

## Active Recombinant Human PDGFB

Cat. No. PDGFB-146H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human platelet-derived growth factor was expressed in modified <i>human 293 cells</i> .
<b>Species</b>	Human
<b>Source</b>	HEK293
<b>Description</b>	<p>The platelet-derived growth factor (PDGF) family consists of four different polypeptide chains; PDGF-A, PDGF-B, PDGF-C and PDGF-D, sharing approximately 25% sequence homology. The biological effects of PDGF-B are exerted via two receptor tyrosine kinases, PDGFRA and PDGFRB. PDGF-B is expressed predominantly in platelets and the heart, but has been detected in the majority of human organs. PDGF-B is a potent mitogen for mesenchymal cells and plays a critical role in wound healing and tumor development. PDGF-B is an important growth factor contributing to angiogenesis and possibly lymphatic metastasis due to lymphangiogenesis. Additionally, PDGF-B plays a crucial role in wound healing. Studies have also suggested that PDGF-B is involved in the CNS including having a neuroprotective or neurotrophic effect in the developing or adult CNS, promoting angiogenic responses to injury in the CNS and remyelination..</p>
<b>Molecular Mass</b>	Under reducing conditions PDGF-B migrates as a broad band between 15.2 and 16.1 kDa on SDS-PAGE due to post-translational modifications, in particular glycosylation. This compares with unmodified PDGF-B polypeptide that has a predicted monomeric molecular mass of 12.29 kDa.

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<b>PI</b>	PDGF-B has a predicted pI of 9.38.
<b>% Carbohydrate</b>	purified PDGF-B consists of 30-45% carbohydrate by weight.
<b>Glycosylation</b>	PDGF-B contains N-linked oligosaccharides and a predicted O-linked Mannose.
<b>Purity</b>	>95%, as determined by SDS-PAGE, visualized by Coomassie Brilliant Blue.
<b>Formulation</b>	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
<b>Reconstitution</b>	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
<b>Storage</b>	Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, with longer-term storage in aliquots at -18 to -20°C.
<b>Activity</b>	The ED <sub>50</sub> of PDGF-B is typically 14-25 ng/mL as measured in a cell proliferation assay using the murine Balb/3T3 fibroblast cell line.
<b>Theoretical Sequence</b>	SLGSLTI AEPAMIAECK TRTEVFEISRRLI DRTNANFLVWPPC VEVQRCSGCCNNR NV QCRP TQVQLRPV QVRKI EIVRK KPIFKK ATVTLEDHLACKCETVAAARPV.

## GENE INFORMATION

<b>Gene Name</b>	PDGFB platelet-derived growth factor beta polypeptide (simian sarcoma viral (v-sis) oncogene homolog) [ Homo sapiens ]
<b>Synonyms</b>	platelet-derived growth factor beta polypeptide (simian sarcoma viral (v-sis) oncogene homolog); SIS; SSV; PDGF2; c-sis; FLJ12858; PDGFB; platelet-derived growth factor beta; becaplermin; PDGF, B chain; platelet-derived growth factor 2; platelet-derived

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growth factor, B chain; Platelet-derived growth factor, beta polypeptide (oncogene SIS); oncogene SIS; Becaplermin; PDGF-2; PDGF subunit B; Platelet-derived growth factor beta polypeptide; Platelet-derived growth factor B chain

**Gene ID** [5155](#)

**mRNA Refseq** [NM\\_002608](#)

**Protein Refseq** [NP\\_002599](#)

**MIM** [190040](#)

**UniProt ID** [P01127](#)

**Chromosome Location** 22q13.1

**Pathway** Cytokine-cytokine receptor interaction; Focal adhesion; Gap junction; Glioma; MAPK signaling pathway; Melanoma; Pathways in cancer; Prostate cancer; Regulation of actin cytoskeleton; Renal cell carcinoma; Hemostasis; Signaling by PDGF

**Function** cell surface binding; collagen binding; growth factor activity; platelet-derived growth factor binding platelet-derived growth factor receptor binding; protein heterodimerization activity; protein homodimerization activity


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