Leader in Biomolecular Solutions for Life Science

[KO Validated] CDKN1A/p21 Rabbit PolymAb®

Catalog No.: A22460PM

Recombinant | 1 Publications

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Basic Information

Observed MW
21 kDa

Calculated MW
18 kDa

Category
Monoclonal Antibodies

Applications
WB, IF/ICC, ELISA

Cross Reactivity
Human, Mouse

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.

Recommended Dilutions

WB	1:500 - 1:2000
IF/ICC	1:1000 - 1:4000

ELISA
Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.

Immunogen Information

Gene ID
1026/12575

Swiss-Prot
P38936/P39689

Immunogen
Recombinant protein (or fragment).This information is considered to be commercially sensitive.

Synonyms
P21; CIP1; SDI1; WAF1; CAP20; CDKN1; MDA-6; p21CIP1

Contact

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Product Information

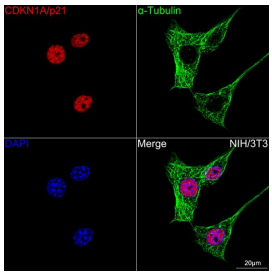
Source
Rabbit

Isotype
IgG

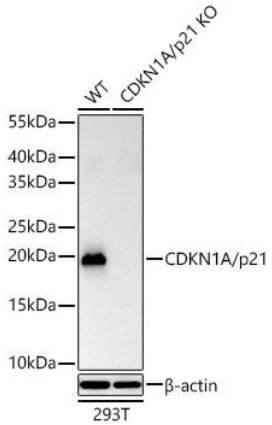
Purity
Affinity purification

Storage
Store at -20℃

Validation Data



Confocal imaging of NIH/3T3 cells using [KO Validated] CDKN1A/p21 Rabbit PolymAb® (A22460PM,dilution 1:1000)(Red) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.



Western blot analysis of lysates from wild type (WT) and CDKN1A/p21 knockout (KO) 293T cells using [KO Validated] CDKN1A/p21 Rabbit PolymAb® (A22460PM) at 1:1000 dilution incubated at room temperature for 1.5 hours.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1: 10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 90 s.