

Siglec-10 (S-15): sc-240883

BACKGROUND

Siglec-10 (sialic acid-binding Ig-like lectin 10) is a 697 amino acid protein belonging to the immunoglobulin superfamily. The N-terminal Ig-like domain of Siglec-10 contains a sialic acid-binding site and the C-terminal cytoplasmic region of Siglec-10 contains two immunoreceptor tyrosine-based inhibitor motifs (ITIMs), which are involved in the modulation of cellular responses through SH2 domains. With most expression in spleen, bone marrow and peripheral blood lymphocytes, such as monocytes, natural killer cells and eosinophils, it is likely that Siglec-10 functions as an inhibitory receptor in the immune response. Importantly, Siglec-10 mRNA is found to be highly upregulated in eosinophils at sites of inflammation in asthmatics, suggesting that Siglec-10 may be an appropriate target for new approaches of immunomodulatory therapy. There are six named isoforms of Siglec-10 that are a result of alternative splicing. All isoforms exist as single-pass transmembrane proteins, except for isoform 6, which is secreted.

REFERENCES

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4. Li, N., et al. 2001. Cloning and characterization of Siglec-10, a novel sialic acid binding member of the Ig superfamily, from human dendritic cells. *J. Biol. Chem.* 276: 28106-28112.
5. Kitzig, F., et al. 2002. Cloning of two new splice variants of Siglec-10 and mapping of the interaction between Siglec-10 and SHP-1. *Biochem. Biophys. Res. Commun.* 296: 355-362.
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7. Aizawa, H., et al. 2003. Molecular analysis of human Siglec-8 orthologs relevant to mouse eosinophils: identification of mouse orthologs of Siglec-5 (mSiglec-F) and Siglec-10 (mSiglec-G). *Genomics* 82: 521-530.

CHROMOSOMAL LOCATION

Genetic locus: SIGLEC10 (human) mapping to 19q13.41; Siglecg (mouse) mapping to 7 B4.

SOURCE

Siglec-10 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of Siglec-10 of human origin.

RESEARCH USE

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

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-240883 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Siglec-10 (S-15) is recommended for detection of Siglec-10 of human origin and Siglec-G of mouse and rat 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); non cross-reactive with other Siglec family members.

Siglec-10 (S-15) is also recommended for detection of Siglec-10 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Siglec-10 siRNA (h): sc-97663, Siglec-G siRNA (m): sc-153463, Siglec-10 shRNA Plasmid (h): sc-97663-SH, Siglec-G shRNA Plasmid (m): sc-153463-SH, Siglec-10 shRNA (h) Lentiviral Particles: sc-97663-V and Siglec-G shRNA (m) Lentiviral Particles: sc-153463-V.

Molecular Weight of Siglec-10: 77 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.



Try **Siglec-10 (1D11): sc-293355**, our highly recommended monoclonal alternative to Siglec-10 (S-15).