SANTA CRUZ BIOTECHNOLOGY, INC.

Mxi1 (C-17): sc-1720

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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 (i.e., Mad 2), Mad 3 and Mad 4. Like Mad 1 and Mxi1, 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.

CHROMOSOMAL LOCATION

Genetic locus: MXI1 (human) mapping to 10q25.2; Mxi1 (mouse) mapping to 19 D2.

SOURCE

Mxi1 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Mxi1 of human 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-1720 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-1720 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Mxi1 (C-17) is recommended for detection of Mxi1 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). Mxi1 (C-17) is also recommended for detection of Mxi1 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for Mxi1 siRNA (h): sc-35835, Mxi1 siRNA (m): sc-35836, Mxi1 shRNA Plasmid (h): sc-35835-SH, Mxi1 shRNA Plasmid (m): sc-35836-SH, Mxi1 shRNA (h) Lentiviral Particles: sc-35835-V and Mxi1 shRNA (m) Lentiviral Particles: sc-35836-V.

Mxi1 (C-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

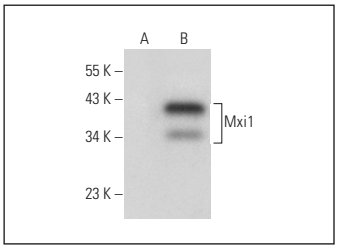
Molecular Weight of Mxi1 isoforms: 26/22/33/21 kDa.

Positive Controls: Mxi1 (h2): 293T Lysate: sc-171298, U-937 cell lysate: sc-2239 or K-562 whole cell lysate: sc-2203.

STORAGE

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

DATA



Mxi1 (C-17): sc-1720. Western blot analysis of Mxi1 expression in non-transfected: sc-117752 (**A**) and human Mxi1 transfected: sc-171298 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Fan, S., et al. 1998. Scatter factor protects epithelial and carcinoma cells against apoptosis induced by DNA-damaging agents. Oncogene 17: 131-141.
2. Lee, T.C., et al. 1999. Mxi1 is a repressor of the c-Myc promoter and reverses activation by USF. J. Biol. Chem. 274: 595-606.
3. Piecyk, M., et al. 2000. TIA-1 is a translational silencer that selectively regulates the expression of TNFα. EMBO J. 19: 4154-4163.
4. Harris, V.K., et al. 2000. Mitogen-induced expression of the fibroblast growth factor-binding protein is transcriptionally repressed through a non-canonical E-box element. J. Biol. Chem. 275: 28539-28548.
5. Calomme, C., et al. 2002. Upstream stimulatory factors binding to an E box motif in the R region of the bovine leukemia virus long terminal repeat stimulates viral gene expression. J. Biol. Chem. 277: 8775-8789.
6. Villavicencio, E.H., et al. 2002. Cooperative E-box regulation of human GLI1 by TWIST and USF. Genesis 32: 247-258.
7. Poy, M.N., et al. 2004. A pancreatic islet-specific microRNA regulates Insulin secretion. Nature 432: 226-230.
8. Font, M.P., et al. 2004. Repression of transcription at the human T-cell receptor Vβ2.2 segment is mediated by a MAX/MAD/mSin3 complex acting as a scaffold for HDAC activity. Biochem. Biophys. Res. Commun. 325: 1021-1029.

RESEARCH USE

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