10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PDGF-CC

Catalog # PVGS1297

Product Information

Primary Accession	Q9NRA1
Species	Human
Sequence	Vla235-Gly345
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	ED_{50}
Expression System	HEK 293
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 □g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	56034
Other Names	Platelet-derived growth factor C, PDGF-C, Fallotein, Spinal cord-derived growth factor, SCDGF, VEGF-E, Platelet-derived growth factor C, latent form, PDGFC latent form, Platelet-derived growth factor C, receptor-binding form, PDGFC receptor-binding form, PDGFC, SCDGF
Target Background	Platelet-Derived Growth Factor (PDGF) is a potent mitogen for a wide range of cell types including fibroblasts, smooth muscle, connective tissue, bone and cartilage cells, and some blood cells. The PDGF is involved in a number of biological processes, including hyperplasia, chemotaxis, embryonic neuron development, and respiratory tubule epithelial cell development. The PDGF family consists of proteins derived from four genes (PDGF -A, -B, -C, and -D) that form four disulfide-linked homodimers (PDGF-AA, -BB, -CC, and -DD) and one heterodimer (PDGF-AB).

Protein Information

Name	PDGFC
Synonyms	SCDGF
Function	Growth factor that plays an essential role in the regulation of embryonic development, cell proliferation, cell migration, survival and chemotaxis. Potent mitogen and chemoattractant for cells of mesenchymal origin. Required for normal skeleton formation during embryonic development, especially for normal development of the craniofacial skeleton and for normal development of the palate. Required for normal skin morphogenesis during embryonic development. Plays an important role in wound healing, where it appears to be involved in three stages: inflammation, proliferation and remodeling. Plays an important role in angiogenesis and blood vessel development. Involved in fibrotic processes, in which transformation of interstitial fibroblasts into myofibroblasts plus collagen deposition occurs. The CUB domain has mitogenic activity in coronary artery smooth muscle cells, suggesting a role beyond the maintenance of the latency of the PDGF domain. In the nucleus, PDGFC seems to have additional function.
Cellular Location	Cytoplasm, cytosol. Secreted. Nucleus. Cytoplasmic granule. Cell membrane. Note=Sumoylated form is predominant in the nucleus (PubMed:15247255). Stored in alpha granules in platelets (PubMed:15061151).
Tissue Location	Expressed in the fallopian tube, vascular smooth muscle cells in kidney, breast and colon and in visceral smooth muscle of the gastrointestinal tract. Highly expressed in retinal pigment epithelia. Expressed in medulloblastoma. In the kidney, constitutively expressed in parietal epithelial cells of Bowman's capsule, tubular epithelial cells and in arterial endothelial cells (at protein level) Highly expressed in the platelets, prostate, testis and uterus. Higher expression is observed in uterine leiomyomata. Weaker expression in the spleen, thymus, heart, pancreas, liver, ovary cells and small intestine, and negligible expression in the colon and peripheral blood leukocytes.

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