10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-p21 CDKN1A Rabbit Monoclonal Antibody

Catalog # ABO13229

Specification

Anti-p21 CDKN1A Rabbit Monoclonal Antibody - Product Information

Application	**WB, IHC, IF, ICC, IP**
Primary Accession	P38936
Host	**Rabbit**
Isotype	**Rabbit IgG**
Reactivity	**Human**
Clonality	**Monoclonal**
Format	**Liquid**

Description
Anti-p21 CDKN1A Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human.

Anti-p21 CDKN1A Rabbit Monoclonal 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 (HGNC:1784)

Calculated MW
18119 MW KDa

Application Details
WB 1:500-1:2000
IHC 1:50-1:200
ICC/IF 1:50-1:200
IP 1:50

Subcellular Localization
Cytoplasm. Nucleus.

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

Contents
Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen
A synthesized peptide derived from human p21

Purification
Affinity-chromatography

Storage	**Store at -20°C for one year. For short term**

storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-p21 CDKN1A Rabbit Monoclonal 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

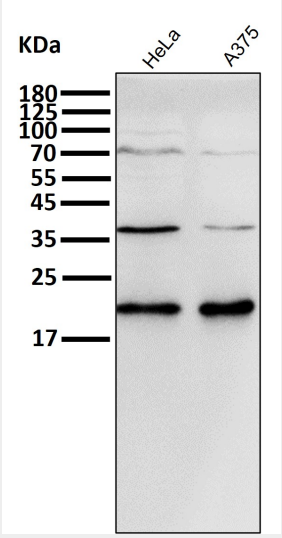
Anti-p21 CDKN1A Rabbit Monoclonal Antibody - Protocols

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

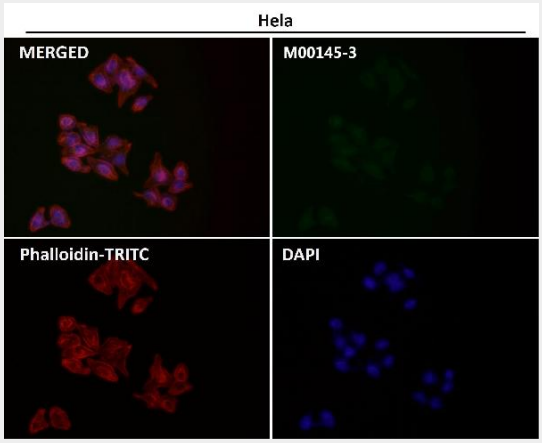
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-p21 CDKN1A Rabbit Monoclonal Antibody - Images

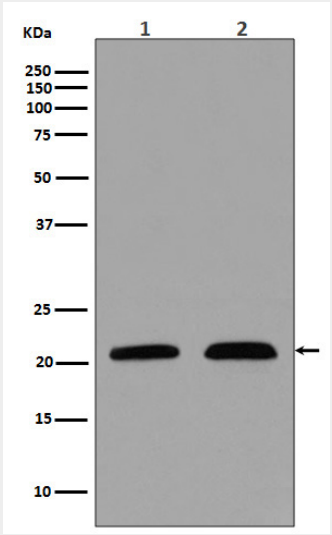
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



All lanes use the Antibody at 1:2K dilution for 1 hour at room temperature.

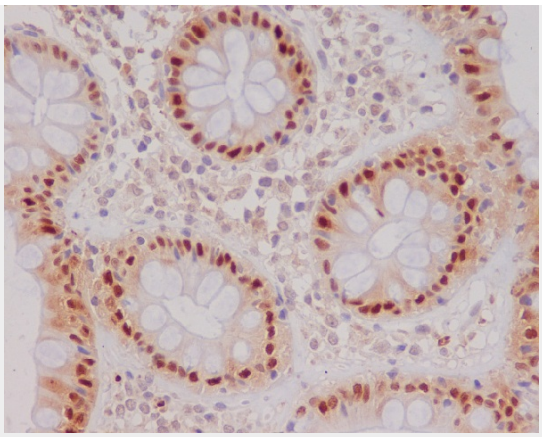


Immunofluorescent analysis using the Antibody at 1:500 dilution.

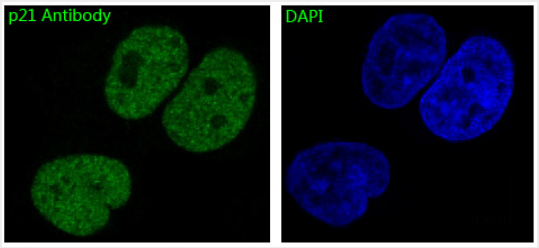


Western blot analysis of p21 in (1) MCF-7 cell lysate; (2) LnCaP cell lysate.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Immunohistochemical analysis of paraffin-embedded human colon, using p21 Antibody.



Immunofluorescent analysis of MCF7 cells, using p21 Antibody.