

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;

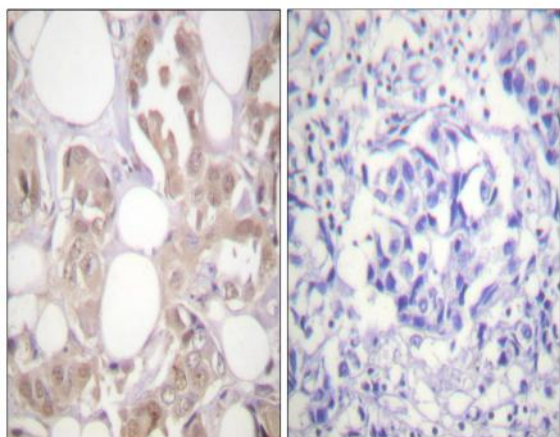
Background : cyclin dependent kinase 7(CDK7) Homo sapiens The protein encoded by this gene is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of Saccharomyces cerevisiae cdc28, and Schizosaccharomyces pombe cdc2, and are known to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

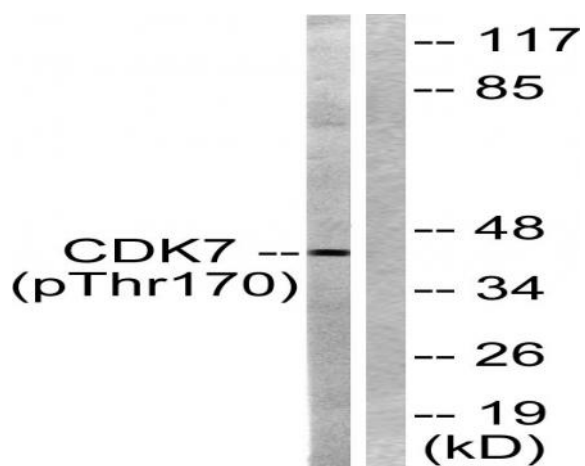
Subcellular Location : Nucleus . Cytoplasm . Cytoplasm, perinuclear region . Colocalizes with PRKCI in the cytoplasm and nucleus (PubMed:15695176). Translocates from the nucleus to cytoplasm and perinuclear region in response to DNA-bound peptides (PubMed:19071173). .

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.