



Cdk7 (phospho Thr170) Polyclonal Antibody

Catalog No	YP-Ab-16621
Isotype	IgG
Reactivity	Human;Mouse
Applications	WB;IHC;IF;ELISA
Gene Name	CDK7
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
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/20000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	39 kDa protein kinase;CAK;CAK1;Cdk activating kinase;CDK-activating kinase 1; CDK-activating kinase;cdk7;CDK7_HUMAN;CDKN7;Cell division protein kinase 7;Cyclin dependent kinase 7;cyclin-dependent kinase 7 (MO15 homolog; Xenopus laevis;cdk-activating kinase);Cyclin-dependent kinase 7;HCAK; Homolog of Xenopus MO15 Cdk activating kinase;Kinase subunit of CAK;MO15; Xenopus;homolog of;P39 Mo15;p39MO15;Serine threonine kinase Stk1;Serine/thre;STK1;Serine/threonine-protein kinase 1;TFIIH basal transcription factor complex kinase subu
Observed Band	40kD
Calculated Molecular Weight	40kD
Cell Pathway	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). .
Tissue Specificity	Ubiquitous.



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-TFIIF 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

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 TFIIF, 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],

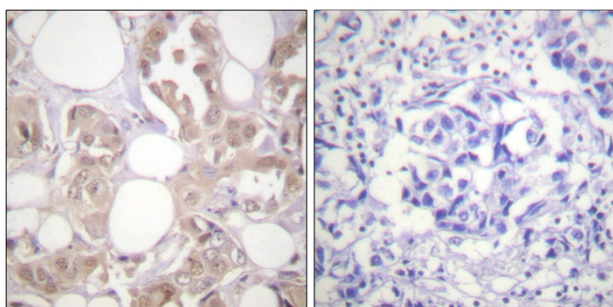
matters needing attention

Avoid repeated freezing and thawing!

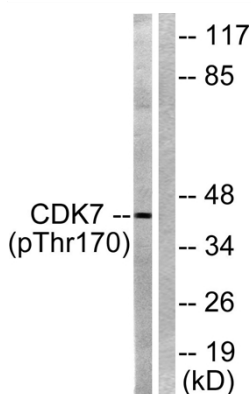
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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.