

Background

PDGF is a major serum mitogen that can exist as a homo or hetero-dimeric protein consisting of disulfide-linked PDGF-A and PDGF-B chains. The PDGF-AA, PDGF-BB and PDGF-AB isoforms have been shown to bind to two distinct cell surface PDGF receptors with different affinities. Where as PDGF R α binds all three PDGF isoforms with high affinity, PDGF R β binds PDGF-BB only with high-affinity. Both PDGF R α and PDGF R β are members of the class III subfamily of receptor tyrosine kinases (RTK) that also includes the receptors for M-CSF, SCF and Flt3 ligand. All class III RTKs are characterized by the presence of five immunoglobulin-like domains in their extracellular region and a split kinase domain in their intracellular region. PDGF binding induces receptor homo- and hetero-dimerization and signal transduction. The expression of the α and β receptors is independently regulated in various cell types. Recombinant soluble PDGF R β binds PDGF with high affinity and is potent PDGF antagonist.

References:

1. Heldin, C.H. and L. Claesson-Welsh (1994) in *Guidebook to Cytokines and Their Receptors*, Nicola, N.A. ed. Oxford University Press, New York, p. 202.

Description

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|-------------------------------------|--|----------|---|-----------|
| Source | Murine myeloma cell line, NS0-derived | | | |
| | Human PDGF R β Leu33 - Phe530 (Glu241Asp) Accession #P09619 | ENIEGRMD | Human IgG ₁ (Pro100 - Lys330) | 6-His tag |
| | N-terminus | | C-terminus | |
| N-terminal Sequence Analysis | Leu33 | | | |
| Predicted Molecular Mass | 84 kDa (monomer) | | | |

Specifications

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|------------------------|---|
| SDS-PAGE | 150 kDa, reducing conditions |
| Activity | Measured by its ability to inhibit the biological activity of PDGF-BB using NR6R-3T3 mouse fibroblasts. Raines, E.W. <i>et al.</i> (1985) <i>Methods Enzymol.</i> 109 :749. The ED ₅₀ for this effect is typically 1 - 3 μ g/mL in the presence of 4 ng/mL rhPDGF-BB. |
| Endotoxin Level | <1.0 EU per 1 μ g of the protein by the LAL method. |
| Purity | >97%, by SDS-PAGE under reducing conditions and visualized by silver stain. |
| Formulation | Lyophilized from a 0.2 μ m filtered solution in PBS. See Certificate of Analysis for details. |

Preparation and Storage

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|--------------------------------|---|
| Reconstitution | Reconstitute at 500 μ g/mL in sterile PBS. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage | <p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution. |

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FOR RESEARCH USE ONLY.
NOT FOR USE IN HUMANS.