

Recombinant Human Platelet-Derived Growth Factor Beta Polypeptide

Cat. No. PDGFB-661H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant PDGFB is a disulfide-linked homodimeric protein consisting of two 109 amino acid residue subunits. Recombinant PDGFB migrates due to glycosylation as an approximately 32 kDa protein under non-reducing conditions and as 16 kDa under reducing conditions in SDS-PAGE, and was lyophilized from a 0.2 µm filtered 0.02M acetic acid solution pH 6.5.
Species	Human
Source	Human
Description	PDGFB is synthesized mainly by megakaryocytes. It is stored in the alpha granules of platelets from which it is released after cell activation of platelets. Platelets synthesize a mixture of the three possible isoforms (BB, AB, AA) while fibroblasts stimulated with EGF synthesize AA homodimers.
Purity	>98%, as determined by SDS-PAGE and HPLC.
Sequence	MNRCWALFLS LCCYLRLVSA EGDPIPEELY EMLSDHSIRS FDDLQRL LHGD PGEEDGAEL DLNMTRSHSG GELESLARGR RSLGSLTIAE PAMIAECKTR TEVFEISRRL IDRTNANFLVWPPC VEVQRC SGCCNNRNVQ CRPTQVQLRP VQVRKIEIVR KKPIFKKATV TLEDHLACKC ETVAAARPVTRSPGGSQEQR AKTPQTRVTI RTVRVRRPPK GKHRKFKHTH DKTALKETLG A

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Molecular Weight	Human PDGFB, generated by the proteolytic removal of the signal peptide and propeptide, the molecule has a calculated molecular mass of approximately 16 kDa.
Biological Activity	Activity was determined by the ability to induce chemotaxis of purified eosinophils at concentrations ranging between 50-100 ng/ml.
Endotoxin	The ED(50) was determined by the dose-dependent proliferation of Balb/c 3T3 cells. The expected ED50 for this effect is 1.0-3.0 ng/ml, corresponding to 1×10^6 IU/mg.
Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Storage	The lyophilized protein is stable for at least 2 years from date of receipt at -20°C. Upon reconstitution, this cytokine can be stored in working aliquots at 2°C - 8°C for one month, or at -20°C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.
Official Symbol	PDGFB
Pathways	Cytokine-cytokine receptor interaction; Focal Adhesion; Down-stream signal transduction; Formation of Platelet plug; Gap junction; Glioma; HTLV-I infection; Hemostasis; Melanoma; Osteoblast Signaling; Pathways in cancer; Platelet Activation; Prostate cancer; Renal cell carcinoma; Signaling by PDGF

GENE INFORMATION

Gene Name	PDGFB platelet-derived growth factor beta polypeptide [Homo sapiens]
Synonyms	PDGFB; platelet-derived growth factor beta polypeptide; SIS; SSV; PDGF2; c-sis; FLJ12858; platelet-derived growth factor subunit B; PDGF-2; becapermin; PDGF, B

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chain; PDGF subunit B; OTTHUMP00000198980; OTTHUMP00000198981; proto-oncogene c-Sis; platelet-derived growth factor 2; platelet-derived growth factor B chain; platelet-derived growth factor, B chain; Platelet-derived growth factor, betapolyptide (oncogene SIS); platelet-derived growth factor beta polypeptide(simian sarcoma viral (v-sis) oncogene homolog)

Gene ID [5155](#)

mRNA Refseq [NM_002608](#)

Protein Refseq [NP_002599](#)

MIM [190040](#)

UniProt ID [P01127](#)

Chromosome Location 22q13

Function cell surface binding; eukaryotic cell surface binding; collagen binding; growth factor activity; platelet-derived growth factor binding; platelet-derived growth factor receptor binding; contributes to platelet-derived growth factor receptor binding; protein binding; protein binding; protein heterodimerization activity; protein tyrosine kinase activity; superoxide-generating NADPH oxidase activator activity

PDB rendering based on 1pdg.

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