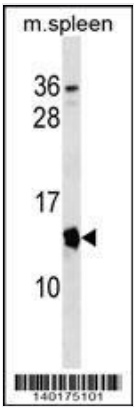
CDKN2A Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Cdkn2a, Polyclonal Antibody
Full Product Name	Cdkn2a, ID (Cdkn2a, Cyclin-dependent kinase inhibitor 2A, isoform 3, p19ARF) (Azide free) (HRP)
Product Gene Name	anti-Cdkn2a antibody
Product Synonym Names	Cdkn2a; Cyclin-dependent kinase inhibitor 2A; isoform 3; p19ARF
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Horseradish Peroxidase (HRP).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Note: Sodium azide is a potent inhibitor of peroxidase and should not be added to HRP conjugates. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
OMIM	600160
3D Structure	ModBase 3D Structure for Q8N726
Immunogen	Mouse Cdkn2a antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 38-65 amino acids from the Central region of mouse Cdkn2a.
Conjugate	HRP
Note	Preservative Free
Product Categories/Family for anti-Cdkn2a antibody	Antibodies; Protein Kinase Inhibitors
Applications Tested/Suitable for anti-Cdkn2a antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-Cdkn2a antibody	WB: 1:100-500 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-Cdkn2a antibody	Capable of inducing cell cycle arrest in G1 and G2 phases. Acts as a tumor suppressor. Binds to MDM2 and blocks its nucleocytoplasmic shuttling by sequestering it in the nucleolus. This inhibits the oncogenic action of MDM2 by blocking MDM2-induced degradation of p53 and enhancing p53-dependent transactivation and apoptosis. Also induces G2 arrest and apoptosis in a p53-independent manner by preventing the activation of cyclin B1/CDC2 complexes. Binds to BCL6 and down-regulates BCL6-induced transcriptional repression. Binds to E2F1 and MYC and blocks their transcriptional activator activity but has no effect on MYC transcriptional repression. Binds to TOP1/TOPOI and stimulates its activity. This complex binds to rRNA gene promoters and may play a role in rRNA transcription and/or maturation. Interacts with NPM1/B23 and promotes its polyubiquitination and degradation, thus inhibiting rRNA processing. Interacts with UBE2I/UBC9 and enhances sumoylation of a number of its binding partners including MDM2 and E2F1. Binds to HUWE1 and represses its ubiquitin ligase activity. May play a role in controlling cell proliferation and apoptosis during mammary gland development.

Product References and Citations for anti-Cdkn2a antibody	Nogueira, C., et al. Oncogene 29(47):6222-6232(2010). Fernandez-Diaz, L.C., et al. Development 137(20):3393-3403(2010). Bennecke, M., et al. Cancer Cell 18(2):135-146(2010). Negishi, M., et al. PLoS ONE 5 (8), E12373 (2010): Ulanet, D.B., et al. PLoS ONE 5 (8), E12454 (2010).
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	MBS6284659 is an antibody targeting Cdkn2a. Also known as Cdkn2a, ID (Cdkn2a, Cyclin-dependent kinase inhibitor 2A, isoform 3, p19ARF) (Azide free) (HRP). Reactive in Mouse. Host: Rabbit.



Western Blot (WB) of anti-Cdkn2a antibody
Mouse Cdkn2a Antibody (Center) western blot analysis in mouse spleen tissue lysates (35ug/lane).This demonstrates the Cdkn2a antibody detected the Cdkn2a protein (arrow).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Cdkn2a. It may not necessarily be applicable to this product.

NCBI GI #	6753390
NCBI GeneID	12578
NCBI Accession #	NP_034007.1
UniProt Primary Accession #	Q8N726
UniProt Secondary Accession #	Q64364
UniProt Related Accession #	Q64364; P51480
GenBank Nucleotide #	NM_009877.2
NCBI Official Full Name	cyclin-dependent kinase inhibitor 2A isoform 1
NCBI Official Synonym Full Names	cyclin-dependent kinase inhibitor 2A
NCBI Official Symbol	Cdkn2a
NCBI Official Synonym Symbols	Arf; p16; MTS1; Pctr1; p19ARF; p16INK4a; p19<ARF>; ARF-INK4a; INK4a-ARF; Ink4a/Arf; 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

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.** Increased gene dosage of Ink4a, Arf1 and p53 delays age-associated central nervous system functional decline.
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