

## Cdk1/Cdc2 (phospho Thr161) Polyclonal Antibody

Catalog No: YP1039

**Reactivity:** Human; Mouse; Rat

**Applications:** WB;IHC;IF;ELISA

Target: CDK1/CDC2

**Fields:** >>Cell cycle;>>Oocyte meiosis;>>p53 signaling pathway;>>Cellular

senescence;>>Gap junction;>>Progesterone-mediated oocyte

maturation;>>Human immunodeficiency virus 1 infection;>>Viral carcinogenesis

Gene Name: CDK1

Protein Name: Cyclin-dependent kinase 1

P06493

P11440

Human Gene Id: 983

**Human Swiss Prot** 

No:

Mouse Gene Id: 12534

**Mouse Swiss Prot** 

No:

Rat Gene ld: 54237

Rat Swiss Prot No: P39951

Immunogen: The antiserum was produced against synthesized peptide derived from human

CDK1/CDC2 around the phosphorylation site of Thr161. AA range:126-175

Specificity: Phospho-Cdk1/Cdc2 (T161) Polyclonal Antibody detects endogenous levels of

Cdk1/Cdc2 protein only when phosphorylated at T161.

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

Source: Polyclonal, Rabbit, IgG

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**Dilution:** WB 1:500-2000 IHC 1:100 - 1:300. ELISA: 1:5000. IF 1:50-200

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

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

Molecularweight: 34kD

Cell Pathway: Cell\_Cycle\_G1S;Cell\_Cycle\_G2M\_DNA;Oocyte meiosis;p53;Gap

junction; Progesterone-mediated oocyte maturation;

**Background:** cyclin dependent kinase 1(CDK1) Homo sapiens The protein encoded by this

gene is a member of the Ser/Thr protein kinase family. This protein is a catalytic subunit of the highly conserved protein kinase complex known as M-phase promoting factor (MPF), which is essential for G1/S and G2/M phase transitions of eukaryotic cell cycle. Mitotic cyclins stably associate with this protein and function as regulatory subunits. The kinase activity of this protein is controlled by cyclin accumulation and destruction through the cell cycle. The phosphorylation and dephosphorylation of this protein also play important regulatory roles in cell cycle control. Alternatively spliced transcript variants encoding different isoforms

have been found for this gene. [provided by RefSeq, Mar 2009],

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 c

Subcellular

Nucleus. Cytoplasm. Mitochondrion . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Cytoplasm, cytoskeleton, spindle. Cytoplasm

organizing center, centrosome . Cytoplasm, cytoskeleton, spindle. Cytoplasmic during the interphase. Colocalizes with SIRT2 on centrosome during prophase and on splindle 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

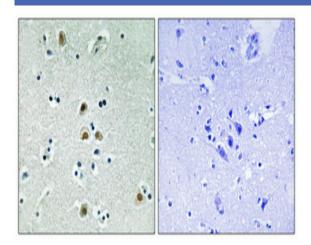
G2-arrested cells upon DNA-damage.

**Expression:** Isoform 2 is found in breast cancer tissues.

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## **Products Images**



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.