

Mouse PDGF-C / SCDGF Protein (Fc Tag)

Catalog Number: 50458-M01H



Sino Biological
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: HEK293 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 EC₅₀ 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 ED₅₀ 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, 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:

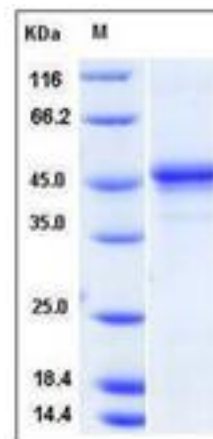
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

PDGF-C is a member of the PDGF/VEGF family of growth factors with a unique domain organization and expression pattern. Platelet-derived growth factor receptors (PDGFRs) are catalytic receptors that have intracellular tyrosine kinase activity. They have roles in the regulation of many biological processes including embryonic development, angiogenesis, cell proliferation and differentiation, and contribute to the pathophysiology of some diseases, including cancer. There are two isoforms of the PDGFR receptor; PDGFRalpha and PDGFRbeta, which can form homo- or heterodimers. The endogenous PDGFR ligands are PDGF-A, -B, -C and -D, which induce receptor dimerization and transphosphorylation at specific tyrosine residues upon binding. This activates the intracellular kinase activity, initiating intracellular signaling through the MAPK, PI 3-K and PKCgamma pathways. PDGF-C acts as a specific ligand for alpha platelet-derived growth factor receptor homodimer, and alpha and beta heterodimer. Binding of this growth factor to its affinity receptor elicits a variety of cellular responses. PDGF-C Appears to be involved in the three stages of wound healing: inflammation, proliferation and remodeling. Involved in fibrotic processes, in which transformation of interstitial fibroblasts into myofibroblasts plus collagen deposition occurs.

References

- 1.Li X, *et al.* (2000) PDGF-C is a new protease-activated ligand for the PDGF alpha-receptor. *Nat Cell Biol.* 2 (5): 302-9.
- 2.Ding H, *et al.* (2004) A specific requirement for PDGF-C in palate formation and PDGFR-alpha signaling. *Nat Genet.* 36 (10): 1111-6.
- 3.Choi SJ, *et al.* (2009) The PDGF-C regulatory region SNP rs28999109 decreases promoter transcriptional activity and is associated with CL/P. *European Journal of Human Genetics.* 17 (11): 774-84.

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