

# Recombinant Human Platelet-Derived Growth Factor Receptor, Beta Polypeptide, His-tagged

Cat. No. PDGFRB-4758H Lot. No. (See product label)

## SPECIFICATION

|                         |   |
|-------------------------|---|
| <b>Product Overview</b> | Recombinant human PDGFRB contains C-terminal polyhistidine tag and has a calculated MW of 60.3 KDa. As a result of glycosylation, DTT-reduced protein migrates as 95-100 kDa polypeptide in SDS-PAGE.   |
| <b>Species</b>          | Human   |
| <b>Source</b>           | HEK293  |
| <b>Description</b>      | Human platelet-derived growth factor receptor, beta polypeptide (PDGFRB) is receptor that binds specifically to PDGFB and has a tyrosine-protein kinase activity. Is a cell surface tyrosine kinase receptor for members of the platelet-derived growth factor (PDGF) family. The PDGFR/PDGF system includes two receptors (PDGFRA and PDGFRB) and four ligands (A, B, C and D). The receptors PDGFRA and PDGFRB are related in sequence and both are members of the class III subtype of receptor tyrosine kinases (RTKs). Other class III RTKs are CSF1R, KIT and FLT3. PDGF binding induces receptor homo- and heterodimerization and signal transduction. The expression of the $\mu$ and $\mu$ receptors is independently regulated in various cell types. |
| <b>Form</b>             | Bulk protein in a 0.22 $\mu$ m filtered solution of PBS, pH 7.4 and delivered as liquid formulation or lyophilized powder. Normally 5-8% trehalose and mannitol are added as protectants before lyophilization.   |

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|----------------------------|--|
| <b>Purity</b>              | >95% as determined by SDS-PAGE. All lots are greater than 95% pure.  |
| <b>Endotoxin</b>           | Less than 1.0 EU per 1 µg of the human PDGFRB by the LAL method.   |
| <b>Storage</b>             | Store at -70°C upon received. Avoid repeated freeze-thaw cycles.   |
| <b>GENE INFORMATION</b>    |  |
| <b>Gene Name</b>           | PDGFRB platelet-derived growth factor receptor, beta polypeptide [ Homo sapiens ]  |
| <b>Official Symbol</b>     | PDGFRB   |
| <b>Synonyms</b>            | PDGFRB; platelet-derived growth factor receptor, beta polypeptide; JTK12; PDGFR; CD140B; PDGFR1; platelet-derived growth factor receptor beta; PDGF-R-beta; CD140 antigen-like family member B; EC 2.7.10.1; CD140b; CD140b antigen; soluble PDGFRb variant; beta-type platelet-derived growth factor receptor; OTTHUMP00000160528 |
| <b>Gene ID</b>             | 5159   |
| <b>mRNA Refseq</b>         | NM_002609  |
| <b>Protein Refseq</b>      | NP_002600  |
| <b>MIM</b>                 | 173410   |
| <b>UniProt ID</b>          | P09619   |
| <b>Chromosome Location</b> | 5q33.1   |

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**Pathway**

Calcium signaling pathway; Colorectal cancer; Cytokine-cytokine receptor interaction; Focal adhesion; Gap junction; Glioma; MAPK signaling pathway; Melanoma; Pathways in cancer; Prostate cancer; Regulation of actin cytoskeleton

**Function**

ATP binding; nucleotide binding; platelet activating factor receptor activity; platelet-derived growth factor beta-receptor activity; platelet-derived growth factor receptor binding; receptor activity; transferase activity; vascular endothelial growth factor receptor activity

**Ribbon image of two molecules of human PDGFreceptor beta (yellow and magenta) in complex with dimeric PDGF-B (cyan and green)**



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