SANTA CRUZ BIOTECHNOLOGY, INC.

Mad 3 (H-206): sc-770

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 (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: MXD3 (human) mapping to 5q35.3; Mxd3 (mouse) mapping to 13 B1.

SOURCE

Mad 3 (H-206) is a rabbit polyclonal antibody raised against amino acids 1-206 of Mad 3 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-770 X, 200 µg/0.1 ml.

APPLICATIONS

Mad 3 (H-206) is recommended for detection of Mad 3 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).

Mad 3 (H-206) is also recommended for detection of Mad 3 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Mad 3 siRNA (h): sc-38075, Mad 3 siRNA (m): sc-38076, Mad 3 shRNA Plasmid (h): sc-38075-SH, Mad 3 shRNA Plasmid (m): sc-38076-SH, Mad 3 shRNA (h) Lentiviral Particles: sc-38075-V and Mad 3 shRNA (m) Lentiviral Particles: sc-38076-V.

Mad 3 (H-206) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

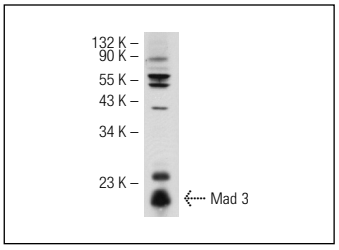
Molecular Weight of Mad 3: 23 kDa.

Positive Controls: mouse testis extract: sc-2405.

STORAGE

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

DATA



Mad 3 (H-206): sc-770. Western blot analysis of Mad 3 expression in mouse testis tissue extract.

SELECT PRODUCT CITATIONS

1. Fan, S., et al. 1998. Scatter factor protects epithelial and carcinoma cells against apoptosis induced by DNA-damagin agents. Oncogene 17: 131-141.
2. Yin, X., et al. 2001. Mmip-2/Rnf-17 enhances c-Myc function and regulated some target genes in common with glucocorticoid hormones. Oncogene 20: 2908-2917.
3. Bull, J.J., et al. 2001. Contrasting localization of c-Myc with other Myc superfamily transcription factors in the human hair follicle and during the hair growth cycle. J. Invest. Dermatol. 116: 617-622.
4. Villavicencio, E.H., et al. 2002. Cooperative E-box regulation of human GLI-1 by TWIST and USF. Genesis 32: 247-258.
5. Siegel, P.M., et al. 2003. Mad upregulation and Id2 repression accompany transforming growth factor (TGF)-β-mediated epithelial cell growth suppression. J. Biol. Chem. 278: 35444-35450.
6. Ouellet, V., et al. 2006. Tissue array analysis of expression microarray candidates identifies markers associated with tumor grade and outcome in serous epithelial ovarian cancer. Int. J. Cancer 119: 599-607.
7. Gore, Y., et al. 2010. Mad3 negatively regulates B cell differentiation in the spleen by inducing Id2 expression. Mol. Biol. Cell 21: 1864-1871.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.