

CDK7 (PT1841R) PT™ Rabbit mAb

CatalogNo: YM960084 **Recombinant** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, IP, ELISA

MW

- 39kD (Calculated)
- 43kD (Observed)

Isotype

- IgG, Kappa

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)**Formulation** PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

Recommended Dilution Ratios

IHC 1:200-1:1000**WB 1:2000-1:10000****IF 1:200-1:1000****ELISA 1:5000-1:20000****IP 1:50-1:200**

Basic Information

Clonality Monoclonal**Clone Number** PT1841R

Immunogen Information

Specificity Endogenous

Target Information

Gene name CDK7

Protein Name Cyclin-dependent kinase 7

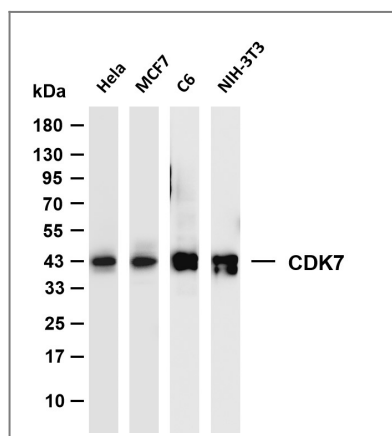
| Organism | Gene ID | UniProt ID |
|----------|-------------------------|--------------------------|
| Human | 1022 ; | P50613 ; |
| Mouse | 12169 ; | P97504 ; |

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

Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-CDK7 (PT1841R) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: HeLa Lane 2: MCF7 Lane 3: C6 Lane 4: NIH-3T3 Predicted band size: 39kDa Observed band size: 43kDa

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