

## P21Cip1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)  
Catalog # AP9311a-400 □

### Specification

#### P21Cip1 Antibody - Product info

Application	WB, IF
Primary Accession	<a href="#">P38936</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Clone Names	RB08044
Calculated MW	18119

#### P21Cip1 Antibody - Additional info

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 P21Cip1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 105-140 amino acids from human P21Cip1.

#### Dilution

WB~~1:1000

IF~~1:10~50

#### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. 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

P21Cip1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

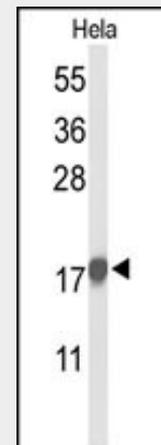
#### P21Cip1 Antibody - Protein Information

Name CDKN1A

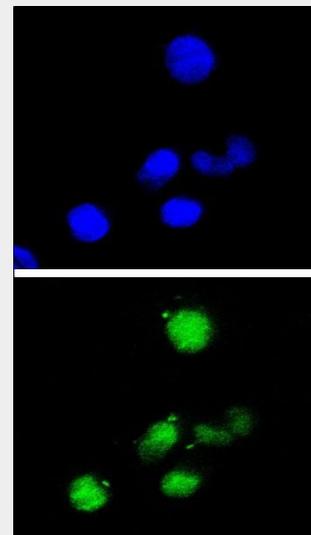
Synonyms CAP20, CDKN1, CIP1, MDA6, PIC1, SDI1, WA

#### Function

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



Western blot analysis of P21Cip1-S130 antibody (Cat. #AP9311a) in HeLa cell line lysates (35ug/lane). P21Cip1 (arrow) was detected using the purified Pab.



Confocal immunofluorescent analysis of P21 Antibody (WAF1) (Cat. #AP9311a) with HepG2 cell followed by Alexa Fluor® 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).

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>).

#### Cellular Location

Cytoplasm. Nucleus.

#### Tissue Location

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

### P21Cip1 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](#)

### P21Cip1 Antibody - Background

This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-CDK2 or -CDK4 complexes, and thus functions as a regulator of cell cycle progression at G1. The expression of this gene is tightly controlled by the tumor suppressor protein p53, through which this protein mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. This protein can interact with proliferating cell nuclear antigen (PCNA), a DNA polymerase accessory factor, and plays a regulatory role in S phase DNA replication and DNA damage repair. This protein was reported to be specifically cleaved by CASP3-like caspases, which thus leads to a dramatic activation of CDK2, and may be instrumental in the execution of apoptosis following caspase activation. Two alternatively spliced variants, which encode an identical protein, have been reported.

### P21Cip1 Antibody - References

Scott, S.A., et al., Leuk. Res. 28(12):1293-1301 (2004). Amini, S., et al., J. Biol. Chem. 279(44):46046-46056 (2004). Chen, T., et al., Cancer Res. 64(20):7412-7419 (2004). Sieburg, M., et al., J. Virol. 78(19):10399-10409 (2004). Giraud, S., et al., Oncogene 23(44):7391-7398 (2004).

#### P21Cip1 Antibody - Citations

- [Neferine, an alkaloid ingredient in lotus seed embryo, inhibits proliferation of human osteosarcoma cells by promoting p38 MAPK-mediated p21 stabilization.](#)