

Miz-1 (C-19): sc-5987

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.

SOURCE

Miz-1 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at 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-5987 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-5987 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Miz-1 (C-19) is recommended for detection of Miz-1 of 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).

Suitable for use as control antibody for Miz-1 siRNA (h): sc-38085, Miz-1 shRNA Plasmid (h): sc-38085-SH and Miz-1 shRNA (h) Lentiviral Particles: sc-38085-V.

Miz-1 (C-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

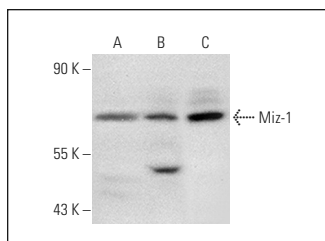
Molecular Weight of Miz-1: 85/100 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2237, SJRH30 cell lysate: sc-2287 or Raji whole cell lysate: sc-364236.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Miz-1 (C-19): sc-5987. Western blot analysis of Miz-1 expression in SK-N-MC (A), SJRH30 (B) and Raji (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Alter-Koltunoff, M., et al. 2003. Nrp1-mediated innate resistance to intraphagosomal pathogens is regulated by IRF-8, PU.1, and Miz-1. *J. Biol. Chem.* 278: 44025-44032.
- 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.
- Gebhardt, A., et al. 2006. Myc regulates keratinocyte adhesion and differentiation via complex formation with Miz-1. *J. Cell. Biol.* 172: 139-149.
- 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.

STORAGE

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


 MONOS
Satisfaction
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Try **Miz-1 (B-10): sc-136985**, our highly recommended monoclonal alternative to Miz-1 (C-19).