

# Human PDGFRB / CD140b Protein (His & Fc Tag)

Catalog Number: 10514-H03H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CD140B; IBGC4; IMF1; JTK12; KOGS; PDGFR; PDGFR-1; PDGFR1; PENTT

### Protein Construction:

A DNA sequence encoding the human PDGFR $\beta$  (NP\_002600.1) extracellular domain (Met 1-Lys 531) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 70 % as determined by SDS-PAGE

### Bio Activity:

**1.Measured by its binding ability in a functional ELISA. 2.Immobilized human PDGFB (Cat:10572-H07Y) at 10 $\mu$ g/mL (100 $\mu$ L/well) can bind human PDGFR $\beta$ -Fch(Cat:10514-H03H), the EC<sub>50</sub> of human PDGFR $\beta$ -Fch is 0.05-0.2  $\mu$ g/mL.**

### Endotoxin:

< 1.0 EU per  $\mu$ g of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Leu 33

### Molecular Mass:

The secreted recombinant human PDGFR $\beta$ /Fc is a disulfide-linked homodimer. The reduced monomer comprises 747 amino acids and predicts a molecular mass of 84.2 kDa. It migrates as an approximately 125-135 kDa band in SDS-PAGE under reducing conditions due to glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

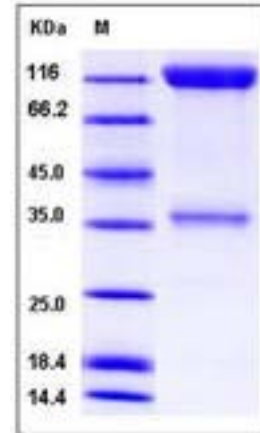
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

The cluster of differentiation (CD) system is commonly used as cell markers in immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. CD140b, also known as PDGFRB, is a member of the CD system. CD140b is a cell surface tyrosine kinase receptor essential for development interacting with the platelet-derived growth factors (PDGFs) which serves as mitogens for mesenchymal cells. CD140b can bind with platelet-derived growth factor (PDGF)-B, that are secreted by tumors and phosphorylation of PDGFR- $\beta$  was correlated with depth of cancer invasion at statistically significant level.

## References

- 1.Zola H, *et al.* (2007) CD molecules 2006-human cell differentiation molecules. J Immunol Methods. 318 (1-2): 1-5.
- 2.Ho IC, *et al.* (2009) GATA3 and the T-cell lineage: essential functions before and after T-helper-2-cell differentiation. Nat Rev Immunol. 9 (2): 125-35.
- 3.Matesanz-Isabel J, *et al.* (2011) New B-cell CD molecules. Immunology Letters.134 (2): 104-12.

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**For US Customer: Fax: 267-657-0217 ● Tel: 215-583-7898**

**Global Customer: Fax :+86-10-5862-8288 ● Tel:+86-400-890-9989 ● <http://www.sinobiological.com>**