SANTA CRUZ BIOTECHNOLOGY, INC.

TMED7 siRNA (h): sc-91679

BACKGROUND

TMED7 (transmembrane emp24 domain trafficking protein 7), also known as CGI-109, is a 224 amino acid protein that is a member of the EMP24/GP25L family. Like most members of this family, TMED7 is a single-pass type I membrane protein containing one GOLD domain. The GOLD (Golgi dynamics) domain is a region of about 90 to 150 amino acids that mediates protein-protein interactions. The GOLD domain interacts with lipid, sterol or fatty acid-domains as well as with RUN domains, which interact with cytoskeletal filaments of membrane proteins. TMED7 is encoded by a gene located on human chromosome 5q22.3. Chromosome 5 makes up approximately 6% of the human genome and contains 181 million base pairs, which encode 1,000 genes.

REFERENCES

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2. Dominguez, M., et al. 1998. gp25L/emp24/p24 protein family members of the *cis*-Golgi network bind both COP I and II coatomer. J. Cell Biol. 140: 751-765.
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4. Sugasawa, T., et al. 2001. The iodocyanopindolol and SM-11044 binding protein belongs to the TM9SF multispanning membrane protein superfamily. Gene 273: 227-237.
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6. Anantharaman, V., et al. 2002. The GOLD domain, a novel protein module involved in Golgi function and secretion. Genome Biol. 3: research0023.
7. Rötter, J., et al. 2002. Cell-type-specific and selectively induced expression of members of the p24 family of putative cargo receptors. J. Cell Sci. 115: 1049-1058.
8. Yang, X.Y., et al. 2005. Identification of differentially expressed genes in metastatic and non-metastatic nasopharyngeal carcinoma cells by suppression subtractive hybridization. Cell. Oncol. 27: 215-223.
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CHROMOSOMAL LOCATION

Genetic locus: TMED7 (human) mapping to 5q22.3.

PROTOCOLS

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

PRODUCT

TMED7 siRNA (h) 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 TMED7 shRNA Plasmid (h): sc-91679-SH and TMED7 shRNA (h) Lentiviral Particles: sc-91679-V as alternate gene silencing products.

For independent verification of TMED7 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-91679A, sc-91679B and sc-91679C.

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

TMED7 siRNA (h) is recommended for the inhibition of TMED7 expression in human 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 TMED7 gene expression knockdown using RT-PCR Primer: TMED7 (h)-PR: sc-91679-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.