Human Siglec-5/Siglec-14 Antibody

Monoclonal Mouse IgG_1 Clone # 194128

Catalog Number: MAB10721

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Siglec-5/Siglec-14 in ELISAs. In sandwich immunoassays, 100% cross-reactivity with recombinant human (rh) Siglec-14 is observed and no cross-reactivity with rhSiglec-3, rhSiglec-7, or rhSiglec-9 is observed.
Source	Monoclonal Mouse IgG_1 Clone # 194128
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Siglec−5/Siglec−14 Lys18-Thr434 Accession # O15389
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

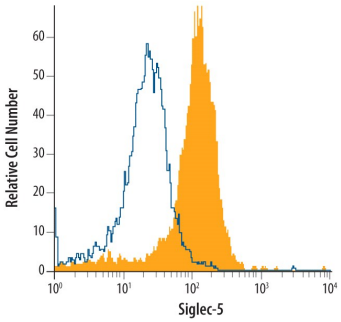
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	2.5 µg/10^6 cells	See Below
Human Siglec-5 Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Human Siglec−5/Siglec−14 Antibody (Catalog # MAB10721)
ELISA Detection	0.5-2.0 µg/mL	Human Siglec−5/Siglec−14 Biotinylated Antibody (Catalog # BAM10722)
Standard		Recombinant Human Siglec−5/CD170 Fc Chimera (Catalog # 1072-SL)
Neutralization	Measured by its ability to neutralize Siglec−5-mediated adhesion of human red blood cells. Kelm, S. *et al*. (1994) Current Biology **4**:965. The Neutralization Dose (ND_{50}) is typically 0.04-0.2 µg/mL in the presence of 5 µg/mL Recombinant Human Siglec−5 Fc Chimera.	

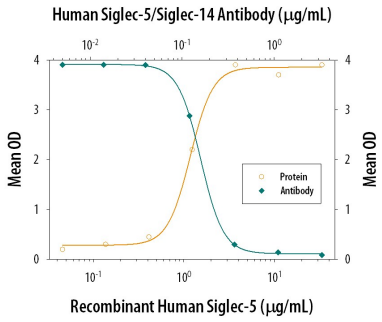
DATA

Flow Cytometry



Detection of Siglec-5/14 in Human Monocytes by Flow Cytometry. Human blood derived monocytes were stained with Mouse Anti-Human Siglec-5/14 Monoclonal Antibody (Catalog # MAB10721, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG $F(ab')_2$ Secondary Antibody (Catalog # F0102B).

Neutralization



Cell Adhesion Mediated by Siglec-5 and Neutralization by Human Siglec-5/14 Antibody. Recombinant Human Siglec-5 Fc Chimera (Catalog # 1072-SL), immobilized onto a microplate, supports the adhesion of human red blood cells in a dose-dependent manner (orange line). Adhesion elicited by Recombinant Human Siglec-5 Fc Chimera (5 µg/mL) is neutralized (green line) by increasing concentrations of Mouse Anti-Human Siglec-5/14 Monoclonal Antibody (Catalog # MAB10721). The ND_{50} is typically 0.04-0.2 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Siglecs (sialic acid binding Ig-like lectins) are a subgroup of the immunoglobulin superfamily that interact with sialic acids in glycoproteins and glycolipids. Siglec-5 binds to alpha-2, 3- and alpha-2, 6-linked sialic acid equally. It occurs as a disulfide-linked dimer of approximately 140 kDa with the highest expression levels in hematopoietic tissues. Siglec-5 has an inhibitory motif within its cytoplasmic domain. Siglec-14 is an activating receptor that shares 99.5% aa sequence identity with Siglec-5 through the first two extracellular Ig domains and displays a similar glycan binding preference.

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