



CMTM8 (T-13): sc-102450

BACKGROUND

CMTM8 (CKLF-like MARVEL transmembrane domain containing 8), also known as CKLFSF8 (chemokine-like factor superfamily member 8), is a 173 amino acid member of the chemokine-like factor family. Members of the chemokine-like factor family share similarity with the chemokine and the transmembrane 4 superfamilies. CMTM8 is a multi-pass membrane protein containing one MARVEL domain. MARVEL domain-containing proteins are usually associated with specialized membrane microdomains. Through these specialized membrane microdomains, MARVEL proteins can influence a variety of cellular processes (i.e., vesicular transport carriers or tight junction regulation). CMTM8 is thought to effect ligand-induced clearance of EGFR from cell membranes. This decrease in EGFR signal leads to caspase-dependent and -independent apoptosis. An alternate splice variant that does not contain the entire full-length MARVEL domain, CMTM8-v2, can still induce apoptosis without internalizing the EGFR. CMTM8 is predominantly expressed in liver and pancreas. Human CMTM8 shares 92% similarity with its mouse homolog.

REFERENCES

- 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.
- Jin, C., Ding, P., Wang, Y. and Ma, D. 2005. Regulation of EGF receptor signaling by the MARVEL domain-containing protein CKLFSF8. *FEBS Lett.* 579: 6375-6382.
- Shi, S., Rui, M., Han, W., Wang, Y., Qiu, X., Ding, P., Zhang, P., Zhu, X., Zhang, Y., Gan, Q. and Ma, D. 2005. CKLFSF2 is highly expressed in testis and can be secreted into the seminiferous tubules. *Int. J. Biochem. Cell Biol.* 37: 1633-1640.
- Huang, Y.M. and Du, Y. 2006. Effect of novel human chemokine-like factor superfamily 8 on proliferation and EGFR expression of tumor cells. *Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi.* 22: 466-468.
- Li, D., Jin, C., Yin, C., Zhang, Y., Pang, B., Tian, L., Han, W., Ma, D. and Wang, Y. 2007. An alternative splice form of CMTM8 induces apoptosis. *Int. J. Biochem. Cell Biol.* 39: 2107-2119.
- Jin, C., Wang, Y., Han, W., Zhang, Y., He, Q., Li, D., Yin, C., Tian, L., Liu, D., Song, Q. and Ma, D. 2007. CMTM8 induces caspase-dependent and -independent apoptosis through a mitochondria-mediated pathway. *J. Cell. Physiol.* 211: 112-120.
- Chen, S.Q., DU, Y., Huang, Y.M., Wang, X., Gu, Q.L. and Dong, Z.M. 2007. Effects of novel human chemokine-like factor superfamily 8 on proliferation and EGFR expression of HL-60 cells. *Zhongguo Shi Yan Xue Ye Xue Za Zhi.* 15: 458-461.

CHROMOSOMAL LOCATION

Genetic locus: CMTM8 (human) mapping to 3p22.3.

RESEARCH USE

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

SOURCE

CMTM8 (T-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of CMTM8 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-102450 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CMTM8 (T-13) is recommended for detection of CMTM8 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 other CMTM family members.

Suitable for use as control antibody for CMTM8 siRNA (h): sc-78113, CMTM8 shRNA Plasmid (h): sc-78113-SH and CMTM8 shRNA (h) Lentiviral Particles: sc-78113-V.

Molecular Weight of CMTM8: 20 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.