

PDGF-CC, human recombinant

CATALOG #:	7183-10	10 µg
	7183-50	50 µg
ALTERNATE NAMES:	Platelet-Derived Growth Factor-CC	
SOURCE:	E. Coli	
PURITY:	≥ 98% by SDS-PAGE gel and HPLC analyses	
MOL. WEIGHT:	25 kDa	
ENDOTOXIN LEVEL:	< 0.1 ng/µg of protein (<1EU/µg).	
FORM:	Lyophilized	
FORMULATION:	Sterile filtered through a 0.2 micron filter. Lyophilized from 5 mM Sodium citrate, pH 3.0	
STORAGE CONDITIONS:	Store at -20°C. After reconstitution, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.	

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.

DESCRIPTION:

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-Rα receptor, whereas PDGF-DD interacts almost exclusively with the PDGF-Rβ receptor. Recombinant human PDGF-CC is a 25kDa protein consisting of two identical disulfide-linked 112 amino-acid polypeptide chains.

AMINO ACID SEQUENCE:

MVVDLNLLE EVRLYSCTPR NFSVSIREEL KRTDTIFWPG CLLVKRCGGN
CACCLHNCNE CQCVPSKVTK KYHEVLQLRP KTGVRGLHKS LTDVALEHHE
ECDCVCRGST GG

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.

RELATED PRODUCTS:

- PDGF-AA, human recombinant (**Cat # 4482-10, -50, -1000**)
- PDGF-AA, murine recombinant (**Cat # 4483-10, -1000**)
- PDGF-AB, human recombinant (**Cat # 4485-10, -50, -1000**)
- PDGF-BB, human recombinant (**Cat # 4488-10, -50, -1000**)
- PDGF-BB, murine recombinant (**Cat # 4489-10, -50, -1000**)

FOR RESEARCH USE ONLY! Not to be used in humans.