

## Cdk7 Polyclonal Antibody

|                              |   |
|------------------------------|---|
| <b>Catalog No :</b>          | YT0838  |
| <b>Reactivity :</b>          | Human;Mouse   |
| <b>Applications :</b>        | WB;IHC;IF;ELISA   |
| <b>Target :</b>              | Cdk7  |
| <b>Fields :</b>              | >>Basal transcription factors;>>Nucleotide excision repair;>>Cell cycle   |
| <b>Gene Name :</b>           | CDK7  |
| <b>Protein Name :</b>        | Cyclin-dependent kinase 7   |
| <b>Human Gene Id :</b>       | 1022  |
| <b>Human Swiss Prot No :</b> | P50613  |
| <b>Mouse Gene Id :</b>       | 12572   |
| <b>Mouse Swiss Prot No :</b> | Q03147  |
| <b>Immunogen :</b>           | The antiserum was produced against synthesized peptide derived from human CDK7. AA range:291-340                      |
| <b>Specificity :</b>         | Cdk7 Polyclonal Antibody detects endogenous levels of Cdk7 protein.   |
| <b>Formulation :</b>         | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.   |
| <b>Source :</b>              | Polyclonal, Rabbit,IgG  |
| <b>Dilution :</b>            | WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:20000.. IF 1:50-200  |
| <b>Purification :</b>        | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| <b>Concentration :</b>       | 1 mg/ml   |

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

**Observed Band :** 39kD

**Cell Pathway :** Nucleotide excision repair;Cell\_Cycle\_G1S;Cell\_Cycle\_G2M\_DNA;

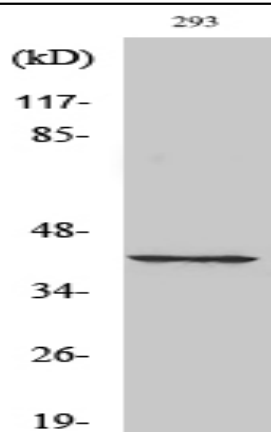
**Background :** cyclin dependent kinase 7(CDK7) Homo sapiens The protein encoded by this gene is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of Saccharomyces cerevisiae cdc28, and Schizosaccharomyces pombe cdc2, and are known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

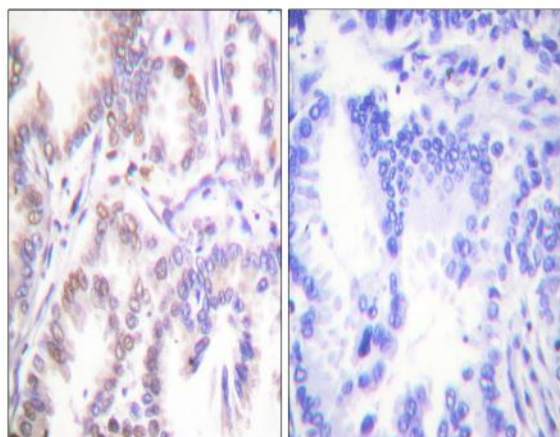
**Subcellular Location :** Nucleus . Cytoplasm . Cytoplasm, perinuclear region . Colocalizes with PRKCI in the cytoplasm and nucleus (PubMed:15695176). Translocates from the nucleus to cytoplasm and perinuclear region in response to DNA-bound peptides (PubMed:19071173). .

**Expression :** Ubiquitous.

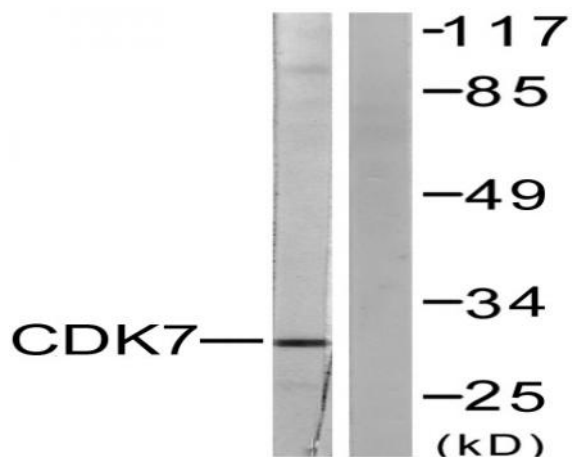
## Products Images



Western Blot analysis of various cells using Cdk7 Polyclonal Antibody



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.