

**DESCRIPTION**

**Source** Mouse myeloma cell line, NS0-derived  
Met53-Leu229, with an N-terminal 6-His tag  
Accession # Q9JL99

**N-terminal Sequence Analysis** His

**Predicted Molecular Mass** 21 kDa

**SPECIFICATIONS**

**SDS-PAGE** 24-39 kDa, reducing conditions

**Activity** Measured by its binding ability in a functional ELISA.  
When Recombinant Mouse Podoplanin Fc Chimera (Catalog # 3244-PL) is coated at 0.5 µg/mL (100 µL/well), Recombinant Mouse CLEC-2/CLEC1B binds with a typical ED<sub>50</sub> of 0.1-0.5 µg/mL.

**Endotoxin Level** <0.10 EU per 1 µg of the protein by the LAL method.

**Purity** >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

**Formulation** Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

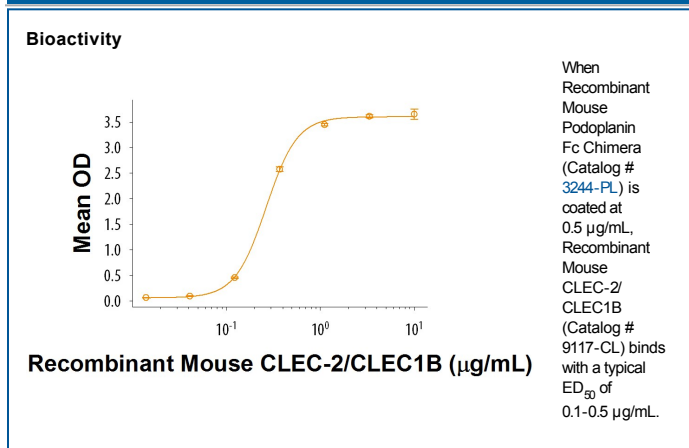
**Reconstitution** Reconstitute at 100 µg/mL in PBS.

**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.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

**DATA**



**BACKGROUND**

C-type lectin-like receptor 2, also known as CLEC-1B, is a 32 kDa type II transmembrane glycoprotein that is expressed on platelets, megakaryocyte, and liver sinusoidal cells (1-4). Mature mouse CLEC-2 consists of a 31 amino acid (aa) cytoplasmic domain, a 21 aa transmembrane segment, and a 177 aa extracellular domain (ECD) with one C-type lectin domain. Within the ECD, mouse CLEC-2 shares 59% and 90% aa sequence identity with human and rat CLEC-2, respectively. Alternative splicing generates a short isoform that lacks the transmembrane segment. CLEC-2 binding to Podoplanin trigger platelet activation, shedding of GPVI, and cleavage of Fcγ RIIA/CD32a (5-8). CLEC-2 expression on platelets is required for the development of lymphatic vessels and valves as well as the maintenance of lymph node high endothelial venules (HEV) during lymphocyte crossing (7-10). CLEC-2 additionally binds to fucoidan, HIV-1, and the platelet-aggregating snake venom protein Rhodocytin/Aggretin (2, 3, 11). In the liver, soluble CLEC-2 promotes M2 macrophage differentiation and limits inflammatory cytokine production (12).

**References:**

1. Lee, R.H. and W. Bergmeier (2016) *J. Thromb. Haemost.* Epub PMID 26749528.
2. Suzuki-Inoue, K. *et al.* (2006) *Blood* **107**:542.
3. Chaipan, C. *et al.* (2006) *J. Virol.* **80**:8951.
4. Gitz, E. *et al.* (2014) *Blood* **124**:2262.
5. Suzuki-Inoue, K. *et al.* (2007) *J. Biol. Chem.* **282**:25993.
6. Christou, C.M. *et al.* (2008) *Biochem. J.* **411**:133.
7. Herzog, B.H. *et al.* (2013) *Nature* **502**:105.
8. Sweet, D.T. *et al.* (2015) *J. Clin. Invest.* **125**:2995.
9. Hess, P.R. *et al.* (2014) *J. Clin. Invest.* **124**:273.
10. Osada, M. *et al.* (2012) *J. Biol. Chem.* **287**:22241.
11. Manne, B.K. *et al.* (2013) *J. Biol. Chem.* **288**:7717.
12. Wu, X. *et al.* (2015) *EbioMedicine* **2**:214.