



## TMED3 siRNA (h): sc-90253

### BACKGROUND

Transmembrane emp24 domain-containing protein 3 (TMED3), also known as membrane protein p24B, P24B or C15orf22, is a 217 amino acid member of the EMP24/GP25L family. Localized to the Golgi apparatus, TMED3 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. Interacting with lipid, sterol or fatty acid-binding domains, suggesting an association with membrane proteins, the GOLD domain has also been found to interact with the RUN domain, which interacts with cytoskeletal filaments. Two isoforms of TMED3 exist as a result of alternate splicing events.

### REFERENCES

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5. Anantharaman, V. and Aravind, L. 2002. The GOLD domain, a novel protein module involved in Golgi function and secretion. *Genome Biol.* 3: research0023.
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### CHROMOSOMAL LOCATION

Genetic locus: TMED3 (human) mapping to 15q25.1.

### PRODUCT

TMED3 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TMED3 shRNA Plasmid (h): sc-90253-SH and TMED3 shRNA (h) Lentiviral Particles: sc-90253-V as alternate gene silencing products.

For independent verification of TMED3 (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-90253A, sc-90253B and sc-90253C.

### RESEARCH USE

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

### 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

### APPLICATIONS

TMED3 siRNA (h) is recommended for the inhibition of TMED3 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  $\mu$ M in 66  $\mu$ l. 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 TMED3 gene expression knockdown using RT-PCR Primer: TMED3 (h)-PR: sc-90253-PR (20  $\mu$ l). 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](http://www.scbt.com) for detailed protocols and support products.