

PDGF-AA Protein, Rat (P.pastoris, His)

Cat. No.:	HY-P73720
Synonyms:	Platelet-derived growth factor subunit A; PDGF-1; PDGF-A; Rpa1
Species:	Rat
Source:	P. pastoris
Accession:	P28576 (R86-K204)
Gene ID:	25266
Molecular Weight:	17-22 kDa & 25-45 kDa

PROPERTIES

AA Sequence	<p> R S I E E A I P A V C K T R T V I Y E I P R S Q V D P T S A N F L I W P P C V E V K R C T G C C N T S S V K C Q P S R V H H R S V K V A K V E Y V R K K P K L K E V Q V R L E E H L E C A C A T S N L N P D H R E E E T G R R R E S G K K R K </p>
Biological Activity	Measured in a cell proliferation assay using Balb/C 3T3 mouse embryonic fibroblasts. The ED ₅₀ for this effect is 5 - 15 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>PDGF-AA Protein emerges as a pivotal growth factor orchestrating key aspects of embryonic development, including cell proliferation, migration, survival, and chemotaxis. Recognized for its potency as a mitogen for mesenchymal cells, PDGF-AA assumes essential roles in various physiological processes, such as the formation of lung alveolar septa, development of the gastrointestinal tract, Leydig cell maturation, spermatogenesis, oligodendrocyte development, and myelination in the spinal cord and cerebellum. Furthermore, PDGF-AA stands as a crucial contributor to wound healing dynamics. Its signaling intricacies involve modulation through heterodimer formation with PDGFB, underscoring its versatility in regulatory mechanisms. Structurally, PDGF-AA adopts a homodimeric configuration, characterized by an antiparallel disulfide-linked</p>
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dimer. Additionally, it forms heterodimers with PDGFB, engaging in interactions with PDGFRA homodimers and heterodimers formed by PDGFRA and PDGFRB, showcasing the complexity of its molecular interactions. Furthermore, PDGF-AA demonstrates an interaction with CSPG4, adding another layer to its multifaceted involvement in cellular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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