

**p21 Polyclonal Antibody**  
**Catalog # AP71680****Specification**

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**p21 Polyclonal Antibody - Product Information**

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

**p21 Polyclonal Antibody - 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~~IF: 1:50-200 Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.

IHC-P~~N/A

IF~~IF: 1:50-200 Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**p21 Polyclonal Antibody - Protein Information****Name** CDKN1A ([HGNC:1784](#))**Function**

Plays an important role in controlling cell cycle progression and DNA damage-induced G2 arrest (PubMed:<<http://www.uniprot.org/citations/9106657>>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:<<http://www.uniprot.org/citations/11595739>>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

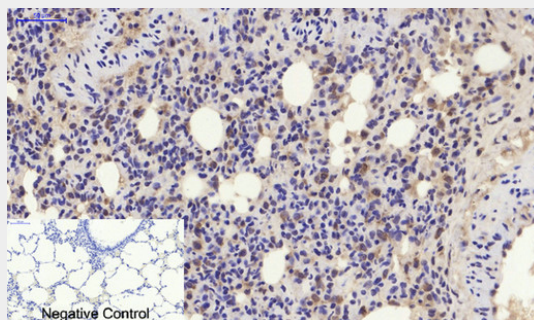
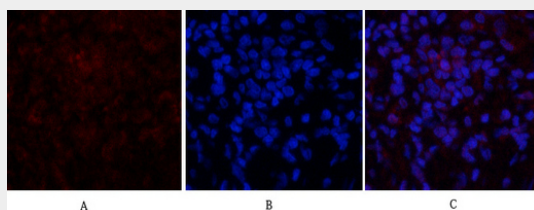
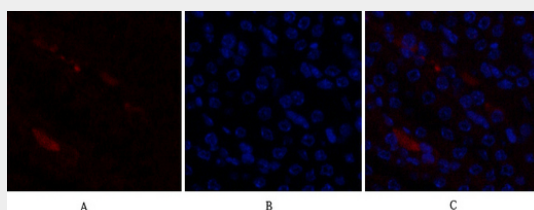
**Tissue Location**

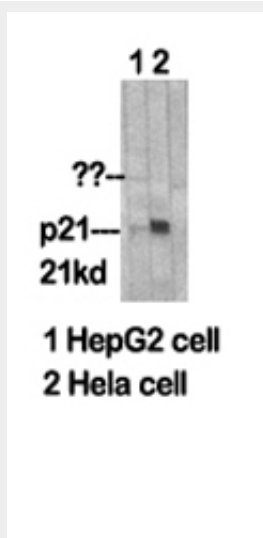
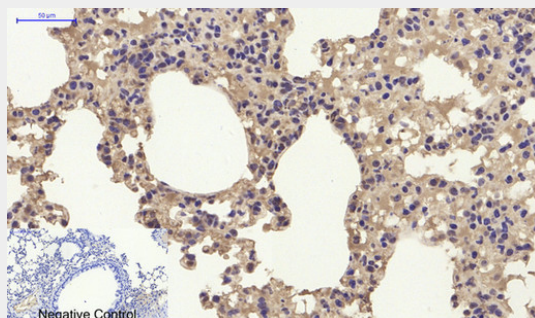
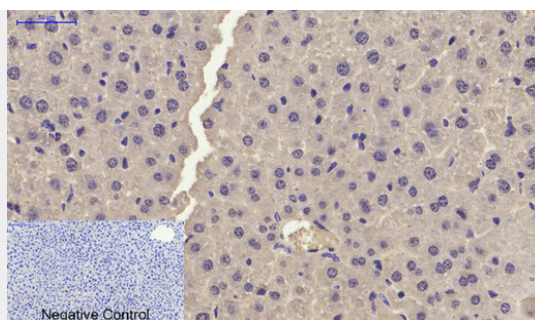
Expressed in all adult tissues, with 5-fold lower levels observed in the brain

**p21 Polyclonal Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**p21 Polyclonal Antibody - Images**



COLO205

(kD)

117-

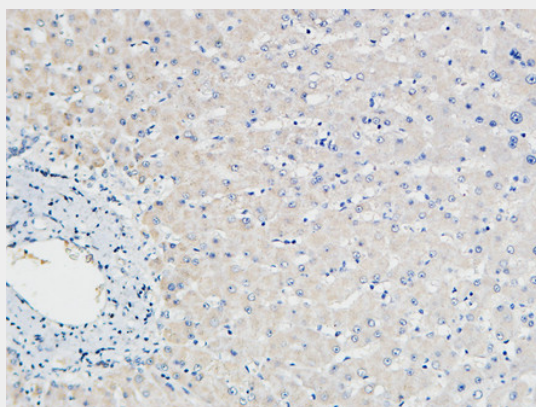
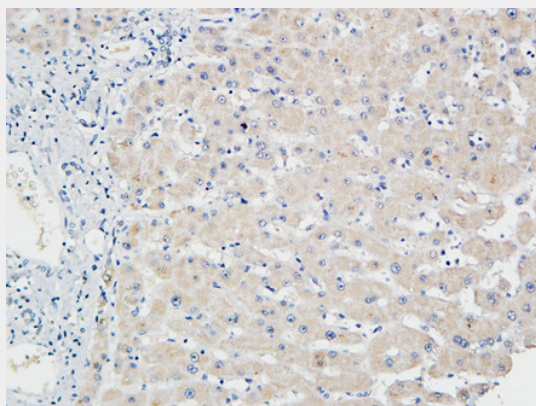

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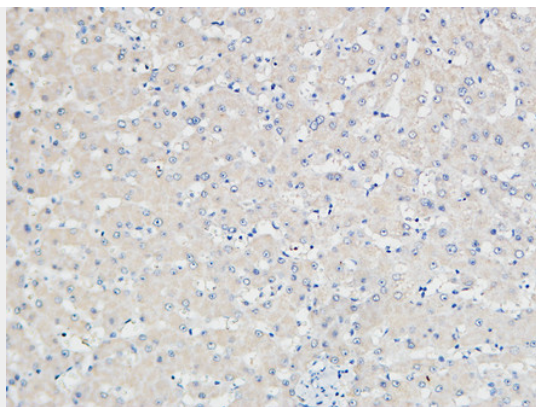
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### **p21 Polyclonal Antibody - Background**

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).