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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.

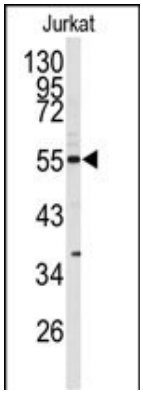
Background

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'.