BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-Phospho-MDM2 S185 Antibody

Catalog Number: P00054

About MDM2

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.

Overview

Product Name	Anti-Phospho-MDM2 S185 Antibody
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Phospho-MDM2 S185 Antibody (Catalog # P00054). Tested in ELISA, WB applications. This antibody reacts with Human, Mouse.
Application	ELISA, IP, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	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 date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	P23804

BOSTER
antibody and ELISA experts

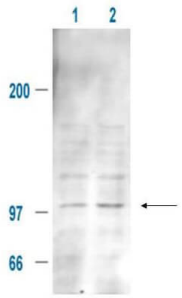
BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Technical Details

Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near aa 175-200 of mouse MDM2.
Predicted Reactive Species	Hepatitis Virus
Isotype	IgG
Form	Liquid (sterile filtered)
Concentration	1.0 mg/mL by UV absorbance at 280 nm
Purification	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.
Suggested Dilutions	ELISA: 1:3,000 - 1:12,000 IP: 1:100 WB: 1:500 - 1:2,000 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.

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-Phospho-MDM2 S185 Antibody (P00054) Images



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.

5 Publications Citing This Product

1. PubMed ID: -, Jiang X,Yuan J,Dou Y,Zeng D, Xiao S.Lipopolysaccharide Affects the Proliferation and Glucose Metabolism of Cervical Cancer Cells Through the FRA1/MDM2/p53 Pathway.Int J Med Sci 2021;18(4): 1030-1038.doi:10. 7150/ijms.47360.

2. PubMed ID: 26229107, The Oncoprotein HBXIP Modulates the Feedback Loop of MDM2/p53 to Enhance the Growth of Breast Cancer

3. PubMed ID: 26549498, Fra-1 is upregulated in lung cancer tissues and inhibits the apoptosis of lung cancer cells by the P53 signaling pathway

Visit bosterbio.com/anti-mdm2-phospho-s185-antibody-p00054-boster.html to see all 5 publications.

Submit a product review to Biocompare.com