

Anti-p19Arf (exon 1b) (RAT) Monoclonal Antibody - 200-501-892

Code: 200-501-892

Size: 100 µg

Product Description: Anti-p19Arf (exon 1b) (RAT) Monoclonal Antibody - 200-501-892

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rat
Gene Name	CDKN2A
Species Reactivity	human, mouse, hamster.
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Synonyms	Cyclin-dependent kinase inhibitor 2A, isoform 3 p19ARF
Application Note	This antibody has been tested for use in ELISA, western blotting and immunoprecipitation. Specific conditions for western blotting reactivity should be optimized by the end user. Expect a band approximately 19 kDa in size corresponding to mouse p19Arf by western blotting in the appropriate cell line or lysate.
Background	The Ink4a-Arf locus encodes two tumor suppressor proteins, p16Ink4a and p19Arf. Expression of Ink4a and Arf is regulated by distinct promoters upstream of alternative first exons whose products are spliced to a common second exon translated in alternative reading frames (from which Arf gets its name). The two genes are induced by different stress signals and can be separately mutated or silenced in tumor cells. Targeted disruption of either or both genes in mouse leads to spontaneous tumor formation, which is accelerated by exposure of the mutant animals to chemical carcinogens or ionizing radiation. Inactivation of ARF by mutation, deletion, or epigenetic silencing is observed in many human cancers, underscoring the role of this protein as a potent and ubiquitous tumor suppressor. p19Arf is activated by Myc or mutant Ras. Once activated, p19Arf binds to the p53 negative regulator Mdm2, leading to p53 stabilization and unleashing a p53-dependent transcriptional program that triggers either cell cycle arrest or apoptosis. p19Arf also has p53-independent inhibitory effects on cell proliferation. p19Arf is a nucleolar protein and is implicated in ribosomal biogenesis.
Purity And Specificity	This is a Protein G purified antibody directed against mouse p19Arf protein. No reactivity is observed against human or hamster homologues. The epitope was putatively mapped to amino acids 54-62 of mouse p19Arf. BLAST analysis indicates that no significant sequence homology exists for this sequence with p19Arf homologues from other sources. This epitope is also found on mouse p16Ink4a protein. No additional information is available for reactivity with p19Arf protein from other sources.
Assay Dilutions	User Optimized
ELISA	1:5,000 - 1:20,000
WESTERN BLOT	1:500 - 1:2,000
OTHER ASSAYS	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	This protein G purified monoclonal antibody was produced by repeated immunizations with a synthetic peptide corresponding to amino acid residues 54-75 of mouse p19Arf protein.
General Reference	<p>Quelle,D.E., Zindy,F., Ashmun,R.A. and Sherr,C.J. (1995) Alternative reading frames of the INK4a tumor suppressor gene encode two unrelated proteins capable of inducing cell cycle arrest. Cell 83 (6), 993-1000.</p> <p>Serrano, M., Hannon, G. J. & Beach, D. (1993) A new regulatory motif in cell-cycle control causing specific inhibition of cyclin D/CDK4. Nature 366, 704-707.</p> <p>Kamijo, T., Zindy, F., Roussel, M. F., Quelle, D. E., Downing, J. R., Ashmun, R. A., Grosveld, G. & Sherr, C. J. (1997) Tumor suppression at the mouse INK4a locus mediated by the alternative reading frame product p19ARF. Cell 91, 649-659.</p>

Related Products

200-301-174	Anti-p53 (MOUSE) Monoclonal Antibody - 200-301-174
200-501-891	Anti-p19Arf (exon 2) (RAT) Monoclonal Antibody - 200-501-891
612-103-120	Anti-RAT IgG (H&L) (GOAT) Antibody Peroxidase Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Ms Rb & Sh Serum Proteins) - 612-103-120
B501-0500	BLOTTO Immunoanalytical Grade (Non-Fat Dry Milk) - B501-0500

Related Links

UniProtKB	http://www.uniprot.org/uniprot/Q64364
NCBI	http://www.ncbi.nlm.nih.gov/protein/1162947
NCBI - 1162947	http://www.ncbi.nlm.nih.gov/protein/1162947
UniProt - Q64364	http://www.uniprot.org/uniprot/Q64364
Gene ID - 12578	http://www.ncbi.nlm.nih.gov/gene/12578

Images

1 Western blot analysis is shown using Rockland's Protein A Purified Rat Monoclonal Anti-p19Arf antibody to detect mouse p19Arf protein present in p19Arf transformed NIH-3T3 cells. Approximately 30 ?g of cell lysate was loaded on a 4-12% NuPage SDS-PAGE gel using MES buffer. The blot was incubated with a 1:1,000 dilution of the antibody at room temperature followed by washing. A 1:20,000 dilution of HRP conjugated Gt-anti-Mouse IgG preceded color development using Pierce Chemical's SuperSignal substrate. Comparison to a molecular weight marker (not shown) indicates a single band of ~96.0 kDa corresponding to the expected molecular weight for human PMS2 protein. Other detection systems will yield similar results. See Bertwistle et al. 2004 for details).



Disclaimer

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