

Cdk7 (phospho Thr170) Polyclonal Antibody

Catalog No :	YP0731
Reactivity :	Human;Mouse
Applications :	WB;IHC;IF;ELISA
Target :	Cdk7
Fields :	>>Basal transcription factors;>>Nucleotide excision repair;>>Cell cycle
Gene Name :	CDK7
Protein Name :	Cyclin-dependent kinase 7
Human Gene Id :	1022
Human Swiss Prot No :	P50613
Mouse Gene Id :	12572
Mouse Swiss Prot No :	Q03147
Immunogen :	The antiserum was produced against synthesized peptide derived from human CDK7 around the phosphorylation site of Thr170. AA range:136-185
Specificity :	Phospho-Cdk7 (T170) Polyclonal Antibody detects endogenous levels of Cdk7 protein only when phosphorylated at T170.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:20000.. IF 1:50-200
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 40kD

Cell Pathway : Nucleotide excision repair;Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;

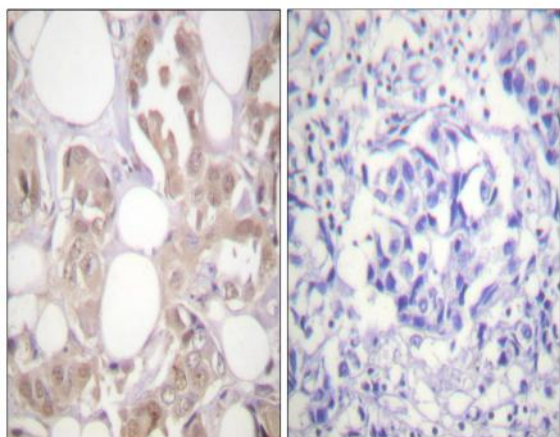
Background : cyclin dependent kinase 7(CDK7) Homo sapiens The protein encoded by this gene is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of *Saccharomyces cerevisiae* cdc28, and *Schizosaccharomyces pombe* cdc2, and are known 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 TFIIH, 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],

Function : 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-TFIIH 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

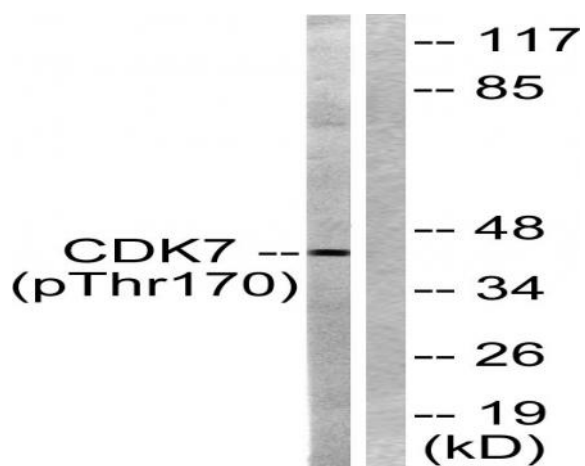
Subcellular Location : Nucleus . Cytoplasm . Cytoplasm, perinuclear region . Colocalizes with PRKCI in the cytoplasm and nucleus (PubMed:15695176). Translocates from the nucleus to cytoplasm and perinuclear region in response to DNA-bound peptides (PubMed:19071173). .

Expression : Ubiquitous.

Products Images



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using CDK7 (Phospho-Thr170) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from HeLa cells treated with Calyculin A 50nM 30', using CDK7 (Phospho-Thr170) Antibody. The lane on the right is blocked with the phospho peptide.