BOSTER BIOLOGICAL TECHNOLOGY
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# Anti-CDKN2A/CDKN2A/p16INK4a Antibody

**Catalog Number:** A00016-1

## About CDKN2A

The CDKN2A locus gives rise to 2 distinct transcripts from different promoters. The transcripts have been designated p16(INK4A) and p14(ARF). This chromosomal region undergoes a number of inversions, translocations, heterozygous deletions, and homozygous deletions in a variety of malignant cell lines including those from glioma, non-small cell lung cancer, leukemia, and melanoma. Deletion of the region containing CDKN2A is found in more than half of all melanoma cell lines. Conversely, transfection of CDKN2A suppressed the growth of two independent mesothelioma cell lines, suggesting that inactivation of the CDKN2 gene is an essential step in the etiology of malignant mesotheliomas. CDKN2A induces a G1 cell cycle arrest by inhibiting the phosphorylation of the Rb protein by the cyclin-dependent kinases CDK4 and CDK6. CDKN2A is expressed as at least three distinct isoforms.

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## Overview

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|---|---|
| Product Name | Anti-CDKN2A/CDKN2A/p16INK4a Antibody |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-CDKN2A Antibody (Catalog # A00016-1). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat. |
| Application | ELISA, IF, IHC-P, WB |
| Clonality | Polyclonal |
| Formulation | CDKN2A Antibody is supplied in PBS containing ≤0.09% sodium azide. |
| Storage Instructions | Antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures. |
| Host | Rabbit |
| Uniprot ID | P42771 |

## Technical Details

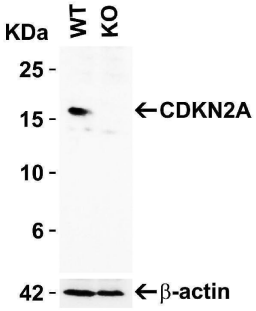
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| Immunogen | Anti-CDKN2A antibody was raised against a peptide corresponding to 18 amino acids near the amino terminus of human CDKN2A. The immunogen is located within the first 50 amino acids of CDKN2A. |

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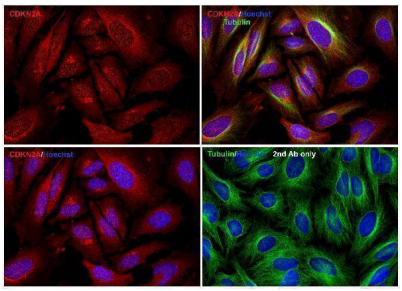
| | |
|---|---|
| Predicted Reactive Species | Pig |
| Isotype | IgG |
| Form | Liquid |
| Concentration | 1 mg/mL |
| Purification | CDKN2A Antibody is affinity chromatography purified via peptide column. |
| Suggested Dilutions | WB: 1 - 4 ug/mL; IHC-P: 5 - 10 ug/mL; IF: 20 ug/mL.<br>Antibody validated: Western Blot in human and mouse samples; Immunohistochemistry in human and rat samples; Immunofluorescence in human and rat samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher. |

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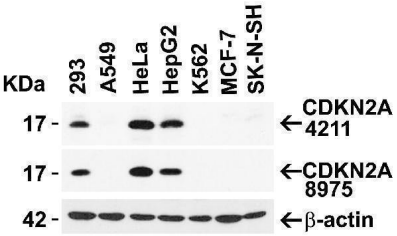
# Anti-CDKN2A/CDKN2A/p16INK4a Antibody (A00016-1) Images



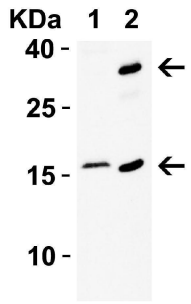

KO Validation of CDKN2A in 293 Cells Loading: 10 ug of 293 WT cell lysates or CDKN2A KO cell lysates. Antibodies: CDKN2A, A00016-1 (2 ug/mL) and beta-actin, 3779 (1 ug/mL), 1 h incubation at RT in 5% NFDM/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



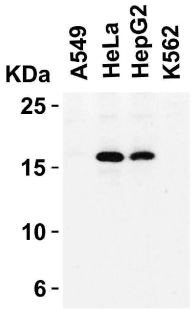
Immunofluorescence Validation of CDKN2A In HeLa Cells Immunofluorescent analysis of methanol-fixed HeLa cells labeling CDKN2A with A00016-1 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/1000 dilution (red) and Hoechst staining (blue). Alpha tubulin was stained with anti-alpha tubulin antibody following by goat anti-mouse IgG secondary antibody (green). Images were captured with confocal microscopy.




Independent Antibody Validation (IAV) via Protein Expression Profile in Cell Lines Loading: 15 ug of lysates per lane. Antibodies: CDKN2A A00016-1 (4 ug/mL), CDKN2A 24-023 (4 ug/mL), and beta-actin (1 ug/mL), overnight incubation at 4˚C in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.

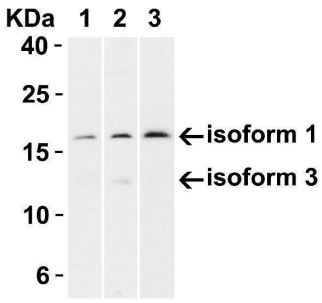



Recombinant Protein Test Loading: 15 ug of lysates per lane. Antibodies: CDKN2A A00016-1 (2 ug/mL), overnight incubation at 4˚C in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Lane 1: Human prostate (benign hyperplasia) Lane 2: Human CDKN2A recombinant protein (arrow: monomer and dimer)

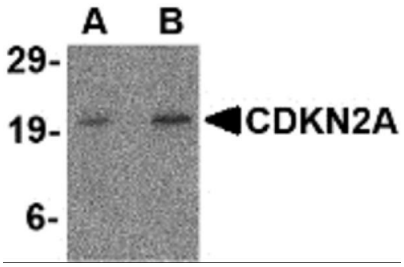



Western Blot Validation in Human Cell Lines Loading: 15 ug of lysates per lane. Antibodies: CDKN2A, A00016-1 (2 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.

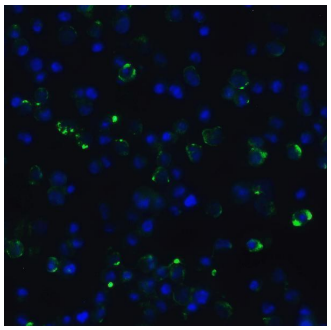
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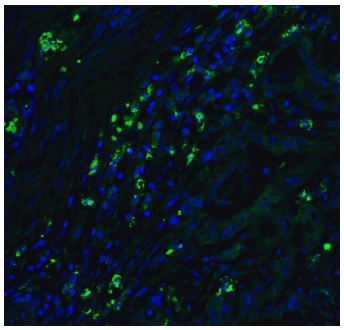

Western Blot Validation in Human Normal and Cancer Tissue Loading: 15 ug of lysates per lane. Antibodies CDKN2A A00016-1 (2 ug/mL), overnight incubation at 4˚C in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Lane 1: Human breast Lane 2: Human lung tumor Lane 3: Human colon cancer



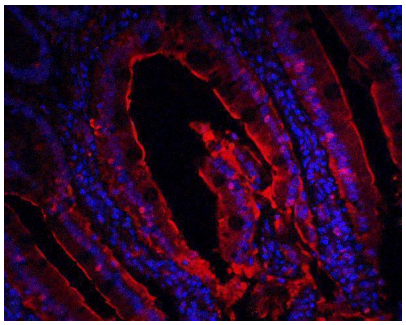

Western Blot Validation in Mouse Colon Tissue Loading: 15 ug of lysates per lane. Antibodies: CDKN2A A00016-1 (A: 1 ug/mL, B: 2 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Immunofluorescence Validation of CDKN2A in Human A431 Cells Immunofluorescent analysis of 4% paraformaldehyde-fixed A431 cells labeling CDKN2A with A00016-1 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).



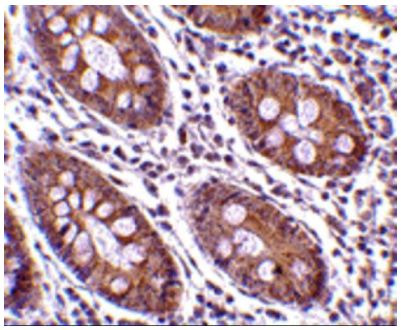
Immunofluorescence Validation of CDKN2A in Human Colon Tissue Immunofluorescent analysis of 4% paraformaldehyde-fixed human colon tissue labeling CDKN2A with A00016-1 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).



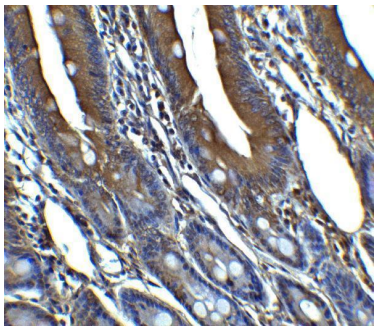
Immunofluorescence Validation of CDKN2A in Rat Colon Tissue Immunofluorescent analysis of 4% paraformaldehyde-fixed Rat Colon Tissue labeling CDKN2A with A00016-1 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red) and DAPI staining (blue).

Immunohistochemistry Validation of CDKN2A in Human Colon Tissue Immunohistochemical analysis of paraffin-

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embedded Human Colon Tissue using anti- CDKN2A antibody (A00016-1) at 10 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4˚C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunohistochemistry Validation of CDKN2A in Rat Colon Tissue Immunohistochemical analysis of paraffin-embedded Rat Colon Tissue using anti- CDKN2A antibody (A00016-1) at 5 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4˚C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.

## Anti-CDKN2A/CDKN2A/p16INK4a Antibody

For Research Use Only. Not for use in diagnostic procedures.