



Recombinant Human PDGF-CC

20201217BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-354
Size:	20 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	56034
Synonyms:	PDGF-CC

The platelet-derived growth factor (PDGF) family of heparin-binding growth factors consists of five known members, denoted PDGF-AA, PDGF-BB, PDGF-AB, PDGF-CC and PDGF-DD. The mature and active form of these proteins, an anti-parallel disulfide-linked dimer of two 12-14 kDa polypeptide chains, is obtained through proteolytic processing of biologically inactive precursor proteins, which contain an N-terminal CUB domain and a PDGF/VEGF homologous domain. The PDGFs interact with two related protein tyrosine kinase receptors, PDGFR- α and PDGFR- β , and are potent mitogens for a variety of cell types, including smooth muscle cells, connective tissue cells, bone and cartilage cells, and certain tumor cells. They play an important role in a number of biological processes, including hyperplasia, chemotaxis, embryonic neuron development, and respiratory tubules epithelial cell development. Mature PDGFs are stored in platelet α -granules and are released upon platelet activation. PDGF-AA, -AB, -BB and -CC signal primarily through the PDGF-R α receptor, whereas PDGF-DD interacts almost exclusively with the PDGF-R β receptor. Recombinant human PDGF-CC is a 25 kDa protein consisting of two identical disulfide-linked 112 amino-acid polypeptide chains.

Sequence

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MVVDLNLLETE EVRLYSCTPR NFSVSIREEL KRTDTIFWPG  
CLLVKRCGGN CACCLHNCNE CQCVPKSKVTK KYHEVLQLRP  
KTGVRGLHKS LTDVALEHHE ECDCVCRGST GG
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Database References

Protein RefSeq:	NP_057289.1
Uniprot ID:	Q9NRA1
mRNA RefSeq:	NM_016205.2

Product Specifications

Expressed in	E. coli
Purity	> 98% by SDS-PAGE & HPLC analyses
Structural Information	disulfide-linked homodimer
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	Lyophilized (5mM Sodium Citrate, pH 3.0)
Length (aa):	112
MW:	25 kDa

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 12 months at -20°C to -80°C.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Determined by the dose-dependent stimulation of the proliferation of Balb/c 3T3 cells. The expected ED₅₀ for this effect is 15-20 ng/ml.