

## DESCRIPTION

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

## PRODUCT SPECIFIC NOTICES

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