

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 Rα and Rβ). 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 PLCγ. 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	lvitppgpe fvlntstfv ltcsapsvm weqmsqvpwq eaamnqdgtf ssvltltntv ggdggyfcv ynnslgpels erkriyifvp dptmgflpmd sedlfivtd vtetipcrv tdpqlevtlh ekkvdiplhv pydhqrgftg tfedktyick ttigdrevds dtyyvyslqv ssinvsvnav qtvvrqgesi tircivmgnd vvnfqwtypr mksgrlvepv tdyfvgpsr igsilhipta elsdsgtytc nvsvsvndhg dekainisvi engyvrillet lgdveiaelh rsrtlrvvfe aypmpsvlwl kdnrtlgdsg agelvlstrn msetryysel ilrvkvsea gyytmrafhe ddevqlsfkl qvnvpvrle lseshpange qtircrggm pqpnvtwstc rdlkrcprkl sptplgnssk eesqletnvt fweedqeyev vstlrhrhvd qplsvrcmlq nsmggdsqev tvvphslpfk iegrm dpksc dkthtccppcp apellggpsv flfppkpkdt lmsrtpevt cvvvdvshed pevknwyvd gvevhnatk preeqynsty rvsvltvlh qdwlngkeyk ckvsnkappa piektiskak gqprepvyt lpsrdeltk nqvsitclvk gfypsdiave wesngqpenn ykttppvlds dgsfflyskl tvdksrwqqg nvfscsvmhe alhnhytqks lslspgk
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.

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;