

# Miz-1 (N-17): sc-5984

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: ZBTB17 (human) mapping to 1p36.13; Zbtb17 (mouse) mapping to 4 E1.

## SOURCE

Miz-1 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-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-5984 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-5984 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Miz-1 (N-17) 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), 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). Miz-1 (N-17) is also recommended for detection of Miz-1 (Myc-interacting zinc finger protein1) in additional species, including equine, canine, bovine and porcine.

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

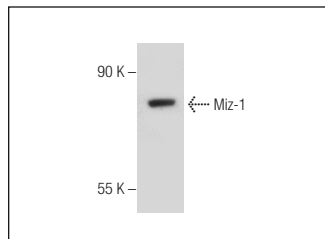
Molecular Weight of Miz-1: 85/100 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2237, SJRH30 cell lysate: sc-2287 or HCT 116 whole cell lysate.

## STORAGE

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

## DATA



Miz-1 (N-17): sc-5984. Western blot analysis of Miz-1 expression in HCT 116 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Kime, L., et al. 2003. Mad 4 is regulated by a transcriptional repressor complex that contains Miz-1 and c-Myc. *Biochem. J.* 370: 291-298.
2. Sakurai, T., et al. 2004. A cleaved form of MAGE-A4 binds to Miz-1 and induces apoptosis in human cells. *J. Biol. Chem.* 279: 15505-15514.
3. Brenner, C., et al. 2005. Myc represses transcription through recruitment of DNA methyltransferase corepressor. *EMBO J.* 24: 336-346.
4. Cappellen, D., et al. 2007. Novel c-Myc target genes mediate differential effects on cell proliferation and migration. *EMBO Rep.* 8: 70-76.
5. Ikegaki, N., et al. 2007. *De novo* identification of Miz-1 (ZBTB17) encoding a Myc-interacting zinc-finger protein as a new favorable neuroblastoma gene. *Clin. Cancer Res.* 13: 6001-6009.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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