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Phospho-p21Cip1(S130) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3187a

Specification

Phospho-p21Cip1(S130) Antibody - Product Information

Application	**DB,E**
Primary Accession	P38936
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**18119**

Phospho-p21Cip1(S130) Antibody - Additional Information

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 phosphopeptide corresponding to amino acid residues surrounding S130 of human p21Cip1.

Dilution
DB~~1:500

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
Phospho-p21Cip1(S130) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-p21Cip1(S130) Antibody - 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

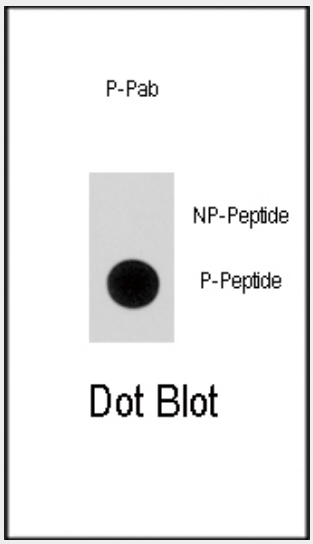
Tissue Location
Expressed in all adult tissues, with 5-fold lower levels observed in the brain

Phospho-p21Cip1(S130) 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 Cytomety
- Cell Culture

Phospho-p21Cip1(S130) Antibody - Images



Dot blot analysis of anti-Phospho-p21Cip1-pS130 Antibody (Cat#AP3187a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Phospho-p21Cip1(S130) Antibody - Background

p21 is a potent cyclin-dependent kinase inhibitor. It 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 protein 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. p21 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. It 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.

Phospho-p21Cip1(S130) Antibody - References

Scott, S.A., et al., Leuk. Res. 28(12):1293-1301 (2004).
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