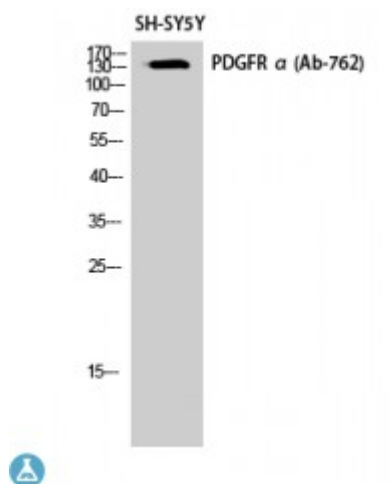


## Anti-PDGFR-alpha antibody



<b>Description</b>	Rabbit polyclonal to PDGFR-alpha.
<b>Model</b>	STJ95000
<b>Host</b>	Rabbit
<b>Reactivity</b>	Human, Mouse, Rat
<b>Applications</b>	ELISA, IF, IHC
<b>Immunogen</b>	Synthesized peptide derived from human PDGFR-alpha around the non-phosphorylation site of Y762.
<b>Immunogen Region</b>	700-780 aa
<b>Gene ID</b>	<a href="#">5156</a>
<b>Gene Symbol</b>	<a href="#">PDGFRA</a>
<b>Dilution range</b>	IHC 1:100-1:300IF 1:200-1:1000ELISA 1:5000
<b>Specificity</b>	PDGFR-alpha Polyclonal Antibody detects endogenous levels of PDGFR-alpha protein.
<b>Tissue Specificity</b>	Detected in platelets (at protein level). Widely expressed. Detected in brain, fibroblasts, smooth muscle, heart, and embryo. Expressed in primary and metastatic colon tumors and in normal colon tissue.
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Note</b>	For Research Use Only (RUO).
<b>Protein Name</b>	Platelet-derived growth factor receptor alpha PDGF-R-alpha PDGFR-alpha Alpha platelet-derived growth factor receptor Alpha-type platelet-derived

growth factor receptor CD140 antigen-like family member A CD140a antigen  
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<b>Molecular Weight</b>	85 kDa
<b>Clonality</b>	Polyclonal
<b>Conjugation</b>	Unconjugated
<b>Isotype</b>	IgG
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Concentration</b>	1 mg/ml
<b>Storage Instruction</b>	Store at -20°C, and avoid repeat freeze-thaw cycles.
<b>Database Links</b>	<a href="#">HGNC:8803OMIM:173490</a>
<b>Alternative Names</b>	Platelet-derived growth factor receptor alpha PDGF-R-alpha PDGFR-alpha Alpha platelet-derived growth factor receptor Alpha-type platelet-derived growth factor receptor CD140 antigen-like family member A CD140a antigen <
<b>Function</b>	<p>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 Ca(2+) 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.</p>
<b>Cellular Localization</b>	Cell membrane. The activated receptor is rapidly internalized and degraded.
<b>Post-translational Modifications</b>	<p>N-glycosylated.; Ubiquitinated, leading to its degradation.</p> <p>Autophosphorylated on tyrosine residues upon ligand binding.</p> <p>Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit. Phosphorylation at</p>

Tyr-731 and Tyr-742 is important for interaction with PIK3R1.  
Phosphorylation at Tyr-720 and Tyr-754 is important for interaction with PTPN11. Phosphorylation at Tyr-762 is important for interaction with CRK.  
Phosphorylation at Tyr-572 and Tyr-574 is important for interaction with SRC and SRC family members. Phosphorylation at Tyr-988 and Tyr-1018 is important for interaction with PLCG1.

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