

# Mouse PDGF-C / SCDGF Protein (Fc Tag)

Catalog Number: 50458-M01H



**Sino Biological Inc.**

Biological Solution Specialist

## General Information

### Gene Name Synonym:

1110064L01Rik, AI647969, PDGF-C

### Protein Construction:

A DNA sequence encoding the receptor-binding form of mouse PDGFC (Q8C119) (Val 235-Gly 345) was fused with the Fc region of human IgG1 at the N-terminus.

**Source:** Mouse

**Expression Host:** Human Cells

## QC Testing

**Purity:** > 80 % as determined by SDS-PAGE

### Bio-Activity

1. Measured by its binding ability in a functional ELISA.
2. Immobilized mouse PDGF-C (Cat:50458-M01H) at 10 µg/mL (100 µl/well) can bind? human PDGFRA (Cat:10556-H08H), The EC<sub>50</sub> of human PDGFRA (Cat:10556-H08H) is 0.71 µg/mL.
3. Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells. The ED<sub>50</sub> for this effect is typically 0.5-2 µg/mL.

### Endotoxin:

< 1.0 EU per µg 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:** Glu

### Molecular Mass:

The recombinant mouse PDGFC/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 372 amino acids and has a predicted molecular mass of 40.9 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmPDGFC/Fc monomer is approximately 46 kDa.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

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

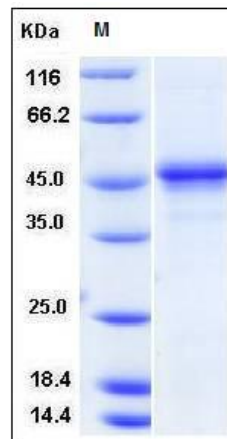
## Usage Guide

### 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.

## SDS-PAGE:



## Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## Protein Description

The Platelet-derived growth factor C (PDGF-C) is one of the four member of the PDGF family of growth factors which are known mitogens and survival factors for cells of mesenchymal origin. They form four disulfide-linked homodimers (PDGF-AA, -BB, -CC, and -DD) and one heterodimer (PDGF-AB). PDGF-C has a unique two-domain structure consisting of an N-terminal CUB and a conserved C-terminal growth factor domain that are separated by a hinge region. PDGF-CC only binds to PDGF R $\alpha$  with high affinity, activates the homodimerization of PDGF R $\alpha\beta$ , and induces the signal pathways, such as profibrotic pathways in hepatic fibrosis. PDGF-CC is involved in a variety of processes including angiogenesis, morphogenesis and cardiovascular development, as well as the tumorigenesis. Meanwhile, recent studies have shown that the serine protease tissue plasminogen activator (tPA) used for treatment of acute stroke mediates the activation PDGF-CC, which suggests potential new strategies for cardiovascular and stroke treatment.

## References

1. Li, X. et al., 2000, Nat. Cell Biol. 2: 302-309.
2. Gilbertson, D.G. et al., 2001, J. Biol. Chem. 276: 27406-27414.
3. Campbell, J.S. et al., 2005, Proc. Natl. Acad. Sci. U.S.A. 102: 3389-3394.
4. Su, E.J. et al., 2008, Nat. Med. 14: 731-737.
5. Zwerner, J.P. and W.A. May. 2001, Oncogene, 20: 626-633.

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