# Platelet Derived Growth Factor-BB, mouse recombinant (rmPDGF-BB) 

Catalog No: 94968
Lot No: XXXXX
Source: E. coli
Synonyms: Glioma-derived growth factor, GDGF, Osteosarcoma-derived Growth Factor, ODGF, SIS, SSV, PDGF2, c-sis, FLJ12858, PDGF-BB, PDGF B-chain, Platelet-derived growth factor beta polypeptide, Becaplermin

## Background

PDGF-BB is a member of the platelet-derived growth factor family. The four members of this family are mitogenic factors for cells of mesenchymal origin and are characterized by a motif of eight cysteines. This gene product can exist either as a homodimer (PDGF-BB) or as a heterodimer with the platelet-derived growth factor alpha polypeptide (PDGF-AB), where the dimers are connected by disulfide bonds. Mutations in this gene are associated with meningioma. Reciprocal translocations between chromosomes 22 and 7 , at sites where this gene and that for COL1A1 are located, are associated with a particular type of skin tumor called dermatofibrosarcoma protuberans resulting from unregulated expression of growth factor. Two splice variants have been identified for this gene.

## Description

Platelet-Derived Growth Factor BB mouse recombinant produced in E. coli, is a homodimeric, non-glycosylated, polypeptide chain containing $2 \times 109$ amino acids ( 218 amino acids in total) and having a total molecular weight of 24.6 kDa . PDGF-BB is purified by proprietary chromatographic techniques.

## Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

## Formulation

The protein was lyophilized from 10 mM sodium citrate pH 3.0 .

## Solubility

It is recommended to reconstitute the lyophilized PDGF-BB in sterile 100 mM acetic acid and $0.1 \%$ BSA not less than 100 $\mu \mathrm{g} / \mathrm{ml}$, which can then be further diluted to other aqueous solutions.

## Stability

Lyophilized Platelet-derived Growth Factor BB , although stable at room temperature for 3 weeks, should be stored desiccated below $-18^{\circ} \mathrm{C}$. Upon reconstitution PDGF BB should be stored at $4^{\circ} \mathrm{C}$ between $2-7$ days and for future use below $-18^{\circ} \mathrm{C}$. 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 (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

## Amino Acid Sequence

The sequence of the first five N -terminal amino acids was determined and was found to be Met-Ser-Leu-Gly-Ser.

## Activity

The biological activity is determined by the dose-dependant stimulation of the proliferation of human umbelical vein endothelial cells (HUVEC) using a concentration range of less than $1.6 \mathrm{ng} / \mathrm{ml}$.

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## Usage

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