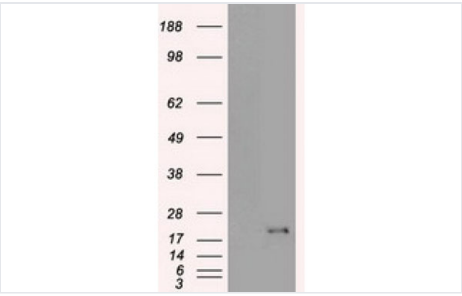
CDKN2A Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	CDKN2A, Monoclonal Antibody
Full Product Name	CDKN2A antibody
Product Gene Name	anti-CDKN2A antibody
Product Synonym Names	Monoclonal CDKN2A; Anti-CDKN2A; Cyclin-dependent kinase inhibitor 2A; MTS1; CDK4I; CMM2; mIM; ARF; INK4; Cyclin-dependent kinase 4 inhibitor A; Multiple tumor suppressor 1; CDKN2; CDKN2A; CDKNA 2; CDKNA-2
Clonality	Monoclonal
Isotype	IgG1
Clone Number	4C11
Host	Mouse
Form/Format	Supplied in PBS buffer, pH 7.3, containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Purity/Purification	CDKN2A antibody was purified by affinity chromatography.
Concentration	500 ug-1 mg/ml (lot specific)
Preparation and Storage	Store at 4 degree C for short term storage. Aliquot and store at -20 degree C for long term storage. Avoid repeated freeze/thaw cycles.
Molecular Weight	8,731 Da
OMIM	151623
3D Structure	ModBase 3D Structure for P42771
Cross-Reactivity	Human
Immunogen	CDKN2A antibody was raised in mouse using a full length recombinant protein of human CDKN2A (NP_000068) produced in E Coli as the immunogen.
Product Categories/Family for anti-CDKN2A antibody	Cell Cycle & Cell Death
Applications Tested/Suitable for anti-CDKN2A antibody	Immunofluorescence (IF), Western Blot (WB)
Application Notes for anti-CDKN2A antibody	IF: 1:100 WB: 1:1000
Related Product Information for anti-CDKN2A antibody	MBS831849 is an antibody targeting CDKN2A. Also known as CDKN2A antibody. Host: Mouse. Mouse monoclonal CDKN2A antibody
Other Notes	Small volumes of anti-CDKN2A antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-CDKN2A antibody
Western Blot analysis of HEK293T cell lysates (5 ug) transfected with either recombinant CDKN2A protein (Right) or empty vector (Left) detected with CDKN2A antibody

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CDKN2A. It may not necessarily be applicable to this product.

NCBI GI #	4502749
NCBI GeneID	1029
NCBI Accession #	NP_000068
UniProt Primary Accession #	P42771
UniProt Secondary Accession #	O95440; Q15191; Q5VVJ5; Q96B52; Q9NP05; A5X2G7; D3DRK1
UniProt Related Accession #	P42771; Q8N726
GenBank Nucleotide #	NM_000077.4
NCBI Official Full Name	cyclin-dependent kinase inhibitor 2A isoform p16INK4a
NCBI Official Synonym Full Names	cyclin-dependent kinase inhibitor 2A
NCBI Official Symbol	CDKN2A
NCBI Official Synonym Symbols	ARF; MLM; P14; P16; P19; CMM2; INK4; MTS1; TP16; CDK4I; CDKN2; INK4A; MTS-1; P14ARF; P19ARF; P16INK4; P16INK4A; P16-INK4A
UniProt Protein Name	Cyclin-dependent kinase inhibitor 2A
UniProt Synonym Protein Names	Cyclin-dependent kinase 4 inhibitor A; CDK4I; Multiple tumor suppressor 1; MTS-1; p16-INK4a; p16-INK4; p16INK4A
Protein Family	Cyclin-dependent kinase inhibitor
UniProt Gene Name	CDKN2A
UniProt Synonym Gene Names	CDK4I; MTS-1; p16-INK4; p16INK4A
UniProt Entry Name	CDN2A_HUMAN
NCBI Protein Information	cyclin-dependent kinase inhibitor 2A
NCBI Summary for CDKN2A	This gene generates several transcript variants which differ in their first exons. At least three alternatively spliced variants encoding distinct proteins have been reported, two of which encode structurally related isoforms known to function as inhibitors of CDK4 kinase. The remaining transcript includes an alternate first exon located 20 Kb upstream of the remainder of the gene; this transcript contains an alternate open reading frame (ARF) that specifies a protein which is structurally unrelated to the products of the other variants. This ARF product functions as a stabilizer of the tumor suppressor protein p53 as it can interact with, and sequester, the E3 ubiquitin-protein ligase MDM2, a protein responsible for the degradation of p53. In spite of the structural and functional differences, the CDK inhibitor isoforms and the ARF product encoded by this gene, through the regulatory roles of CDK4 and p53 in cell cycle G1 progression, share a common functionality in cell cycle G1 control. This gene is frequently mutated or deleted in a wide variety of tumors, and is known to be an important tumor suppressor gene. [provided by RefSeq, Sep 2012]

UniProt Comments for CDKN2A	p16-INK4A: a cell-cycle regulatory protein that interacts with CDK4 and CDK6, inhibiting their ability to interact with cyclins D. Inhibits the phosphorylation of the retinoblastoma protein by CDK4 or CDK6, and entry into the S phase of the cell cycle. The p16INK4A and p14ARF proteins are encoded by CDKN2A, a known tumour suppressor gene in multiple cancers. CDKN2A is inactivated in 72% of cases of lung squamous cell carcinoma: 21% by epigenetic silencing by methylation, 18% inactivating mutation, 4% by exon 1b skipping, and 29% by homozygous deletion. Defects in CDKN2A are the cause of familial atypical multiple mole melanoma-pancreatic carcinoma syndrome, Li-Fraumeni syndrome, and the melanoma-astrocytoma syndrome. The melanoma-astrocytoma syndrome is characterized by a dual predisposition to melanoma and neural system tumors, commonly astrocytoma. Four alternatively spliced p16 isoforms have been reported. Two alternatively spliced isoforms of ARF have been reported. Protein type: Cell cycle regulation; Nucleolus; Tumor suppressor Chromosomal Location of Human Ortholog: 9p21 Cellular Component: nucleoplasm; nuclear body; protein complex; mitochondrion; cytoplasm; nucleolus; nucleus; cytosol Molecular Function: cyclin-dependent protein kinase inhibitor activity; NF-kappaB binding; protein binding; DNA binding; p53 binding; ubiquitin-protein ligase inhibitor activity; transcription factor binding; protein kinase binding Biological Process: protein polyubiquitination; positive regulation of apoptosis; positive regulation of transcription, DNA-dependent; regulation of protein stability; negative regulation of B cell proliferation; regulation of protein export from nucleus; negative regulation of cell proliferation; apoptotic mitochondrial changes; regulation of G2/M transition of mitotic cell cycle; somatic stem cell division; cell cycle arrest; caspase activation; negative regulation of immature T cell proliferation in the thymus; protein stabilization; protein destabilization; transcription, DNA-dependent; negative regulation of cyclin-dependent protein kinase activity; negative regulation of cell-matrix adhesion; positive regulation of protein sumoylation; inhibition of NF-kappaB transcription factor; Ras protein signal transduction; negative regulation of ubiquitin-protein ligase activity; negative regulation of protein kinase activity; negative regulation of phosphorylation; positive regulation of transcription from RNA polymerase II promoter; negative regulation of cell growth; positive regulation of DNA damage response, signal transduction by p53 class mediator; mitotic cell cycle; negative regulation of transcription, DNA-dependent; rRNA processing; G1/S transition of mitotic cell cycle Disease: Melanoma-astrocytoma Syndrome; Melanoma, Cutaneous Malignant, Susceptibility To, 2; Melanoma-pancreatic Cancer Syndrome
Research Articles on CDKN2A	**1.** expression of EGFR, CDKN2A and TP53 may be associated with tumour pathology but is not induced by HPV
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