

ARG44011 anti-p21 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes p21
Tested Reactivity	Hu
Tested Application	ELISA, ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	p21
Species	Human
Immunogen	Human p21 recombinant protein
Conjugation	Un-conjugated
Alternate Names	CDKN1A; Cyclin Dependent Kinase Inhibitor 1A; P21; CAP20; CIP1; WAF1; SDI1; P21CIP1; CDKN1; Cyclin-Dependent Kinase Inhibitor 1A (P21, Cip1); Cyclin-Dependent Kinase Inhibitor 1; CDK-Interacting Protein 1; P21Cip1/Waf1; MDA-6; Melanoma Differentiation-Associated Protein 6; Wild-Type P53-Activated Fragment 1; CDK-Interaction Protein 1; DNA Synthesis Inhibitor; MDA6; PIC1

Application Instructions

Application table	Application	Dilution
	ELISA	0.1-0.5 µg/ml
	ICC/IF	5 µg/ml
	IHC-P	2-5 µg/ml
	WB	0.1-0.25 µg/ml

Application Note * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Affinity purified with Immunogen.
Buffer	0.9% NaCl, 0.2% Na2HPO4 and 4% Trehalose.
Stabilizer	4% Trehalose
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

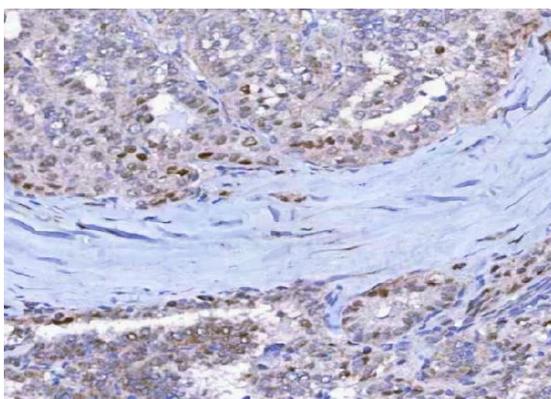
before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	CDKN1A
Gene Full Name	Cyclin Dependent Kinase Inhibitor 1A
Background	This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-cyclin-dependent kinase2 or -cyclin-dependent kinase4 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, 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 cyclin-dependent kinase2, and may be instrumental in the execution of apoptosis following caspase activation. Mice that lack this gene have the ability to regenerate damaged or missing tissue. Multiple alternatively spliced variants have been found for this gene.
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 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.
Calculated Mw	18 kDa
PTM	Acetylation, Phosphoprotein, Ubl conjugation
Cellular Localization	Cytoplasm, Nucleus

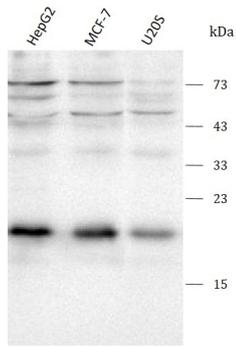
Images



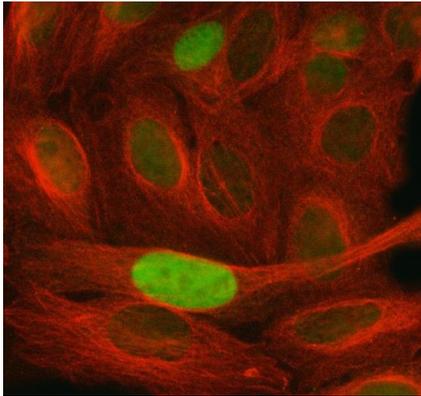
ARG44011 anti-p21 antibody IHC-P image

Immunohistochemistry: Human thyroid cancer stained with ARG44011 anti-p21 antibody at 2 µg/ml dilution.

ARG44011 anti-p21 antibody WB image

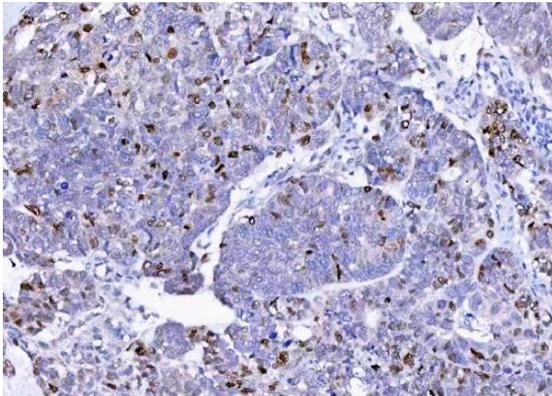


Western blot: HepG2, MCF-7 and U2OS stained with ARG44011 anti-p21 antibody at 0.5 $\mu\text{g}/\text{mL}$ dilution.



ARG44011 anti-p21 antibody ICC/IF image

Immunofluorescence: HeLa cells stained with ARG44011 anti-p21 antibody at 5 $\mu\text{g}/\text{ml}$ dilution.



ARG44011 anti-p21 antibody IHC-P image

Immunohistochemistry: Human ovarian cancer stained with ARG44011 anti-p21 antibody at 2 $\mu\text{g}/\text{ml}$ dilution.