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

Catalog No: 97205
Lot No: XXXXX
Source: *Pichia pastoris*
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 yeast is a homodimeric, glycosilated, polypeptide chain containing 2 x 110 amino acids and having a total molecular mass of 34 kDa. PDGF-AA is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized with 20 mM sodium phosphate buffer.

Solubility

It is recommended to reconstitute the lyophilized PDGF-AA in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized PDGF-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 98.0% as determined by SDS-PAGE.

Activity

The ED50 was found to be 1 ng/ml corresponding to a specific activity of 1,000,000 IU/mg calculated by the ability to stimulate the proliferation of mouse 3T3 fibroblasts (PNAS 94, 10205, 1997. Biochemistry, 1996, 35, 12077).

Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.