

**CDKN1A Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP13650b****Specification**

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**CDKN1A Antibody (C-term) Blocking peptide - Product Information**Primary Accession [P38936](#)**CDKN1A Antibody (C-term) Blocking peptide - Additional Information**

Gene ID 1026

**Other Names**

Cyclin-dependent kinase inhibitor 1, CDK-interacting protein 1, Melanoma differentiation-associated protein 6, MDA-6, p21, CDKN1A, CAP20, CDKN1, CIP1, MDA6, PIC1, SDI1, WAF1

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody AP13650b was selected from the C-term region of CDKN1A. 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.

**CDKN1A Antibody (C-term) Blocking peptide - Protein Information**Name CDKN1A ([HGNC:1784](#))**Function**

Plays an important role in controlling cell cycle progression and DNA damage-induced G2 arrest (PubMed:<a href="http://www.uniprot.org/citations/9106657" target="\_blank">9106657</a>). Involved in p53/TP53 mediated inhibition of cellular proliferation in response to DNA damage. Also involved in p53-independent DNA damage-induced G2 arrest mediated by CREB3L1 in astrocytes and osteoblasts (By similarity). Binds to and inhibits cyclin-dependent kinase activity, preventing phosphorylation of critical cyclin-dependent kinase substrates and blocking cell cycle progression. Functions in the nuclear localization and assembly of cyclin D-CDK4 complex and promotes its kinase activity towards RB1. At higher stoichiometric ratios, inhibits the kinase activity of the cyclin D-CDK4 complex. Inhibits DNA synthesis by DNA polymerase delta by competing with POLD3 for PCNA binding (PubMed:<a href="http://www.uniprot.org/citations/11595739" target="\_blank">11595739</a>).

**Cellular Location**

Cytoplasm. Nucleus

**Tissue Location**

Expressed in all adult tissues, with 5-fold lower levels observed in the brain

**CDKN1A Antibody (C-term) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

**CDKN1A Antibody (C-term) Blocking peptide - Images****CDKN1A Antibody (C-term) Blocking peptide - Background**

This gene encodes a potent cyclin-dependent kinaseinhibitor. The encoded protein binds to and inhibits the activityof cyclin-CDK2 or -CDK4 complexes, and thus functions as aregulator of cell cycle progression at G1. The expression of thisgene is tightly controlled by the tumor suppressor protein p53,through which this protein mediates the p53-dependent cell cycle G1phase arrest in response to a variety of stress stimuli. Thisprotein can interact with proliferating cell nuclear antigen(PCNA), a DNA polymerase accessory factor, and plays a regulatoryrole in S phase DNA replication and DNA damage repair. This proteinwas reported to be specifically cleaved by CASP3-like caspases,which thus leads to a dramatic activation of CDK2, and may beinstrumental in the execution of apoptosis following caspaseactivation. Multiple alternatively spliced variants have been foundfor this gene.

**CDKN1A Antibody (C-term) Blocking peptide - References**

Hu, F., et al. Oncogene 29(40):5464-5474(2010)Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)Jiang, P., et al. Acta Biochim. Biophys. Sin. (Shanghai) 42(9):671-676(2010)Ho-Pun-Cheung, A., et al. Pharmacogenomics J. (2010) In press :Do Nascimento Borges, B., et al. In Vivo 24(4):579-582(2010)