

# p21 (phospho Thr145) Polyclonal Antibody

Catalog # AP67132

#### **Product Information**

**Application** WB, IHC-P **Primary Accession** P38936

Reactivity Human, Mouse, Rat

HostRabbitClonalityPolyclonalCalculated MW18119

#### **Additional Information**

**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**

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).

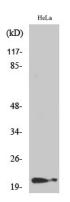
Cellular Location Cytoplasm. Nucleus

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

## **Background**

May be 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**



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'.