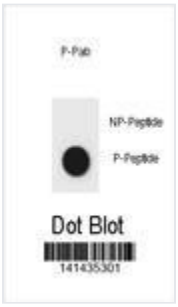
CDKN2A Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CDKN2A, Polyclonal Antibody
Full Product Name	CDKN2A, Phosphorylated (S8) (CDKN2A, CDKN2, MTS1, Cyclin-dependent kinase inhibitor 2A, isoforms 1/2/3, Cyclin-dependent kinase 4 inhibitor A, Multiple tumor suppressor 1, p16-INK4a) (AP)
Product Gene Name	anti-CDKN2A antibody
Product Synonym Names	CDKN2A; CDKN2; MTS1; Cyclin-dependent kinase inhibitor 2A; isoforms 1/2/3; Cyclin-dependent kinase 4 inhibitor A; Multiple tumor suppressor 1; p16-INK4a
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Alkaline Phosphatase (AP).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	16,533 Da
Chromosome Location	Chromosome: 9; NC_000009.11 (21967751..21994490, complement). Location: 9p21
OMIM	600160
3D Structure	ModBase 3D Structure for Q8N726
Immunogen	CDKN2A Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S8 of human CDKN2A.
Conjugate	AP
Antigen Modification	Phosphorylated
Note	Preservative Free
Product Categories/Family for anti-CDKN2A antibody	Antibodies; Protein Kinase Inhibitors
Applications Tested/Suitable for anti-CDKN2A antibody	ELISA (EIA), Dot Blot (DB)
Application Notes for anti-CDKN2A antibody	ELISA: 1:1,000 Applications are based on unconjugated antibody.

Related Product Information for anti-CDKN2A antibody	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, MDM1, 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.
Product References and Citations for anti-CDKN2A antibody	Kovacs, E., et al. Proc. Natl. Acad. Sci. U.S.A. 107(12):5429-5434(2010). Irvine, M., et al. Cell Cycle 9(4):829-839(2010). Zhang, H.J., et al. J. Cell. Biochem. 106(3):464-472(2009). Ivanchuk, S.M., et al. Cell Cycle 7(12):1836-1850(2008). Bandyopadhyay, K., et al. Biochemistry 46(49):14325-14334(2007).
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.
Searchable Terms for CDKN2A purchase	MBS6284677 is an antibody targeting CDKN2A. Also known as CDKN2A, Phosphorylated (S8) (CDKN2A, CDKN2, MTS1, Cyclin-dependent kinase inhibitor 2A, isoforms 1/2/3, Cyclin-dependent kinase 4 inhibitor A, Multiple tumor suppressor 1, p16-INK4a) (AP). Reactive in Human. Host: Rabbit.



Dot Blot (DB) of anti-CDKN2A antibody
Dot blot analysis of CDKN2A Antibody (Phospho S8) Phospho-specific Pab on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.6ug per ml.

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_000068.1
UniProt Primary Accession #	Q8N726
UniProt Secondary Accession #	P42771
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, isoform 4

UniProt Synonym Protein Names	p14ARF; p19ARF
Protein Family	Cyclin-dependent kinase inhibitor
UniProt Gene Name	CDKN2A
UniProt Synonym Gene Names	CDKN2; MLM
UniProt Entry Name	CD2A2_HUMAN
NCBI Protein Information	cyclin-dependent kinase inhibitor 2A; CDK4 inhibitor p16-INK4; multiple tumor suppressor 1; cell cycle negative regulator beta; cyclin-dependent kinase 4 inhibitor A; cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4)
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 iso4: 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: Nucleolus; Cell cycle regulation; 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; negative regulation of immature T cell proliferation in the thymus; caspase activation; protein destabilization; transcription, DNA-dependent; protein stabilization; 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; mitotic cell cycle; negative regulation of cell growth; positive regulation of DNA damage response, signal transduction by p53 class mediator; 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; Li-fraumeni Syndrome 1; Melanoma-pancreatic Cancer Syndrome
Research Articles on CDKN2A	**1.** Results suggest that polymorphisms of MDM2 and p14(ARF) contribute to the interindividual difference in susceptibility to differentiated thyroid carcinoma, either alone or more likely jointly.

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