Human PDGF-C Protein (Fc Tag)

Catalog Number: 10273-H01H

General Information

Gene Name Synonym:
FALLOTEIN; SCDGF

Protein Construction:
A DNA sequence encoding the mature form of human PDGF-C (NP_057289.1) (Val 235-Gly 345) was expressed with the fused Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells. The ED50 for this effect is typically 0.5-3 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 20

Molecular Mass:
The recombinant human PDGF-C is a disulfide-linked homodimeric protein. The reduced monomer consists of 348 amino acids and predicts a molecular mass of 39 kDa. As a result of glycosylation, rh PDGF-C/Fc monomer is approximately 45 kDa in SDS-PAGE under reducing conditions.

Formulation:
Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

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; PDGFalpha and PDGFbeta, which can form homo- or heterodimers. The endogenous PDGF 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