

CDKN1A Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP13468b**Specification****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 AP13468b 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**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)

Synonyms CAP20, CDKN1, CIP1, MDA6, PIC1, SDI1, WA

Function

May be involved in p53/TP53 mediated inhibition of cellular proliferation in response to DNA damage. 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:11595739). Plays an important role in controlling cell cycle progression and DNA damage- induced G2 arrest (PubMed:9106657).

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](#)