

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CLEC-1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human CLEC-2 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 219003
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CLEC-1 Gln77-Asp280 Accession # Q8NC01
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.

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

CLEC-1 (C-type lectin-like receptor-1) is a type 2 transmembrane protein that belongs to the Dectin-1 family of C-type lectins (1, 2). It consists of a 52 amino acid (aa) cytoplasmic domain, a 21 aa transmembrane segment, and a 207 aa extracellular domain (ECD) (3). The ECD contains a carbohydrate recognition domain (CRD) that includes cysteine residues with conserved spacing (4). In other C-type lectins, these cysteines form intrachain disulfide bonds that stabilize the CRD protein fold (4). CLEC-1 is a nonclassical C-type lectin in that its CRD lacks consensus amino acids which mediate calcium dependent carbohydrate binding in other C-type lectins (2, 3). The cytoplasmic domain contains one tyrosine, multiple serine and threonine, and a cluster of aspartic acid residues. The CLEC-1, CLEC-2, Dectin-1, and LOX-1 genes are located within the NK gene complex that also encodes several receptors involved in regulating NK cell activation (3, 5). CLEC-1 is most highly expressed in activated dendritic cells and at lower levels in endothelial cells and monocytes (3, 5). Within the CRD, human CLEC-1 shares 65% aa sequence identity with mouse and rat CLEC-1 and 26%-36% with the other human Dectin-1 family lectins CLEC-2, CLEC9A, CLEC12B, Dectin-1, LOX-1, and MICL.

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