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SIGLEC7 (D-siglec) Antibody (N-term) Blocking peptide

Synthetic peptide
Catalog # BP1625a

Specification

SIGLEC7 (D-siglec) Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q9Y286

SIGLEC7 (D-siglec) Antibody (N-term) Blocking peptide - Additional Information

Gene ID 27036

Other Names
Sialic acid-binding Ig-like lectin 7, Siglec-7, Adhesion inhibitory receptor molecule 1, AIRM-1, CDw328, D-siglec, QA79 membrane protein, p75, CD328, SIGLEC7, AIRM1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1625a was selected from the N-term region of human SIGLEC7 . 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.

SIGLEC7 (D-siglec) Antibody (N-term) Blocking peptide - Protein Information

Name SIGLEC7

Synonyms AIRM1

Function
Putative adhesion molecule that mediates sialic-acid dependent binding to cells. Preferentially binds to alpha-2,3- and alpha-2,6-linked sialic acid. Also binds disialogangliosides (disialogalactosyl globoside, disialyl lactotetraosylceramide and disialyl GalNAc lactotetraoslylceramide). 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. Mediates inhibition of natural killer cells cytotoxicity. May play a role in hemopoiesis. Inhibits differentiation of CD34+ cell precursors towards myelomonocytic cell lineage and proliferation of leukemic myeloid cells (in

vitro).

Cellular Location
Membrane; Single-pass type I membrane protein.

Tissue Location
Predominantly expressed by resting and activated natural killer cells and at lower levels by granulocytes and monocytes High expression found in placenta, liver, lung, spleen, and peripheral blood leukocytes

SIGLEC7 (D-siglec) Antibody (N-term) Blocking peptide - Protocols

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

- Blocking Peptides

SIGLEC7 (D-siglec) Antibody (N-term) Blocking peptide - Images

SIGLEC7 (D-siglec) Antibody (N-term) Blocking peptide - Background

SIGLECs are members of the immunoglobulin superfamily that are expressed on the cell surface. Most SIGLECs have one or more cytoplasmic immune receptor tyrosine-based inhibitory motifs (ITIM). SIGLECs are typically expressed on cells of the innate immune system, with the exception of the B-cell expressed SIGLEC6. Sequence analysis predicted that the 697-amino acid SIGLEC10 protein contains a signal peptide, an N-terminal V-set Ig-like domain and four C2-set Ig-like domains, five potential N-linked glycosylation sites, a transmembrane region, and a 126-residue cytoplasmic tail with 3 putative ITIMs. Northern blot analysis detected a major 3.0-kb SIGLEC10 transcript, with highest levels in spleen, lymph node, blood leukocytes, and appendix. Little or no expression was observed in pancreas, thyroid, and testis. Flow cytometric analysis demonstrated eosinophil-specific expression of SIGLEC10, but at a lower level than that of SIGLEC8. Expression was also detected on monocytes and a CD16-positive/CD56-negative natural killer-like lymphocyte population. After sialidase treatment, which is necessary for unmasking the sialic acid-binding site on SIGLECs interacting with cell surface sialic acids, cells expressing SIGLEC10 bound to red blood cells. Immunoprecipitation analysis indicated expression of a 100- to 120-kD monomeric protein, higher than the predicted molecular mass, suggesting that SIGLEC10 is glycosylated.

SIGLEC7 (D-siglec) Antibody (N-term) Blocking peptide - References

Nicoll, G., et al., Eur. J. Immunol. 33(6):1642-1648 (2003).Alphey, M.S., et al., J. Biol. Chem. 278(5):3372-3377 (2003).Angata, T., et al., Glycobiology 10(4):431-438 (2000).Falco, M., et al., J. Exp. Med. 190(6):793-802 (1999).Nicoll, G., et al., J. Biol. Chem. 274(48):34089-34095 (1999).