

p21 Antibody

Rabbit mAb

Catalog # AP90546

Product Information

Application	WB, IF, ICC
Primary Accession	P38936
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	CAP20; CDKN1; CIP1; MDA-6; P21; SDI1; WAF1; p21CIP1
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	18119

Additional Information

Dilution	WB 1:500~1:2000 ICC/IF 1:50~1:200
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.

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).

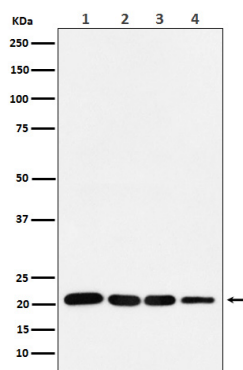
Cellular Location

Cytoplasm. Nucleus

Tissue Location

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

Images



Western blot analysis of p21 in (1) MCF-7 cell lysate; (2) HeLa cell lysate. (3) LnCap cell lysate; (4) U87 MG cell lysate.

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Immunofluorescent analysis of MCF7 cells, using p21 Antibody.

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Fibulin-3 has anti-tumorigenic activities in cutaneous squamous cell carcinoma. -Journal of Investigative Dermatology

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