PDGFRB Antibody – Polyclonal

PRODUCT OVERVIEW

Product Name	PDGFRB, Polyclonal Antibody
Full Product Name	PDGFRB (Phospho-Tyr857) Polyclonal Antibody
Product Gene Name	anti-PDGFRB antibody
Product Synonym Names	PDGFRB PDGFR PDGFR1
Clonality	Polyclonal
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid in PBS containing 50% Glycerol, 0.5% BSA and 0.02% Sodium Azide.
OMIM	131440
3D Structure	ModBase 3D Structure for P09619
Immunogen	Synthesized peptide derived from human PDGFRb (Phospho-Tyr857)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for anti-PDGFRB antibody	This antibody detects endogenous phospho levels of PDGFRb (Phospho-Tyr857) at Human:Y857, Mouse:Y856, Rat:Y856
Other Notes	Small volumes of anti-PDGFRB antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PDGFRB purchase	MBS8537445 is an antibody targeting PDGFRB. Also known as PDGFRB (Phospho-Tyr857) Polyclonal Antibody. Reactive in Human, Mouse, Rat.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PDGFRB. It may not necessarily be applicable to this product.

NCBI GI #	4505683
NCBI GeneID	5159
NCBI Accession #	NP_002600.1
UniProt Primary Accession #	P09619
UniProt Related Accession #	P09619
GenBank Nucleotide #	NP_002600.1
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
UniProt Protein Name	Platelet-derived growth factor receptor beta
UniProt Synonym Protein Names	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

Protein Family	Platelet-derived growth factor receptor
UniProt Gene Name	PDGFRB
UniProt Synonym Gene Names	PDGFR; PDGFR1; PDGF-R-beta; PDGFR-beta; PDGFR-1
UniProt Entry Name	PGFRB_HUMAN
NCBI Protein Information	platelet-derived growth factor receptor beta
NCBI Summary for PDGFRB	The protein encoded by this gene is 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 (PDGFB or PDGFD) or a heterodimer (PDGFA and PDGFB). This gene is essential for normal development of the cardiovascular system and aids in rearrangement of the actin cytoskeleton. This gene is flanked on chromosome 5 by the genes for granulocyte-macrophage colony-stimulating factor and macrophage-colony stimulating factor receptor; all three genes may be implicated in the 5-q syndrome. A translocation between chromosomes 5 and 12, that fuses this gene to that of the ETV6 gene, results in chronic myeloproliferative disorder with eosinophilia. [provided by RefSeq, Aug 2017]
UniProt Comments for PDGFRB	PDGFRB: a receptor tyrosine kinase of the PDGFR family that binds members of the platelet-derived growth factor family. The identity of the growth factor bound determines whether the functional receptor is a homodimer or a heterodimer, composed of both PDGFR-alpha and -beta. Ligand binding induces receptor dimerization and autophosphorylation, thereby recruiting SH2-containing proteins including Grb2, Src, GAP, PTPN11, PI3 kinase, PLC-gamma and Nck. Regulates cell growth, actin reorganization, migration and differentiation. A variety of myeloproliferative disorders and cancers result from translocations that activate PDGFRbeta by fusion with proteins such as TEL/ETV6, H2, CEV14/TRP11, rabaptin 5, and huntington interacting protein 1. Gleevec treatment of TEL fusions has been successful. Overexpressed in metastatic medulloblastoma. Inhibitors: Gleevec, Sutent. Protein type: Kinase, protein; Protein kinase, TK; EC 2.7.10.1; Protein kinase, tyrosine (receptor); Membrane protein, integral; Oncoprotein; TK group; PDGFR family Chromosomal Location of Human Ortholog: 5q33.1 Cellular Component: lysosomal lumen; focal adhesion; cell surface; membrane; apical plasma membrane; cytoplasm; cytoplasmic membrane-bound vesicle; integral to membrane; plasma membrane; nucleus; intrinsic to plasma membrane Molecular Function: protein binding; platelet activating factor receptor activity; protein-tyrosine kinase activity; platelet-derived growth factor binding; platelet-derived growth factor beta-receptor activity; platelet-derived growth factor receptor binding; phosphoinositide 3-kinase binding; platelet-derived growth factor receptor activity; protein kinase binding; ATP binding; receptor binding Biological Process: positive regulation of phosphoprotein phosphatase activity; peptidyl-tyrosine phosphorylation; wound healing; nerve growth factor receptor signaling pathway; response to toxin; protein amino acid autophosphorylation; positive regulation of smooth muscle cell proliferation; positive regulation of collagen biosynthetic process; platelet-derived growth factor receptor signaling pathway; cardiac myofibril assembly; signal transduction; positive regulation of smooth muscle cell migration; response to estradiol stimulus; smooth muscle development; positive regulation of MAP kinase activity; positive regulation of cell proliferation; tissue homeostasis; phosphatidylinositol metabolic process; regulation of peptidyl-tyrosine phosphorylation; inner ear development; epidermal growth factor receptor signaling pathway; cell migration; fibroblast growth factor receptor signaling pathway; response to retinoic acid; phosphoinositide-mediated signaling; positive regulation of mitosis; in utero embryonic development; positive regulation of chemotaxis; adrenal gland development; positive regulation of phosphoinositide 3-kinase activity; positive regulation of phosphoinositide 3-kinase cascade; glycosaminoglycan biosynthetic process; G-protein coupled receptor protein signaling pathway; response to hyperoxia; response to hydrogen peroxide; skeletal morphogenesis; regulation of actin cytoskeleton organization and biogenesis; innate immune response; negative regulation of apoptosis; positive regulation of cell migration Disease: Myeloproliferative Disorder, Chronic, With Eosinophilia; Myofibromatosis, Infantile, 1; Basal Ganglia Calcification, Idiopathic, 1; Basal Ganglia Calcification, Idiopathic, 4
Research Articles on PDGFRB	**1.** study found that ZMYM2-FLT3 and DIAPH1-PDGFRB fusion genes are novel, cytogenetically cryptic and therapeutically targetable abnormalities in myeloproliferative neoplasms with eosinophilia, and are thus reminiscent of FIP1L1-PDGFRA positive myeloid neoplasms

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