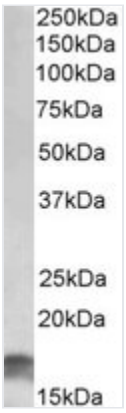
CDKN2A Antibody – Goat Polyclonal

PRODUCT OVERVIEW

Product Name	CDKN2A, Polyclonal Antibody
Full Product Name	Goat anti-CDKN2A (isoform 3) Antibody
Product Gene Name	anti-CDKN2A antibody
Product Synonym Names	Goat Anti-CDKN2A (isoform 1) / p16INK4a Antibody; CDKN2A; cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4); HGNC: 1787; ARF; CDK4I; CDKN2; CMM2; INK4; INK4a; MLM; MTS1; TP16; p14; p14ARF; p16; p16INK4; p16INK4a; p19; CDK4 inhibitor p16-INK4; cell cycle negative regulator beta; cyclin-; CDKN2A antibody; cyclin-dependent kinase inhibitor 2A (melanoma; p16; inhibits CDK4) antibody; HGNC: 1787 antibody; ARF antibody; CDK4I antibody; CDKN2 antibody; CMM2 antibody; INK4 antibody; INK4a antibody; MLM antibody; MTS1 antibody; TP16 antibody; p14 antibody; p14ARF antibody; p16 antibody; p16INK4 antibody; p16INK4a antibody; p19 antibody; CDK4 inhibitor p16-INK4 antibody; cell cycle negative regulator beta antibody; cyclin-dependent kinase inhibitor 2A antibody; cyclin-dependent kinase inhibitor 2A; p14ARF antibody; cyclin-dependent kinase inhibitor p12; p16INK4a alternatively spliced form antibody; cyclin-dependent kinase inhibitor p16 antibody; multiple tumor suppressor 1 antibody; CDKN2A (isoform 3)
Immunogen Sequence	ILRKKGRLPG EFSE
Clonality	Polyclonal
Host	Goat
Species Reactivity	Tested: Human; Expected from sequence similarity: Human
Form/Format	Supplied at 0.5 mg/ml in Tris saline, 0. 02% sodium azide, pH7.3 with 0.5% bovine serum albumin.
Purity/Purification	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Concentration	100ug specific antibody in 200ul (lot specific)
Preparation and Storage	Aliquot and store at -20 degree C. Minimize freezing and thawing.
Antibody/Peptide Pairs	CDKN2A peptide (MBS428350) is used for blocking the activity of CDKN2A antibody (MBS422032)
Molecular Weight	8,731 Da
OMIM	151623
Immunogen	Peptide with sequence C-ILRKKGRLPGEFSE, from the internal region of the protein sequence according to NP_478104.1.
Epitope	Internal region
Note	This antibody is expected to recognize the pancreas isoform (NP_478104.1) only.
ISO Certification	Manufactured in an ISO 9001:2008 Certified Laboratory.
Applications Tested/Suitable for anti-CDKN2A antibody	Peptide ELISA (EIA), Western Blot (WB)
Application Notes for anti-CDKN2A antibody	Peptide ELISA: Antibody detection limit dilution 1: 128000. Western Blot: Approx 17kDa band observed in lysates of cell line HeLa (calculated MW of 12.1kDa according to NP_478104.1). Recommended concentration: 1-3ug/ml.
Related Product Information for anti-CDKN2A antibody	MBS422032 is an antibody targeting CDKN2A. Also known as Goat anti-CDKN2A (isoform 3) Antibody. Reactive in Tested: Human; Expected from sequence similarity: Human. Host: Goat.

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
(1ug/ml) staining of HeLa lysate (35ug protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

ADDITIONAL DETAILS

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

NCBI GI #	17738298
NCBI GeneID	1029
NCBI Accession #	NP_478104.1
UniProt Secondary Accession #	O95440; Q15191; Q5VVJ5; Q96B52; Q9NP05; A5X2G7; D3DRK1
UniProt Related Accession #	P42771; Q8N726
GenBank Nucleotide #	NM_058197.2
NCBI Official Full Name	cyclin-dependent kinase inhibitor 2A isoform 3
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; Tumor suppressor; Nucleolus Chromosomal Location of Human Ortholog: 9p21 Cellular Component: cytoplasm; cytosol; mitochondrion; nuclear body; nucleolus; nucleoplasm; nucleus; protein complex Molecular Function: cyclin-dependent protein kinase inhibitor activity; DNA binding; NF-kappaB binding; p53 binding; protein binding; protein kinase binding; SUMO ligase activity; transcription factor binding; ubiquitin-protein ligase inhibitor activity Biological Process: apoptotic mitochondrial changes; caspase activation; cell cycle arrest; G1/S transition of mitotic cell cycle; inhibition of NF-kappaB transcription factor; mitochondrial depolarization; mitochondrion degradation; negative regulation of B cell proliferation; negative regulation of cell growth; negative regulation of cell proliferation; negative regulation of cell-matrix adhesion; negative regulation of cyclin-dependent protein kinase activity; negative regulation of immature T cell proliferation in the thymus; negative regulation of phosphorylation; negative regulation of protein kinase activity; negative regulation of transcription, DNA-dependent; negative regulation of ubiquitin-protein ligase activity; positive regulation of apoptosis; positive regulation of DNA damage response, signal transduction by p53 class mediator; positive regulation of protein sumoylation; positive regulation of transcription from RNA polymerase II promoter; positive regulation of transcription, DNA-dependent; protein destabilization; protein polyubiquitination; protein stabilization; protein sumoylation; Ras protein signal transduction; regulation of G2/M transition of mitotic cell cycle; regulation of protein export from nucleus; regulation of protein stability; rRNA processing; somatic stem cell division; transcription, DNA-dependent Disease: Melanoma, Cutaneous Malignant, Susceptibility To, 2; Melanoma-astrocytoma Syndrome; Melanoma-pancreatic Cancer Syndrome
Research Articles on CDKN2A	**1.** STAT3 and CDKN2A deletions co-occurred with high frequency in prostate cancer metastases.
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