

MANSC1 (m): 293T Lysate: sc-121502

BACKGROUND

MANSC1 (MANSC domain-containing protein 1), also known as LOH12CR3 (loss of heterozygosity 12 chromosomal region 3 protein), is a 414 amino acid single-pass membrane protein. Expressed throughout the body, MANSC1 contains one MANSC domain and is encoded by a gene that is located on chromosome 12. Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12, including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Chromosome 12 is also home to a homeobox gene cluster which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster encoding C-type lectin proteins which mediate the NK cell response to MHC I interaction.

REFERENCES

- Allen, T.L., Brothman, A.R., Carey, J.C. and Chance, P.F. 1996. Cytogenetic and molecular analysis in trisomy 12p. *Am. J. Med. Genet.* 63: 250-256.
- Yang, W. and Cole, W.G. 1998. Low basal transcripts of the COL2A1 collagen gene from lymphoblasts show alternative splicing of exon 12 in the Kniest form of spondyloepiphyseal dysplasia. *Hum. Mutat.* 1: S1-S2.
- Trowsdale, J., Barten, R., Haude, A., Stewart, C.A., Beck, S. and Wilson, M.J. 2001. The genomic context of natural killer receptor extended gene families. *Immunol. Rev.* 181: 20-38.
- Zumkeller, W., Volleth, M., Muschke, P., Tönnies, H., Heller, A., Liehr, T., Wieacker, P. and Stumm, M. 2004. Genotype/phenotype analysis in a patient with pure and complete trisomy 12p. *Am. J. Med. Genet. A* 129: 261-264.
- Montpetit, A., Larose, J., Boily, G., Langlois, S., Trudel, N. and Sinnett, D. 2004. Mutational and expression analysis of the chromosome 12p candidate tumor suppressor genes in pre-B acute lymphoblastic leukemia. *Leukemia* 18: 1499-1504.
- Kelley, J., Walter, L. and Trowsdale, J. 2005. Comparative genomics of natural killer cell receptor gene clusters. *PLoS Genet.* 1: e27.
- Nishimura, G., Haga, N., Kitoh, H., Tanaka, Y., Sonoda, T., Kitamura, M., Shirahama, S., Itoh, T., Nakashima, E., Ohashi, H. and Ikegawa, S. 2005. The phenotypic spectrum of COL2A1 mutations. *Hum. Mutat.* 26: 36-43.
- Segel, R., Peter, I., Demmer, L.A., Cowan, J.M., Hoffman, J.D. and Bianchi, D.W. 2006. The natural history of trisomy 12p. *Am. J. Med. Genet. A* 140: 695-703.
- Stein, R. 2007. Genetics of Noonan syndrome—a new gene, and the search is still on. *Clin. Genet.* 72: 402-404.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Mansk1 (mouse) mapping to 6 G1.

PRODUCT

MANSC1 (m): 293T Lysate represents a lysate of mouse MANSC1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

MANSC1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive MANSC1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

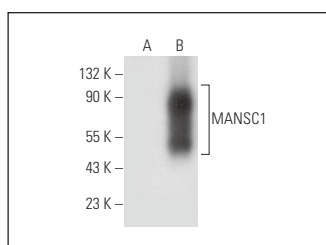
MANSC1 (D-4): sc-514113 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse MANSC1 expression in MANSC1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



MANSC1 (D-4): sc-514113. Western blot analysis of MANSC1 expression in non-transfected: sc-117752 (A) and mouse MANSC1 transfected: sc-121502 (B) 293T whole cell lysates.

RESEARCH USE

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