

ST8Sia V siRNA (h): sc-76581

BACKGROUND

Sialyltransferases are responsible for the transfer of sialic acid, a negatively charged acidic sugar, from its common nucleotide sugar donor to carbohydrate groups of glycoproteins and glycolipids where it then forms sialylglycoconjugates to influence a number of biological processes. 20 mammalian sialyltransferase family members have been characterized to date. ST8Sia V, also known as ST8SIA5 (ST8 α -N-acetyl-neuraminide α -2,8-sialyltransferase 5), SIAT8E or ST8SIA5, is a 376 amino acid single-pass type II membrane protein of the Golgi apparatus that is suggested to participate in the synthesis of certain gangliosides. A member of the glycosyltransferase 29 family, ST8Sia V is involved in protein modification and glycosylation, and is expressed in skeletal muscle, heart and brain.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ST8SIA5 (human) mapping to 18q21.1.

PRODUCT

ST8Sia V siRNA (h) 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 ST8Sia V shRNA Plasmid (h): sc-76581-SH and ST8Sia V shRNA (h) Lentiviral Particles: sc-76581-V as alternate gene silencing products.

For independent verification of ST8Sia V (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-76581A, sc-76581B and sc-76581C.

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

ST8Sia V siRNA (h) is recommended for the inhibition of ST8Sia V expression in human 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 ST8Sia V gene expression knockdown using RT-PCR Primer: ST8Sia V (h)-PR: sc-76581-PR (20 μ l, 476 bp). 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.