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SIGLEC10 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP1628a

Specification

SIGLEC10 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q96LC7

SIGLEC10 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 89790

Other Names
Sialic acid-binding Ig-like lectin 10, Siglec-10, Siglec-like protein 2, SIGLEC10, SLG2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1628a was selected from the N-term region of human SIGLEC10 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SIGLEC10 Antibody (N-term) Blocking Peptide - Protein Information

Name SIGLEC10

Synonyms SLG2

Function
Putative adhesion molecule that mediates sialic-acid dependent binding to cells. Preferentially binds to alpha-2,3- or alpha-2,6-linked sialic acid (By similarity). The sialic acid recognition site may be masked by cis interactions with sialic acids on the same cell surface. In the immune response, seems to act as an inhibitory receptor upon ligand induced tyrosine phosphorylation by recruiting cytoplasmic phosphatase(s) via their SH2 domain(s) that block signal transduction through dephosphorylation of signaling molecules (PubMed:11284738, PubMed:12163025). Involved in negative regulation of B-cell antigen receptor signaling. The inhibition of B cell activation is dependent on PTPN6/SHP-1 (By similarity). In association with CD24 may be involved in the

selective suppression of the immune response to danger-associated molecular patterns (DAMPs) such as HMGB1, HSP70 and HSP90 (By similarity). In association with CD24 may regulate the immune repsonse of natural killer (NK) cells (PubMed:25450598). Plays a role in the control of autoimmunity (By similarity). During initiation of adaptive immune responses by CD8- alpha(+) dendritic cells inhibits cross-presentation by impairing the formation of MHC class I-peptide complexes. The function seems to implicate recruitment of PTPN6/SHP-1, which dephosphorylates NCF1 of the NADPH oxidase complex consequently promoting phagosomal acidification (By similarity).

Cellular Location
[Isoform 1]: Cell membrane; Single-pass type I membrane protein [Isoform 3]: Cell membrane; Single-pass type I membrane protein [Isoform 5]: Secreted.

Tissue Location
Expressed by peripheral blood leukocytes (eosinophils, monocytes and a natural killer cell subpopulation) Isoform 5 is found to be the most abundant isoform. Found in lymph node, lung, ovary and appendix. Isoform 1 is found at high levels and isoform 2 at lower levels in bone marrow, spleen and spinal cord Isoform 2 is also found in brain. Isoform 4 is specifically found in natural killer cells.

SIGLEC10 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

SIGLEC10 Antibody (N-term) Blocking Peptide - Images

SIGLEC10 Antibody (N-term) Blocking Peptide - Background

SIGLEC10 is a putative adhesion molecule that mediates sialic-acid dependent binding to cells. It preferentially binds to alpha2,3- or 2,6-linked sialic acid. The sialic acid recognition site may be masked by cis interactions with sialic acids on the same cell surface. In the immune response, may act as an inhibitory receptor upon ligand induced tyrosine phosphorylation by recruiting cytoplasmic phosphatase(s) via their SH2 domain(s) that block signal transduction through dephosphorylation of signaling molecules. SIGLEC10 interacts with PTPN6/SHP-1 upon phosphorylation. The protein is expressed by peripheral blood leukocytes (eosinophils, monocytes and a natural killer cell subpopulation). Isoform 5 is found to be the most abundant isoform, found in lymph node, lung, ovary and appendix. Isoform 1 is found at high levels and isoform 2 at lower levels in bone marrow, spleen and spinal chord. Isoform 2 is also found in brain. Isoform 4 is specifically found in natural killer cells. SIGLEC10 contains 1 copy of a cytoplasmic motif that is referred to as the immunoreceptor tyrosine-based inhibitor motif (ITIM). This motif is involved in downmodulation of cellular responses. The phosphorylated ITIM motif binds to the SH2 domain of PTPN6/SHP-1. Phosphorylation of Tyr-667 is involved in binding to PTPN6. The SIGLEC10 gene belongs to the immunoglobulin superfamily.

SIGLEC10 Antibody (N-term) Blocking Peptide - References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).Kitzig, F., et al., Biochem. Biophys. Res. Commun. 296(2):355-362 (2002).Li, N., et al., J. Biol. Chem. 276(30):28106-28112 (2001).Yousef, G.M., et al., Biochem. Biophys. Res. Commun. 284(4):900-910 (2001).Munday, J., et al., Biochem. J. 355 (Pt 2), 489-497 (2001).