# MANSC1 (I-14): sc-132332



The Power to Question

#### **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., et al. 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. S1-S2.
- 3. Trowsdale, J., et al. 2001. The genomic context of natural killer receptor extended gene families. Immunol. Rev. 181: 20-38.
- 4. Zumkeller, W., et al. 2004. Genotype/phenotype analysis in a patient with pure and complete trisomy 12p. Am. J. Med. Genet. A 129: 261-264.
- Montpetit, A., et al. 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., et al. 2005. Comparative genomics of natural killer cell receptor gene clusters. PLoS Genet. 1: e27.
- Nishimura, G., et al. 2005. The phenotypic spectrum of COL2A1 mutations. Hum. Mutat. 26: 36-43.
- Segel, R., et al. 2006. The natural history of trisomy 12p. Am. J. Med. Genet. A 140: 695-703.

# CHROMOSOMAL LOCATION

Genetic locus: MANSC1 (human) mapping to 12p13.2; Mansc1 (mouse) mapping to 6 G1.

### **SOURCE**

MANSC1 (I-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of MANSC1 of mouse origin.

## **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132332 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

MANSC1 (I-14) is recommended for detection of MANSC1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

MANSC1 (I-14) is also recommended for detection of MANSC1 in additional species, including canine.

Suitable for use as control antibody for MANSC1 siRNA (h): sc-95962, MANSC1 siRNA (m): sc-149250, MANSC1 shRNA Plasmid (h): sc-95962-SH, MANSC1 shRNA Plasmid (m): sc-149250-SH, MANSC1 shRNA (h) Lentiviral Particles: sc-95962-V and MANSC1 shRNA (m) Lentiviral Particles: sc-149250-V.

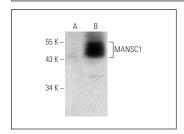
Molecular Weight of MANSC1: 47 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224 or MANSC1 (m): 293T Lysate: sc-121502.

#### **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



MANSC1 (I-14): sc-132332. Western blot analysis of MANSC1 expression in non-transfected: sc-117752 (A) and mouse MANSC1 transfected: sc-121502 (B) 293T whole cell lysates.

## **STORAGE**

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

#### **RESEARCH USE**

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