

Recombinant Human PDGFBB

Cat. No. PDGFB-59H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Platelet-Derived Growth Factor BB is a homodimeric, glycosylated, polypeptide chain containing 109 amino acids and having a molecular mass of 32,021 Dalton. PDGF-BB is purified by proprietary chromatographic techniques.
Species	Human
Source	S.Cerevisiae
Description	PDGF-BB is a member of the platelet-derived growth factor family. The four members of this family are mitogenic factors for cells of mesenchymal origin and are characterized by a motif of eight cysteines. This gene product 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.
Amino acid sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Ser-Leu-Gly-Ser-Leu.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 97.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	The protein was lyophilized from 0.2 µ filtered solution in 20mM sodium acetate in

 Tel: 1-631-559-9269 1-516-512-3133

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absence of any carrier protein.

Solubility

It is recommended to reconstitute the lyophilized Platelet-derived Growth Factor-BB in sterile 18MΩ-cm H₂O not less than 100g/ml, which can then be further diluted to other aqueous solutions.

Biological Activity

The ED₅₀, calculated by the dose-dependant proliferation of BALB/c 3T3 indicator cells (measured by 3H-thymidine uptake) is < 1 ng/ml, corresponding to a Specific Activity of 1 MIU/mg.

Protein content

Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.55 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of PDGF-BB as a Reference Standard.

Storage

Lyophilized Platelet-derived Growth Factor BB although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution PDGF BB should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name

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

Synonyms

PDGFB; platelet-derived growth factor beta polypeptide (simian sarcoma viral (v-sis) oncogene homolog); SIS; SSV; PDGF2; c-sis; FLJ12858; PDGFB; PDGF subunit B; Platelet-derived growth factor B chain; Platelet-derived growth factor beta; PDGF-2; Platelet-derived growth factor, beta polypeptide (oncogene SIS); platelet-derived

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	growth factor 2
Gene ID	5155
mRNA Refseq	NM_002608
Protein Refseq	NP_002599
UniProt ID	P01127
Chromosome Location	22q12.3-q13.1; 22q13.1
MIM	190040
Pathway	Cytokine-cytokine receptor interaction; Focal adhesion; Gap junction; Glioma; MAPK signaling pathway; Prostate cancer; Regulation of actin cytoskeleton; Hemostasis; Signaling by PDGF
Function	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 heterodimerization activity

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