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Datasheet for 600-401-423

Mdm2 phospho S185 Antibody

Overview

Description:	Anti-MDM2 pS185 (RABBIT) Antibody - 600-401-423
Item No.:	600-401-423
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human, Mouse
Host Species:	Rabbit

Product Details

Background:

MDM2 is a nuclear phosphoprotein with an apparent molecular mass of 90 kD that forms a complex with the p53 tumor suppressor protein. Human MDM2 was identified as a homologous product of the 'murine double minute 2' gene (mdm2). The MDM2 gene enhances the tumorigenic potential of cells when it is overexpressed and encodes a putative transcription factor. Forming a tight complex with the p53 gene, the MDM2 oncogene can inhibit p53-mediated transactivation. MDM2 binds to p53 and amplification of MDM2 in sarcomas leads to escape from p53-regulated growth control. This mechanism of tumorigenesis parallels that for virus-induced tumors in which viral oncogene products bind to and functionally inactivate p53. Overexpression of the MDM2 oncogene was found in leukemias. Inactivation of tumor suppressor genes leads to deregulated cell proliferation and is a key factor in human tumorigenesis. MDM2 interacts physically and functionally with the retinoblastoma (RB) protein and can inhibit its growth regulatory capacity. Both RB and p53 can be subjected to negative regulation by the product of a single cellular protooncogene. The interference of binding to p53 prevents the interaction of MDM2 and its regulation of the transcriptional activity of p53 in vivo. Direct association of p53 with the cellular protein MDM2 results in ubiquitination and subsequent degradation of p53. MDM2-p53 complexes were preferentially found in S/G2M phases of the cell cycle. The MDM2 gene is alternatively spliced, producing 5 additional splice variant transcripts from the full length MDM2 gene. Four out of five of these alternatively spliced forms (MDM2a-MDMd) are missing substantial portions of the p53 binding domain and retain the acidic domain and the zinc-finger domains. The fifth and smallest transcript (MDM2e) retains the largest spliced region encoding the p53 binding domain; however, it lacks the nuclear localization signal, the acidic domain and zinc-finger domains. The alternatively spliced transcripts tend to be expressed in tumorigenic tissue, whereas the full-length MDM2 transcript is expressed in normal tissue. MDM2 is found in the nucleus and cytoplasm, however, it is expressed predominantly in the nucleoplasm. Interaction with ARF (P14) results in the localization of both proteins to the nucleus. The nucleolar localization signals in both ARF and

	MDM2 may be necessary to allow efficient nucleolar localization of both proteins.
Synonyms:	rabbit anti-MDM2 pS185 antibody, MDM-2, E3 ubiquitin-protein ligase Mdm2, p53-binding protein Mdm2, Oncoprotein Mdm2, Double minute 2 protein, RING-type E3 ubiquitin transferase Mdm2, Double minute 2 protein, Hdm2
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Mdm2
Reactivity:	Human, Mouse
PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic phospho-peptide corresponding to an internal region near aa 175-200 of mouse MDM2.
Purity/Specificity:	This affinity-purified antibody is directed against the phosphorylated form of mouse MDM2 protein at the pS185 residue. The product was affinity purified from monospecific antiserum by immunoaffinity purification. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross-adsorbed against the non-phosphorylated form of the immunizing peptide. Reactivity occurs against Mouse MDM2 pS185 protein and the antibody is specific for the phosphorylated form of the protein. Reactivity with non-phosphorylated mouse MDM2 is minimal by ELISA and western blot. A BLAST analysis was used to suggest minimal cross reactivity with MDM2 homologues from other sources.
Relevant Links:	• UniProtKB - P23804 • NCBI - 2851543 • GeneID - 17246

Application Details

Tested Applications:	ELISA, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect bands approximately 102 kDa in size corresponding to phosphorylated MDM2 protein by western blotting in the appropriate cell lysate or extract.

Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:3,000 - 1:12,000
IP:	1:100
WB:	1:500 - 1:2,000

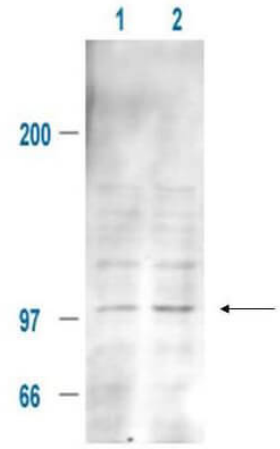
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
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.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Affinity Purified Anti-MDM2 pS185 (Rabbit) is shown to detect a 102 kDa band (arrow) corresponding to phosphorylated mouse MDM2 present in a 293T whole cell lysate. Cells were serum-starved for 24 hours prior to harvest. Approximately 20 µg of lysate was loaded per lane for SDS-PAGE. Untreated cells are shown in lane 1, whereas cells in lane 2 were treated with IGF-1 (100 ng/ml) for 20 min prior to harvest. Follow reaction of antibody with a 1:2000 dilution of HRP Goat-a-Rabbit IgG for visualization.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.