SANTA CRUZ BIOTECHNOLOGY, INC.

Sialyltransferase 7D siRNA (m): sc-63021

BACKGROUND

Sialyltransferase 7D, also known as ST6GALNAC4 (ST6 (α-N-acetyl-neuraminyl-2,3-β-galactosyl-1,3)-N-acetylgalactosaminide α-2,6-sialyltransferase 4), SIAT3C or SIAT7D, is a 302 amino acid single-pass type II membrane protein that localizes to the Golgi apparatus, but may also exist in a proteolytically processed soluble form. Expressed ubiquitously, Sialyltransferase 7D functions to catalyze the transfer of sialic acid from CMP-sialic acid to galactose-containing substrates in a substrate-specific manner, showing increased activity toward glycoproteins rather than glycolipids. Multiple isoforms of Sialyltransferase 7D exist due to alternative splicing events. The gene encoding Sialyltransferase 7D maps to human chromosome 9q34.11, which houses over 900 genes and comprises nearly 4% of the human genome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: St6galnac4 (mouse) mapping to 2 B.

PROTOCOLS

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

PRODUCT

Sialyltransferase 7D 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Sialyltransferase 7D shRNA Plasmid (m): sc-63021-SH and Sialyltransferase 7D shRNA (m) Lentiviral Particles: sc-63021-V as alternate gene silencing products.

For independent verification of Sialyltransferase 7D (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-63021A, sc-63021B and sc-63021C.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Sialyltransferase 7D siRNA (m) is recommended for the inhibition of Sialyltransferase 7D 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 µM in 66 µl. 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 Sialyltransferase 7D gene expression knockdown using RT-PCR Primer: Sialyltransferase 7D (m)-PR: sc-63021-PR (20 µl). 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.