SANTA CRUZ BIOTECHNOLOGY, INC.

CMTM6 siRNA (m): sc-142423

BACKGROUND

CMTM6 (CKLF-like MARVEL transmembrane domain containing 6), also known as CKLFSF6 (chemokine-like factor superfamily member 6), is a 183 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. CMTM6 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 (ie., vesicular transport carriers or tight junction regulation). CMTM6 is predominantly expressed in testis, placenta and leukocytes. Human CMTM6 shares 83% similarity with its mouse homolog.

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. Jin, C., et al. 2005. Regulation of EGF receptor signaling by the MARVEL domain-containing protein CKLFSF8. FEBS Lett. 579: 6375-6382.
4. Li, T., et al. 2006. Molecular cloning and identification of mouse Cklfsf2a and Cklfsf2b, two homologues of human CKLFSF2. Int. J. Biochem. Cell Biol. 38: 420-429.
5. Shao, L., et al. 2007. CMTM5 exhibits tumor suppressor activities and is frequently silenced by methylation in carcinoma cell lines. Clin. Cancer Res. 13: 5756-5762.
6. Li, D., et al. 2007. An alternative splice form of CMTM8 induces apoptosis. Int. J. Biochem. Cell Biol. 39: 2107-2119.
7. Shao, L., et al. 2009. CMTM5-v1 induces apoptosis in cervical carcinoma cells. Biochem. Biophys. Res. Commun. 379: 866-871.

CHROMOSOMAL LOCATION

Genetic locus: Cmtm6 (mouse) mapping to 9 F3.

PRODUCT

CMTM6 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CMTM6 shRNA Plasmid (m): sc-142423-SH and CMTM6 shRNA (m) Lentiviral Particles: sc-142423-V as alternate gene silencing products.

For independent verification of CMTM6 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-142423A, sc-142423B and sc-142423C.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

CMTM6 siRNA (m) is recommended for the inhibition of CMTM6 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor CMTM6 gene expression knockdown using RT-PCR Primer: CMTM6 (m)-PR: sc-142423-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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