

Siglec-1 (N-20): sc-23594

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, are immunoglobulin superfamily members that recognize sialylated ligands. The common sialic acids of mammalian cells are N-acetylneuraminic acid (Neu5Ac) and N-glycolylneuraminic acid (Neu5Gc). The human Siglec-1 gene maps to chromosome 20p13 and encodes a 1,709 amino acid protein, also known as CD169. Alternative splicing of the Siglec-1 gene produces a variant, encoding a type I transmembrane protein isoform that is soluble rather than membrane-bound. Studies have shown human Siglec-1 has greater affinity for Neu5Ac over Neu5Gc. Siglec-1 is a sialic acid-binding receptor that is expressed in hemopoietic cells. It 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.

REFERENCES

1. Brinkman-Van der Linden, E.C., et al. 2000. New aspects of siglec binding specificities, including the significance of fucosylation and of the sialyl-Tn epitope. Sialic acid-binding immunoglobulin superfamily lectins. *J. Biol. Chem.* 275: 8625-8632.
2. Brinkman-Van der Linden, E.C., et al. 2000. Loss of N-glycolylneuraminic acid in human evolution. Implications for sialic acid recognition by siglecs. *J. Biol. Chem.* 275: 8633-8640.
3. Schadee-Eestermans, I.L., et al. 2000. Ultrastructural localisation of sialoadhesin (siglec-1) on macrophages in rodent lymphoid tissues. *Immunobiology* 202: 309-325.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 600751. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. LocusLink Report (LocusID: 6614). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: SIGLEC1 (human) mapping to 20p13; Siglec1 (mouse) mapping to 2 F1.

SOURCE

Siglec-1 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Siglec-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23594 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Siglec-1 (N-20) is recommended for detection of Siglec-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Siglec-1 (N-20) is also recommended for detection of Siglec-1 in additional species, including bovine and porcine.

Suitable for use as control antibody for Siglec-1 siRNA (h): sc-72064, Siglec-1 siRNA (m): sc-72067, Siglec-1 shRNA Plasmid (h): sc-72064-SH, Siglec-1 shRNA Plasmid (m): sc-72067-SH, Siglec-1 shRNA (h) Lentiviral Particles: sc-72064-V and Siglec-1 shRNA (m) Lentiviral Particles: sc-72067-V.

Molecular Weight of Siglec-1: 185 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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


 MONOS
 Satisfation
 Guaranteed

Try **Siglec-1 (B-1): sc-398109** or **Siglec-1 (IBL-13): sc-65375**, our highly recommended monoclonal alternatives to Siglec-1 (N-20).