

Siglec-11 siRNA (h): sc-97277

BACKGROUND

Two families of mammalian lectin-like adhesion molecules, the selectins and the sialoadhesins, bind glycoconjugate ligands in a sialic acid-dependent manner. The sialic acid-binding immunoglobulin superfamily lectins, designated Siglecs or sialoadhesins, recognize sialylated ligands and play a key role in mediating sialic-acid dependent binding to cells. Siglec-11 (sialic acid binding Ig-like Lectin 11) is a 686 amino acid single-pass type I membrane protein that contains one Ig-like V-type domain and 3 Ig-like C₂-type domains. Expressed by macrophages and present in various tissues, Siglec-11 functions as an adhesion molecule that preferentially binds to α -2,8-linked sialic acid and mediated sialic acid binding to cells. Siglec-11 exists as multiple alternatively spliced isoforms and is subject to post-translational phosphorylation on tyrosine residues.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SIGLEC11 (human) mapping to 19q13.33.

PRODUCT

Siglec-11 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 Siglec-11 shRNA Plasmid (h): sc-97277-SH and Siglec-11 shRNA (h) Lentiviral Particles: sc-97277-V as alternate gene silencing products.

For independent verification of Siglec-11 (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-97277A, sc-97277B and sc-97277C.

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

Siglec-11 siRNA (h) is recommended for the inhibition of Siglec-11 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 Siglec-11 gene expression knockdown using RT-PCR Primer: Siglec-11 (h)-PR: sc-97277-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.