

Rabbit PDGFR beta Polyclonal Antibody | anti-PDGFRB antibody

PDGFR beta Antibody

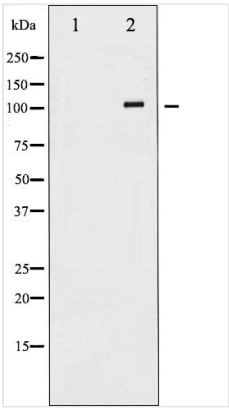
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322209	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

PDGFR beta; Polyclonal Antibody; PDGFR beta Antibody; Beta platelet derived growth factor receptor; Beta-type platelet-derived growth factor receptor; CD 140B; CD140 antigen-like family member B; CD140b; CD140b antigen; IBGC4; IMF1; JTK12; OTTHUMP00000160528; PDGF R beta; PDGF-R-beta; PDGFR 1; PDGFR; PDGFR1; PDGFRB; PGFRB_HUMAN; Platelet derived growth factor receptor 1; Platelet derived growth factor receptor beta; Platelet derived growth factor receptor beta polypeptide; anti-PDGFRB antibody

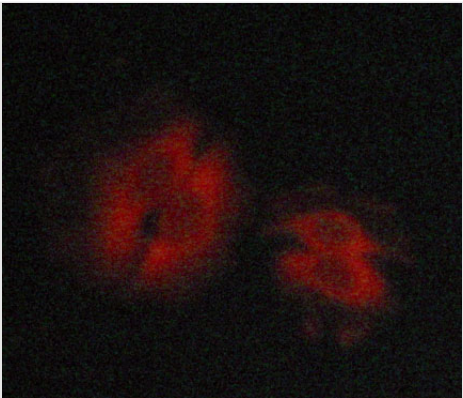
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PDGFR beta antibody detects endogenous levels of total PDGFR beta
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1106
Applicable Applications for anti-PDGFRB antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PDGFR beta
Subcellular Location	Membrane.
Predicted Cross Reactivity	Pig, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (89%), Xenopus (88%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



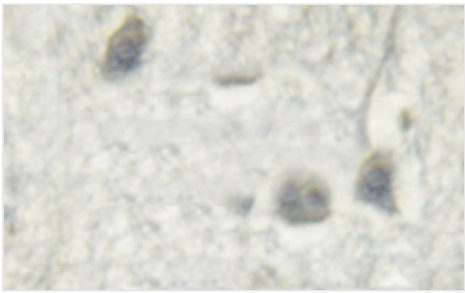
WB (Western Blot)

Western blot analysis of PDGFR beta expression in H₂O₂ treated LOVO whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA322209 staining MCF-7 cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37 degree C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37 degree C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.



IHC (Immunohistochemistry)

AAA322209 at 1/100 dilution staining PDGFR beta in human breast carcinoma by Immunohistochemistry using paraffin-embedded tissue.

ADDITIONAL INFORMATION

Related Product Information for anti-PDGFRB antibody

Description: This gene encodes a cell surface tyrosine kinase receptor for members of the platelet-derived growth factor family. These growth factors are mitogens for cells of mesenchymal origin. The identity of the growth factor bound to a receptor monomer determines whether the functional receptor is a homodimer or a heterodimer, composed of both platelet-derived growth factor receptor alpha and beta polypeptides.

Function: Tyrosine-protein kinase that acts as 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 Ca²⁺ 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 downstream 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.

Subunit Structure: Interacts with homodimeric PDGFB and PDGFD, and with heterodimers formed by PDGFA and PDGFB. May also interact with homodimeric PDGFC. Monomer in the absence of bound ligand. Interaction with homodimeric PDGFB, heterodimers formed by PDGFA and PDGFB or homodimeric PDGFD, leads to receptor dimerization, where both PDGFRA homodimers and heterodimers with PDGFRB are observed. Interacts with SH2B2/APS. Interacts directly (tyrosine phosphorylated) with SHB. Interacts (tyrosine phosphorylated) with PIK3R1 and RASA1. Interacts (tyrosine phosphorylated) with CBL. Interacts (tyrosine phosphorylated) with SRC and SRC family kinases. Interacts (tyrosine phosphorylated) with PIK3C2B, maybe indirectly. Interacts (tyrosine phosphorylated) with SHC1, GRB7, GRB10 and NCK1. Interaction with GRB2 is mediated by SHC1. Interacts (via C-terminus) with SLC9A3R1.

Post-translational Modifications: Autophosphorylated on tyrosine residues upon ligand binding. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit. Phosphorylation at Tyr-579, and to a lesser degree, at Tyr-581, is important for interaction with SRC family kinases. Phosphorylation at Tyr-740 and Tyr-751 is important for interaction with PIK3R1. Phosphorylation at Tyr-751 is important for interaction with NCK1. Phosphorylation at Tyr-771 and Tyr-857 is important for interaction with RASA1/GAP. Phosphorylation at Tyr-857 is important for efficient phosphorylation of PLCG1 and PTPN11, resulting in increased phosphorylation of AKT1, MAPK1/ERK2 and/or MAPK3/ERK1, PDCD6IP/ALIX and STAM, and in increased cell proliferation. Phosphorylation at Tyr-1009 is important for interaction with PTPN11. Phosphorylation at Tyr-1009 and Tyr-1021 is important for interaction with PLCG1. Phosphorylation at Tyr-1021 is important for interaction with CBL; PLCG1 and CBL compete for the same binding site. Dephosphorylated by PTPRJ at Tyr-751, Tyr-857, Tyr-1009 and Tyr-1021. Dephosphorylated by PTPN2 at Tyr-579 and Tyr-1021. N-glycosylated. Ubiquitinated. After autophosphorylation, the receptor is polyubiquitinated, leading to its degradation.

Similarity: Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4505683
NCBI GeneID	5159
NCBI Accession #	NP_002600.1
NCBI GenBank Nucleotide #	NM_002609.3
UniProt Accession #	P09619 ; Q8N5L4 ; B5A957
Molecular Weight	Observed: 123 kDa Predicted: 124 kDa

NCBI Official Full Name	platelet-derived growth factor receptor beta isoform 1
NCBI Official Synonym Full Names	platelet derived growth factor receptor beta
NCBI Official Symbol	PDGFRB
NCBI Official Synonym Symbols	IMF1; KOGS; IBGC4; JTK12; PDGFR; PENTT; CD140B; PDGFR1; PDGFR-1
NCBI Protein Information	platelet-derived growth factor receptor beta
UniProt Protein Name	Platelet-derived growth factor receptor beta
UniProt Gene Name	PDGFRB
UniProt Synonym Gene Names	PDGFR; PDGFR1; PDGF-R-beta; PDGFR-beta; PDGFR-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/pdgfr-beta-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/322209>