SANTA CRUZ BIOTECHNOLOGY, INC.

MDMX (D-19): sc-14738

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The MDM2 protein is the primary regulator of p53 protein stability. MDMX is an MDM2-related protein that inhibits MDM2-mediated degradation of p53 via distinct associations with MDM2. The gene that encodes MDMX (also designated MDM4) is a target for amplification in malignant gliomas. ARF interacts with MDMX to sequester MDMX within the nucleolus. This sequestration of MDMX by ARF results in an increase in p53 transactivation. In addition, expression of MDMX can reverse MDM2-targeted degradation of p53 while maintaining suppression of p53 transactivation. Like MDM2, MDMX also binds p73 and stabilizes the level of p73. Therefore, in striking contrast to p53, the half-life of p73 is increased by binding to MDM2.

CHROMOSOMAL LOCATION

Genetic locus: MDM4 (human) mapping to 1q32.1; Mdm4 (mouse) mapping to 1 E4.

SOURCE

MDMX (D-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MDMX 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.

Blocking peptide available for competition studies, sc-14738 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MDMX (D-19) is recommended for detection of MDMX 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).

MDMX (D-19) is also recommended for detection of MDMX in additional species, including equine and porcine.

Suitable for use as control antibody for MDMX siRNA (h): sc-37448, MDMX siRNA (m): sc-37449, MDMX shRNA Plasmid (h): sc-37448-SH, MDMX shRNA Plasmid (m): sc-37449-SH, MDMX shRNA (h) Lentiviral Particles: sc-37448-V and MDMX shRNA (m) Lentiviral Particles: sc-37449-V.

Molecular Weight of MDMX: 80 kDa.

Positive Controls: U-2 OS cell lysate: sc-2295, MDMX (h): 293T Lysate: sc-111488 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.

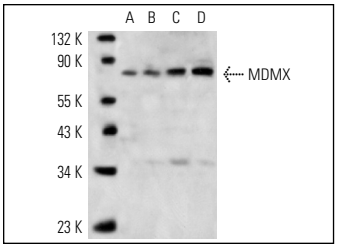
RESEARCH USE

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

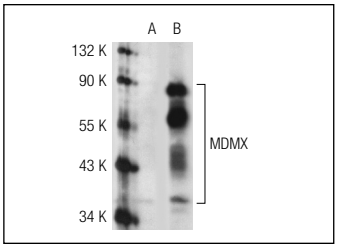
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MDMX (D-19): sc-14738. Western blot analysis of MDMX expression in MCF7 (**A**), HeLa (**B**) and U-2 OS (**C**) whole cell lysates and HeLa nuclear extract (**D**).



MDMX (D-19): sc-14738. Western blot analysis of MDMX expression in non-transfected: sc-117752 (**A**) and human MDMX transfected: sc-111488 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Linares, L.K., et al. 2003. HdmX stimulates Hdm2-mediated ubiquitination and degradation of p53. Proc. Natl. Acad. Sci. USA 100: 12009-12014.
2. Pizzatti, L., et al. 2006. Altered protein profile in chronic myeloid leukemia chronic phase identified by a comparative proteomic study. Biochim. Biophys. Acta 1764: 929-942.
3. Uchida, C., et al. 2006. Effects of MDMX on MDM2-mediated downregulation of pRB. FEBS Lett. 580: 1753-1758.
4. Tang, M.K, et al. 2006. Comparative proteomic analysis reveals a function of the novel death receptor-associated protein BRE in the regulation of prohibitin and p53 expression and proliferation. Proteomics 6: 2376-2385.
5. Ohtsubo, C., et al. 2009. Cytoplasmic tethering is involved in synergistic inhibition of p53 by Mdmx and Mdm2. Cancer Sci. 100: 1291-1299.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.