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SIGLEC10 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1628B

Product Information

Application	WB, E
Primary Accession	Q96LC7
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB2481
Calculated MW	76592
Antigen Region	656-687

Additional Information

Gene ID	89790
Other Names	Sialic acid-binding Ig-like lectin 10, Siglec-10, Siglec-like protein 2, SIGLEC10, SLG2
Target/Specificity	This SIGLEC10 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 656-687 amino acids from the C-terminal region of human SIGLEC10.
Dilution	WB~~1:1000 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	SIGLEC10 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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.

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.

References

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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).
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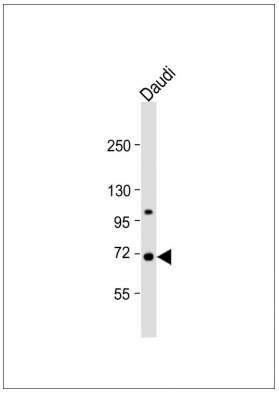
Images



Anti-SIGLEC10 Antibody at 1:1000 dilution + Daudi whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 77 kDa Blocking/Dilution buffer: 5% NFDM/TBST.