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CDK8 Antibody (N-term) Blocking Peptide

Synthetic peptide

Catalog # BP7524a

Specification

CDK8 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P49336

CDK8 Antibody (N-term) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP7524a was selected from the N-term region of human CDK8 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CDK8 Antibody (N-term) Blocking Peptide - Protein Information

CDK8 Antibody (N-term) Blocking Peptide - 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.

CDK8 Antibody (N-term) Blocking Peptide - 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).

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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. Recruited through interaction with MAML1 to hyperphosphorylate the intracellular domain of NOTCH, leading to its degradation.

Cellular Location
Nucleus.

CDK8 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides