

**PDGF-BB**  
Catalog # PVGS1167**Specification**

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**PDGF-BB - Product Information**

Primary Accession [P01127](#)  
**Species**  
Human

**Sequence**  
Ser82-Thr190, expressed with an N-terminal Met

**Purity**  
> 97% as analyzed by SDS-PAGE  
> 97% as analyzed by HPLC

**Endotoxin Level**  
< 1 EU/ µg of protein by LAL method

**Biological Activity**  
Fully biologically active when compared to standard. The ED<sub>50</sub> as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 3.0 ng/ml, corresponding to a specific activity of > 3.3 × 10<sup>5</sup> IU/mg.

**Expression System**  
E. coli

**Theoretical Molecular Weight**  
24.8 kDa

Formulation **Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4.**

**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 sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml.

**Storage & Stability**  
Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

**PDGF-BB - Additional Information**

**Gene ID** 5155

**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, Proto-oncogene c-Sis, Becaplermin, PDGFB, PDGF2, SIS

### 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

**Synonyms** PDGF2, SIS

#### 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 (PubMed: [26599395](http://www.uniprot.org/citations/26599395)). 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 at high levels in the heart, brain (sustantia nigra), placenta and fetal kidney. Expressed at moderate levels in the brain (hippocampus), skeletal muscle, kidney and lung

### 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 Cytometry](#)
- [Cell Culture](#)

### PDGF-BB - Images