

## Cdc2 (Phospho Thr161) Rabbit pAb

CatalogNo: YP0053 **Orthogonal Validated** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 34kD (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 1:5000**

**IF 1:50-200**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** The antiserum was produced against synthesized peptide derived from human CDC2 around the phosphorylation site of Thr161. AA range:131-180

## Specificity

Phospho-Cdc2 (T161) Polyclonal Antibody detects endogenous levels of Cdc2 protein only when phosphorylated at T161. 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 When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports.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):TYtHE

## Target Information

**Gene name** CDK1

**Protein Name** Cyclin-dependent kinase 1

Organism	Gene ID	UniProt ID
Human	<a href="#">983</a> ;	<a href="#">P06493</a> ;
Mouse	<a href="#">12534</a> ;	<a href="#">P11440</a> ;
Rat	<a href="#">54237</a> ;	<a href="#">P39951</a> ;

### Cellular Localization

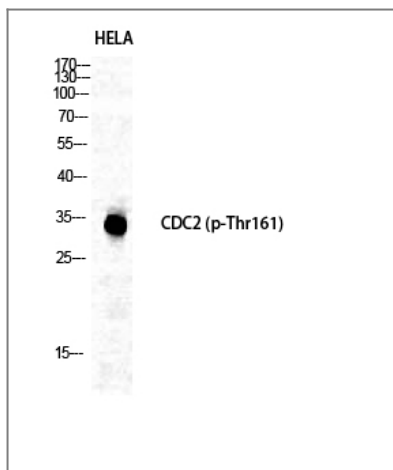
Nucleus. Cytoplasm. Mitochondrion . Cytoplasm , cytoskeleton , microtubule organizing center , centrosome . Cytoplasm , cytoskeleton , spindle. Cytoplasmic during the interphase. Colocalizes with SIRT2 on centrosome during prophase and on spindle fibers during metaphase of the mitotic cell cycle. Reversibly translocated from cytoplasm to nucleus when phosphorylated before G2-M transition when associated with cyclin-B1. Accumulates in mitochondria in G2-arrested cells upon DNA-damage.

**Tissue specificity** Isoform 2 is found in breast cancer tissues.

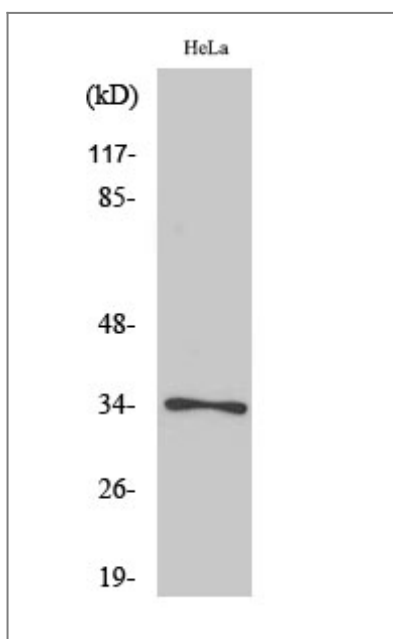
### Function

Catalytic activity:ATP + [DNA-directed RNA polymerase] = ADP + [DNA-directed RNA polymerase] phosphate. ,Catalytic activity:ATP + a protein = ADP + a phosphoprotein. ,enzyme regulation:Phosphorylation at Thr-14 or Tyr-15 inactivates the enzyme , while phosphorylation at Thr-161 activates it. ,Function:Plays a key role in the control of the eukaryotic cell cycle. It is required in higher cells for entry into S-phase and mitosis. p34 is a component of the kinase complex that phosphorylates the repetitive C-terminus of RNA polymerase II. ,similarity:Belongs to the protein kinase superfamily. ,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily. ,similarity:Contains 1 protein kinase domain. ,subunit:Forms a stable but non-covalent complex with a regulatory subunit and with a cyclin. Interacts with DLGAP5. Isoform 2 is unable to complex with cyclin B1 and also fails to bind to the CDK inhibitor p21. Interacts with catalytically active CCNB1 and RALBP1 during mitosis to form an endocytotic complex during interphase. ,

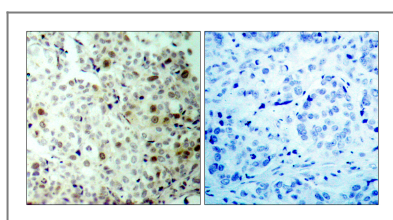
## Validation Data



Western Blot analysis of various cells using Phospho-Cdc2 (T161) Polyclonal Antibody diluted at 1:1000



Western Blot analysis of HeLa cells using Phospho-Cdc2 (T161) Polyclonal Antibody diluted at 1:1000



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using CDC2 (Phospho-Thr161) Antibody. The picture on the right is blocked with the phospho peptide.

## Contact information

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