

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Siglec-6/CD327 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2A} Clone # 767329
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Siglec-6/CD327 Gln27-Val331 Accession # NP_942142
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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	5 µL/10 ⁶ cells	See Below

DATA

Flow Cytometry

Detection of Siglec-6/CD327 in U937 Human Cell Line by Flow Cytometry. U937 human histiocytic lymphoma cell line was stained with Mouse Anti-Human Siglec-6/CD327 Alexa Fluor® 488-conjugated Monoclonal Antibody (Catalog # FAB2859G, filled histogram) or isotype control antibody (open histogram). View our protocol for [Staining Membrane-associated Proteins](#).

Flow Cytometry

Detection of Siglec-6/CD327 in Human PBMC lymphocytes by Flow Cytometry. Human peripheral blood mononuclear cell (PBMC) lymphocytes were stained with Mouse Anti-Human CD19 APC-conjugated Monoclonal Antibody (Catalog # FAB4867A) and either (A) Mouse Anti-Human Siglec-6/CD327 Alexa Fluor® 488-conjugated Monoclonal Antibody (Catalog # FAB2859G) or (B) Mouse Alexa Fluor 488 Isotype Control. View our protocol for [Staining Membrane-associated Proteins](#).

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Siglecs (Sialic acid binding Ig-like Lectins) are I-type (Ig-type) lectins that belong to the Ig superfamily. They are characterized by an N-terminal Ig-like V-type domain which mediates sialic acid binding, followed by varying numbers of Ig-like C2-type domains (1-4). Eleven human Siglecs (Siglec-1 through 11) have been cloned and characterized. Within these eleven, there are at least two groups, one of which is termed the CD33-related group. CD33-related Siglecs include CD33/Siglec-3 and Siglec-5 through 11 (1, 3). To date, no Siglec has been shown to recognize any cell surface ligand other than sialic acid. This suggests that interactions with glycans containing this carbohydrate are important in mediating the biological functions of Siglecs. The cDNA of human Siglec-6 (also known as OB-BP1 and CD33L), encodes a putative 442 amino acid (aa) protein that contains a 15 aa signal peptide, a 321 aa extracellular region, a 21 aa transmembrane region (TM), and an 85 aa cytoplasmic tail (5, 6). The extracellular region contains one N-terminal V-type Ig-like domain followed by two Ig-like C2-type domains. The cytoplasmic domain has one immunoreceptor tyrosine-based inhibition motif (ITIM). At least three additional isoforms exist, all of which encode an additional 11 aa's at the N-terminus, likely due to the utilization of an alternate start site. Two of the three isoforms also show splicing. One isoform shows a 16 aa in-frame deletion in the second C2-like domain, while the other shows a deletion of the TM and cytoplasmic region, thus potentially generating a soluble form (6-9). Siglec-6 is found on B cells and in placenta, and would seem to have a restricted specificity for the sialyl Tn antigen (6, 10).

References:

1. Crocker, P.R. and J. Zhang (2002) *Biochem. Soc. Symp.* **69**:83.
2. Crocker, P.R. and A. Varki (2001) *Immunology* **103**:137.
3. Crocker, P.R. (2002) *Curr. Opin. Struct. Biol.* **12**:609.
4. Powell, L.D. and A. Varki (1995) *J. Biol. Chem.* **270**:14243.
5. Takei, Y. *et al.* (1997) *Cytogenet. Cell Genet.* **78**:295.
6. Patel, N. *et al.* (1999) *J. Biol. Chem.* **274**:22729.
7. GenBank Accession # NP_942143.
8. GenBank Accession # NP_942142.
9. GenBank Accession # NP_001236.
10. Crocker, P.R. and A. Varki (2001) *Trends Immunol.* **22**:337.

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