Data Sheet (Cat.No.TMPY-04976)

TargetMol

PDGFC Protein, Mouse, Recombinant (His)

General Information

Synonyms:	platelet derived growth factor C;AI647969;PDGF-C;1110064L01Rik
Protein Construction:	A DNA sequence encoding the mouse Pdgfc (NP_064355.1) (Val235-Gly345) was expressed with a polyhistidine tag at the N-terminus. Predicted N terminal: His
Species:	Mouse
Expression Host:	P. pastoris (Yeast)
Accession:	Q8CI19
Molecular Weight:	14.4 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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. PDGF-C is involved in fibrotic processes, in which transformation of interstitial fibroblasts into myofibroblasts plus collagen deposition occurs.

Reference

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.
Ding H,et al. (2004) A specific requirement for PDGF-C in palate formation and PDGFR-alpha signaling. Nat Genet. 36 (10): 1111-6.
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.