

CMTM1 (C-15): sc-107485

BACKGROUND

Chemokines are members of a superfamily of small inducible, secreted, pro-inflammatory cytokines. Members of the chemokine-like factor superfamily (CKLFSF) share similarities with both chemokine and transmembrane 4 superfamilies of signaling molecules. As a member of the CKLFSF family of proteins, CMTM1 (CKLF-like MARVEL transmembrane domain-containing protein 1), also known as CKLFSF1 (chemokine-like factor superfamily member 1), is a 169 amino acid multi-pass membrane protein that is highly expressed in testis, therefore probably playing a role in spermatogenesis or testicular development. CMTM1 contains a CC-chemokine motif and four transmembrane segments. The gene encoding CMTM1 resides in a tight gene cluster on human chromosome 16 with CKLF, CMTM2, CMTM3 and CMTM4. There are at least sixteen isoforms of CMTM1 that are produced as a result of alternative splicing events.

REFERENCES

- Han, W., et al. 2003. Identification of eight genes encoding chemokine-like factor superfamily members 1-8 (CKLFSF1-8) by in silico cloning and experimental validation. *Genomics* 81: 609-617.
- Xu, M.X., et al. 2003. A novel *cis*-acting enhancer element between CKLF and CKLFSF1 genes. *Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi* 19: 276-278.
- Online Mendelian Inheritance in Man, OMIM[™]. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607884. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Ma, X.T., et al. 2004. Predicting polymerase II core promoters by cooperating transcription factor binding sites in eukaryotic genes. *Acta Biochim. Biophys. Sin.* 36: 250-258.
- Xu, M., et al. 2004. Last intron of the chemokine-like factor gene contains a putative promoter for the downstream CKLF super family member 1 gene. *Biochem. Biophys. Res. Commun.* 313: 135-141.
- Wang, L., et al. 2004. Molecular cloning and characterization of chemokine-like factor super family member 1 (CKLFSF1), a novel human gene with at least 23 alternative splicing isoforms in testis tissue. *Int. J. Biochem. Cell Biol.* 36: 1492-1501.
- Xu, M., et al. 2005. A functional promoter region of the CKLFSF2 gene is located in the last intron/exon region of the upstream CKLFSF1 gene. *Int. J. Biochem. Cell Biol.* 37: 1296-1307.
- Shi, S., et al. 2005. CKLFSF2 is highly expressed in testis and can be secreted into the seminiferous tubules. *Int. J. Biochem. Cell Biol.* 37: 1633-1640.
- Zhong, J., et al. 2006. Characterization and expression profile of CMTM3/CKLFSF3. *J. Biochem. Mol. Biol.* 39: 537-545.

CHROMOSOMAL LOCATION

Genetic locus: CMTM1 (human) mapping to 16q21.

STORAGE

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

SOURCE

CMTM1 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CMTM1 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-107485 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CMTM1 (C-15) is recommended for detection of CMTM1 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); non cross-reactive with CMTM1-1β, CMTM1-2, CMTM1-5, CMTM1-6, CMTM1-8, CMTM1-10, CMTM1-11, CMTM1-12, CMTM1-13, CMTM1-14, CMTM1-16 or CMTM1-19.

Suitable for use as control antibody for CMTM1 siRNA (h): sc-92994, CMTM1 shRNA Plasmid (h): sc-92994-SH and CMTM1 shRNA (h) Lentiviral Particles: sc-92994-V.

Molecular Weight of CMTM1: 19 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.

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.