

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Siglec-E in direct ELISAs and Western blots. In direct ELISAs, less than 3% cross-reactivity with recombinant human (rh) Siglec-6, rhSiglec-7, and rhSiglec-9 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Siglec-E Gln20-Phe355 Accession # Q6PJ50
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

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

Siglecs are sialic acid specific I-type lectins that are characterized by an extracellular domain (ECD) with an N-terminal Ig-like V-set domain followed by varying numbers of Ig-like C2-set domains (1, 2). Mouse Siglec-E, also known as Myeloid Inhibitory Siglec (MIS), is an 80 - 85 kDa member of the CD33-related subfamily of Siglecs. It consists of a 335 amino acid (aa) ECD with one Ig-like V-set domain and two Ig-like C2-set domains, a 21 aa transmembrane segment, and a 93 aa cytoplasmic domain that contains two immunoreceptor tyrosine-based inhibitory motifs (ITIM) (3, 4). Rodent and primate Siglec gene families have significantly diverged, and Siglec-9 is the most likely human ortholog of mouse Siglec-E (1). Within the ECD, mouse Siglec-E shares 56% and 80% aa sequence identity with human Siglec-9 and rat Siglec-E, respectively. Siglec-E is expressed as a heavily N-glycosylated disulfide-linked homodimer and shows binding preference for disialic acids in the α2-8 linkage (3, 5). It is expressed on the surface of several hematopoietic cell types including neutrophils, NK cells, monocytes, peritoneal macrophages and B1 cells, and splenic myeloid dendritic cells and marginal zone B cells (5). Tyrosine phosphorylation of the cytoplasmic ITIMs mediates the association of Siglec-E with the phosphatases SHP-1 and SHP-2 (3, 4). Siglec-E is up-regulated and additionally phosphorylated following cellular stimulation by a variety of TLR agonists (6). Siglec-E signaling negatively regulates the LPS-induced production of TNF-α and IL-6 by macrophages (4, 6). Its up-regulation in macrophages parallels the development of endotoxin tolerance (6). Siglec-E recognition of sialylated determinants on virulent *T. cruzi* contributes to the suppression of dendritic cell IL-12 p40 production (7).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.