SANTA CRUZ BIOTECHNOLOGY, INC.

MDM2 (H-221): sc-7918

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

p53 is the most commonly mutated gene in human cancer identified to date. Expression of p53 leads to inhibition of cell growth by preventing progression of cells from G_1 to S phase of the cell cycle. Most importantly, p53 functions to cause arrest of cells in the G_1 phase of the cell cycle following any exposure of cells to DNA-damaging agents. The MDM2 (murine double minute-2) protein was initially identified as an oncogene in a murine transformation system. MDM2 functions to bind p53 and block p53-mediated transactivation of cotransfected reporter constructs. The MDM2 gene is amplified in a high percentage of human sarcomas that retain wildtype p53 and tumor cells that overexpress MDM2 can tolerate high levels of p53 expression. These findings argue that MDM2 overexpression represents at least one mechanism by which p53 function can be abrogated during tumorigenesis.

CHROMOSOMAL LOCATION

Genetic locus: MDM2 (human) mapping to 12q15; Mdm2 (mouse) mapping to 10 D2.

SOURCE

MDM2 (H-221) is a rabbit polyclonal antibody raised against amino acids 100-320 mapping within an internal region of MDM2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MDM2 (H-221) is recommended for detection of MDM2 and MDM2 p60 cleavage product of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MDM2 (H-221) is also recommended for detection of MDM2 and MDM2 p60 cleavage product in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MDM2 siRNA (h): sc-29394, MDM2 siRNA (m): sc-37263, MDM2 siRNA (r): sc-63266, MDM2 shRNA Plasmid (h): sc-29394-SH, MDM2 shRNA Plasmid (m): sc-37263-SH, MDM2 shRNA Plasmid (r): sc-63266-SH, MDM2 shRNA (h) Lentiviral Particles: sc-29394-V, MDM2 shRNA (m) Lentiviral Particles: sc-37263-V and MDM2 shRNA (r) Lentiviral Particles: sc-63266-V.

Molecular Weight of MDM2: 90 kDa.

Molecular Weight of cleaved MDM2 product: 60 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or MES-SA/Dx5 cell lysate: sc-2284.

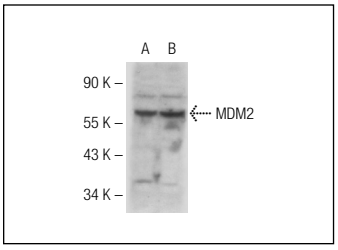
RESEARCH USE

For research use only, not for use in diagnostic procedures.

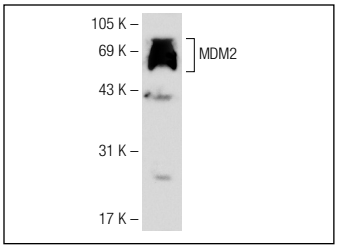
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



MDM2 (H-221): sc-7918. Western blot analysis of MDM2 expression in VA-ES-BJ (**A**) and MES-SA/Dx5 (**B**) whole cell lysates.



MDM2 (H-221): sc-7918. Western blot analysis of MDM2 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

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3. Vaskivuo, L., et al. 2006. Azidothymidine and cisplatin increase p14ARF expression in OVCAR-3 ovarian cancer cell line. Toxicol. Appl. Pharmacol. 216: 89-97.
4. Linares, L.K., et al. 2007. Intrinsic ubiquitination activity of PCAF controls the stability of the oncoprotein Hdm2. Nat. Cell Biol. 9: 331-338.
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6. Wawrzynow, B., et al. 2007. MDM2 chaperones the p53 tumor suppressor. J. Biol. Chem. 282: 32603-32612.
7. Tian, Z., et al. 2009. Cytotoxic diarylheptanoid induces cell cycle arrest and apoptosis via increasing ATF3 and stabilizing p53 in SH-SY5Y cells. Cancer Chemother. Pharmacol. 63: 1131-1139.
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