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CDK6 Antibody (Center R215) Blocking Peptide

Synthetic peptide
Catalog # BP7522c

Specification

CDK6 Antibody (Center R215) Blocking Peptide - Product Information

Primary Accession Q00534

CDK6 Antibody (Center R215) Blocking Peptide - Additional Information

Gene ID 1021

Other Names
Cyclin-dependent kinase 6, Cell division protein kinase 6, Serine/threonine-protein kinase PLSTIRE, CDK6, CDKN6

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7522c was selected from the Center region of human CDK6. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CDK6 Antibody (Center R215) Blocking Peptide - Protein Information

Name CDK6

Synonyms CDKN6

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 negatively regulates 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. 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. May play a role in the centrosome organization during the cell cycle phases (PubMed:23918663).

Cellular Location
Cytoplasm. Nucleus. Cell projection, ruffle. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=Localized to the ruffling edge of spreading fibroblasts. Kinase activity only in nucleus. Localized to the cytosol of neurons and showed prominent staining around either side of the nucleus (By similarity). Present in the cytosol and in the nucleus in interphase cells and at the centrosome during mitosis from prophase to telophase (PubMed:23918663). {ECO:0000250|UniProtKB:Q64261, ECO:0000269|PubMed:23918663}

Tissue Location
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.

CDK6 Antibody (Center R215) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

CDK6 Antibody (Center R215) Blocking Peptide - Images

CDK6 Antibody (Center R215) Blocking Peptide - Background

CDK6 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.

CDK6 Antibody (Center R215) Blocking Peptide - References

Chen, Q., et al., Oncogene 22(7):992-1001 (2003).Morris, M., et al., Oncogene 21(27):4277-4288 (2002).Brito-Babapulle, V., et al., Haematologica 87(4):357-362 (2002).Schulze-Gahmen, U., et al., Nat. Struct. Biol. 9(3):177-181 (2002).Kaldis, P., et al., Mol. Biol. Cell 12(12):3987-3999 (2001).