

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Siglec-16 in direct ELISAs. In flow cytometry, detects human Siglec-16, but not human Siglec-11, in transfected HEK293 cells.
Source	Monoclonal Mouse IgG _{2B} Clone # 706045
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human Siglec-16 peptide Accession # A6NMB1
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 either lyophilized or as a 0.2 µm filtered solution in PBS.

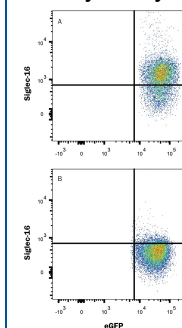
APPLICATIONS

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	0.25 µg/10 ⁶ cells	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/10 ⁶ cells	CHO cells transfected with human Siglec-16 or irrelevant transfectant
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

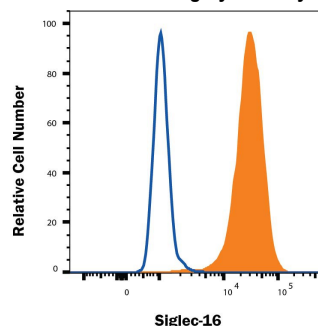
DATA

Flow Cytometry



Detection of Siglec-16 in HEK293 Human Cell Line Transfected with Human Siglec-16 and eGFP by Flow Cytometry HEK293 human embryonic kidney cell line transfected with (A) human Siglec-16 or (B) human Siglec-11, and eGFP was stained with Mouse Anti-Human Siglec-16 Monoclonal Antibody (Catalog # MAB68191) followed by APC-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). Quadrant markers were set based on control antibody staining (Catalog # MAB0041). View our protocol for [Staining Membrane-associated Proteins](#).

Intracellular Staining by Flow Cytometry



Detection of Siglec-16 in CHO cells transfected with human Siglec-16 or irrelevant transfectant cells by Flow Cytometry. CHO cells transfected with human Siglec-16 (filled histogram) or irrelevant transfectant cells (open histogram) were stained with Mouse Anti-Human Siglec-16 Monoclonal Antibody (Catalog # MAB68191), followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). To facilitate intracellular staining, cells were fixed and permeabilized with Flow Cytometry Fixation Buffer (Catalog # FC004). View our protocol for [Staining Intracellular Molecules](#).

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

Siglec-16 (Sialic acid-binding Ig-like lectin 16) is a 58-60 kDa member of the CD33-related SIGLEC family of proteins. It is expressed on macrophages and microglia, and based on Siglec-11, likely binds to an α2,8-linked sialic acid motif. Although Siglec-16 is assumed to have arisen from a Siglec-11 gene duplication and conversion, it is not an inhibitory receptor but an activating one, and possesses a transmembrane (TM) Lys that interacts with DAP12. Mature human Siglec-16 is a 465 amino acid (aa) type I TM glycoprotein. It contains a 418 aa extracellular region (aa 17-434) that shows one V-type (aa 19-122) plus three C2-type (aa 147-424) Ig-like domains, and a short 26 aa cytoplasmic tail. Notably, Siglec-16 exists as a pseudogene in approximately 50% of surveyed population. There is no Siglec-16 counterpart in either rodent or distant primate such as Rhesus monkey. The extracellular domain (ECD) of human Siglec-16 shares 94% aa identity with the ECD of human Siglec-11.