PDGFR Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	PDGFR, Monoclonal Antibody
Full Product Name	PDGFR (Beta-type platelet-derived growth factor receptor,PDGFRB,) (MaxLight 550)
Product Gene Name	anti-PDGFR antibody
Product Synonym Gene Name	PDGFRB
Product Synonym Names	Beta-type platelet-derived growth factor receptor,PDGFRB
Clonality	Monoclonal
Isotype	IgG1,k
Clone Number	275CT1
Host	Mouse
Species Reactivity	Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight550.
Purity/Purification	Purified by Protein G Affinity Chromatography
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight550 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	123,968 Da
Chromosome Location	Chromosome: 5; NC_000005.9 (149493402..149535422, complement). Location: 5q33.1
OMIM	131440
3D Structure	ModBase 3D Structure for P09619
Immunogen	PDGFRB Mab is generated from mouse immunized with PDGFRB recombinant protein.
Conjugate	MaxLight550
Product Categories/Family for anti-PDGFR antibody	Antibodies; Receptors; Tyrosine Kinase
Applications Tested/Suitable for anti-PDGFR antibody	FLISA, Western Blot (WB)
Application Notes for anti-PDGFR antibody	FLISA: 1:1000 WB: 1:8-30 Applications are based on unconjugated antibody.
Related Product Information for anti-PDGFR antibody	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. 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 translocation, ETV6, leukemia gene, results in chronic myeloproliferative disorder with eosinophilia. [provided by RefSeq].

Product References and Citations for anti-PDGFR antibody	Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Getachew, R., et al. Endocrinology 151(9):4356-4367(2010) Roder, C., et al. Acta Neurochir (Wien) (2010) In press Shim, A.H., et al. Proc. Natl. Acad. Sci. U.S.A. 107(25):11307-11312(2010) Johnatty, S.E., et al. PLoS Genet. 6 (7), E1001016 (2010)
Other Notes	Small volumes of anti-PDGFR 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 PDGFR purchase	MBS6209971 is an antibody targeting PDGFR. Also known as PDGFR (Beta-type platelet-derived growth factor receptor,PDGFRB,) (MaxLight 550). Reactive in Mouse. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PDGFR. 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 Secondary Accession #	Q8N5L4
UniProt Related Accession #	P09619
GenBank Nucleotide #	NM_002609.3
NCBI Official Full Name	platelet-derived growth factor receptor beta
NCBI Official Synonym Full Names	platelet-derived growth factor receptor, beta polypeptide
NCBI Official Symbol	PDGFRB
NCBI Official Synonym Symbols	IBGC4; JTK12; PDGFR; 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; PDGFR-beta; PDGF-R-beta; CD140 antigen-like family member B; platelet-derived growth factor receptor 1; beta-type platelet-derived growth factor receptor
NCBI Summary for PDGFR	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. 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 translocation, ETV6, leukemia gene, results in chronic myeloproliferative disorder with eosinophilia. [provided by RefSeq, Jul 2008]

UniProt Comments for PDGFR	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 PDGFR	**1.** Hepatitis B viral (HBV) particles and HBV c and x proteins promote stellate cell proliferation and fibrogenesis in vitro and the PDGF-B/PDGFR-beta signaling pathway is important in this process.
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