

# Product Name: PDGFR-β (phospho Tyr1021) Rabbit Polyclonal Antibody Catalog #: APRab05230

For research use only.

# **Summary**

**Description** Rabbit polyclonal Antibody

**Host** Rabbit

Application WB,IHC,ICC/IF,ELISA
Reactivity Human,Mouse,Rat
Conjugation Unconjugated
Modification Phosphorylated

**Isotype** IgG

ClonalityPolyclonalFormLiquidConcentration1mg/ml

**Storage** Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.

**Shipping** Ice bags

Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type **Buffer** 

preservative N.

**Purification** Affinity purification

# **Application**

**Dilution Ratio** WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:10000

Molecular Weight 135-180kDa

# **Antigen Information**

Gene Name PDGFRB

PDGFRB; PDGFR; PDGFR1; Platelet-derived growth factor receptor beta; PDGF-R-beta;

Alternative Names PDGFR-beta; Beta platelet-derived growth factor receptor; Beta-type platelet-derived

growth factor receptor; CD140 antigen-like family member B; Platelet-deri

 Gene ID
 5159.0

 SwissProt ID
 P09619

The antiserum was produced against synthesized peptide derived from human PDGFR beta Immunogen

around the phosphorylation site of Tyr1021. AA range:991-1040

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# **Background**

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. This gene is flanked on chromosome 5 by the genes for granulocyte-macrophage colony-stimulating factor and macrophage-colony stimulating factor receptor; all three genes may be implicated in the 5-q syndrome. A translocation between chromosomes 5 and 12, that fuses this gene to that of the translocation, ETV6, leukemia gene, results in chronic myeloproliferative disorder with eosinophilia. [provided by RefSeq, Jul 2008], catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate., disease: A chromosomal aberration involving PDGFRB is a cause in many instances of chronic myeloproliferative disorder with eosinophilia (MPE) [MIM:131440]. Translocation t(5;12) with ETV6 on chromosome 12 creating an PDGFRB-ETV6 fusion protein., disease: A chromosomal aberration involving PDGFRB is found in a form of chronic myelomonocytic leukemia (CMML). Translocation t(5;12)(q33;p13) with EVT6/TEL. It is characterized by abnormal clonal myeloid proliferation and by progression to acute myelogenous leukemia (AML),,disease:A chromosomal aberration involving PDGFRB may be a cause of acute myelogenous leukemia. Translocation t(5;14)(q33;q32) with TRIP11. The fusion protein may be involved in clonal evolution of leukemia and eosinophilia, disease: A chromosomal aberration involving PDGFRB may be a cause of juvenile myelomonocytic leukemia. Translocation t(5;17)(q33;p11.2) with SPECC1.,disease:A chromosomal aberration involving PDGFRB may be the cause of a myeloproliferative disorder (MBD) associated with eosinophilia. Translocation t(1;5)(q23;q33) that forms a PDE4DIP-PDGFRB fusion protein.,function:Receptor that binds specifically to PDGFB and PDGFD and has a tyrosine-protein kinase activity. Phosphorylates Tyr residues at the C-terminus of PTPN11 creating a binding site for the SH2 domain of GRB2., similarity: Belongs to the protein kinase superfamily. Tyr protein kinase family, similarity: Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily, similarity: Contains 1 protein kinase domain, similarity: Contains 5 Iq-like C2-type (immunoglobulin-like) domains,,subunit:Homodimer, and heterodimer with PDGFRA. Interacts with APS. The autophosphorylated form interacts directly with SHB and with PIK3C2B, maybe indirectly.,

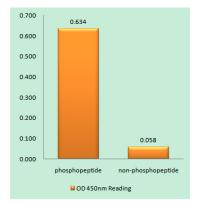
#### **Research Area**

MAPK\_ERK\_Growth;MAPK\_G\_Protein;Calcium;Cytokine-cytokine receptor interaction;Focal adhesion;Gap junction;Regulates Actin and Cytoskeleton;Pathways in cancer;Colorectal cancer;Glioma;Prostate cancer;Melanoma;

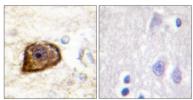
### **Image Data**

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Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using PDGFR beta (Phospho-Tyr1021) Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using PDGFR beta (Phospho-Tyr1021) Antibody. The picture on the right is blocked with the phospho peptide.

PDGFR β 125KD

PDGFR β (p-Tyr1021) 125KD

- - + phospho-peptide

Western Blot analysis of various cells using Phospho-PDGFR- $\beta$  (Y1021) Polyclonal Antibody

+ + non-phospho-peptide
+ + + 3T3 PDGF-BB 45ng/ml