

MENTHO (N-16): sc-243452

BACKGROUND

MENTHO, also known as STARD3NL (STARD3 N-terminal like) or MLN64 N-terminal domain homolog, is a 234 amino acid multi-pass membrane protein of the late endosome that contains one MENTAL domain and exists as 2 alternatively spliced isoforms. The gene encoding MENTHO maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfirt and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are associated with a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

REFERENCES

1. Tspirouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro α 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. *J. Clin. Invest.* 72: 1262-1267.
2. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. *Proc. Natl. Acad. Sci. USA* 95: 3781-3785.
3. Iwasaki, S., et al. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. *Arch. Otolaryngol. Head Neck Surg.* 127: 705-708.
4. Alpy, F., et al. 2002. MENTHO, a MLN64 homologue devoid of the START domain. *J. Biol. Chem.* 277: 50780-50787.
5. Osborne, L.R., et al. 2006. Williams-Beuren syndrome diagnosis using fluorescence *in situ* hybridization. *Methods Mol. Med.* 126: 113-128.

CHROMOSOMAL LOCATION

Genetic locus: STARD3NL (human) mapping to 7p14.1; Stard3nl (mouse) mapping to 13 A2.

SOURCE

MENTHO (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of MENTHO of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243452 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

MENTHO (N-16) is recommended for detection of MENTHO 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).

MENTHO (N-16) is also recommended for detection of MENTHO in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MENTHO siRNA (h): sc-89523, MENTHO siRNA (m): sc-149369, MENTHO shRNA Plasmid (h): sc-89523-SH, MENTHO shRNA Plasmid (m): sc-149369-SH, MENTHO shRNA (h) Lentiviral Particles: sc-89523-V and MENTHO shRNA (m) Lentiviral Particles: sc-149369-V.

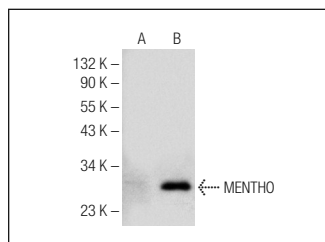
Molecular Weight of MENTHO isoforms: 27/26 kDa.

Positive Controls: MENTHO (m): 293T Lysate: sc-121603 or NIH/3T3 whole cell lysate: sc-2210.

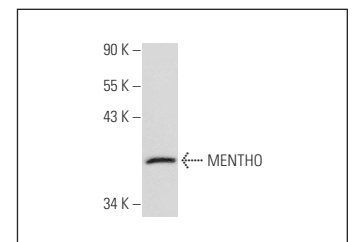
RECOMMENDED SECONDARY REAGENTS

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



MENTHO (N-16): sc-243452. Western blot analysis of MENTHO expression in non-transfected: sc-117752 (A) and mouse MENTHO transfected: sc-121603 (B) 293T whole cell lysates.



MENTHO (N-16): sc-243452. Western blot analysis of MENTHO expression in NIH/3T3 whole cell lysates.

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.