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TDRD5 siRNA (m): sc-154166

BACKGROUND

TDRD5 (Tudor domain-containing protein 5) is a 981 amino acid cytoplasmic protein that belongs to the TDRD5 family. Existing as two alternatively spliced isoforms, TDRD5 contains three Lotus/OST-HTH domains and one Tudor domain. Essential for germline integrity, TDRD5 is involved in repressing the mobilization of transposable elements during spermiogenesis. To carry out its job in the repression of transposable elements, TDRD5 most likely acts through the piRNA metabolic process during meiosis, which forms complexes composed of piRNA and PIWI proteins and govern the methylation and subsequent repression of transposons. TDRD5 is also thought to be necessary for chromatoid body (CB) assembly, as it localizes to CB and pi-body. The gene that encodes TDRD5 consists of nearly 100,000 bases and maps to human chromosome 1q25.2.

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CHROMOSOMAL LOCATION

Genetic locus: *Tdrd5* (mouse) mapping to 1 G3.

PRODUCT

TDRD5 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TDRD5 shRNA Plasmid (m): sc-154166-SH and TDRD5 shRNA (m) Lentiviral Particles: sc-154166-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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

TDRD5 siRNA (m) is recommended for the inhibition of TDRD5 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 μ M in 66 μ 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 TDRD5 gene expression knockdown using RT-PCR Primer: TDRD5 (m)-PR: sc-154166-PR (20 μ 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.