Active Recombinant Human PDGFB

Cat. No. PDGFB-524H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Platelet-derived growth factor BB (rhPDGF-BB) Ser 82–Ile191 (Accession # AAH29822) was expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	82-191 a.a.
Description	PDGFs are mitogenic during early developmental stages, driving the proliferation of undifferentiated mesenchyme and some progenitor populations. During later maturation stages, PDGF signalling has been implicated in tissue remodelling and cellular differentiation, and in inductive events involved in patterning and morphogenesis. In addition to driving mesenchymal proliferation, PDGFs have been shown to direct the migration, differentiation and function of a variety of specialised mesenchymal and migratory cell types, both during development and in the adult animal. Other growth factors in this family include vascular endothelial growth factors B and C (VEGF-B, VEGF-C)which are active in angiogenesis and endothelial cell growth, and placenta growth factor (PlGF) which is also active in angiogenesis. PDGF plays a role in embryonic development, cell proliferation, cell migration, and angiogenesis. PDGF is a required element in cellular division for fibroblast, a type of connective tissue cell. PDGF is also known to maintain proliferation of oligodendrocyte progenitor cells. Platelet-derived growth factor subunit B is also known as PDGFB, FLJ12858, PDGF2, SIS, SSV, c-sis, is a member of the platelet-

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	derived growth factor family. PDGFB can exist either as a homodimer (PDGF-BB) or as a heterodimer with the platelet-derived growth factor alpha polypeptide (PDGF-AB), where the dimers are connected by disulfide bonds. Mutations in this gene are associated with meningioma.
Form	Lyophilized from 0.22 μm filtered solution in 50mM Tris 150mM NaCl pH 8.0. Normally Mannitol or Trehalose are added as protectants before lyophilization.
Bio-activity	The bio-activity was determined by dose-dependent stimulation of the proliferation of mouse 3T3 cells. The ED50 was 1-10 ng/ml.
Molecular Mass	rhPDGF-BB, with two amino acids (Gly-Pro) at the N- terminus is a homodimeric,glycosylated, polypeptide chain containing 2×10^9 amino acids, and has a calculated MW of 25 kDa. DTT-reduced protein migrates as a 15 kDa polypeptide and the non-reduced cystin
Endotoxin	Less than 1.0 EU per μg of the protein by LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Avoid repeated freeze-thaw cycles. No activity loss was observed after storage at: In lyophilized state for 1 year (4 centigrade-8 centigrade); After reconstitution under sterile conditions for 1 month (4 centigrade-8 centigrade) or 3 months (-20 centigrade to -70 centigrade).

GENE INFORMATION

Gene Name	PDGFB platelet-derived growth factor beta polypeptide [Homo sapiens]
Official Symbol	PDGFB

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Synonyms	PDGFB; platelet-derived growth factor beta polypeptide; platelet derived growth factor beta polypeptide (simian sarcoma viral (v sis) oncogene homolog) , SIS; platelet-derived growth factor subunit B; becaplermin; oncogene SIS; SSV; PDGF-2; PDGF, B chain; PDGF subunit B; 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, beta polypeptide (oncogene SIS); platelet-derived growth factor beta polypeptide (simian sarcoma viral (v-sis) oncogene homolog); SIS; PDGF2; c-sis; FLJ12858;
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, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Downstream signal transduction, organism-specific biosystem; Focal Adhesion, organism-specific biosystem; Focal adhesion, organism-specific biosystem; Focal adhesion, conserved biosystem; Gap junction, organism-specific biosystem;
Function	cell surface binding; collagen binding; eukaryotic cell surface binding; growth factor activity; platelet-derived growth factor binding; platelet-derived growth factor receptor binding; contributes_to platelet-derived growth factor receptor binding; plate

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA