

CMTM3 (Q-13): sc-109526

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 super-families of signaling molecules. As a member of the CKLFSF family of proteins, CMTM3 (CKLF-like MARVEL transmembrane domain-containing protein 3), also known as Chemokine-like factor superfamily member 3, is a 182 amino acid membrane protein that is expressed in placenta, testis and leukocytes. The gene encoding CMTM3 resides in a tight gene cluster on human chromosome 16 with CKLF, CMTM1, CMTM2 and CMTM4. Silencing or downregulation of CMTM3 due to aberrant promoter CpG methylation of its gene is frequently observed in common carcinomas, suggesting that CMTM3 is a tumor suppressor. CMTM3 also seems to repress activation of AR (androgen receptor) and may therefore play a role in the maturation and maintenance of male reproduction. There are two isoforms of CMTM3 that are produced as a result of alternative splicing events.

REFERENCES

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2. 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.
3. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607886. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Laing, K.J., et al. 2004. Chemokines. *Dev. Comp. Immunol.* 28: 443-460.
5. Zhong, J., et al. 2006. Characterization and expression profile of CMTM3/CKLFSF3. *J. Biochem. Mol. Biol.* 39: 537-545.
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8. Wang, Y., et al. 2009. CMTM3, located at the critical tumor suppressor locus 16q22.1, is silenced by CpG methylation in carcinomas and inhibits tumor cell growth through inducing apoptosis. *Cancer Res.* 69: 5194-5201.

CHROMOSOMAL LOCATION

Genetic locus: CMTM3 (human) mapping to 16q21; Cmtm3 (mouse) mapping to 8 D3.

SOURCE

CMTM3 (Q-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CMTM3 of human origin.

STORAGE

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

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-109526 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CMTM3 (Q-13) is recommended for detection of CMTM3 of mouse, rat and 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 CMTM3-2.

CMTM3 (Q-13) is also recommended for detection of CMTM3 in additional species, including canine and bovine.

Suitable for use as control antibody for CMTM3 siRNA (h): sc-93145, CMTM3 siRNA (m): sc-142420, CMTM3 shRNA Plasmid (h): sc-93145-SH, CMTM3 shRNA Plasmid (m): sc-142420-SH, CMTM3 shRNA (h) Lentiviral Particles: sc-93145-V and CMTM3 shRNA (m) Lentiviral Particles: sc-142420-V.

Molecular Weight of CMTM3: 20 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.