SANTA CRUZ BIOTECHNOLOGY, INC.

TRAPPC10 siRNA (m): sc-76683

BACKGROUND

TRAPPC10, also known as TMEM1 (transmembrane protein 1), EHOC1 (epilepsy holoprosencephaly candidate 1 protein) or GT334, is a widely expressed 1,259 amino acid protein that may function in vesicular transport. Despite its name, TRAPPC10 does not contain transmembrane domains. It is the human ortholog of the yeast Trs130 protein and its structure and function appears to be conserved. Localizing to the *cis*-Golgi apparatus, TRAPPC10 is believed to be involved in transport from the endoplasmic reticulum (ER) to the Golgi functioning as a component of the multisubunit transport protein particle (TRAPP) complex. Mutations in the gene encoding TRAPPC10 may be involved in autoimmune polyglandular disease type 1 or Unverricht-Lundborg disease, an autosomal recessive type of progressive myoclonic epilepsy.

REFERENCES

1. Yamakawa, K., et al. 1995. Isolation and characterization of a candidate gene for progressive myoclonus epilepsy on 21q22.3. Hum. Mol. Genet. 4: 709-716.
2. Lalioti, M.D., et al. 1996. Cloning the cDNA of human PWP.which encodes a protein with WD repeats and maps to 21q22.3. Genomics 35: 321-327.
3. Nagamine, K., et al. 1997. Genomic organization and complete nucleotide sequence of the human PWP2 gene on chromosome 21. Genomics 42: 528-531.
4. Kudoh, J., et al. 1997. Localization of 16 exons to a 450-kb region involved in the autoimmune polyglandular disease type I (APECED) on human chromosome 21q22.3. DNA Res. 4: 45-52.
5. Nagamine, K., et al. 1997. Genomic organization and complete nucleotide sequence of the TMEM1 gene on human chromosome 21q22.3. Biochem. Biophys. Res. Commun. 235: 185-190.
6. Lafrenière, R.G., et al. 1997. Genomic structure of the human GT334 (EHOC-1) gene mapping to 21q22.3. Gene 198: 313-321.

CHROMOSOMAL LOCATION

Genetic locus: Trappc10 (mouse) mapping to 10 C1.

PRODUCT

TRAPPC10 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 TRAPPC10 shRNA Plasmid (m): sc-76683-SH and TRAPPC10 shRNA (m) Lentiviral Particles: sc-76683-V as alternate gene silencing products.

For independent verification of TRAPPC10 (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-76683A, sc-76683B and sc-76683C.

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

TRAPPC10 siRNA (m) is recommended for the inhibition of TRAPPC10 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 TRAPPC10 gene expression knockdown using RT-PCR Primer: TRAPPC10 (m)-PR: sc-76683-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.