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Datasheet for ABIN2666791

## C-Type Lectin Domain Family 1, Member B (CLEC1B) (AA 157-229), (C-Term) (Active) protein (Fc Tag)



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### 1 Image

Overview	
Quantity:	100 μg
Target:	C-Type Lectin Domain Family 1, Member B (CLEC1B)
Protein Characteristics:	AA 157-229, C-Term
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	Fc Tag
Application:	Flow Cytometry (FACS), Intracellular Flow Cytometry (ICFC)
Product Details	
Purity:	> 95 % , as determined by Coomassie stained SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1.0 EU per $\mu g$ of protein as determine by the LAL method.
Target Details	
Target:	C-Type Lectin Domain Family 1, Member B (CLEC1B)
Alternative Name:	CLEC2 (CLEC1B Products)
Target Type:	Viral Protein
Background:	CLEC2, also termed CLEC-1B, is a C-type lectin-like receptor. CLEC2 is highly expressed on

resting platelets and megakaryocytes, and expressed at lower levels on several hematopoietic cells including monocytes, macrophages, dendritic cells, and granulocytes. The first ligand identified for CLEC2 was rhodocytin, snake venom toxin. Rhodocytin is a strong platelet activator, and this effect is mediated by CLEC2, which has a single cytoplasmic YXXL sequence known as a hem-immunoreceptor tyrosine-based activation motif (ITAM). Exposure of platelets to rhodocytin leads to tyrosine phosphorylation of the ITAM-like motif and Syk-dependent platelet activation. Podoplanin, also termed GP38 is an endogenous ligand of CLEC2. This molecule was found to be expressed on the surface of tumor cells and facilitates tumor metastasis by inducing platelet aggregation. Podoplanin is also expressed on endothelial cells, and mice deficient in this protein show abnormal patterns of lymphatic vessel formation. In addition, CLEC2 functions as an activating receptor on monoyctes and neutrophils to induce phagocytosis and proinflammatory cytokine production. CLEC2 enhances the expansion of TCR-stimulated T cells by increasing their survival through enhanced expression of antiapoptotic proteins. Also, CLEC2 modulates the capacity of T cells to home to lymph nodes and stimulates natural killer cell mediated cytotoxicity.

Molecular Weight:

The 409 amino acid recombinant protein has a predicted molecular mass of approximately 46.7 kDa. The protein migrates at about 60 kDa by SDS-PAGE in DTT-reducing conditions and about 120 kDa in non-reducing conditions. The predicted N-terminal amino acid

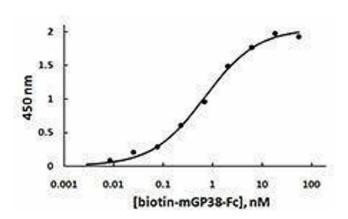
#### **Application Details**

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	Biological activity: Recombinant mouse CLEC2, when coated on a plate (2 $\mu$ g/ml, 100 $\mu$ l/well) is able to bind biotinylated mouse GP38 in a dose dependent manner with an apparent kD <5.0 nM.
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Reconstitution:	For maximum results, quick spin vial prior to opening. Stock solutions should be prepared at no less than 10 µg/mL in sterile buffer (PBS, HPBS, DPBS, and EBSS) containing carrier protein such as 1 % BSA or HSA. After dilution, the cytokine can be stored between 2 °C and 8 °C for
	one month or from -20 °C to -70 °C for up to 3 months.

#### Handling

Buffer:	0.22 µm filtered protein solution is in PBS.
Handling Advice:	Avoid repeated freeze/thaw cycles.
Storage:	-20 °C
Storage Comment:	Unopened vial can be stored between 2°C and 8°C for three months, at -20°C for six months, or at -70°C for one year.

#### Images



#### **ELISA**

Image 1.