

PDGFR α Antibody

Catalog No: #33470

Package Size: #33470-1 50ul #33470-2 100ul

Orders: order@signalwayantibody.comSupport: tech@signalwayantibody.com

Description

Product Name	PDGFR α Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Applications	WB IHC IF
Species Reactivity	Human;Mouse;Rat
Specificity	The antibody detects endogenous levels of total PDGFR α protein.
Immunogen Type	Peptide
Immunogen Description	Synthesized peptide derived from internal of human PDGFR α .
Conjugates	Unconjugated
Target Name	PDGFR α
Other Names	Alpha platelet-derived growth factor receptor precursor; CD140a; PDGF-R-alpha; PDGFR-alpha; PGFRA
Accession No.	Swiss-Prot: P16234NCBI Gene ID: 5156
SDS-PAGE MW	140kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

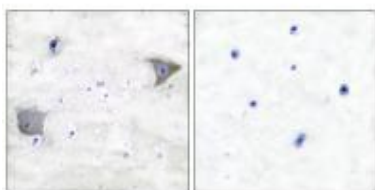
Application Details

Western blotting: 1:500~1:3000

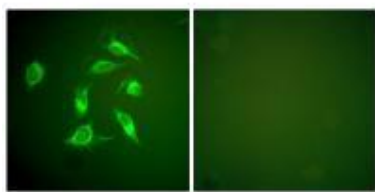
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:500

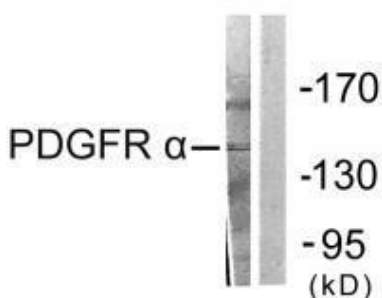
Images



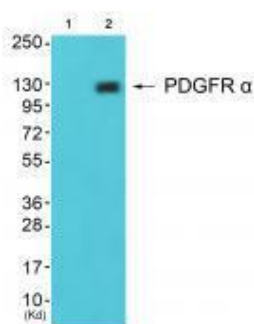
Immunohistochemical analysis of paraffin-embedded human brain tissue using PDGFR α antibody #33470.



Immunofluorescence analysis of HeLa cells, using PDGFR α antibody #33470.



Western blot analysis of extracts from HepG2 cells, using PDGFR α antibody #33470.



Western blot analysis of extracts from 293 cells (Lane 2), using PDGFR α antibody #33470. The lane on the left is treated with synthesized peptide.

Background

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.

Jennifer Brennan, *Genes & Dev.*, Mar 2003; 17: 800.

JC Yu, *J. Biol. Chem.*, Apr 1994; 269: 10668 - 10674.

Nobuyuki Takakura, *J. Histochem. Cytochem.*, Jun 1997; 45: 883.

Published Papers

el at., Cancer-associated fibroblasts promote lymphatic metastasis in cholangiocarcinoma via the PDGF-BB/PDGFR- β mediated paracrine signaling network. In Aging Dis on 2024 Feb 1 by Jian Yan, Gang Xiao,et al..PMID:37307823, , (2024)

[PMID:37307823](#)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.