

TSPYL1 siRNA (m): sc-154732

BACKGROUND

TSPYL1 (testis-specific Y-encoded-like protein 1), also known as TSPYL, is a 437 amino acid protein that localizes to the nucleolus and belongs to the nucleosome assembly protein (NAP) family. TSPYL1 is expressed in testis, heart, lung, liver, spleen, ovary, kidney, prostate and brain, and is encoded by a gene that maps to human chromosome 6q22.1. Defects in the gene encoding TSPYL1 are the cause of an autosomal recessive disorder known as sudden infant death with dysgenesis of the testis syndrome (SIDDT). Infants with SIDDT appear normal at birth but eventually die abruptly of cardiorespiratory arrest within 12 months of age. Males with SIDDT are typically characterized by fetal testicular dysgenesis and ambiguous genitalia, however, female sexual development appears normal.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Tspyl1 (mouse) mapping to 10 B1.

PRODUCT

TSPYL1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TSPYL1 shRNA Plasmid (m): sc-154732-SH and TSPYL1 shRNA (m) Lentiviral Particles: sc-154732-V as alternate gene silencing products.

For independent verification of TSPYL1 (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-154732A, sc-154732B and sc-154732C.

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

TSPYL1 siRNA (m) is recommended for the inhibition of TSPYL1 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.

GENE EXPRESSION MONITORING

TSPY (H-11): sc-137050 is recommended as a control antibody for monitoring of TSPYL1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TSPYL1 gene expression knockdown using RT-PCR Primer: TSPYL1 (m)-PR: sc-154732-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.