

MN1 (T-16): sc-27349

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 tumors derived from the arachnoidal cap cells of the leptomeninges, the soft coverings of the brain and spinal cord.

REFERENCES

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- 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.
- 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.
- 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.
- 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.

SOURCE

MN1 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MN1 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.

Blocking peptide available for competition studies, sc-27349 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

MN1 (T-16) is recommended for detection of MN1 of 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).

MN1 (T-16) 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 shRNA Plasmid (h): sc-106742-SH and MN1 shRNA (h) Lentiviral Particles: sc-106742-V.

Molecular Weight of MN1: 136 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.

SELECT PRODUCT CITATIONS

- Heuser, M., et al. 2007. MN1 overexpression induces acute myeloid leukemia in mice and predicts ATRA resistance in patients with AML. *Blood* 110: 1639-1647.
- Gotou, M., et al. 2012. Establishment of a novel human myeloid leukemia cell line, AMU-AML1, carrying t(12;22)(p13;q11) without chimeric MN1-TEL and with high expression of MN1. *Genes Chromosomes Cancer* 51: 42-53.

STORAGE

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

PROTOCOLS

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


 MONOS
 Satisfaction
 Guaranteed

Try **MN1 (A-4): sc-390869**, our highly recommended monoclonal alternative to MN1 (T-16).