



Siglec-9 (Y-12): sc-34938

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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2. Brinkman-Van der Linden, E.C., et al. 2000. Loss of N-glycolyl-neuraminic 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. Avril, T., et al. 2004. The membrane-proximal immunoreceptor tyrosine-based inhibitory motif is critical for the inhibitory signaling mediated by Siglecs-7 and -9, CD33-related siglecs expressed on human monocytes and NK cells. *J. Immunol.* 173: 6841-6849.
5. Lock, K., et al. 2004. Expression of CD33-related siglecs on human mononuclear phagocytes, monocyte-derived dendritic cells and plasmacytoid dendritic cells. *Immunobiology* 209:199-207.
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CHROMOSOMAL LOCATION

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

SOURCE

Siglec-9 (Y-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of Siglec-9 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-34938 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Siglec-9 (Y-12) is recommended for detection of Siglec-9 and, to a lesser extent, Siglec-1 and -7 of 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); may cross-react with Siglec-L1.

Molecular Weight of Siglec-9: 95 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, SK-N-SH cell lysate: sc-2410 or K-562 whole cell lysate: sc-2203.

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.

RESEARCH USE

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

PROTOCOLS

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