
Product Name: Cdk7 Rabbit Polyclonal Antibody**Catalog #: APRab08571**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight	39kDa

Antigen Information

Gene Name	CDK7 CDK7; CAK; CAK1; CDKN7; MO15; STK1; Cyclin-dependent kinase 7; 39 kDa protein kinase;
Alternative Names	p39 Mo15; CDK-activating kinase 1; Cell division protein kinase 7; Serine/threonine-protein kinase 1; TFIIF basal transcription factor complex kinase subu
Gene ID	1022.0
SwissProt ID	P50613
Immunogen	The antiserum was produced against synthesized peptide derived from human CDK7. AA range:291-340

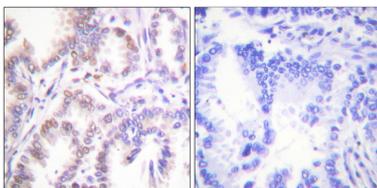
Background

cyclin dependent kinase 7(CDK7) 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 *Saccharomyces cerevisiae* cdc28, and *Schizosaccharomyces pombe* cdc2, and are known to be important regulators of cell cycle progression. This protein forms a trimeric complex with cyclin H and MAT1, which functions as a Cdk-activating kinase (CAK). It is an essential component of the transcription factor TFIID, that is involved in transcription initiation and DNA repair. This protein is thought to serve as a direct link between the regulation of transcription and the cell cycle. [provided by RefSeq, Jul 2008],catalytic activity:ATP + [DNA-directed RNA polymerase] = ADP + [DNA-directed RNA polymerase] phosphate.,catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme regulation:Inactivated by phosphorylation.,function:Cyclin-dependent kinases (CDKs) are activated by the binding to a cyclin and mediate the progression through the cell cycle. Each different complex controls a specific transition between two subsequent phases in the cell cycle. CDK7 is the catalytic subunit of the CDK-activating kinase (CAK) complex, a serine-threonine kinase. CAK activates the cyclin-associated kinases CDC2/CDK1, CDK2, CDK4 and CDK6 by threonine phosphorylation. CAK complexed to the core-TFIID basal transcription factor activates RNA polymerase II by serine phosphorylation of the repetitive C-terminus domain (CTD) of its large subunit (POLR2A), allowing its escape from the promoter and elongation of the transcripts. Involved in cell cycle control and in RNA transcription by RNA polymerase II. Its expression and activity are constant throughout the cell cycle.,PTM:Phosphorylation of Ser-164 during mitosis inactivates the enzyme.,PTM:Phosphorylation of Thr-170 is required for activity.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Associates primarily with cyclin H and MAT1 to form the CAK complex. CAK can further associate with the core-TFIID to form the TFIID basal transcription factor. Interacts with PUF60.,tissue specificity:Ubiquitous.,

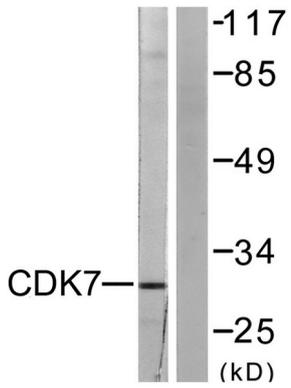
Research Area

Nucleotide excision repair;Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;

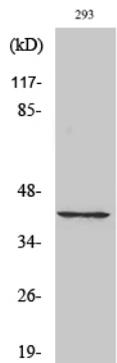
Image Data



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma tissue, using CDK7 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from 293 cells, using CDK7 Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using Cdk7 Polyclonal Antibody