

CDK7 (Phospho Thr170) Rabbit pAb

CatalogNo: YP0731 **Orthogonal Validated** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse

Applications

- WB, IHC, IF, ELISA

MW

- 40kD (Observed)

Isotype

- IgG

Storage

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

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000

IHC 1:100-1:300

ELISA 1:20000

IF 1:50-200

Basic Information

Clonality Polyclonal

Immunogen Information

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. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):AYTHQ

| Target Information

Gene name CDK7

Protein Name Cyclin-dependent kinase 7

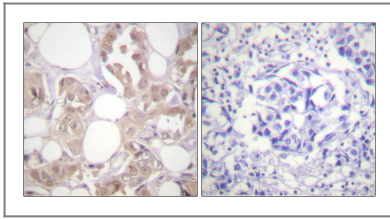
Organism	Gene ID	UniProt ID
Human	1022;	P50613;
Mouse	12572;	Q03147;

Cellular Localization 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) . .

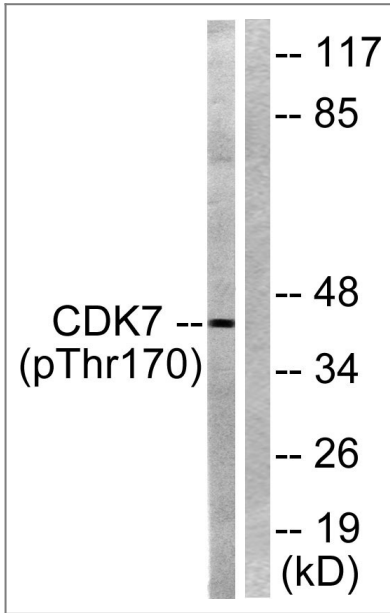
Tissue specificity Ubiquitous.

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 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-TFIIF to form the TFIIF basal transcription factor. Interacts with PUF60. ,tissue specificity:Ubiquitous. ,

| Validation Data



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.

Contact information

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Please scan the QR code to access additional product information:
CDK7 (Phospho-Thr170) Rabbit pAb

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