SANTA CRUZ BIOTECHNOLOGY, INC.

MDM2 (C-18): sc-812

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 (C-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within the C-terminus of MDM2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-812 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MDM2 (C-18) is recommended for detection of MDM2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MDM2 (C-18) is also recommended for detection of MDM2 in additional species, including equine, canine, bovine, porcine, avian and feline.

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

Molecular Weight of MDM2: 90 kDa.

Molecular Weight of MDM2 cleavage product: 60 kDa.

Positive Controls: A-673 cell lysate: sc-2414, RAW 264.7 whole cell lysate: sc-2211 or MCF7 whole cell lysate: sc-2206.

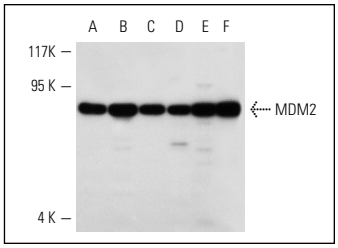
STORAGE

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

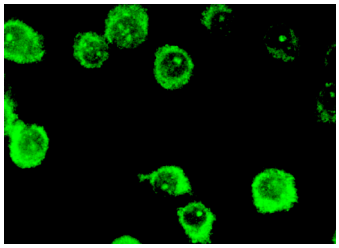
RESEARCH USE

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

DATA



MDM2 (C-18): sc-812. Western blot analysis of MDM2 expression in MCF7 (**A**), V-205 (**B**), A-673 (**C**), RAW 264.7 (**D**), Jurkat (**E**) and MDA-MB-468 (**F**) whole cell lysates.



MDM2 (C-18): sc-812. Immunofluorescence staining of methanol-fixed RAW 264.7 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Carroll, P.E., et al. 1999. Centrosome hyperamplification in human cancer: chromosome instability by p53 mutation and/or MDM2 overexpression. Oncogene 18: 1935-1944.
2. Kulikov, R., et al. 2010. Mdm2 facilitates the association of p53 with the proteasome. Proc. Natl. Acad. Sci. USA 107: 10038-10043.
3. Arrate, M.P., et al. 2010. MicroRNA biogenesis is required for Myc-induced B-cell lymphoma development and survival. Cancer Res. 70: 6083-6092.
4. Ta, V.B., et al. 2010. Malignant transformation of Slp65-deficient pre-B cells involves disruption of the Arf-Mdm2-p53 tumor suppressor pathway. Blood 115: 1385-1393.
5. Schuster, C., et al. 2011. The cooperating mutation or "second hit" determines the immunologic visibility toward MYC-induced murine lymphomas. Blood 118: 4635-4645.
6. Waning, D.L., et al. 2011. c-Abl phosphorylation of Mdm2 facilitates Mdm2-Mdmx complex formation. J. Biol. Chem. 286: 216-222.
7. Kovacevic, Z., et al. 2011. The metastasis suppressor, N-myc downstream regulated gene 1 (NDRG1), upregulates p21 via p53-independent mechanisms. Carcinogenesis 32: 732-740.
8. Wang, X., et al. 2012. Stabilization of p53 in influenza A virus-infected cells is associated with compromised MDM2-mediated ubiquitination of p53. J. Biol. Chem. 287: 18366-18375.
9. Lee, J.C., et al. 2012. Protein L-isoaspartyl methyltransferase regulates p53 activity. Nat. Commun. 3: 927.

MONOS Satisfaction Guaranteed

Try **MDM2 (SMP14): sc-965** or **MDM2 (D-7): sc-13161**, our highly recommended monoclonal alternatives to MDM2 (C-18). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **MDM2 (SMP14): sc-965**.