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Products	Human PDGF-AB, research grade. Recombinant human platelet-derived growth factor AB.										
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2	130-094-629										
10	130-093-979										
100	130-103-442										
1000	130-108-965										
Biological activity	The ED ₅₀ is ≤3 ng/mL corresponding to an activity of ≥3.3×10 ⁵ U/mg. Note: The ED ₅₀ is determined by proliferation assay using BALB/c 3T3 cells.										
Primary structure	Non-glycosylated disulfide-linked heterodimer without N-terminal methionine (234 amino acid residues).										
Molecular mass	26.4 kDa (dimer).										
Source	Produced in <i>E. coli</i> .										
Product format	Lyophilized from a filtered (0.2 µm) buffer solution.										
Stabilizer	None.										
Purity	>95% as determined by SDS-PAGE analysis.										
Endotoxin level	Low endotoxin (<1.0 EU/µg cytokine) as determined by Limulus Amebocyte Lysate (LAL) assay.										
Storage	Lyophilized Human PDGF-AB, research grade should be stored at -20 °C. The expiration date is indicated on the vial label. Upon reconstitution aliquots should be stored at -20 °C or below. Avoid repeated freeze-thaw cycles.										
Reconstitution	It is recommended to reconstitute lyophilized Human PDGF-AB, research grade with deionized sterile-filtered water to a final concentration of 0.1–1.0 mg/mL in a minimal volume of 100 µL. Further dilutions should be prepared with 0.1% bovine serum albumin (BSA) or human serum albumin (HSA) in phosphate-buffered saline.										

1.1 Background information

Platelet-derived growth factor AB (PDGF-AB) is a disulfide-linked heterodimer of two chains termed subunit A and B, which form different members of the PDGF family including the homodimers PDGF-AA and PDGF-BB. PDGF-AB is synthesized by megakaryocytes and stored in alpha granules in platelets, from which it is released upon stimulation with thrombin or other signals related to inflammation and injury (IL-1, IL-6, TNF-α). PDGF-AB is also produced by macrophages, endothelial cells, fibroblast, and is present in the nervous system and in muscles. By binding PDGF receptors alpha and beta (PDGFR-α and PDGFR-β), PDGF-AB acts as a potent mitogen on several mesenchymal-derived cells, including fibroblasts, smooth muscle cells, and cells of the connective tissue. PDGF-AB is not released to the circulation, but acts in the tissues in an autocrine and paracrine fashion. It is involved in hyperplasia, chemotaxis, wound healing, in the development of the nervous system, and in osteogenic differentiation. PDGFs are studied as therapeutic targets in tissue regeneration and engraftment, as well as in atherosclerosis, and fibrotic disorders and malignancies.

1.2 Applications

Human PDGF-AB can be used for a variety of applications, including:

- Chemotaxis assays for fibroblasts, vascular smooth muscle cells, and immune cells.
- Mesenchymal stem cell culture and differentiation.
- Culture of hESC-derived mesenchymal stem cells.
- Wound-healing assays and connective tissue models.

Optimal concentration for a specific application should be determined by a dose-response experiment.

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