MN1 (H-300): sc-292316



The Power to Question

BACKGROUND

The MN1 gene, which resides on chromosome 22, encodes a 1,319 amino acid protein. The ETV6/TEL gene has been reported to fuse to MN1. The MN1-TEL fusion protein, encoded by the translocation (12;22)(p13;q11) in myeloid leukemia, is a transcription factor with transforming activity. Defects in MN1 (meningioma 1) may be a cause of meningiomas, slowly growing benign tum-ors derived from the arachnoidal cap cells of the leptomeninges, the soft coverings of the brain and spinal cord.

REFERENCES

- Lekanne Deprez, R.H., et al. 1995. Cloning and characterization of MN1, a gene from chromosome 22q11, which is disrupted by a balanced translocation in a meningioma. Oncogene 10: 1521-1528.
- Conchon, M., et al. 1997. Two unbalanced translocations, t(12;22)(p13;q11) and t(12;?)(p13;?), in an aggressive chronic B-cell leukemia: TEL gene analysis using FISH. Cancer Genet. Cytogenet. 95: 137-140.
- Buijs, A., et al. 2000. The MN1-TEL fusion protein, encoded by the translocation (12;22)(p13;q11) in myeloid leukemia, is a transcription factor with transforming activity. Mol. Cell Biol. 20: 9281-9293.
- Galmarini, C.M., et al. 2003. Drug resistance associated with loss of p53 involves extensive alterations in microtubule composition and dynamics. Br. J. Cancer 88: 1793-1799.
- van Wely, K.H., et al. 2003. The MN1 oncoprotein synergizes with coactivators RAC3 and p300 in RAR-RXR-mediated transcription. Oncogene 22: 699-709.
- 6. Belloni, E., et al. 2004. A new complex rearrangement involving the ETV6, LOC115548, and MN1 genes in a case of acute myeloid leukemia. Genes Chromosomes Cancer 41: 272-277.
- 7. Valle, V.D., et al. 2004. Expression of the MN1-TEL fusion protein in the human UCSD/AML1 leukemic cell line. Leukemia 18: 1558-1560.
- 8. SWISS-PROT/TrEMBL (Q10571). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html

CHROMOSOMAL LOCATION

Genetic locus: MN1 (human) mapping to 22q12.1; Mn1 (mouse) mapping to 5 F.

SOURCE

MN1 (H-300) is a rabbit polyclonal antibody raised against amino acids 1021-1320 mapping at the C-terminus of MN1 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

MN1 (H-300) is recommended for detection of MN1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

MN1 (H-300) is also recommended for detection of MN1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for MN1 siRNA (h): sc-106742, MN1 siRNA (m): sc-149485, MN1 shRNA Plasmid (h): sc-106742-SH, MN1 shRNA Plasmid (m): sc-149485-SH, MN1 shRNA (h) Lentiviral Particles: sc-106742-V and MN1 shRNA (m) Lentiviral Particles: sc-149485-V.

MN1 (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of MN1: 136 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

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