

PDGF AA Human

Description: Platelet-Derived Growth Factor AA Human Recombinant 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.

Synonyms: Glioma-derived growth factor, GDGF, Osteosarcoma-derived Growth Factor, ODGF, PDGF-AA, PDGF-1.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Amino Acid Sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Ser-Ile-Glu-Glu-Ala.

Purity: Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Formulation:

Lyophilized 10mM Acetic Acid.

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.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Solubility:

It is recommended to reconstitute the lyophilized Platelet-derived Growth Factor-AA in sterile 18M-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Introduction:

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.

Biological Activity:

The ED₅₀, calculated by the dose-dependant proliferation of murine BALB/c 3T3 indicator cells (measured by 3H-thymidine uptake) is < 1ng/ml, corresponding to a Specific Activity of 1,000,000units/mg.

Catalog #:CYP5-348

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