus providing a link between the 'Mediator-like' protein complexes and the basal transcription machinery.

References

- Akoulitchev, S., et al., Nature 407(6800):102-106 (2000).
Di Pietro, C., et al., Somat. Cell Mol. Genet. 25(3):185-189 (1999).
Rickert, P., et al., Oncogene 18(4):1093-1102 (1999).
Tassan, J.P., et al., Proc. Natl. Acad. Sci. U.S.A. 92(19):8871-8875 (1995).
Schultz, S.J., et al., Cell Growth Differ. 4(10):821-830 (1993).

Images



Western blot analysis of CDK8 antibody (N-term) (Cat.# AP7524a) in Jurkat cell line lysates (35ug/lane). CDK8 (arrow) was detected using the purified Pab.

Citations

- [Downregulation of cyclin-dependent kinase 8 by microRNA-148a suppresses proliferation and invasiveness of papillary thyroid carcinomas.](#)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.