

Anti-PDGFR α Picoband Antibody

Catalog # ABO12457

Product Information

Application	WB, IHC-P
Primary Accession	P16234
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Platelet-derived growth factor receptor α (PDGFR α) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	5156
Other Names	Platelet-derived growth factor receptor α , PDGF-R- α , PDGFR- α , 2.7.10.1, 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 α receptor, Platelet-derived growth factor receptor 2, PDGFR-2, CD140a, PDGFR α , PDGFR2, RHEPDGFR α
Calculated MW	122670
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, By Heat Western blot, 0.1-0.5 μ g/ml, Human, Mouse, Rat
Subcellular Localization	Cell membrane ; Single- pass type I membrane protein . The activated receptor is rapidly internalized and degraded.
Tissue Specificity	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. .
Source	Eukaryota
Protein Name	Platelet-derived growth factor receptor α
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human

PDGFRA (968-1002aa DFLKSDHPAARMRVDS DNAYIGVTYKNEEDKLKD), identical to the related mouse sequence, and different from the related rat sequence by one amino acid.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	PDGFRA
Synonyms	PDGFR2, RHEPDGFRA
Function	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.
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell projection, cilium {ECO:0000250 UniProtKB:P26618}. Golgi apparatus {ECO:0000250 UniProtKB:P26618}
Tissue Location	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.

Background

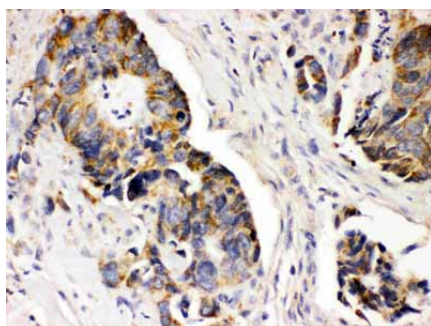
PDGFRA (Platelet-derived growth factor receptor, alpha), also called PDGFR2, encodes a cell surface tyrosine kinase receptor for members of the platelet-derived growth factor family. The PDGFA gene is mapped on

4q12. The PDGFRA-FIP1L1 gene is a constitutively activated tyrosine kinase that transforms hematopoietic cells and is a therapeutic target of imatinib. And the PDGFRA gene contains 23 exons spanning about 65 kb. Using the human PDGFRA promoter linked to a luciferase reporter, Joosten et al. showed that PAX1 acts as a transcriptional activator of the PDGFRA gene in differentiated human embryonal carcinoma cells. PDGFRA is responsible for mediating cellular contraction of multiple growth factors: TGFB1 and members of the PDGF family. Lei et al. noted that in the rabbit model of the disease, PDGFRA is dramatically more capable of promoting PVR than is the closely related PDGFRB. PDGFRA is a critical receptor required for human CMV infection, and thus a target for novel antiviral therapies.

Images



Anti- PDGFRA Picoband antibody, ABO12457, Western blotting
All lanes: Anti PDGFRA (ABO12457) at 0.5ug/ml
Lane 1: Rat Brain Tissue Lysate at 50ug
Lane 2: HELA Whole Cell Lysate at 40ug
Lane 3: NIH3T3 Whole Cell Lysate at 40ug
Predicted bind size: 180KD
Observed bind size: 180KD



Anti- PDGFRA Picoband antibody, ABO12457,
IHC(P)IHC(P): Human Intestinal Cancer Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.