PDGF-CC Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: ,

Cat. No.:

RBG10268005	(5 µg)
RBG10268020	(20 µg)
RBG10268100	(100 µg)

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-alpha and PDGFR-beta, 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 alpha-granules, and are released upon platelet activation. PDGF-AA, -AB, -BB and -CC signal primarily through the PDGF-Ralpha receptor, whereas PDGF-DD interacts almost exclusively with the PDGF-Rbeta receptor. Recombinant Human PDGF-CC is a 25.0 kDa protein consisting of two identical disulfide-linked, 112 amino acid, polypeptide chains.

Research topic

Bone and cartilage metabolism, Cardiovascular disease, Coronary artery disease, Immune Response, Infection and Inflammation, Neural tissue markers, Oncology

Amino Acid Sequence

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MVVDLNLLTE EVRLYSCTPR NFSVSIREEL KRTDTIFWPG CLLVKRCGGN CACCLHNCNE CQCVPSKVTK KYHEVLQLRP
KTGVRGLHKS LTDVALEHHE ECDCVCRGST GG
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Source

E. coli

Purity

98%

Biological Activity

Determined by the dose-dependent stimulation of the proliferation of Balb/c 3T3 cells. The expected The ED_{50} for this effect is 15-20 ng/ml.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. 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.

Storage, Stability/Shelf Life

-20°C

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