

mSin3B (H-5): sc-55516

BACKGROUND

It is now well established that Myc regulation of cell proliferation and differentiation involves a family of related transcription factors. One such factor, Max, is an obligate heterodimeric partner for Myc and can also form heterodimers with at least four related proteins designated Mad 1, Mxi 1 (alternatively designated Mad 2), Mad 3 and Mad 4. Like Mad 1 and Mxi 1, association of Mad 3 and Mad 4 with Max results in transcriptional repression. Both Myc and the Mad proteins have short half-lives and their synthesis is tightly regulated, while Max expression is constitutive and relatively stable. Two related mammalian cDNAs have been identified and shown to encode Mad-binding proteins. Both possess sequence homology with the yeast transcription repressor Sin3, including four conserved paired amphipathic helix (PAH) domains. mSin3A and mSin3B specifically interact with the Mad proteins via their second paired amphipathic helix domain (PAH2). It has been suggested that Mad-Max heterodimers repress transcription by tethering mSin3 to DNA as co-repressors.

CHROMOSOMAL LOCATION

Genetic locus: SIN3B (human) mapping to 19p13.11; Sin3b (mouse) mapping to 8 B3.3.

SOURCE

mSin3B (H-5) is a mouse monoclonal antibody raised against amino acids 172-228 of mSin3B of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

mSin3B (H-5) is recommended for detection of mSin3B 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 mSin3B siRNA (h): sc-35975, mSin3B siRNA (m): sc-35976, mSin3B shRNA Plasmid (h): sc-35975-SH, mSin3B shRNA Plasmid (m): sc-35976-SH, mSin3B shRNA (h) Lentiviral Particles: sc-35975-V and mSin3B shRNA (m) Lentiviral Particles: sc-35976-V.

Molecular Weight of mSin3B-1: 133 kDa.

Molecular Weight of mSin3B-2: 129 kDa.

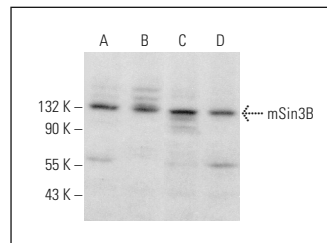
Molecular Weight of mSin3B: 40 kDa.

Positive Controls: mSin3B (h): 293T Lysate: sc-112047, RAW 264.7 whole cell lysate: sc-2211 or F9 cell lysate: sc-2245.

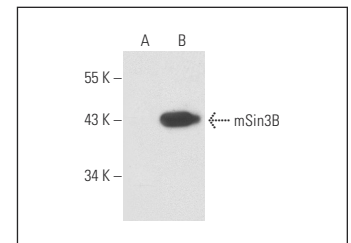
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (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 BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



mSin3B (H-5): sc-55516. Western blot analysis of mSin3B expression in RAW 264.7 (A), F9 (B), DU 145 (C) and PC-3 (D) whole cell lysates.



mSin3B (H-5): sc-55516. Western blot analysis of mSin3B expression in non-transfected: sc-117752 (A) and human mSin3B transfected: sc-112047 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Baek, S.H., et al. 2006. Ligand-specific allosteric regulation of coactivator functions of androgen receptor in prostate cancer cells. *Proc. Natl. Acad. Sci. USA* 103: 3100-3105.
- Baek, S.H., et al. 2006. Macrophage/cancer cell interactions mediate hormone resistance by a nuclear receptor derepression pathway. *Cell* 124: 615-629.
- Bansal, N., et al. 2011. Tumor suppressor protein p53 recruits human Sin3B/HDAC1 complex for down-regulation of its target promoters in response to genotoxic stress. *PLoS ONE* 6: e26156.
- Bainor, A.J., et al. 2018. The HDAC-associated Sin3B protein represses DREAM complex targets and cooperates with APC/C to promote quiescence. *Cell Rep.* 25: 2797-2807.e8.

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.