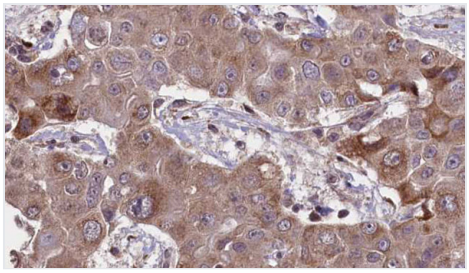
PDGFR Alpha (PDGFRA) Antibody – Rabbit Polyclonal

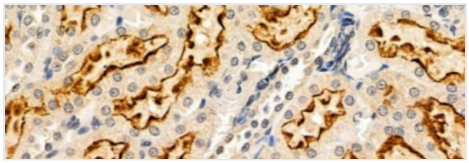
PRODUCT OVERVIEW

Product Name	PDGFR alpha (PDGFRA), Polyclonal Antibody
Full Product Name	PDGFR alpha Antibody
Product Gene Name	anti-PDGFRA antibody
Product Synonym Names	Alpha-type platelet-derived growth factor receptor; CD140 antigen-like family member A; CD140a; CD140a antigen; MGC74795; PDGF alpha chain; PDGF-R-alpha; PDGFR 2; PDGFR alpha; PDGFR2; PDGFRA; PDGFRA/BCR fusion; PGFRA_HUMAN; Platelet derived growth factor receptor 2; Platelet derived growth factor receptor alpha; Platelet derived growth factor receptor alpha polypeptide; Platelet derived growth factor receptor; Rearranged in hypereosinophilia platelet derived growth factor receptor alpha fusion protein; RHEPDGFRA
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Peptide affinity purification
Concentration	~1mg/ml (lot specific)
Specificity	PDGFR alpha antibody detects endogenous levels of total PDGFR Receptor alpha
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	PDGF Receptor alpha peptide (MBS9617188) is used for blocking the activity of PDGF Receptor alpha antibody (MBS9601656)
Molecular Weight	Observed: 140 kDa Predicted: 123 kDa
3D Structure	ModBase 3D Structure for P16234
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	A synthesized peptide derived from human PDGFR Receptor alpha , corresponding to a region within C-terminal amino acids.
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-PDGFRA antibody	Western Blot (WB), Immunohistochemisty (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC), ELISA (EIA)
Application Notes for anti-PDGFRA antibody	WB: 1:500-1:2000 IHC: 1:50-1:200 IF: 1:100-1:500 ELISA (peptide): 1:20000-1:40000 The optimal dilution should be determined by the end user. IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v milk , 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

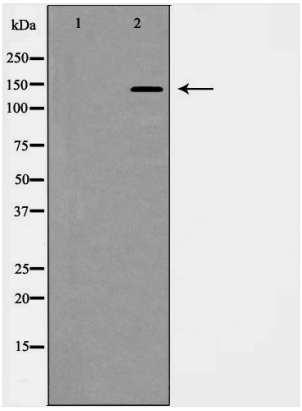
Related Product Information for anti-PDGFRA antibody	Description: Tyrosine-protein kinase that acts as a cell-surface receptor for PDGFA, PDGFB and PDGFC and plays an essential role in the regulation of embryonic development, cell proliferation, survival and chemotaxis. Depending on the context, promotes or inhibits cell proliferation and cell migration. Plays an important role in the differentiation of bone marrow-derived mesenchymal stem cells. Required for normal skeleton development and cephalic closure during embryonic development.
Other Notes	Small volumes of anti-PDGFRA 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 PDGFRA purchase	MBS9601656 is an antibody targeting PDGFRA. Also known as PDGFR alpha Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



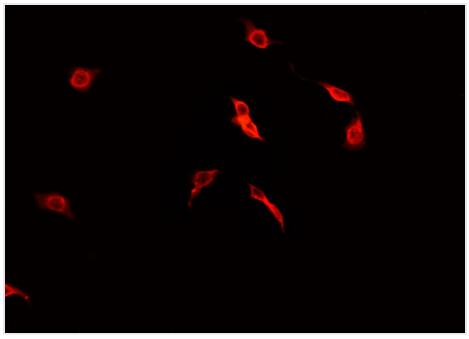
Immunohistochemistry (IHC) of anti-PDGFRA antibody
MBS9601656 at 1/100 staining Human liver cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



Immunohistochemistry (IHC) of anti-PDGFRA antibody
AF5489 at 1/100 staining Rat kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary Ab at 4°C overnight. An HRP conjugated anti-Rabbit Ab was used as the secondary Ab.



Western Blot (WB) of anti-PDGFRA antibody
Western blot analysis of PDGFR alpha expression in HepG2 cells.The lane on the left is treated with the antigen-specific peptide.



Immunofluorescence (IF) of anti-PDGFRA antibody
MBS9601656 staining CACO-2 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.

ADDITIONAL DETAILS

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

NCBI GI #	1115538446
NCBI GeneID	5156
NCBI Accession #	NP_001334758.1
UniProt Primary Accession #	P16234
UniProt Secondary Accession #	Q6P4H5; Q96KZ7; Q9UD28; B2RE69; E9PBH0
UniProt Related Accession #	P16234
GenBank Nucleotide #	NM_001347829.1
NCBI Official Full Name	platelet-derived growth factor receptor alpha isoform 1

NCBI Official Synonym Full Names	platelet derived growth factor receptor alpha
NCBI Official Symbol	PDGFRA
NCBI Official Synonym Symbols	CD140A; PDGFR2; PDGFR-2
UniProt Protein Name	Platelet-derived growth factor receptor alpha
UniProt Synonym Protein Names	Alpha platelet-derived growth factor receptor; Alpha-type platelet-derived growth factor receptor; CD140 antigen-like family member A; CD140a antigen; Platelet-derived growth factor alpha receptor; Platelet-derived growth factor receptor 2; PDGFR-2; CD_antigen: CD140a
Protein Family	Platelet-derived growth factor receptor
UniProt Gene Name	PDGFRA
UniProt Synonym Gene Names	PDGFR2; RHEPDGFRA; PDGF-R-alpha; PDGFR-alpha; PDGFR-2
NCBI Protein Information	platelet-derived growth factor receptor alpha
NCBI Summary for PDGFRA	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. Studies suggest that this gene plays a role in organ development, wound healing, and tumor progression. Mutations in this gene have been associated with idiopathic hypereosinophilic syndrome, somatic and familial gastrointestinal stromal tumors, and a variety of other cancers. [provided by RefSeq, Mar 2012]
UniProt Comments for PDGFRA	Tyrosine-protein kinase that acts as a cell-surface receptor for PDGFA, PDGFB and PDGFC and plays an essential role in the regulation of embryonic development, cell proliferation, survival and chemotaxis. Depending on the context, promotes or inhibits cell proliferation and cell migration. Plays an important role in the differentiation of bone marrow-derived mesenchymal stem cells. Required for normal skeleton development and cephalic closure during embryonic development. Required for normal development of the mucosa lining the gastrointestinal tract, and for recruitment of mesenchymal cells and normal development of intestinal villi. Plays a role in cell migration and chemotaxis in wound healing. Plays a role in platelet activation, secretion of agonists from platelet granules, and in thrombin-induced platelet aggregation. Binding of its cognate ligands - homodimeric PDGFA, homodimeric PDGFB, heterodimers formed by PDGFA and PDGFB or homodimeric PDGFC -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 PIK3R1, PLCG1, and PTPN11. 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. Phosphorylates PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, and thereby mediates activation of the AKT1 signaling pathway. Mediates activation of HRAS and of the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1. Promotes activation of STAT family members STAT1, STAT3 and STAT5A and/or STAT5B. 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.
Research Articles on PDGFRA	**1.** PDGFRA D842V mutant binds imatinib with lower affinity with respect to wild-type structure, showing higher stability during the interaction with other type I TKIs (like crenolanib).
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