

RECOMBINANT HUMAN PLATELET-DERIVED GROWTH FACTOR-AB (hPDGF-AB)

Catalog # 02645
Catalog # 02845

10 mg per vial
50 mg per vial

PRODUCT DESCRIPTION:

Platelet-derived growth factor (PDGF) is not one molecule but three, each a dimeric combination of two distinct but structurally related peptide chains designated A and B. The dimeric isoforms PDGF-AA, AB and BB are differentially expressed in various cell types and their effects are mediated through two distinct receptors, termed α and β . Differences exist in isoform binding to each receptor. In general, PDGF isoforms are potent mitogens for connective tissue cells, including dermal fibroblasts, glial cells, arterial smooth muscle cells and some epithelial and endothelial cells. In addition to its activity as a mitogen, PDGF is chemotactic for fibroblasts, smooth muscle cells, neutrophils and mononuclear cells. PDGF also appears to be ubiquitous in neurons throughout the CNS, where it is suggested to play an important role in neuron survival and regeneration, and in mediation of glial cell proliferation and differentiation. The disulfide-linked heterodimeric recombinant PDGF-AB has a predicted molecular mass of approximately 27 kDa.

SOURCE:

A DNA sequence encoding the long form of mature human PDGF-A chain protein (containing the exon 6 sequence) and a DNA sequence encoding the 109 amino acid residue mature human PDGF-B chain protein (c-terminally processed form) were expressed in *E. coli*. Human PDGF-AB was dimerized *in vitro*.

PURITY:

Greater than 97%, as determined by SDS-PAGE and visualized by silver stain. Endotoxin level less than 0.1 ng per 1 μ g of the cytokine as determined by the LAL method.

FORMULATION:

Lyophilized from a 0.2 μ m filtered solution in 30% acetonitrile plus 0.1% TFA in the absence of any carrier protein.

RECONSTITUTION:

It is recommended that sterile 4 mM HCl containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a stock solution of no less than 10 μ g/mL of the cytokine.

STABILITY/STORAGE:

Lyophilized samples are stable for greater than six months at -20°C to -70°C. Reconstituted hPDGF-AB can be stored under sterile conditions at 2°C to 4°C for one month or at -20°C to -70°C for three months without detectable loss of activity.

Avoid repeated freeze-thaw cycles.

ACTIVITY:

Activity was determined by ability to stimulate ³H-thymidine incorporation in quiescent NR6R-3T3 fibroblasts and the ED₅₀ for this effect was typically 1.0 - 3.0ng/mL.

**THIS REAGENT IS FOR RESEARCH USE ONLY.
IT IS NOT TO BE ADMINISTERED TO HUMANS.**