

Immunotag™ PDGFRb Antibody

Antibody Specification	
Catalog No.	ITA1756
Product Description	Immunotag™ PDGFRb Antibody
Size	100 µg, 200 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	PDGFRb
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Reactive Species	Human,Rat
Host Species	Rabbit
Immunogen	A synthesized peptide derived from human PDGFRb
Specificity	PDGFRb Antibody detects endogenous levels of total PDGFRb
Purification	The antiserum was purified by peptide affinity chromatography.
Form	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt
Gene Name	PDGFRB
Accession No.	P09619
Alternate Names	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; PDGFR beta; PDGFR1; PDGFRB; PGFRB_HUMAN; Platelet derived growth factor receptor 1; Platelet derived growth factor receptor beta; Platelet derived growth factor receptor beta polypeptide;

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Description	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 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.
Cell Pathway/ Category	Primary Polyclonal Antibody
Protein MW	125kDa
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.