

---

**RECOMBINANT HUMAN PDGF-BB ACF**



**IrvineScientific**

2511 Daimler Street, Santa Ana, California 92705-5588 USA

Telephone: 1 949 261 7800 • 1 800 437 5706

Fax: 1 949 261 6522 • [www.irvinesci.com](http://www.irvinesci.com)

PN 41022 Rev. 0

---

# RECOMBINANT HUMAN PDGF-BB ACF

Catalog No. 95116

## INTENDED USE

Recombinant human PDGF-BB is a carrier-free, animal component-free bioactive recombinant growth factor intended for use in cell culture applications. PDGF-BB is a mitogenic factor involved in cells proliferation and migration.

## PRODUCT DESCRIPTION

### 1. Synonyms

GDGF, ODGF.

### 2. Accession Number

P01127

### 3. Background

PDGF-BB belongs to the family of disulfide-linked homodimeric and heterodimeric growth factors. PDGF is expressed in different cell types and stored in platelet granules released upon platelet activation. PDGF isoforms are potent mitogens for connective tissue cells and can induce chemotactic responses in fibroblasts, smooth muscle cells, neutrophils and mononuclear cells. PDGF also appears to play an important role in neuron survival and regeneration (1-4). Recombinant human PDGF-BB is a non-glycosylated, disulfide-linked homodimer, containing two 109 amino acid chains, with a total molecular weight of 24.3 kDa.

### 4. Specifications

#### Formulation

Recombinant human PDGF-BB is lyophilized with no additives.

#### Protein content and Purity

≥95% determined by HPLC, reducing and non reducing SDS-PAGE analysis, UV spectroscopy.

#### Bioactivity

ED<sub>50</sub> is determined by a dose dependent proliferation of human 3T3 cells (5). The ED<sub>50</sub> is typically less than 15 ng/mL.

#### Quality and Grade

Carrier-free. Animal component-free.

## SHIPPING

This product is shipped at ambient temperature. Immediately upon receipt, store at the recommended temperature below.

## STORAGE INSTRUCTIONS AND STABILITY

Upon receipt, store the lyophilized protein at or below -10°C in a manual defrost freezer for up to 12 months from date of receipt. Unopened vials are stable for one year from the date of receipt when stored as recommended. Reconstituted material should be apportioned in working volumes and stored at or below -10°C in manual defrost freezer. Reconstituted material is stable for 4-6 weeks when stored at or below -10°C and for 3-12 months at -80°C. Stability can be increased by adding at least 0.1% of carrier protein.

## PRECAUTIONS AND WARNINGS

This product is for research or further manufacturing use only. It is not for use in diagnostic procedures. The safety and efficacy of this product in diagnostic or other clinical procedures has not been established.

## DIRECTIONS FOR USE

### 1. Reconstitution

Centrifuge vials before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water, which can be further diluted into other aqueous solutions.

### 2. Optimum concentration

The optimum concentration varies depending on cell type and culture conditions. Working concentration should be determined for each specific application.

## REFERENCES

1. Nazarenko I, Hede SM, He X, Hedren A, Thompson J, Lindstrom MS, Nister M (2012) PDGF and PDGF receptors in glioma. *Ups. J. Med. Sci.* 117(2): 99-112
2. Smith CL, Tallquist MD (2010) PDGF function in diverse neural crest cell populations. *Cell Adh. Migr.* 4(4): 561-566
3. Basciani S, Mariani S, Spera G, Gnessi L (2010) Role of platelet-derived growth factors in the testis. *Endocrine Reviews.* 31(6): 916-939
4. Reigstad LJ, Varhaug JE, Lillehaug JR (2005) Structural and functional specificities of PDGF-C and PDGF-D, the novel members of the platelet-derived growth factors family. *FEBS J.* 272(22): 5723-41
5. Rizzio A, Kazakoff P, Ruff E, Kuszynski C, Nesbelsick J (1988) Regulatory effects of cell density on the binding of transforming growth factor β, epidermal growth factor, platelet-derived growth factor, and fibroblast growth factor. *Cancer Research* 48(15): 4266-4271