

# D4ST siRNA (m): sc-77319

## BACKGROUND

D4ST (dermatan 4-sulfotransferase 1), also known as CHST14 (carbohydrate sulfotransferase 14), is a 376 amino acid single-pass type II membrane protein that localizes to the Golgi apparatus and belongs to the sulfotransferase family. Expressed in a variety of tissues with highest expression in placenta, thyroid, uterus and pituitary gland, D4ST functions to specifically catalyze the transfer of sulfate to position 4 of the N-acetylgalactosamine (GalNAc) residue of dermatan sulfate, an event that is necessary for dermatan sulfate synthesis. The gene encoding D4ST maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Chst14 (mouse) mapping to 2 E5.

## PROTOCOLS

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

## PRODUCT

D4ST 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 D4ST shRNA Plasmid (m): sc-77319-SH and D4ST shRNA (m) Lentiviral Particles: sc-77319-V as alternate gene silencing products.

For independent verification of D4ST (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-77319A, sc-77319B and sc-77319C.

## 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

D4ST siRNA (m) is recommended for the inhibition of D4ST 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 D4ST gene expression knockdown using RT-PCR Primer: D4ST (m)-PR: sc-77319-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.