

Rabbit Anti-Cdk6 antibody

SLM-52030R

Product Name	Cdk6
Chinese Name	周期素依赖性激酶 6Recombinant rabbit monoclonal anti
Alias	CDK 6; Cell division protein kinase 6; Crk 2; Crk2; Cyclin dependent kinase 6; Cyclin-dependent kinase 6; MGC59692; p40; PLSTIRE; Serine/threonine-protein kinase PLSTIRE; STQTL11; CDK6_HUMAN; PLSTIRE; Serine/threonine protein kinase PLSTIRE.
Research Area	Tumour Cell biology Chromatin and nuclear signals Cyclin Kinases and Phosphatases
Immunogen Species	Rabbit
Clonality	Monoclonal
Clone NO.	4F7
React Species	Human
Applications	WB=1:500-2000,ICC/IF=1:50-200,Flow-Cyt=1:50-200 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	37kDa
Cellular localization	The nucleus cytoplasmic
Form	Liquid
Concentration	1mg/ml
immunogen	Recombinant human Cdk6 protein, full length
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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The protein encoded by this gene is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of *Saccharomyces cerevisiae* cdc28, and *Schizosaccharomyces pombe* cdc2, and are known to be important regulators of cell cycle progression. This kinase is a catalytic subunit of the protein kinase complex that is important for cell cycle G1 phase progression and G1/S transition. The activity of this kinase first appears in mid-G1 phase, which is controlled by the regulatory subunits including D-type cyclins and members of INK4 family of CDK inhibitors. This kinase, as well as CDK4, has been shown to phosphorylate, and thus regulate the activity of, tumor suppressor protein Rb.

Function:

Serine/threonine-protein kinase involved in the control of the cell cycle and differentiation; promotes G1/S transition. Phosphorylates pRB/RB1 and NPM1. Interacts with D-type G1 cyclins during interphase at G1 to form a pRB/RB1 kinase and controls the entrance into the cell cycle. Involved in initiation and maintenance of cell cycle exit during cell differentiation; prevents cell proliferation and regulates negatively cell differentiation, but is required for the proliferation of specific cell types (e.g. erythroid and hematopoietic cells). Essential for cell proliferation within the dentate gyrus of the hippocampus and the subventricular zone of the lateral ventricles.

Product Detail

Required during thymocyte development. Promotes the production of newborn neurons, probably by modulating G1 length. Promotes, at least in astrocytes, changes in patterns of gene expression, changes in the actin cytoskeleton including loss of stress fibers, and enhanced motility during cell differentiation. Prevents myeloid differentiation by interfering with RUNX1 and reducing its transcription transactivation activity, but promotes proliferation of normal myeloid progenitors. Delays senescence. Promotes the proliferation of beta-cells in pancreatic islets of Langerhans.

Subunit:

Interaction with D-type G1 cyclins. Cyclin binding promotes enzyme activation by phosphorylation at Thr-177. Binds to RUNX1, CDKN2D, FBXO7 and CDKN2C/p18-INK4c. Forms a cytoplasmic complex with Hsp90/HSP90AB1 and CDC37. FBXO7-binding promotes D-type cyclin binding. Interacts with Kaposi's sarcoma herpesvirus (KSHV) V-cyclin and herpesvirus saimiri (V-cyclin/ECLF2); the CDK6/V-cyclin complex phosphorylates NPM1 and thus lead to viral reactivation by reducing viral LANA levels.

Subcellular Location:

Cytoplasm. Nucleus. Cell projection, ruffle. Note=Localized to the ruffling edge of spreading fibroblasts. Kinase activity only in nucleus.

Tissue Specificity:

Expressed ubiquitously. Accumulates in squamous cell carcinomas, proliferating hematopoietic progenitor cells, beta-cells of pancreatic islets of Langerhans, and neuroblastomas. Reduced levels in differentiating cells.

Post-translational modifications:

Thr-177 phosphorylation and Tyr-24 dephosphorylation promotes kinase activity.

Similarity:

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.
Contains 1 protein kinase domain.

SWISS:

Q00534

Gene ID:

1021

Database links:

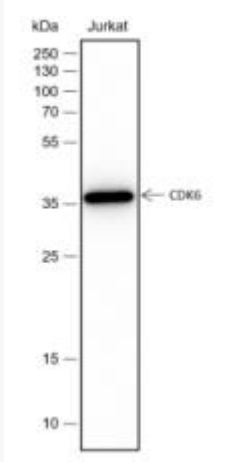
[Entrez Gene: 1021](#) Human

[Entrez Gene: 12571](#) Mouse

[Entrez Gene: 114483](#) Rat

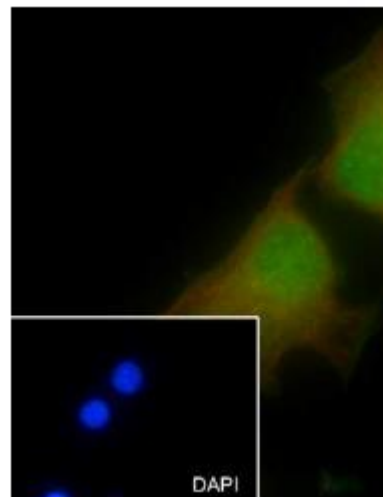
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[SwissProt: Q64261](#) Mouse



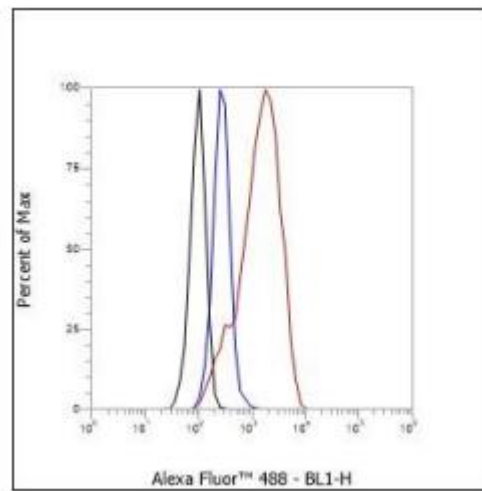
Blocking buffer: 5% NFDM/TBST Primary Ab dilution: 1:2000 Primary Ab incubation condition: 2 hours at room temperature Secondary Ab: Goat Anti-Rabbit IgG H&L (HRP) Lysate: Jurkat Protein loading quantity: 20 μ g Exposure time: 60 s Predicted MW: 37 kDa Observed MW: 37 kDa

Product Picture



Cell line: HeLa Fixative: 100% Ice-cold methanol Permeabilization: 0.1% TritonX-100 Primary Ab dilution: 1:50 Primary incubation condition: 4°C

overnight Secondary Ab: Goat Anti-Rabbit IgG Nuclear counter stain:
DAPI (Blue) Counter stain: Tubulin (Red) Comment: Color green is the
positive signal for SLM-52030R



Cell line: HeLa Fixation: 4% Paraformaldehyde Permeabilization: 90%
Methanol Primary Ab dilution: 1:50 Secondary Ab: Goat Anti-Rabbit IgG
Unlabelled control: The cell without incubation with primary antibody and
secondary antibody (Black line). Isotype control: Rabbit monoclonal IgG
(Blue line). Comment: Line red is the positive signal for SLM-52030R