SANTA CRUZ BIOTECHNOLOGY, INC.

CMTM7 siRNA (m): sc-142424

BACKGROUND

CMTM7 (CKLF-like MARVEL transmembrane domain-containing protein 7), also known as CKLFSF7 (Chemokine-like factor superfamily member 7), is a 175 amino acid member of the chemokine-like factor superfamily. Highly expressed in leukocytes and localized to the membrane, CMTM7 is a multi-pass protein that contains one MARVEL domain and may be involved in signaling pathways. CMTM7 has four transmembrane domains and shares 89% similarity with its mouse homolog. Different isoforms of CMTM7 exist due to alternative splicing events.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607890. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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. Sugimoto, N., et al. 2006. Foxp3-dependent and -independent molecules specific for $CD25^{+}CD4^{+}$ natural regulatory T cells revealed by DNA microarray analysis. Int. Immunol. 18: 1197-1209.
4. Zhong, J., et al. 2006. Characterization and expression profile of CMTM3/CKLFSF3. J. Biochem. Mol. Biol. 39: 537-545.
5. LocusLink Report (LocusID: 112616).http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: Cmtm7 (mouse) mapping to 9 F3.

PRODUCT

CMTM7 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 CMTM7 shRNA Plasmid (m): sc-142424-SH and CMTM7 shRNA (m) Lentiviral Particles: sc-142424-V as alternate gene silencing products.

For independent verification of CMTM7 (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-142424A, sc-142424B and sc-142424C.

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.

RESEARCH USE

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

APPLICATIONS

CMTM7 siRNA (m) is recommended for the inhibition of CMTM7 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 CMTM7 gene expression knockdown using RT-PCR Primer: CMTM7 (m)-PR: sc-142424-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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