

**Anti-p21 Antibody**  
**Rabbit polyclonal antibody to p21**  
**Catalog # AP61602**

### Specification

#### Anti-p21 Antibody - Product Information

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

#### Anti-p21 Antibody - Additional Information

##### Gene ID 1026

##### Other Names

CAP20; CDKN1; CIP1; MDA6; PIC1; SDI1; WAF1; Cyclin-dependent kinase inhibitor 1; CDK-interacting protein 1; Melanoma differentiation-associated protein 6; MDA-6; p21

##### Target/Specificity

Recombinant protein corresponding to human p21.

##### Dilution

WB~~WB (1/1000 - 1/2000), IH (1/100 - 1/200)  
IHC~~1:100~500

##### Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

##### Storage

Store at -20 °C. Stable for 12 months from date of receipt

#### Anti-p21 Antibody - Protein Information

##### Name CDKN1A ([HGNC:1784](#))

##### Function

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

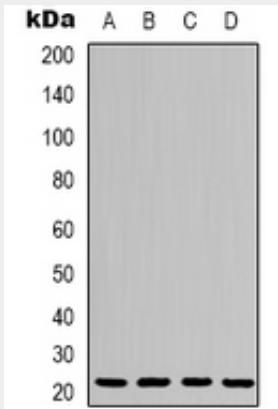
**Tissue Location**

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

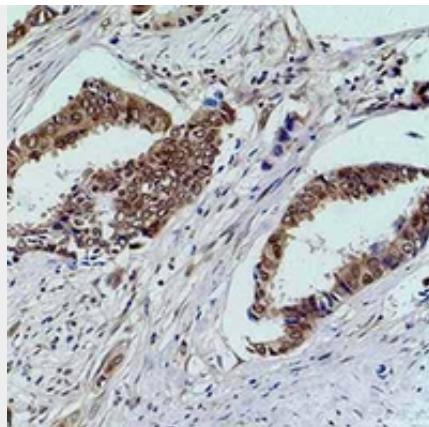
**Anti-p21 Antibody - Protocols**

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](#)

**Anti-p21 Antibody - Images**

Western blot analysis of p21 expression in 293T (A), MCF7 (B), mouse liver (C), rat liver (D) whole cell lysates.



Immunohistochemical analysis of p21 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

#### **Anti-p21 Antibody - Background**

Recombinant protein corresponding to human p21.