

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Mouse                                                                                                                                                                                                                                                    |
| <b>Specificity</b>                                                                                                                                                                                      | Detects mouse Siglec-1/CD169 in direct ELISAs and Western blots. In direct ELISAs, approximately 30% cross-reactivity with recombinant human (rh) Siglec-1 is observed and less than 1% cross-reactivity with rhSiglec-2 and recombinant mouse Siglec-1. |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                                                                                                                                                                                     |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                                                                                                                                                                |
| <b>Immunogen</b>                                                                                                                                                                                        | Mouse myeloma cell line NS0-derived recombinant mouse Siglec-1/CD169<br>Thr20-Leu1639<br>Accession # Q62230                                                                                                                                              |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                                                                                                                                                          |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% 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.

|                       |                                                                        |
|-----------------------|------------------------------------------------------------------------|
| <b>Neutralization</b> | Optimal dilution of this antibody should be experimentally determined. |
| <b>Western Blot</b>   | Optimal dilution of this antibody should be experimentally determined. |

#### 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> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### 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).

#### PRODUCT SPECIFIC NOTICES

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