



20150116ML

Anti-Mouse PDGFR-beta (#4C54)

**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

Cat.-no.:	103-M44
Size:	100 µg
Lot. No.:	According to product label

Preparation: This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a rat) immunized with purified mouse PDGF receptor-beta extracellular domain. The IgG2 fraction of the culture supernatant was purified by Protein G affinity chromatography.

Target Background

Synonyms (Target):	Pdgfrb; Pdgfr; CD140b; PDGFR-1; AI528809
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The platelet-derived growth factor (PDGF) family consists of proteins derived from four genes (PDGF-A, B, C, and D) that form disulfidelinked homodimers (PDGF-AA, BB, CC, and DD) and a heterodimer (PDGF-AB). These proteins regulate diverse cellular functions by binding to and inducing the homo- or heterodimerization of two receptors (PDGF R α and R β). Whereas α/α homodimerization is induced by PDGF-AA, BB, CC, and AB, α/β heterodimerization is induced by PDGF-AB, -BB, CC, and DD, and β/β homodimerization is induced only by PDGF-BB, and DD. Both PDGF-R α and -R β are members of the class III subfamily of receptor tyrosine kinases (RTK) that also includes the receptors for MCSF, 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. Ligand-induced receptor dimerization results in autophosphorylation in trans resulting in the activation of several intracellular signaling pathways that can lead to cell proliferation, cell survival, cytoskeletal rearrangement, and cell migration. Many cell types, including fibroblasts and smooth muscle cells, express both the α and β receptors. Others have only the α receptors (oligodendrocyte progenitor cells, mesothelial cells, liver sinusoidal endothelial cells, astrocytes, platelets and megakaryocytes) or only the β receptors (myoblasts, capillary endothelial cells, pericytes, T cells, myeloid hematopoietic cells and macrophages). A soluble PDGF R α has been detected in normal human plasma and serum as well as in the conditioned medium of the human osteosarcoma cell line MG63. Both the recombinant mouse and human soluble PDGF R α bind PDGF with high affinity and are potent PDGF antagonists.

Database References Target

Protein RefSeq:	NP_001139740.1
Uniprot ID:	P05622
mRNA RefSeq:	NM_001146268.1

Product Specifications

Host	Rat
Reactivity against	Mouse
Clonality	Monoclonal Antibody
Clone	(#4C54)
Isotype	IgG2
Purification	Protein G chromatography
Antigen	recombinant mouse PDGFR beta extracellular domain
Formulation	lyophilized
Reconstitution buffer	PBS (sterile)

Reconstitution: Reconstitute the antibody with 200 µl sterile PBS and the final concentration is 500 µg/ml.

Stability: Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20 °C for at least for six months without detectable loss of activity.

Remarks: This antibody recognizes mouse PDGF receptor- β in Western blot. No cross reactivity to mouse PDGF receptor- α . Cross reactivity to other species have not been tested!

**AVOID REPEATED FREEZE AND THAW CYCLES!**

Applications

The antibody can be used within the following applications:

WB, IHC (P)

Recommended usage:

WB: 1:500-1000

IHC: 1:50-200

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!



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Application/Handling

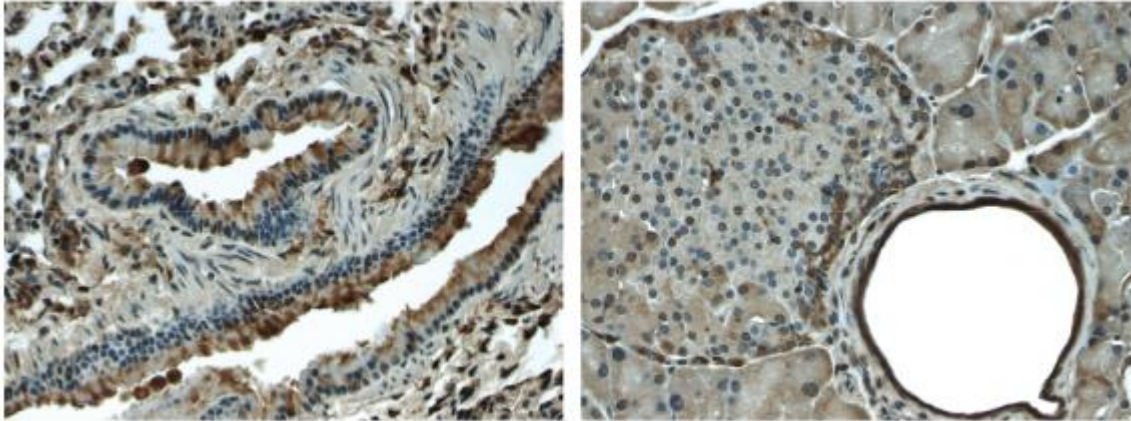


Fig. 1: PDGFR-beta immunohistochemistry staining of paraffin sections of mouse pancreas from LPS exposed animals.