

Active Recombinant Human PDGFB protein, Animal-Free

Cat. No. PDGFB-312H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human PDGFB was expressed in E. coli. Manufactured using all non-animal reagents.
Species	Human
Source	E.coli
Description	<p>PDGFs are disulfide-linked dimers consisting of two 12.0-13.5 kDa polypeptide chains, designated PDGF-A and PDGF-B chains. The three naturally occurring PDGFs; PDGF-AA, PDGF-BB and PDGF-AB, are potent mitogens for a variety of cell types including smooth muscle cells, connective tissue cells, bone and cartilage cells, and some blood cells. The PDGFs are stored in platelet α-granules and are released upon platelet activation. The PDGFs are involved in a number of biological processes, including hyperplasia, chemotaxis, embryonic neuron development, and respiratory tubule epithelial cell development. Two distinct signaling receptors used by PDGFs have been identified and named PDGFR-α and PDGFR-β. PDGFR-α is high-affinity receptor for each of the three PDGF forms. On the other hand, PDGFR-β interacts with only PDGF-BB and PDGF-AB.</p>
Bio-activity	Determined by the dose-dependent stimulation of the proliferation of Balb/c 3T3 cells. The expected ED50 for this effect is 1.0-3.0 ng/ml.
Molecular Mass	24.3 kDa

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AA Sequence	SLGSLTIAE PAMIAECKT RTEVFEISR RLIDRTNAN FLVWPPCVE VQRCSGCCN NRNVQCRPT QVQLRPVQV RKIEIVRKK PIFKKATVT LEDHLACKC ETVAAARPV T
Purity	Above 98% as determined by SDS-PAGE Analysis.
GENE INFORMATION	
Gene Name	PDGFB platelet-derived growth factor beta polypeptide [Homo sapiens]
Official Symbol	PDGFB
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	22q13.1

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Location**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; platelet-derived growth factor receptor binding; platelet-derived growth factor receptor binding; protein binding; protein heterodimerization activity; protein homodimerization activity; protein tyrosine kinase activity; superoxide-generating NADPH oxidase activator activity;

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