



THSD3 siRNA (m): sc-154257

BACKGROUND

THSD3 (Thrombospondin type-1 domain-containing protein 3), also known as Isthmin-2 and TAIL1 (Thrombospondin and AMOP domain-containing Isthmin-like protein 1), is a 571 amino acid secreted protein belonging to the Isthmin gene family. THSD3 contains an AMOP motif and a Thrombospondin type-1 domain, the latter of which is shared by several mammalian proteins with diverse biological functions, including cell adhesion, angiogenesis and patterning of developing nervous system. Expressed at high levels in placenta, THSD3 is also expressed at moderate levels in heart, pancreas, skeletal muscle, lung, kidney, liver and brain. There are five isoforms of THSD3 that are expressed as a result of alternative splicing events.

REFERENCES

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4. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. *Nature* 421: 601-607.
5. Rossi, V., et al. 2004. TAIL1: an Isthmin-like gene, containing type 1 Thrombospondin-repeat and AMOP domain, mapped to ARVD1 critical region. *Gene* 335: 101-108.
6. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
7. Xiang, W., et al. 2009. Isthmin is a novel secreted angiogenesis inhibitor that inhibits tumor growth in mice. *J. Cell. Mol. Med.* 15: 359-374.
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CHROMOSOMAL LOCATION

Genetic locus: Isth2 (mouse) mapping to 12 D2.

PRODUCT

THSD3 siRNA (m) is a pool of 2 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 THSD3 shRNA Plasmid (m): sc-154257-SH and THSD3 shRNA (m) Lentiviral Particles: sc-154257-V as alternate gene silencing products.

For independent verification of THSD3 (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-154257A and sc-154257B.

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

THSD3 siRNA (m) is recommended for the inhibition of THSD3 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 THSD3 gene expression knockdown using RT-PCR Primer: THSD3 (m)-PR: sc-154257-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.