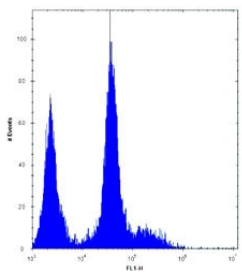
PDGFRA Antibody / CD140a (F50654)

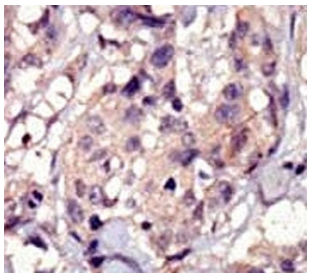
Catalog No.	Formulation	Size
F50654-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F50654-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

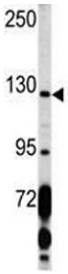
Availability	1-3 business days
Species Reactivity	Human, Mouse
Predicted Reactivity	Rat, Chicken
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	P16234
Localization	Cytoplasmic, membrane
Applications	Western blot: 1:1000 IHC (Paraffin): 1:50-1:100 Flow Cytometry: 1:10-1:50
Limitations	This PDGFRA antibody is available for research use only.



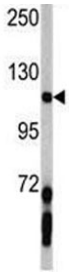
PDGFRA antibody flow cytometric analysis of U251 cells (right histogram) compared to a negative control (left histogram). FITC-conjugated goat-anti-rabbit secondary Ab was used for the analysis.



IHC analysis of FFPE human breast carcinoma tissue stained with PDGFRA antibody



Western blot analysis of PDGFRA antibody and human K562 lysate. Expected molecular weight: 120-195 kDa.



Western blot analysis of PDGFRA antibody and mouse lung tissue lysate. Expected molecular weight: 120-195 kDa.

Description

PDGFRA is a 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. [UniProt]

Learn more about PDGFRA expression, platelet-derived growth factor signaling, mesenchymal development, and receptor tyrosine kinase biology on our PDGFR Alpha Antibody / Receptor Tyrosine Kinase Antibody page.

Application Notes

Titration of the PDGFRA antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 1048-1077 from the human protein was used as the immunogen for this CD140a / PDGFRA antibody.

Storage

Aliquot the PDGFRA antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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