



Datasheet for ABIN2854752

anti-p21 antibody



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1 Publication

Overview

Quantity:	100 µL
Target:	p21 (CDKN1A)
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This p21 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Recombinant protein encompassing a sequence within the center region of human p21 Cip1. The exact sequence is proprietary.
Isotype:	IgG
Cross-Reactivity:	Human, Rat
Characteristics:	Rabbit Polyclonal antibody to p21 Cip1 (cyclin-dependent kinase inhibitor 1) p21 Cip1 antibody
Purification:	Purified by antigen-affinity chromatography.

Target Details

Target:	p21 (CDKN1A)
Alternative Name:	cyclin dependent kinase inhibitor 1A (CDKN1A Products)

Target Details

Background: This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein 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 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 (PCNA), 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 CDK2, and may be instrumental in the execution of apoptosis following caspase activation. Two alternatively spliced variants, which encode an identical protein, have been reported.

Cellular Localization: Cytoplasm , Nucleus

Molecular Weight: 18 kDa

Gene ID: 1026

UniProt: [P38936](#)

Pathways: [p53 Signaling](#), [PI3K-Akt Signaling](#), [Cell Division Cycle](#), [AMPK Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Mitotic G1-G1/S Phases](#), [DNA Replication](#), [Hepatitis C](#), [Synthesis of DNA](#), [Autophagy](#)

Application Details

Application Notes: WB: 1:500-1:3000. ICC/IF: 1:100-1:1000. Optimal dilutions/concentrations should be determined by the researcher. Not tested in other applications.

Comment: Positive Control: HCT116 treated with 30uM cisplatin for 24hr
Validation: Orthogonal

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 mg/mL

Buffer: 1XPBS (pH 7), 20 % Glycerol, 0.01 % Thimerosal

Preservative: Thimerosal (Merthiolate)

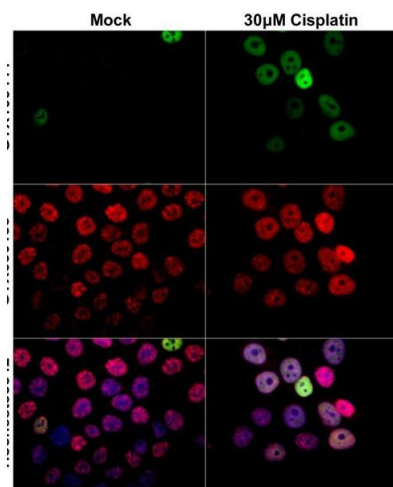
Handling

Precaution of Use:	This product contains Thimerosal (Merthiolate): a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store as concentrated solution. Centrifuge briefly prior to opening vial. For short-term storage (1-2 weeks), store at 4°C. For long-term storage, aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.

Publications

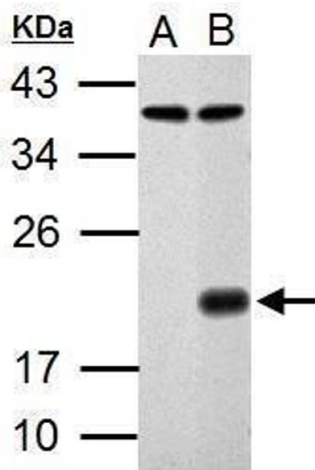
Product cited in:	Hinderer, Sudrow, Schneider, Holeiter, Layland, Seifert, Schenke-Layland: "Surface functionalization of electrospun scaffolds using recombinant human decorin attracts circulating endothelial progenitor cells." in: Scientific reports , Vol. 8, Issue 1, pp. 110, (2018) (PubMed).
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Images



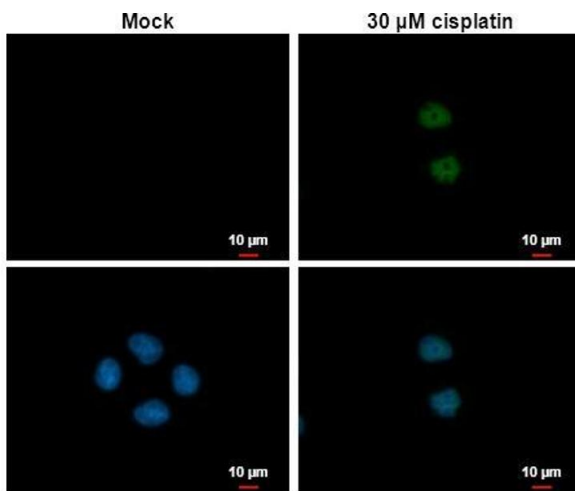
Immunofluorescence

Image 1. ICC/IF Image p21 Cip1 antibody detects p21 Cip1 protein at nucleus by immunofluorescent analysis. Samples: HCT116 cells mock (left) and treated with 30 µM Cisplatin for 24 hrs (right) were fixed in 4% paraformaldehyde at RT for 15 min. Green: p21 Cip1 protein stained by p21 Cip1 antibody , diluted at 1:1000. Red: Histone H3S10ph (phospho Ser10), a nucleus marker, stained by Histone H3S10ph (phospho Ser10) antibody [GT921] , diluted at 1:500. Blue: Hoechst 33342 staining.



Western Blotting

Image 2. WB Image Sample (30 ug of whole cell lysate) A: HCT116 B: HCT116 treated with 30uM cisplatin for 24hr
12% SDS PAGE antibody diluted at 1:1000



Immunofluorescence

Image 3. ICC/IF Image p21 Cip1 antibody detects p21 Cip1 protein at nucleus by immunofluorescent analysis. Samples: HCT116 cells mock and treated with 30μM cisplatin for 24hr and were fixed in 4% paraformaldehyde at RT for 15 min. Green: p21 Cip1 protein stained by p21 Cip1 antibody , diluted at 1:500. Blue: Hoechst 33342 staining. Scale bar = 10 μm.