



Platelet Derived Growth Factor-AA, human recombinant (rHuPDGF-AA)

Catalog No: 50363
Lot No: XXXXX
Source: *E. coli*
Synonyms: Glioma-derived growth factor, GDGF, Osteosarcoma-derived Growth Factor, ODGF, PDGF-AA, PDGF-1

Background

PDGF-AA, PDGF-BB and PDGF-AB, are potent mitogens for a variety of cell types including smooth muscle cells, connective tissue cells, bone and cartilage cells, and some blood cells. The PDGF is stored in platelet alpha-granules and released upon platelet activation. The PDGF is involved in a number of biological processes, including hyperplasia, chemotaxis, embryonic neuron development, and respiratory tubule epithelial cell development. Two distinct signaling receptors used by PDGF have been identified and named PDGFR-alpha and PDGFR-beta. PDGFR-alpha is high-affinity receptor for each of the three PDGF forms. On the other hand, PDGFR-beta interacts with only PDGF-BB and PDGF-AB.

Description

Platelet-Derived Growth Factor AA human recombinant produced in *E. coli* is a homodimeric, non-glycosylated, polypeptide chain containing 2 x 125 amino acids and having a total molecular mass of 28511 Dalton. PDGF-AA is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized without any additives.

Solubility

It is recommended to reconstitute the lyophilized PDGF-AA in sterile 18 M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Platelet-Derived Growth Factor AA, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution PDGF-AA should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Amino Acid Sequence

SIEEAVPAVC KTRTVIYEIP RSQVDPTSAN FLIWPPCVEV KRCTGCCNTS SVKCQPSRVH HRSVKVAKVE YVRKKPKLKE
VQVRLEEHL E CACATTSLNP DYREEDTGRP RESGKKRKRK R LKPT

Activity

The ED50, calculated by the dose-dependant proliferation of murine 3T3 indicator cells is <0.32 ng/ml, corresponding to a specific activity of 3125 x 10³ units/mg.

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