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CDKN1A Blocking Peptide (C-term)

Synthetic peptide
Catalog # BP20643c

Specification

CDKN1A Blocking Peptide (C-term) - Product Information

Primary Accession P38936

CDKN1A Blocking Peptide (C-term) - 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 is selected from aa 133-144 of HUMAN CDKN1A

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 Blocking Peptide (C-term) - Protein Information

Name CDKN1A

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

Function

CDKN1A Blocking Peptide (C-term) - Background

May be the important intermediate by which p53/TP53 mediates its role as an inhibitor 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.

CDKN1A Blocking Peptide (C-term) - References

Harper J.W.,et al.Cell 75:805-816(1993).
El-Deiry W.S.,et al.Cell 75:817-825(1993).
Xiong Y.,et al.Nature 366:701-704(1993).
Jiang H.,et al.Mol. Cell. Differ. 1:285-299(1993).
Jiang H.,et al.Oncogene 10:1855-1864(1995).

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 Blocking Peptide (C-term) - Protocols

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

- Blocking Peptides