Human Siglec-1/CD169 Biotinylated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: BAF5197

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Siglec-1/CD169 in Western blots. In Western blots, approximately 20% cross-reactivity with recombinant mouse Siglec-1 is observed and less than 1% cross-reactivity with recombinant human Siglec-2 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Siglec-1/CD169 Ser20-Gln1641 Accession # Q9BZZ2
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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
Western Blot	0.1 µg/mL	Recombinant Human Siglec-1 (Catalog # 5197-SL)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
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

Siglecs are sialic acid specific I-type lectins that belong to the immunoglobulin superfamily. Structurally, they are transmembrane proteins with an N-terminal Ig-like V-set domain followed by varying numbers of Ig-like C2-set domains (1, 2). Human Siglec-1, also known as sialoadhesin and CD169, is a 175-185 kDa glycoprotein. It contains a 1622 amino acid (aa) extracellular domain (ECD) with one Ig-like V-set domain and 16 Ig-like C2-set domains, a 21 aa transmembrane segment, and a 44 aa cytoplasmic domain (3). Within the ECD, human Siglec-1 shares approximately 70% aa sequence identity with mouse and rat Siglec-1. Alternate splicing generates a potentially soluble form of the ECD, and a second isoform with a substituted cytoplasmic domain. Siglec-1 expression is restricted to lymph node and splenic macrophages, plus some tissue macrophages (3). The adhesive function of Siglec-1 is supported by the N-terminal Ig-like domain which shows a selectivity for α2,3-linked sialic acid residues (3-5). Siglec-1 binds a number of sialylated molecules including the mannose receptor, MGL1, MUC1, PSGL-1, and different glycoforms of CD43 (6-9). Its binding capacity can be masked by endogenous sialylated molecules (10, 11). The sialylated and sulfated N-linked carbohydrates that modify Siglec-1 itself are required for ligand binding (6, 7). Siglec-1 is expressed on dendritic cells following rhinovirus exposure, and these DC promote T cell anergy (12). It is also induced on circulating monocytes during systemic sclerosis and HIV-1 infection (13-15). Siglec-1 can trap HIV-1 particles for *trans* infection of permissive cells (14).

References:

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