

# CMTM5 (C-12): sc-109932

## BACKGROUND

CMTM (chemokine-like factor super family) is a novel family of proteins linking chemokines and members of the transmembrane 4 super family (TM4SF). CMTM5 (chemokine-like factor superfamily member 5), also known as CKLF-like MARVEL transmembrane domain containing 5, CKLFSF5 or FLJ37521, is a 223 amino acid multi-pass membrane protein and potential tumor suppressor belonging to the chemokine-like factor family. CMTM5 is highly expressed in brain and contains one MARVEL domain. CMTM5 induces apoptosis of multiple carcinoma cells through a caspase-dependent pathway. Alternative splicing events produce five CMTM5 isoforms; the major variant, termed CMTM5-v1, contains 156 amino acids and is broadly expressed in human fetal and adult tissues, but is undetectable in the majority carcinoma cell lines. The gene encoding CMTM5 maps to human chromosome 14q11.2, a locus associated with multiple cancers.

## REFERENCES

1. Raport, C.J., Schweickart, V.L., Chantry, D., Eddy, R.L., Shows, T.B., Godiska, R. and Gray, P.W. 1996. New members of the chemokine receptor gene family. *J. Leukoc. Biol.* 59: 18-23.
2. Han, W., Ding, P., Xu, M., Wang, L., Rui, M., Shi, S., Liu, Y., Zheng, Y., Chen, Y., Yang, T. and Ma, D. 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<sup>™</sup>. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607888. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Shao, L., Cui, Y., Li, H., Liu, Y., Zhao, H., Wang, Y., Zhang, Y., Ng, K.M., Han, W., Ma, D. and Tao, Q. 2007. CMTM5 exhibits tumor suppressor activities and is frequently silenced by methylation in carcinoma cell lines. *Clin. Cancer Res.* 13: 5756-5762.
5. Wang, Y., Li, T., Qiu, X., Mo, X., Zhang, Y., Song, Q., Ma, D. and Han, W. 2008. CMTM3 can affect the transcription activity of androgen receptor and inhibit the expression level of PSA in LNCaP cells. *Biochem. Biophys. Res. Commun.* 371: 54-58.

## CHROMOSOMAL LOCATION

Genetic locus: CMTM5 (human) mapping to 14q11.2.

## SOURCE

CMTM5 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CMTM5 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## 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-109932 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CMTM5 (C-12) is recommended for detection of CMTM5 isoforms 1-5 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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); non cross-reactive with other CMTM family members.

Suitable for use as control antibody for CMTM5 siRNA (h): sc-92390, CMTM5 shRNA Plasmid (h): sc-92390-SH and CMTM5 shRNA (h) Lentiviral Particles: sc-92390-V.

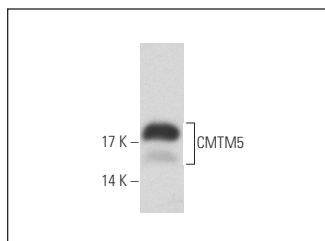
Molecular Weight of CMTM5: 24 kDa.

Positive Controls: human platelet extract: sc-363773.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



CMTM5 (C-12): sc-109932. Western blot analysis of CMTM5 expression in human platelet extract.

## RESEARCH USE

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