10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# PDGF-BB

**Catalog # PVGS1324**

## Specification

### PDGF-BB - Product Information

Primary Accession Q05028

**Species**
Rat

**Sequence**
Ser74-Thr182, expressed with an N-terminal Met

**Purity**
> 95% as analyzed by SDS-PAGE

**Endotoxin Level**
< 0.2 EU/ µg of protein by gel clotting method

**Biological Activity**
ED<sub>50</sub> < 2.0 ng/ml, measured by a cell proliferation assay using 3T3 Cells, corresponding to a specific activity of > 5.0 × 10<sup>5</sup> units/mg.

**Expression System**
E. coli

Formulation **Lyophilized after extensive dialysis against 20 mM acetic acid.**

**Reconstitution**
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in 20 mM acetic acid up to 100 µg/ml.

**Storage & Stability**
Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

### PDGF-BB - Additional Information

**Gene ID** 24628

**Other Names**
Platelet-derived growth factor subunit B, PDGF subunit B, PDGF-2, Platelet-derived growth factor B chain, Platelet-derived growth factor beta polypeptide, Pdgfb

**Target Background**
Platelet-Derived Growth Factor-BB (PDGF-BB) is one of five dimers (PDGF-AA, AB, BB, CC, and DD) formed by 4 different PDGF subunits. In vivo, PDGF-BB is mainly produced in heart and placenta, and predominantly expressed by osteoblasts, fibroblasts, smooth muscle cells, and glial cells. An

inactive precursor of PDGF-BB is produced in the endoplasmic reticulum and then activated by a proprotein convertase after secretion. PDGF-BB functions in a paracrine manner and promotes organogenesis, human skeletal development, and wound healing. PDGF-BB also promotes angiogenesis, particularly in the presence of Fibroblast Growth Factor basic. Therefore, PDGF-BB and its related pathways are potential pharmacological targets.

## PDGF-BB - Protein Information

**Name** Pdgfb

**Function**
Growth factor that plays an essential role in the regulation of embryonic development, cell proliferation, cell migration, survival and chemotaxis. Potent mitogen for cells of mesenchymal origin. Required for normal proliferation and recruitment of pericytes and vascular smooth muscle cells in the central nervous system, skin, lung, heart and placenta. Required for normal blood vessel development, and for normal development of kidney glomeruli. Plays an important role in wound healing. Signaling is modulated by the formation of heterodimers with PDGFA (By similarity).

**Cellular Location**
Secreted. Note=Released by platelets upon wounding.

**Tissue Location**
Expressed in a distinct subpopulation of smooth muscle cells in injured arteries

## PDGF-BB - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## PDGF-BB - Images