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# SIGLEC7 (D-siglec) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1633a

## Product Information

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| **Application** | WB, IHC-P, E |
| **Primary Accession** | Q9Y286 |
| **Other Accession** | Q9NZQ1 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB2711 |
| **Calculated MW** | 51143 |
| **Antigen Region** | 1-30 |

## Additional Information

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| **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 1-30 amino acids from the N-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 (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | SIGLEC7 |
| **Synonyms** | AIRM1 |

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| **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 |

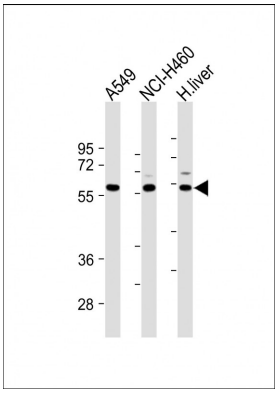
## Background

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.

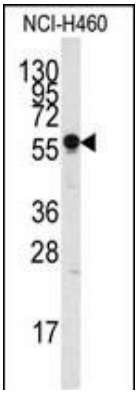
## References


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Angata, T., et al., Glycobiology 10(4):431-438 (2000).
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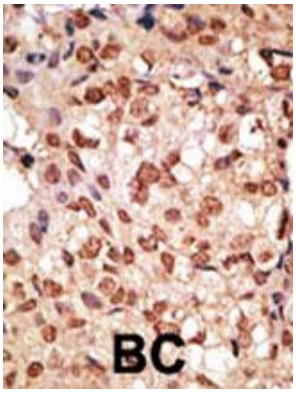

## Images




All lanes : Anti-Dsiglec-W20 at 1:2000 dilution Lane 1: A549 whole cell lysate Lane 2: NCI-H460 whole cell lysate Lane 3: Human liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 51 kDa Blocking/Dilution buffer: 5% NFDM/TBST.




Western blot analysis of anti-SIGLEC7 Pab (Cat. #AP1633a) in NCI-H460 cell line lysate (35ug/lane). SIGLEC7(arrow) was detected using the purified Pab.




Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB 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'.