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# Sptrx-3 siRNA (m): sc-153808

## BACKGROUND

Sptrx-3 (spermatid-specific thioredoxin-3), also known as TRX6 (thioredoxin-6) or TXNDC8 (thioredoxin domain-containing protein 8), is a 127 amino acid protein that belongs to the thioredoxin family and contains one thioredoxin domain. Localizing to the cytoplasm and Golgi apparatus in testis, Sptrx-3 may be required for post-translational modifications of proteins required for acrosomal biogenesis and may also reduce disulfide bonds within the sperm. Sptrx-3 is only expressed during spermiogenesis, prominently in the Golgi apparatus of pachytene spermatocytes and round and elongated spermatids, with a transient localization in the developing acrosome of round spermatids. The Sptrx-3 gene contains 34,327 bases, encodes two alternatively spliced isoforms and maps to human chromosome 9q31.3. Human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome, is associated with hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and Familial dysautonomia.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Txndc8 (mouse) mapping to 4 B3.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## PRODUCT

Sptrx-3 siRNA (m) is a target-specific 19-25 nt siRNA 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 Sptrx-3 shRNA Plasmid (m): sc-153808-SH and Sptrx-3 shRNA (m) Lentiviral Particles: sc-153808-V as alternate gene silencing 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  $\mu$ 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

Sptrx-3 siRNA (m) is recommended for the inhibition of Sptrx-3 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  $\mu$ 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 Sptrx-3 gene expression knockdown using RT-PCR Primer: Sptrx-3 (m)-PR: sc-153808-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.