

MDMX (G-10): sc-74467

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 (G-10) is a mouse monoclonal antibody raised against amino acids 361-490 mapping at the C-terminus of MDMX of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MDMX (G-10) is available conjugated to agarose (sc-74467 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74467 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74467 PE), fluorescein (sc-74467 FITC), Alexa Fluor® 488 (sc-74467 AF488), Alexa Fluor® 546 (sc-74467 AF546), Alexa Fluor® 594 (sc-74467 AF594) or Alexa Fluor® 647 (sc-74467 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74467 AF680) or Alexa Fluor® 790 (sc-74467 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

MDMX (G-10) is recommended for detection of MDMX of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

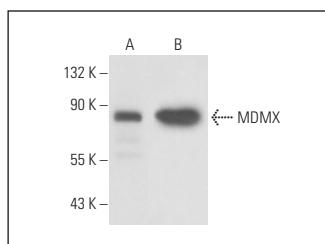
Molecular Weight of MDMX: 80 kDa.

Positive Controls: MDMX (h): 293T Lysate: sc-111488, Hep G2 nuclear extract: sc-364819 or Sol8 cell lysate: sc-2249.

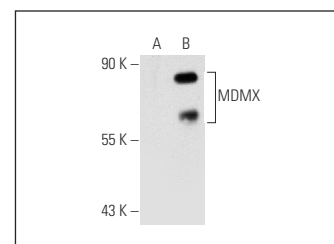
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



MDMX (G-10): sc-74467. Western blot analysis of MDMX expression in Sol8 whole cell lysate (A) and Hep G2 nuclear extract (B).



MDMX (G-10): sc-74467. 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

- Biderman, L., et al. 2012. MDMX is required for p53 interaction with and full induction of the MDM2 promoter after cellular stress. *Mol. Cell. Biol.* 32: 1214-1225.
- Joshi, M.R., et al. 2013. Human serum albumin and p53-activating peptide fusion protein is able to promote apoptosis and deliver fatty acid-modified molecules. *PLoS ONE* 8: e80926.
- Ng, S.Y., et al. 2018. Targetable vulnerabilities in T- and NK-cell lymphomas identified through preclinical models. *Nat. Commun.* 9: 2024.

RESEARCH USE

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

PROTOCOLS

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

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