10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CDKN1A Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20797c

Product Information

Application	WB, E
Primary Accession	P38936
Reactivity	Human
Predicted	Mouse, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB43822
Calculated MW	18119

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	This CDKN1A antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 133-164 amino acids from the C-terminal region of human CDKN1A.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CDKN1A Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CDKN1A (HGNC:1784)
Function	Plays an important role in controlling cell cycle progression and DNA damage-induced G2 arrest (PubMed:9106657). 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:11595739). Negatively regulates the CDK4- and CDK6-driven phosphorylation of RB1 in keratinocytes, thereby resulting in the release of E2F1 and subsequent transcription of E2F1-driven G1/S phase promoting genes (By similarity).
Cellular Location	Cytoplasm. Nucleus
Tissue Location	Expressed in all adult tissues, with 5-fold lower levels observed in the brain

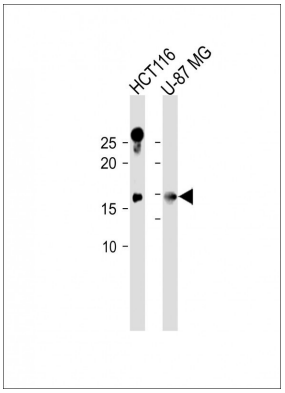
Background

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.

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).

Images



All lanes: Anti-CDKN1A Antibody (C-term) at 1:1000 dilution Lane 1: HCT116 whole cell lysate Lane 2: U-87 MG whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 18 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.