SANTA CRUZ BIOTECHNOLOGY, INC.

mSin3B (A-20): sc-996

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, Mxi1 (alternatively designated Mad 2), Mad 3 and Mad 4. Like Mad 1 and Mxi1, association of either Mad 3 or 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.

CHROMOSOMAL LOCATION

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

SOURCE

mSin3B (A-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of mSin3B of mouse origin.

PRODUCT

Each vial contains 200 µg IgG 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-996 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-996 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

mSin3B (A-20) is recommended for detection of mSin3B 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) 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 (A-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

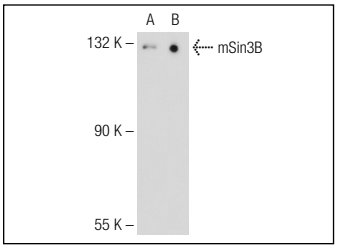
Molecular Weight of mSin3B-1/mSin3B-2: 133/129 kDa.

Molecular Weight of mSin3B: 40 kDa.

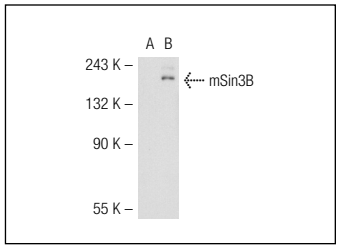
STORAGE

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

DATA



mSin3B (A-20): sc-996. Western blot analysis of mSin3B expression in non-transfected: sc-117752 (**A**) and mouse mSin3B transfected: sc-121802 (**B**) 293T whole cell lysates.



mSin3B (A-20): sc-996. Western blot analysis of mSin3B expression in non-transfected: sc-117752 (**A**) and human mSin3B transfected: sc-116734 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Korhonen, P., et al. 1998. Expression of transcriptional repressor protein mSin3A but not mSin3B is induced during neuronal apoptosis. Biochem. Biophys. Res. Commun. 252: 274-277.
2. Grandinetti, K.B., et al. 2009. Sin3B expression is required for cellular senescence and is up-regulated upon oncogenic stress. Cancer Res. 69: 6430-6437.
3. Zbinden, M., et al. 2010. NANOG regulates glioma stem cells and is essential *in vivo* acting in a cross-functional network with GLI1 and p53. EMBO J. 29: 2659-2674.
4. Landt, S.G., et al. 2012. ChIP-seq guidelines and practices of the ENCODE and modENCODE consortia. Genome Res. 22: 1813-1831.
5. Lei, D., et al. 2013. Hepatic deficiency of COP9 signalosome subunit 8 induces ubiquitin-proteasome system impairment and Bim-mediated apoptosis in murine livers. PLoS ONE 8: e67793.
6. Majumder, S., et al. 2014. G protein-coupled receptor-2-interacting protein-1 is required for endothelial cell directional migration and tumor angiogenesis via cortactin-dependent lamellipodia formation. Arterioscler. Thromb. Vasc. Biol. 34: 419-426.
7. Garcia-Sanz, P., et al. 2014. Sin3b interacts with Myc and decreases Myc levels. J. Biol. Chem. 289: 22221-22236.

RESEARCH USE

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