

CDC2/CDK1 mouse mAb

Catalog No: YM1292

Reactivity: Human

Applications: WB;ICC

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

Human Gene Id: 983

Human Swiss Prot

No:

Mouse Swiss Prot

No:

Immunogen: Purified recombinant human CDC2/CDK1 protein fragments expressed in E.coli.

Specificity: This antibody detects endogenous levels of CDC2/CDK1 and does not cross-

react with related proteins.

P06493

P11440

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

Source: Monoclonal, Mouse

Dilution: wb 1:100 icc 1:50

Purification: The antibody was affinity-purified from mouse ascites 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)

1/3



Observed Band: 34kD

Cell Cycle G1S;Cell Cycle G2M DNA;Oocyte meiosis;p53;Gap **Cell Pathway:**

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

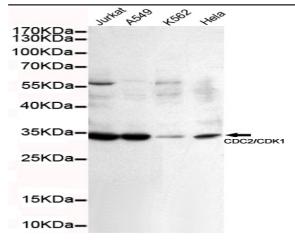
Subcellular Nucleus. Cytoplasm. Mitochondrion. Cytoplasm, cytoskeleton, microtubule Location:

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

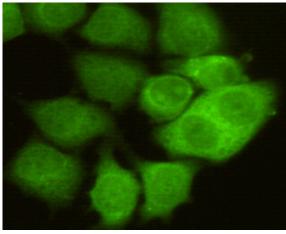
G2-arrested cells upon DNA-damage.

Expression: Isoform 2 is found in breast cancer tissues.

Products Images



Western blot detection of CDC2/CDK1 in K562,A549,Jurkat and Hela cell lysates using CDC2/CDK1 mouse mAb (1:100 diluted).Predicted band size: 34KDa.Observed band size: 34KDa.



Immunocytochemistry of HeLa cells using anti-CDC2/CDK1 mouse mAb diluted 1:50.