SANTA CRUZ BIOTECHNOLOGY, INC.

mSin3B (H-4): sc-13145

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 corepressors.

REFERENCES

1. Mukherjee, B., et al. 1992. Myc family oncoproteins function through a common pathway to transform normal cells in culture: cross-interference by Max and transacting dominant mutants. Genes Dev. 6: 1480-1492.
2. Kretzner, L., et al. 1992. The Myc and Max proteins possess distinct transcriptional activities. Nature 359: 426-429.
3. Ayer, D.E., et al. 1993. Mad: a heterodimeric partner for Max that antagonizes Myc transcriptional activity. Cell 72: 211-222.

CHROMOSOMAL LOCATION

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

SOURCE

mSin3B (H-4) is a mouse monoclonal antibody raised against amino acids 172-228 of mSin3B of mouse 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13145 X, 200 µg/0.1 ml.

mSin3B (H-4) is available conjugated to agarose (sc-13145 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-13145 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-13145 PE), fluorescein (sc-13145 FITC), Alexa Fluor® 488 (sc-13145 AF488), Alexa Fluor® 546 (sc-13145 AF546), Alexa Fluor® 594 (sc-13145 AF594) or Alexa Fluor® 647 (sc-13145 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-13145 AF680) or Alexa Fluor® 790 (sc-13145 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

mSin3B (H-4) is recommended for detection of mSin3B 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).

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.

mSin3B (H-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

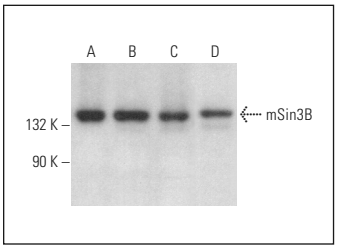
Molecular Weight of mSin3B-1: 133 kDa.

Molecular Weight of mSin3B-2: 129 kDa.

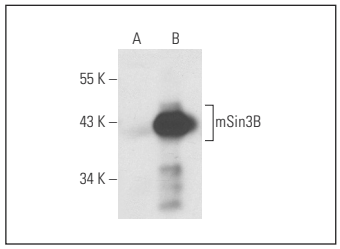
Molecular Weight of mSin3B: 40 kDa.

Positive Controls: mSin3B (h): 293T Lysate: sc-112047, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

DATA



mSin3B (H-4): sc-13145. Western blot analysis of mSin3B expression in HeLa nuclear extract (**A**) and K-562 (**B**), MEG-01 (**C**) and Jurkat (**D**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



mSin3B (H-4): sc-13145. 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

1. Cowley, S.M., et al. 2005. The mSin3A chromatin-modifying complex is essential for embryogenesis and T cell development. Mol. Cell. Biol. 25: 6990-7004.
2. Landt, S.G., et al. 2012. ChIP-seq guidelines and practices of the ENCODE and modENCODE consortia. Genome Res. 22: 1813-1831.
3. Lalioti, V.S., et al. 2013. C6orf89 encodes three distinct HDAC enhancers that function in the nucleolus, the Golgi and the midbody. J. Cell. Physiol. 228: 1907-1921.
4. Garcia-Sanz, P., et al. 2014. Sin3b interacts with Myc and decreases Myc levels. J. Biol. Chem. 289: 22221-22236.

STORAGE

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