

Active Recombinant Human PDGFA

Cat. No. PDGFA-101H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human PDGF-AA is a 28.5 kDa disulfide-linked homodimer of two A chains (250 total amino acids). Manufactured using all non-animal reagents.
Species	Human
Source	E.coli
Description	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.
Bio-activity	The ED50 as determined by the dose-dependent stimulation of thymidine uptake by Balb/c 3T3 cells is ≤ 1 ng/ml, corresponding to a specific activity of $\geq 1 \times 10^6$ units/mg.
AA Sequence	SIEEAVPAVC KTRTVIYEIP RSQVDPTSAN FLIWPPCVEV KRCTGCCNTS SVKQCQPSRVH HRSVKVAKVE YVRKKPKLKE VQVRLEEHL E CACATTS LNP

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DYREEDTGRP RESGKKRK RK RKPT

Purity Greater than 98% by SDS-PAGE gel and HPLC analyses.

Storage Store at -20°C. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name PDGFA platelet-derived growth factor alpha polypeptide [Homo sapiens]

Official Symbol PDGFA

Synonyms PDGFA; platelet-derived growth factor alpha polypeptide; platelet-derived growth factor subunit A; PDGF A chain; PDGF A; PDGF1; platelet derived growth factor alpha chain; PDGF-1; PDGF A-chain; PDGF subunit A; platelet-derived growth factor A chain; platelet-derived growth factor alpha chain; platelet-derived growth factor alpha isoform 2 preproprotein; PDGF-A;

Gene ID 5154

mRNA Refseq NM_002607

Protein Refseq NP_002598

MIM 173430

UniProt ID P04085

Chromosome Location 7p22

Pathway Ceramide signaling pathway, organism-specific biosystem; Cytokine-cytokine

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receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Cytokines and Inflammatory Response, organism-specific biosystem; Downstream signal transduction, organism-specific biosystem; Focal Adhesion, organism-specific biosystem; Focal adhesion, 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; protein heterodimerization activity; protein homodimerization activity;

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