

Active Recombinant Human PDGFB

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

SPECIFICATION

Product Overview	Recombinant Human platelet-derived growth factor was expressed in modified <i>human 293 cells</i> .
Species	Human
Source	HEK293
Description	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..
Molecular Mass	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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PI	PDGF-B has a predicted pI of 9.38.
% Carbohydrate	purified PDGF-B consists of 30-45% carbohydrate by weight.
Glycosylation	PDGF-B contains N-linked oligosaccharides and a predicted O-linked Mannose.
Purity	>95%, as determined by SDS-PAGE, visualized by Coomassie Brilliant Blue.
Formulation	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
Storage	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.
Activity	The ED ₅₀ of PDGF-B is typically 14-25 ng/mL as measured in a cell proliferation assay using the murine Balb/3T3 fibroblast cell line.
Theoretical Sequence	SLGSLTI AEPAMIAECK TRTEVFEISRRLI DRTNANFLVWPPC VEVQRCSGCCNNR NV QCRP TQVQLRPV QVRKI EIVRK KPIFKK ATVTLEDHLACKETVAAARPV.

GENE INFORMATION

Gene Name	PDGFB platelet-derived growth factor beta polypeptide (simian sarcoma viral (v-sis) oncogene homolog) [Homo sapiens]
Synonyms	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

PDB rendering based
on 1pdg.



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