Human Siglec-15
Alexa Fluor® 647-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 1026113

Catalog Number: FAB9227R

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Siglec-15 in direct ELISAs.
Source	Monoclonal Mouse IgG_1 Clone # 1026113
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese Hamster Ovary cell line, CHO-derived human Siglec-15 Phe20-Thr263 Accession # Q6ZMC9
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *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	0.25-1 µg/10^6 cells	HEK293 Human Cell Line transfected with Human Siglec-15 and eGFP

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.** • 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Siglec-15 is a transmembrane glycoprotein in the Siglec family of sialic acid-binding immune regulatory molecules (1). Mature human Siglec-15 consists of a 244 amino acid (aa) extracellular domain (ECD) with two Ig-like domains, a 21 aa transmembrane segment, and a 44 aa cytoplasmic domain (2). Within the ECD, human Siglec-15 shares 85% aa sequence identity with mouse and rat Siglec-15. Alternative splicing generates an additional isoform that lacks the signal peptide and first Ig-like domain. Siglec-15 associates with the signaling molecules DAP12 and DAP10 (2-5). It is expressed on osteoclasts, macrophages, and dendritic cells (2-6) and binds to the sialyl-Tn antigen (2, 3, 6). This interaction induces the production of TGF-beta by tumor-associated macrophages (3). Siglec-15 function is important for osteoclast formation and TRANCE/RANK Ligand signaling in osteoclasts (4-6).

References:

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3. Takamiya, R. *et al.* (2013) Glycobiology **23**:178.
4. Kameda, Y. *et al.* (2013) J. Bone Miner. Res. **28**:2463.
5. Stuible, M. *et al.* (2014) J. Biol. Chem. **289**:6498.
6. Ishida-Kitagawa, N. *et al.* (2012) J. Biol. Chem. **287**:17493.

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