
Product Data Sheet

Product Name: PDGF AA Rat
 Cat. No.: GP20814
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Platelet-derived growth factor subunit A; PDGF subunit A; PDGF-1; Platelet-derived growth factor A chain; Platelet-derived growth factor alpha polypeptide; Pdgfa; Rpa1.		
Amino Acid Sequence	MSIEEAIPAV CKTRTVIYEI PRSQVDPTSA NFLIWPPCVE VKRCTGCCNT SSVKCQPSRV HHRSVKVAKV EYVRKKPKLK EVQVRLEEHL ECACATSNLN PDHREEETDV R.		
Solubility	It is recommended to reconstitute the lyophilized Platelet-derived Growth Factor-AA in Sterile 4mM HCl to a concentration of 0.1-1.0 mg/ml. Further dilutions should be made in appropriate buffered solutions.		
Formulation	PDGF-AA was lyophilized from a 0.2µm filtered concentrated solution in PBS, pH7.0.		

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, as determined by a cell proliferation assay using murine Balb/c 3T3 cells is

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Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

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less than 5.0 ng/ml, corresponding to a specific activity of $> 2.0 \times 10^5$ IU/mg.

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.

Background

Platelet-derived Growth Factor AA Human Recombinant is a disulfide-linked homodimer. Consists of two A chains containing 111 amino acids each and having a total molecular mass of 25.3KDa. PDGF-AA is purified by proprietary chromatographic techniques.

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