

Anti-PDGF Receptor beta PDGFRB Rabbit Monoclonal Antibody

Catalog # ABO14251

Product Information

Application	WB, IHC, IF, ICC, IP
Primary Accession	P09619
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-PDGF Receptor beta PDGFRB Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

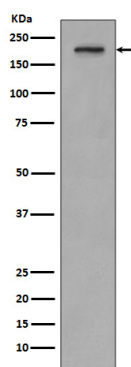
Gene ID	5159
Other Names	Platelet-derived growth factor receptor beta, PDGF-R-beta, PDGFR-beta, 2.7.10.1, Beta platelet-derived growth factor receptor, Beta-type platelet-derived growth factor receptor, CD140 antigen-like family member B, Platelet-derived growth factor receptor 1, PDGFR-1, CD140b, PDGFRB, PDGFR, PDGFR1
Calculated MW	123968
Application Details	WB 1:500-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200 IP 1:50
Subcellular Localization	Cell membrane; Single-pass type I membrane protein. Cytoplasmic vesicle. Lysosome lumen. After ligand binding, the autophosphorylated receptor is ubiquitinated and internalized, leading to its degradation.
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: AGG-16
Immunogen	A synthesized peptide derived from human PDGF Receptor beta
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at

4°C for up to one month. Avoid repeated freeze-thaw cycles.

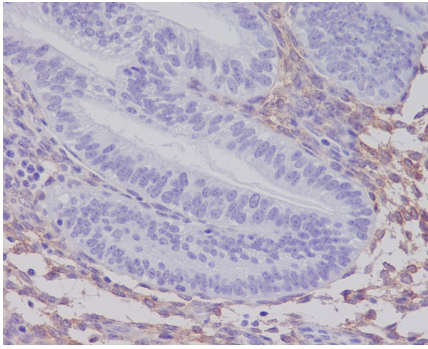
Protein Information

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

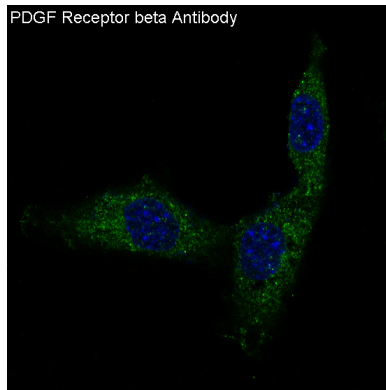
Images



Western blot analysis of PDGF Receptor beta expression in SH-SY5Y cell lysate.



Immunohistochemical analysis of paraffin-embedded human uterus, using PDGF Receptor beta Antibody.



Immunofluorescent analysis of 3T3 cells, using PDGF Receptor beta Antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.