SANTA CRUZ BIOTECHNOLOGY, INC.

Miz-1 (G-18): sc-5986

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Myc family, including c-Myc-, N-Myc- and L-Myc, are nuclear proteins with relatively short half lives that contribute an important role in cellular processes such as proliferation, differentiation, apoptosis and transformation. The c-Myc protein activates transcription as part of a heteromeric complex with a number of interacting partners, including Max and Mxi1; however the transforming properties of the Myc proto-oncogene are believed to be associated with Myc-mediated transcriptional repression. A POZ domain zinc finger protein, designated Miz-1 for Myc-interacting zinc finger protein-1, is a specific target of Myc-induced gene repression. Miz-1 interacts with Myc, but not Max or other Myc partners, and binding of Myc to Miz-1 requires the helix-loop-helix domain of Myc and a short amphipathic helix located in the carboxy-terminus of Miz-1. Miz-1 associates with DNA elements on the adenovirus major late and cyclin D1 promoters and activates transcription of both promoters. Expression of Miz-1 induces potent growth arrest function, and this latency is reversed by the addition of Myc.

REFERENCES

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3. Nisen, P.D., Zimmerman, K.A., Cotter, S.V., Gilbert, F. and Alt, F.W. 1986. Enhanced expression of the N-Myc gene in Wilms' tumors. Cancer Res. 46: 6217-6222.
4. Tommerup, N. and Vissing, H. 1995. Isolation and fine mapping of 16 novel human zinc finger-encoding cDNAs identify putative candidate genes for developmental and malignant disorders. Genomics 27: 259-264
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6. Schneider, A., Peukert, K., Eilers, M. and Hanel, F. 1997. Association of Myc with the zinc-finger protein Miz-1 defines a novel pathway for gene regulation by Myc. Curr. Top. Microbiol. Immunol. 224: 137-146.
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CHROMOSOMAL LOCATION

Genetic locus: ZBTB17 (human) mapping to 1p36.2-p36.1; Zbtb17 (mouse) mapping to 4 E1.

SOURCE

Miz-1 (G-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Miz-1 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-5986 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-5986 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Miz-1 (G-18) is recommended for detection of Miz-1 (Myc-interacting zinc finger protein1) of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 Miz-1 siRNA (h): sc-38085, Miz-1 siRNA (m): sc-38086, Miz-1 shRNA Plasmid (h): sc-38085-SH, Miz-1 shRNA Plasmid (m): sc-38086-SH, Miz-1 shRNA (h) Lentiviral Particles: sc-38085-V and Miz-1 shRNA (m) Lentiviral Particles: sc-38086-V.

Miz-1 (G-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Miz-1: 85/100 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

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.