

# TEDDM1 siRNA (h): sc-78743

## BACKGROUND

TEDDM1 (transmembrane epididymal protein 1), also known as HE9 (human epididymis-specific protein 9), is a 273 amino acid multi-pass membrane protein that belongs to the TMEM45 family. The gene that encodes TEDDM1 contains approximately 2,500 bases and maps to human chromosome 1q25.3. With roughly 3,000 genes that span about 260 million base pairs, chromosome 1 makes up approximately 8% of the human genome. There are also a large number of diseases associated with chromosome 1, notably, the rare aging disease Hutchinson-Gilford progeria which is associated with the LMNA gene that encodes lamin A. When defective, the LMNA gene product can build up in the nucleus and cause characteristic nuclear blebs. The mechanism of rapidly enhanced aging is unclear and is a topic of continuing exploration. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: TEDDM1 (human) mapping to 1q25.3.

## PRODUCT

TEDDM1 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 TEDDM1 shRNA Plasmid (h): sc-78743-SH and TEDDM1 shRNA (h) Lentiviral Particles: sc-78743-V as alternate gene silencing products.

For independent verification of TEDDM1 (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-78743A, sc-78743B and sc-78743C.

## 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

TEDDM1 siRNA (h) is recommended for the inhibition of TEDDM1 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 TEDDM1 gene expression knockdown using RT-PCR Primer: TEDDM1 (h)-PR: sc-78743-PR (20  $\mu$ l). 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.