

Active Recombinant Mouse Pdgfrb

Cat. No. Pdgfrb-8341M **Lot. No.** (See product label)

SPECIFICATION

Product Overview Recombinant Mouse Pdgfrb was expressed in NSO Cells.

Species Mouse

Source Mammalian Cells

Description

Beta-type platelet-derived growth factor receptor, also known as CD140b, PDGFRB and PDGF-R-beta, is a member of the protein kinase superfamily and CSF-1/PDGF receptor subfamily. The PDGF family consists of PDGF-A, -B, -C and -D, that form disulfide-linked homodimers and a heterodimer. These proteins regulate diverse cellular functions by binding to and inducing the homo- or hetero-dimerization of two tyrosine kinase receptors (PDGF R α and R β). These two receptor isoforms dimerize upon binding PDGF leading to three possible receptor combinations, namely - $\alpha\alpha$, - $\beta\beta$ and - $\alpha\beta$. The extracellular region of the PDGF receptor- β consists of five immunoglobulin-like domains and a split kinase domain in their intracellular region. Ligand-induced receptor dimerization results in autophosphorylation in trans leading to the activation of several intracellular pathways, such as MAPK, PI3K and PLC γ . Many cell types, including fibroblasts and smooth muscle cells express both α and β receptors while others only express one.

Form

This recombinant protein was 0.2 μ m filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 – 7.3 with no calcium, magnesium, or preservatives.

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Bio-activity	The biological activity of Mouse PDGFR- β was determined by its ability to inhibit the PDGF-BB induced 3H-Thymidine incorporation in the NR6R-3T3 fibroblast cell-line. The expected ED50 for this effect is typically 0.02 – 0.05 μ g/mL in the presence of 4 ng/mL rhPDGF-BB.
Molecular Mass	The predicted molecular weight of Recombinant Mouse PDGF R β is Mr 82.6 kDa (monomer). However, the actual molecular weight as observed by migration on SDS-PAGE is Mr 124 kDa.
AA Sequence	<p> lvitppgpe fvlnisstfv ltcgsapvm weqmsqvpwq eaamnqdgtf ssvltltnvt ggdtgeyfcv ynnslgpels erkriyifvp dptmgflpmd sedlfivtd vtettipcrv tdpqlevtlh ekkvdiplhv pydhqrgftg tfedktyick ttigdrevds dtyyvyslqv ssinvsvnav qtvvrqgesi tircivmgnd vvnfqwtypr mksgrlvepv tdyllfgvpsr igsilhipta elsdsgtyc nvsvsvndhg dekainisvi engyvrlllet lgdveiaelh rsrtlrvvfe aypmpsvlwl kdnrtlgdsg agelvlstrn msetryysel ilrvvkvsea gyytmrafhe ddevqlsfkl qvnpvrvle lshpange qtircrgrgm pqpnvtwstc rdlkrcprkl sptplgnssk eesqletnvt fweedqeyev vstlrlrhvd qplsvrcmlq nsmggdsqev tvvphslpfk iegrm dpksc dkthtcpcp apellggpsv flfppkpkt lmisrtpvt cvvdvshed pevknwyvd gvevhnakt preeqynsty rvsvltvlh qdwlngkeyk ckvsnkappa piektiskak gqprepvyt lpsrdeltk nqvsitclvk gfypsdiave wesngqpenn ykttppvlds dgsfflyskl tvdksrwqqg nvfscsvmhe alnhhytqks lslspgk </p>
Endotoxin	<1.0 eu/ μ g="" as="" determined="" by="" the="" lal="">
Purity	>90% by SDS-PAGE and analyzed by silver stain.
Storage	This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles.

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GENE INFORMATION

Gene Name Pdgfrb platelet derived growth factor receptor, beta polypeptide [*Mus musculus*]

Official Symbol Pdgfrb

Synonyms PDGFRB; platelet derived growth factor receptor, beta polypeptide; platelet-derived growth factor receptor beta; PDGFR-beta; PDGF-R-beta; PDGF beta chain; CD140 antigen-like family member B; platelet-derived growth factor receptor 1; beta platelet-derived growth factor receptor; beta-type platelet-derived growth factor receptor; platelet-derived growth factor receptor beta variant 1; Pdgfr; CD140b; PDGFR-1; AI528809;

Gene ID 18596

mRNA Refseq NM_001146268

Protein Refseq NP_001139740

Pathway Calcium signaling pathway, organism-specific biosystem; Calcium signaling pathway, conserved biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Downstream signal transduction, organism-specific biosystem; ESC Pluripotency Pathways, organism-specific biosystem; Focal Adhesion, organism-specific biosystem;

Function ATP binding; kinase activity; nucleotide binding; phosphatidylinositol 3-kinase binding; platelet-derived growth factor beta-receptor activity; platelet-derived growth factor binding; platelet-derived growth factor binding; platelet-derived growth factor receptor binding; platelet-derived growth factor-activated receptor activity; protein binding; protein kinase activity; protein tyrosine kinase activity; receptor activity; receptor binding; receptor binding; signal transducer activity; transferase activity; transferase

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activity, transferring phosphorus-containing groups; transmembrane receptor protein tyrosine kinase activity; vascular endothelial growth factor binding; vascular endothelial growth factor-activated receptor activity;

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