

## TDRD6 siRNA (m): sc-154167

### BACKGROUND

TDRD6 (tudor domain-containing protein 6), also known as CT41.2 (cancer/testis antigen 41.2), is a 2,096 amino acid cytoplasmic protein that contains eight Tudor domains. TDRD6 is involved in spermiogenesis, chromatoid body formation and expression of proper precursor and mature miRNA. Interacting with VASA, TDRD6 is found in a mRNP complex additionally composed of TDRD1, TDRD7 and VASA. TDRD6 is also found in a complex composed of itself, HIWI and HILI, where it interacts directly with HIWI. TDRD6 is present in chromatoid body (CB) of spermatids, in the multilobular cytoplasmic CBs of pachytene spermatocytes and as a single perinuclear CB in haploid round spermatids. In CB, TDRD6 colocalizes with VASA, HIWI, HILI, TDRD1 and TDRD7. During the transition from meiosis I to meiosis II in primary spermatocytes, TDRD6 undergoes proteolytic cleavage near the C-terminal by an unknown protease. The gene that encodes TDRD6 maps to human chromosome 6p12.3.

### REFERENCES

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### PROTOCOLS

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

### CHROMOSOMAL LOCATION

Genetic locus: Tdrd6 (mouse) mapping to 17 B3.

### PRODUCT

TDRD6 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TDRD6 shRNA Plasmid (m): sc-154167-SH and TDRD6 shRNA (m) Lentiviral Particles: sc-154167-V as alternate gene silencing products.

For independent verification of TDRD6 (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-154167A, sc-154167B and sc-154167C.

### 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

TDRD6 siRNA (m) is recommended for the inhibition of TDRD6 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 TDRD6 gene expression knockdown using RT-PCR Primer: TDRD6 (m)-PR: sc-154167-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.