

# p21 (phospho Thr145) Polyclonal Antibody

Catalog # AP67132

## Product Information

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Application	WB, IHC-P
Primary Accession	<a href="#">P38936</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	18119

## Additional Information

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Gene ID	1026
Other Names	CDKN1A; CAP20; CDKN1; CIP1; MDA6; PIC1; SDI1; WAF1; Cyclin-dependent kinase inhibitor 1; CDK-interacting protein 1; Melanoma differentiation-associated protein 6; MDA-6; p21
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications. IHC-P~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

## Protein Information

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Name	CDKN1A ( <a href="#">HGNC:1784</a> )
Function	Plays an important role in controlling cell cycle progression and DNA damage-induced G2 arrest (PubMed: <a href="#">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="#">11595739</a> ). 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**

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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](#)).

**Images**

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Western Blot analysis of various cells using Phospho-p21 (T145) Polyclonal Antibody

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