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PDGFRB / PDGFR Beta Antibody (Extracellular Domain)

Rabbit Polyclonal Antibody

Catalog # ALS11106

Specification

PDGFRB / PDGFR Beta Antibody (Extracellular Domain) - Product Information

Application	**IHC**
Primary Accession	P09619
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**124kDa KDa**

PDGFRB / PDGFR Beta Antibody (Extracellular Domain) - Additional Information

Gene ID 5159

Other Names
Platelet-derived growth factor receptor beta, PDGF-R-beta, PDGFR-beta, 2.7.10.1, Beta platelet-derived growth factor receptor, Beta-type platelet-derived growth factor receptor, CD140 antigen-like family member B, Platelet-derived growth factor receptor 1, PDGFR-1, CD140b, PDGFRB, PDGFR, PDGFR1

Target/Specificity
Human PDGFRB. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage
Long term: -70°C; Short term: +4°C

Precautions
PDGFRB / PDGFR Beta Antibody (Extracellular Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

PDGFRB / PDGFR Beta Antibody (Extracellular Domain) - Protein Information

Name PDGFRB

Synonyms PDGFR, PDGFR1

Function
Tyrosine-protein kinase that acts as a cell-surface receptor for homodimeric PDGFB and PDGFD and for heterodimers formed by PDGFA and PDGFB, and plays an essential role in the regulation of embryonic development, cell proliferation, survival, differentiation, chemotaxis and migration. Plays an essential role in blood vessel development by promoting proliferation, migration and recruitment of pericytes and smooth muscle cells to endothelial cells. Plays a role in the migration of vascular smooth muscle cells and the formation of neointima at vascular injury sites. Required for normal development of the cardiovascular system. Required for normal recruitment of

pericytes (mesangial cells) in the kidney glomerulus, and for normal formation of a branched network of capillaries in kidney glomeruli. Promotes rearrangement of the actin cytoskeleton and the formation of membrane ruffles. Binding of its cognate ligands - homodimeric PDGFB, heterodimers formed by PDGFA and PDGFB or homodimeric PDGFD -leads to the activation of several signaling cascades; the response depends on the nature of the bound ligand and is modulated by the formation of heterodimers between PDGFRA and PDGFRB. Phosphorylates PLCG1, PIK3R1, PTPN11, RASA1/GAP, CBL, SHC1 and NCK1. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate, mobilization of cytosolic Ca(2+) and the activation of protein kinase C. Phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, leads to the activation of the AKT1 signaling pathway. Phosphorylation of SHC1, or of the C-terminus of PTPN11, creates a binding site for GRB2, resulting in the activation of HRAS, RAF1 and down-stream MAP kinases, including MAPK1/ERK2 and/or MAPK3/ERK1. Promotes phosphorylation and activation of SRC family kinases. Promotes phosphorylation of PDCD6IP/ALIX and STAM. Receptor signaling is down-regulated by protein phosphatases that dephosphorylate the receptor and its down-stream effectors, and by rapid internalization of the activated receptor.

Cellular Location
Cell membrane; Single-pass type I membrane protein. Cytoplasmic vesicle. Lysosome lumen. Note=After ligand binding, the autophosphorylated receptor is ubiquitinated and internalized, leading to its degradation

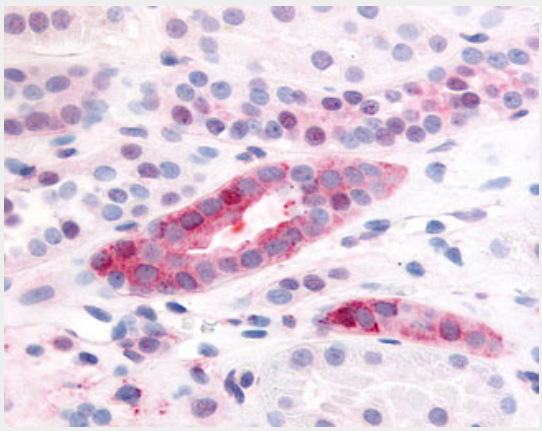
Volume
72 µl

PDGFRB / PDGFR Beta Antibody (Extracellular Domain) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PDGFRB / PDGFR Beta Antibody (Extracellular Domain) - Images



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Anti-PDGFRB antibody ALS11106 IHC of human kidney, renal tubular epithelium in cortex.

PDGFRB / PDGFR Beta Antibody (Extracellular Domain) - Background

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PDGFRB / PDGFR Beta Antibody (Extracellular Domain) - References

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