

Active Recombinant Human PDGFRB protein, Fc/Avi-tagged, Biotinylated

Cat. No. PDGFRB-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human PDGFRB(Leu33-Lys531) protein, fused to Fc/Avi tag at the C-terminus, was expressed in CHO cells .
Species	Human
Source	CHO
ProteinLength	Leu33-Lys531
Description	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 alpha binds all three PDGF isoforms with high affinity, PDGF R beta binds PDGF-BB only with high-affinity. Both PDGF R alpha and PDGF R beta 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 alpha and beta receptors is independently regulated in various cell types. Recombinant soluble PDGF R beta binds PDGF with high affinity and is potent PDGF antagonist. Our Avi-tag Biotinylated Human PDGF R beta features biotinylation at a single site contained within the Avi-tag, a unique 15

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amino acid peptide. Protein orientation will be uniform when bound to streptavidin-coated surface due to the precise control of biotinylation and the rest of the protein is unchanged so there is no interference in the protein's bioactivity

Predicted N Terminal	Leu33
Form	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Bio-activity	Measured by its binding ability in a functional ELISA. When Recombinant Human PDGFBB is coated at 1 µg/mL (100 µL/well), Biotinylated Recombinant Human PDGFRB Fc Chimera Avi-tag binds with an ED50 of 12-120 ng/mL. Measured by its ability to inhibit the biological activity of PDGF-BB using NR6R-3T3 mouse fibroblast cells. The ED50 for this effect is 1-3 µg/mL.
Molecular Mass	107-119 kDa, under reducing conditions
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Bioactivity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 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.
Reconstitution	Reconstitute at 500 µg/mL in PBS.

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Conjugation Biotin

GENE INFORMATION

Gene Name PDGFRB platelet-derived growth factor receptor, beta polypeptide [Homo sapiens]

Official Symbol PDGFRB

Synonyms

PDGFRB; platelet-derived growth factor receptor, beta polypeptide; PDGFR; platelet-derived growth factor receptor beta; CD140b; JTK12; PDGFR1; PDGFR-beta; PDGFR-beta; CD140 antigen-like family member B; platelet-derived growth factor receptor 1; beta-type platelet-derived growth factor receptor; CD140B; PDGFR-1;

Gene ID 5159

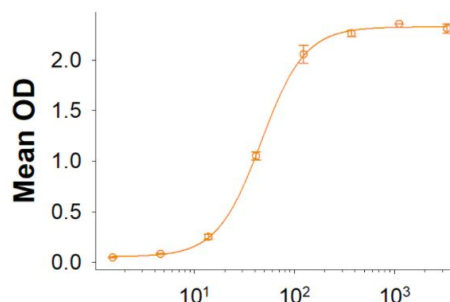
mRNA Refseq NM_002609

Protein Refseq NP_002600

MIM 173410

UniProt ID P09619

Binding Activity

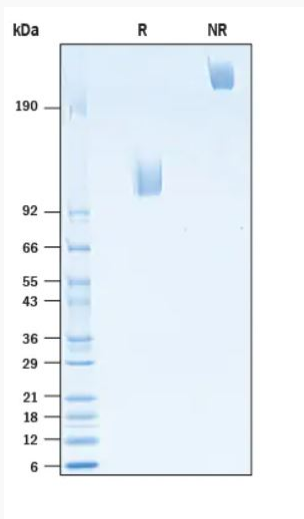


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SDS-PAGE



2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.

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