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p21 Antibody
Rabbit mAb
Catalog # AP90151

Specification

p21 Antibody - Product Information

Application	**WB, IHC, ICC, IP**
Primary Accession	P38936
Clonality	**Monoclonal**

Other Names
CAP20; CDKN1; CIP1; MDA-6; P21; SDI1; WAF1; P21cip1;

Isotype	**Rabbit IgG**
Host	**Rabbit**
Calculated MW	**18119 Da**

p21 Antibody - Additional Information

Purification	**Affinity-chromatography**
Immunogen	**A synthesized peptide derived from human p21**
Description	**The tumor suppressor protein p21 Waf1/Cip1 acts as an inhibitor of cell cycle progression. It functions in stoichiometric relationships forming heterotrimeric complexes with cyclins and cyclin-dependent kinases. In association with CDK2 complexes, it serves to inhibit kinase activity and block progression through G1/S. However, p21 may also enhance assembly and activity in complexes of CDK4 or CDK6 and cyclin D.**
Storage Condition and Buffer	**Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.**

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: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

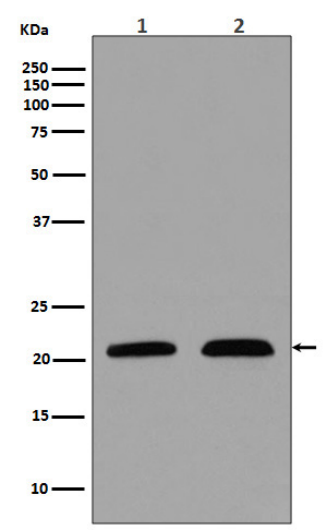
Tissue Location
Expressed in all adult tissues, with 5-fold lower levels observed in the brain

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 Cytomety
- Cell Culture

p21 Antibody - Images



Western blot analysis of p21 in (1) MCF-7 cell lysate; (2) LnCaP cell lysate.