Mouse Siglec-1/CD169 Biotinylated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG

Catalog Number: BAF5610

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Siglec-1/CD169 in Western blots. In Western blots, approximately 5% cross-reactivity with recombinant human (rh) Siglec-1 is observed and less than 1% cross-reactivity with rhSiglec-2 and recombinant mouse Siglec-2 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Siglec-1/CD169 Thr20-Leu1639 Accession # Q62230
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 Mouse Siglec-1/CD169 Fc Chimera (Catalog # 5610-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). Mouse Siglec-1, also known as sialoadhesin and CD169, is a 175-185 kDa glycoprotein that consists of a 1619 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 35 aa cytoplasmic domain (3, 4). Within the ECD, mouse Siglec-1 shares 73% and 83% aa sequence identity with human and rat Siglec-1, respectively. Alternate splicing generates a soluble form of the ECD and a soluble isoform that is truncated following the first three Ig-like domains (3). Siglec-1 expression is restricted to lymph node and spleen macrophages and some tissue macrophages (4). The adhesive function of Siglec-1 is supported by the N-terminal Ig-like domain which shows a selectivity for α-2,3-linked sialic acid residues (4-6). Siglec-1 binds a number of sialylated molecules including the mannose receptor, MGL1, MUC1, PSGL-1, and different glycoforms of CD43 (7-10). Its binding capacity can be masked by endogenous sialylated molecules (11, 12). The sialylated and sulfated N-linked carbohydrates that modify Siglec-1 itself are required for ligand binding (7, 8). Siglec-1 is expressed on dendritic cells following rhinovirus exposure, and these DC promote T cell anergy (13). It is also induced on circulating monocytes during systemic sclerosis and HIV-1 infection (14-16). Siglec-1 can trap HIV-1 particles for trans infection of permissive cells (15).

References:

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