

SIGLEC7 (D-siglec) Antibody (C-term H422)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP1633c

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9Y286
Other Accession	Q9NZQ1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB2715
Calculated MW	51143
Antigen Region	407-438

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	This SIGLEC7 (D-siglec) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 407-438 amino acids from the C-terminal region of human SIGLEC7 (D-siglec).
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SIGLEC7 (D-siglec) Antibody (C-term H422) is for research use only and not for use in diagnostic or therapeutic procedures.

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 lactotetraosylceramide). 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

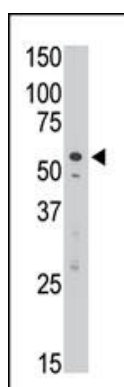
Background

SIGLECs are cell surface proteins of the Ig superfamily. Most SIGLECs have 1 or more cytoplasmic immune receptor tyrosine-based inhibitory motifs, or ITIMs. A large subgroup of SIGLECs share high homology with SIGLEC3 (CD33) and are localized to 19q13.4. The cDNA for the SLG gene encodes 2 variants, SLG-long (SLGL) and SLG-short (SLGS). The 595-amino acid SLGL protein contains a signal peptide and 2 V-set N-terminal Ig-like domains. The 477-amino acid SLGS protein has a weak signal sequence and, like most SIGLEC3-like SIGLECs, has only 1 V-set N-terminal Ig-like domain. Both variants contain 2 C2-set N-terminal Ig-like domains, a transmembrane domain, and a cytoplasmic tail with a putative ITIM and a putative SLAM-like tyrosine-based motif. The conserved arginine residue thought to be essential for sialic acid binding in other SIGLECs is replaced by a glutamine in SLGS and by a cysteine in SLGL. RT-PCR analysis detected high expression of both variants in spleen and small intestine, and SLGS was highly expressed in adrenal gland and SLGL was highly expressed in bone marrow.

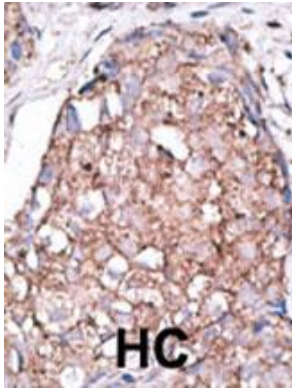
References

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 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).

Images



The anti-DSiglec C-term H422 Pab (Cat. #AP1633c) is used in Western blot to detect DSiglec in Jurkat cell lysate.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.