

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	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.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human Siglec-11 Asn17-His543 (Glu84Ala, Lys145Gln) Accession # Q96RL6
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	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.

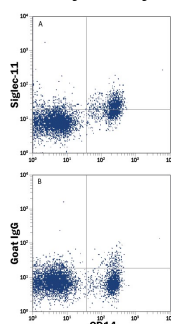
## APPLICATIONS

**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
<b>Flow Cytometry</b>	10 µL/10 <sup>6</sup> cells	See Below

## DATA

### Flow Cytometry



**Detection of Siglec-11 in Human Peripheral Blood Mononuclear Cell Monocytes and Granulocytes by Flow Cytometry.** Human peripheral blood mononuclear cell monocytes and granulocytes were stained with Mouse Anti-Human CD14 APC-conjugated Monoclonal Antibody (Catalog # [FAB3832A](#)) and either (A) Goat Anti-Human Siglec-11 PE-conjugated Antigen Affinity-purified Polyclonal Antibody (Catalog # FAB3258P) or (B) Normal Goat IgG Phycoerythrin Control (Catalog # [IC108P](#)). View our protocol for [Staining Membrane-associated Proteins](#).

## PREPARATION AND STORAGE

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

## 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 α2-8 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.