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# CDKN2A Antibody

Catalog # ASC10537

## Product Information

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| **Application** | WB, IF, E, IHC-P |
| **Primary Accession** | P42771 |
| **Other Accession** | NP_000068, 4502749 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 16533 |
| **Concentration (mg/ml)** | 1 mg/mL |
| **Conjugate** | Unconjugated |
| **Application Notes** | CDKN2A antibody can be used for detection of CDKN2A by Western blot at 1 - 2 □g/mL. Antibody can also be used for immunohistochemistry starting at 10 □g/mL. For immunofluorescence start at 20 □g/mL. |

## Additional Information

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| **Gene ID** | 1029 |
| **Other Names** | CDKN2A Antibody: ARF, MLM, P14, P16, P19, CMM2, INK4, MTS1, TP16, CDK4I, CDKN2, INK4A, MTS-1, P14ARF, P19ARF, P16INK4, P16INK4A, P16-INK4A, Cyclin-dependent kinase 4 inhibitor A, cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4) |
| **Target/Specificity** | CDKN2A; |
| **Reconstitution & Storage** | CDKN2A antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| **Precautions** | CDKN2A Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | CDKN2A ( HGNC:1787) |
| **Synonyms** | CDKN2, MTS1 |
| **Function** | Acts as a negative regulator of the proliferation of normal cells by interacting strongly with CDK4 and CDK6. This inhibits their ability to interact with cyclins D and to phosphorylate the retinoblastoma protein. |
| **Cellular Location** | Cytoplasm. Nucleus |

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| **Tissue Location** | Widely expressed but not detected in brain or skeletal muscle. Isoform 3 is pancreas-specific |

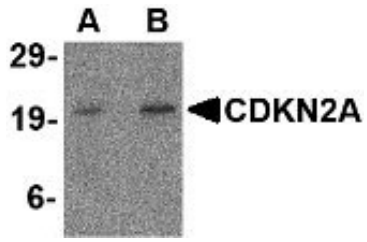
## Background

CDKN2A Antibody: 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.

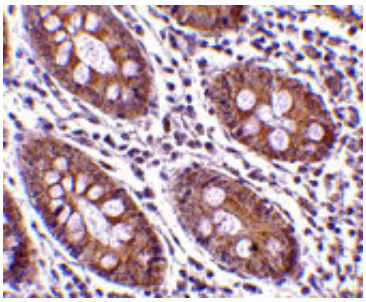
## References


Stone S, Jiang P, Dayananth P, et al. Complex structure and regulation of the p16(MTS1) locus. Cancer Res. 1995; 55:2988-94.
Kamb A, Shattuck-Eidens D, Eeles R, et al. Analysis of the p16 gene (CDKN2) as a candidate for the chromosome 9p melanoma susceptibility locus. Nature Genet. 1994; 8:22-6.
Kratzke RA, Otterson GA, Lincoln CE, et al. Immunohistochemical analysis of the p16 (INK4) cyclin-dependent kinase inhibitor in malignant mesothelioma. J. Nat. Cancer Inst. 1995; 87:1870-5.
Stott FJ,; Bates S, James MC, et al. The alternative product from the human CDKN2A locus, p14(ARF), participates in a regulatory feedback loop with p53 and MDM2. EMBO J. 1998; 17:5001-14.


## Images

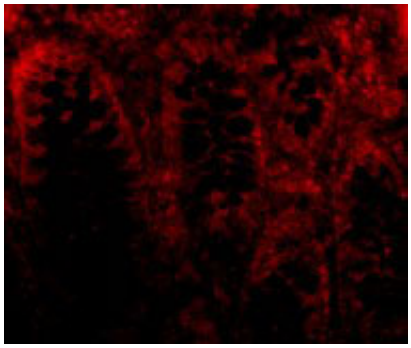



Western blot analysis of CDKN2A in mouse colon tissue lysate with CDKN2A antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of CDKN2A in human colon tissue with CDKN2A antibody at 10 µg/mL.

Immunofluorescence of CDKN2A in Human Colon tissue with CDKN2A antibody at 20 µg/mL.



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