

mSin3B (h): 293T Lysate: sc-112047

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.
4. Amati, B., et al. 1993. The c-Myc protein induces cell cycle progression and apoptosis through dimerization with Max. *EMBO J.* 12: 5083-5087.
5. Ayer, D.E., et al. 1995. Mad-Max transcriptional repression is mediated by ternary complex formation with mammalian homologs of yeast repressor Sin3. *Cell* 80: 767-776.
6. Schreiber-Agus, N., et al. 1995. An amino-terminal domain of Mxi 1 mediates anti-Myc oncogenic activity and interacts with a homolog of the yeast transcriptional repressor Sin3. *Cell* 80: 777-786.
7. Hurlin, P.J., et al. 1995. Mad 3 and Mad 4: novel Max-interacting transcriptional repressors that suppress c-Myc dependent transformation and are expressed during neural and epidermal differentiation. *EMBO J.* 14: 5646-5659.

CHROMOSOMAL LOCATION

Genetic locus: SIN3B (human) mapping to 19p13.11

PRODUCT

mSin3B (h): 293T Lysate represents a lysate of human mSin3B transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

mSin3B (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive mSin3B antibodies. Recommended use: 10-20 µl per lane.

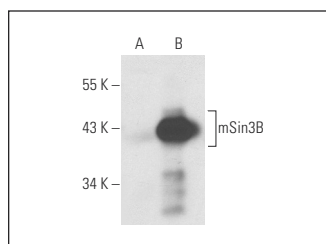
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

mSin3B (H-4): sc-13145 is recommended as a positive control antibody for Western Blot analysis of enhanced human mSin3B expression in mSin3B transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



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.

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.