SANTA CRUZ BIOTECHNOLOGY, INC.

Siglec-9 siRNA (h): sc-106550

BACKGROUND

Two families of mammalian lectin-like adhesion molecules bind glycoconjugate ligands in a sialic acid-dependent manner: the selectins and the sialoadhesins. The sialic acid-binding immunoglobulin superfamily lectins, designated siglecs or sialoadhesins, are immunoglobulin superfamily members recognizing sialylated ligands. The common sialic acids of mammalian cells are N-acetyl-neuraminic acid (Neu5Ac) and N-glycolyl-neuraminic acid (Neu5Gc). Siglec-1 mediates local cell-cell interactions in lymphoid tissues and can be detected at contact points of macrophages with other macrophages, sinus-lining cells and reticulum cells. Siglec-7, highly expressed in monocytes and resident blood cells, but not in parenchymatous cells, mediates inhibition of natural killer cell cytotoxicity. Siglec-9 is closely homologous to Siglec-7; the gene encoding it maps to chromosome 19q13.41 in humans. It is highly expressed in peripheral blood leukocytes (but not eosinophils), liver, bone marrow, placenta and spleen. Siglec-8, a type I membrane protein, is selectively expressed on human eosinophils, basophils and mast cells, where it regulates their function and survival.

REFERENCES

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3. Schadee-Eestermans, I.L., et al. 2000. Ultrastructural localisation of sialoadhesin (Siglec-1) on macrophages in rodent lymphoid tissues. Immunobiology 202: 309-325.
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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: SIGLEC9 (human) mapping to 19q13.41.

PRODUCT

Siglec-9 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Siglec-9 shRNA Plasmid (h): sc-106550-SH and Siglec-9 shRNA (h) Lentiviral Particles: sc-106550-V as alternate gene silencing products.

For independent verification of Siglec-9 (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-106550A, sc-106550B and sc-106550C.

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

Siglec-9 siRNA (h) is recommended for the inhibition of Siglec-9 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 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 Siglec-9 gene expression knockdown using RT-PCR Primer: Siglec-9 (h)-PR: sc-106550-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.