

DESCRIPTION

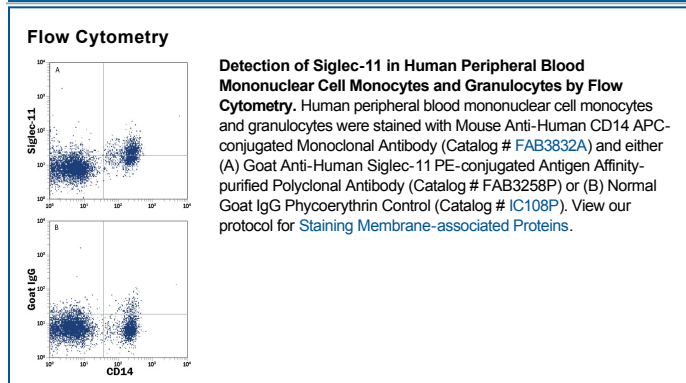
Species Reactivity	Human
Specificity	Detects human Siglec-11 in direct ELISAs and Western blots. In direct ELISA and Western blots, approximately 50% cross-reactivity with recombinant human (rh) Siglec-10 is observed and less than 5% cross-reactivity with rhSiglec-2, -3, -5, -6, -7, -9 and recombinant mouse Siglec-F is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Siglec-11 Asn17-His543 (Glu84Ala, Lys145Gln) Accession # Q96RL6
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 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	10 μ L/10 ⁶ cells	See Below

DATA



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 lectins that belong to the immunoglobulin superfamily. They are characterized by an N-terminal Ig-like V-set domain which mediates sialic acid binding, followed by a varying numbers of Ig-like C2-set domains. Siglecs-3 and -5 through -13 constitute the CD33/Siglec-3 related group, which are defined by their sequence homology and differential expression in the hematopoietic system. Mature human Siglec-11 is an 85-90 kDa, type I transmembrane glycoprotein that consists of a 534 amino acid (aa) extracellular domain (ECD), a 23 aa transmembrane segment, and a 114 aa cytoplasmic domain. The ECD contains one Ig-like V-set domain, and three Ig-like C2-set domains. The cytoplasmic domain contains two Immunoreceptor Tyrosine-based Inhibitory Motifs (ITIMs). A splice variant of Siglec-11 has a deletion of nearly 100 aa in the extracellular juxtamembrane region. Among siglecs, the ECD of Siglec-11 is most closely related to that of Siglec-10 (82% aa sequence identity). The cytoplasmic domains of these proteins are only 20% identical. Siglec-11 is closely related to the pseudogenes Siglec-14 and Siglec-16. Human Siglec-11 shares 90%-96% aa sequence identity with Siglec-11 from great apes. Rodent orthologs of Siglec-11 have not been identified. In human, Siglec-11 is expressed in tissue macrophages, brain microglia, and inflammatory site monocytes. Strong microglial expression is specific to humans, as it is less prominent or absent in chimpanzees and orangutans. Siglec-11 forms 180 kDa disulfide-linked dimers. It shows a strong binding preference for sialic acid in α 2-8 linkage which is unusual for siglecs. Notably, this applies to polysialylated NCAM residues on neurons where Siglec-11 activation imparts neuroprotection towards neurons in response to neuroinflammation.