SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-PDGFRA antibody

SL0231R

Product Name	PDGFRA
Chinese Name	血小板源性生长因子受体 A/PDGFRα 抗体
Alias	Platelet–dirived growth factor receptor-alpha; PDGF Receptor alpha; Alpha platelet derived grov 140a; CD140a; CD140a antigen; MGC74795; PDGF alpha chain; PDGF R alpha; PDGFR 2; PD PDGFR2; Platelet derived growth factor receptor 2; Platelet derived growth factor receptor alpha PGFRA_HUMAN.
Research Area	Cardiovascular Signal transduction Growth factors and hormones
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse,Rat (predicted:Chicken,Dog,Pig,Cow,Horse)
Applications	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1μg/Test （Paraffin sections nee not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	117kDa
Cellular localization	The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human PDGF-R-A: 1021-1089/1089 <Cytoplas
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or d
PubMed	PubMed
Product	This gene encodes a cell surface tyrosine kinase receptor for members of the platelet-derived gro

Detail

growth factors are mitogens for cells of mesenchymal origin. The identity of the growth factor bo determines whether the functional receptor is a homodimer or a heterodimer, composed of both pl receptor alpha and beta polypeptides. Studies suggest that this gene plays a role in organ develop tumor progression. Mutations in this gene have been associated with idiopathic hypereosinophili familial gastrointestinal stromal tumors, and a variety of other cancers. [provided by RefSeq, Ma

Function:
Tyrosine-protein kinase that acts as a cell-surface receptor for PDGFA, PDGFB and PDGFC and regulation of embryonic development, cell proliferation, survival and chemotaxis. Depending on inhibits cell proliferation and cell migration. Plays an important role in the differentiation of bon mesenchymal stem cells. Required for normal skeleton development and cephalic closure during Required for normal development of the mucosa lining the gastrointestinal tract, and for recruitn and normal development of intestinal villi. Plays a role in cell migration and chemotaxis in woun platelet activation, secretion of agonists from platelet granules, and in thrombin-induced platelet cognate ligands - homodimeric PDGFA, homodimeric PDGFB, heterodimers formed by PDGFA homodimeric PDGFC -leads to the activation of several signaling cascades; the response depend ligand and is modulated by the formation of heterodimers between PDGFRA and PDGFRB. Pho PLCG1, and PTPN11. Activation of PLCG1 leads to the production of the cellular signaling mol inositol 1,4,5-trisphosphate, mobilization of cytosolic Ca(2+) and the activation of protein kinase the regulatory subunit of phosphatidylinositol 3-kinase, and thereby mediates activation of the A Mediates activation of HRAS and of the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1. Pr family members STAT1, STAT3 and STAT5A and/or STAT5B. Receptor signaling is down-reg phosphatases that dephosphorylate the receptor and its down-stream effectors, and by rapid inter receptor.

Subunit:
Interacts with homodimeric PDGFA, PDGFB and PDGFC, and with heterodimers formed by PD Monomer in the absence of bound ligand. Interaction with dimeric PDGFA, PDGFB and/or PDG dimerization, where both PDGFRA homodimers and heterodimers with PDGFRB are observed. phosphorylated) with SHB (via SH2 domain). Interacts (tyrosine phosphorylated) with SHF (via (tyrosine phosphorylated) with SRC (via SH2 domain). Interacts (tyrosine phosphorylated) with phosphorylated) with PLCG1 (via SH2 domain). Interacts (tyrosine phosphorylated) with CRK, with human cytomegalovirus/HHV-5 envelop glycoprotein B/gB.

Subcellular Location:
Cell membrane; Single-pass type I membrane protein. Note=The activated receptor is rapidly int

Tissue Specificity:
Detected in platelets (at protein level). Widely expressed. Detected in brain, fibroblasts, smooth Expressed in primary and metastatic colon tumors and in normal colon tissue.

Post-translational modifications:
N-glycosylated.
Ubiquitinated, leading to its degradation (Probable).

Autophosphorylated on tyrosine residues upon ligand binding. Autophosphorylation occurs in tr
dimeric receptor phosphorylates tyrosine residues on the other subunit. Phosphorylation at Tyr-7
for interaction with PIK3R1. Phosphorylation at Tyr-720 and Tyr-754 is important for interactio
Phosphorylation at Tyr-762 is important for interaction with CRK. Phosphorylation at Tyr-572 a
interaction with SRC and SRC family members. Phosphorylation at Tyr-988 and Tyr-1018 is im
PLCG1.

DISEASE:
Note=A chromosomal aberration involving PDGFRA is found in some cases of hypereosinophil
chromosomal deletion del(4)(q12q12) causes the fusion of FIP1L1 and PDGFRA (FIP1L1-PDG
overexpression and/or constitutive activation of PDGFRA may be a cause of hypereosinophilic s
Defects in PDGFRA are a cause of gastrointestinal stromal tumor (GIST) [MIM:606764]. Note=
constitutive activation of PDGFRA may be a cause of gastrointestinal stromal tumor (GIST).

Similarity:
Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor sub
Contains 5 Ig-like C2-type (immunoglobulin-like) domains.
Contains 1 protein kinase domain.

SWISS:
P16234

Gene ID:
5156

Database links:

Entrez Gene: 5156 Human

Entrez Gene: 18595 Mouse

Entrez Gene: 25267 Rat

Omim: 173490 Human

SwissProt: P16234 Human

SwissProt: P26618 Mouse

SwissProt: P20786 Rat

Unigene: 74615 Human

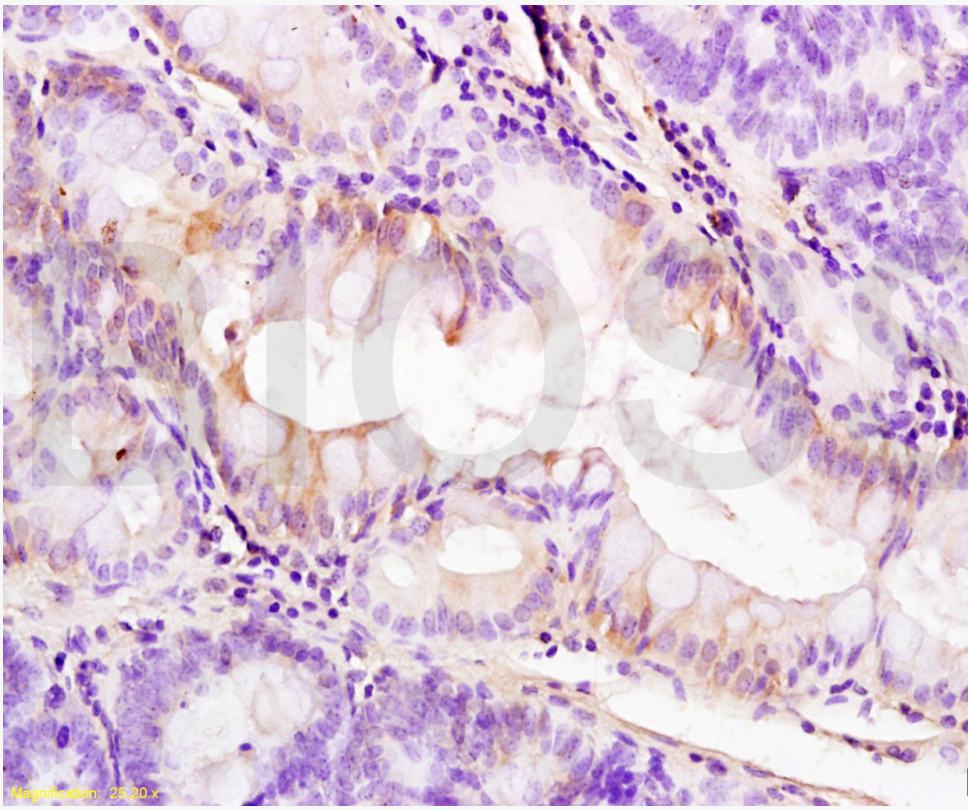
Unigene: 221403 Mouse

Unigene: 55127 Rat

SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

The cell membrane 受体（Membrane Receptors)
PDGFR-α 是膜受体，具有酪氨酸酶的活性，与其配体 PDGF 结合后激活与细胞增殖有关
PDGFR 亦表达于上皮、endothelial cells，前列腺、皮肤、肾小球等 epithelial cells 均有 PD
亦有学者报道血小板源性生长因子受体 α 抗体在细胞胞浆胞膜、胞核都有不同的表达
还有人认为：PDGF 及其受体一般表达于浸润病变组织的炎症细胞附近，组织缺血损伤、
用、炎症细胞浸润、实质细胞活化等导致 PDGFR 表达增强

Product Picture



Tissue/cell: rat colitis tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

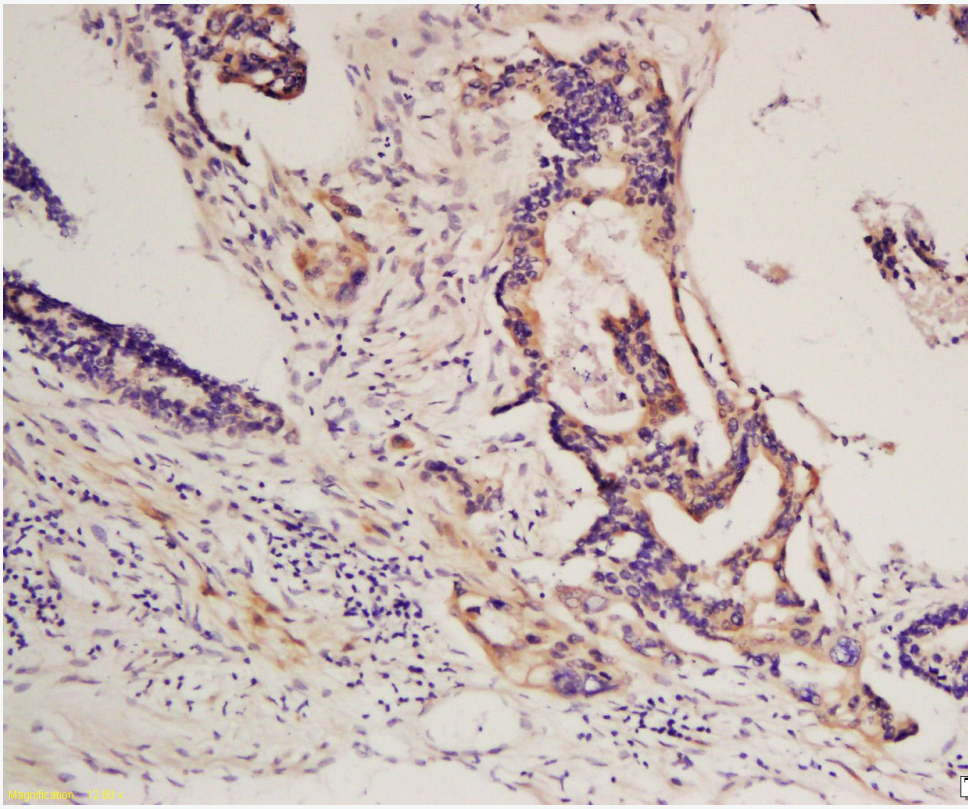
Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous

Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 mi

Incubation: Anti-PDGFRA Polyclonal Antibody, Unconjugated(SL0231R) 1:200, overnight a

conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com



Tissue/cell: human colon carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

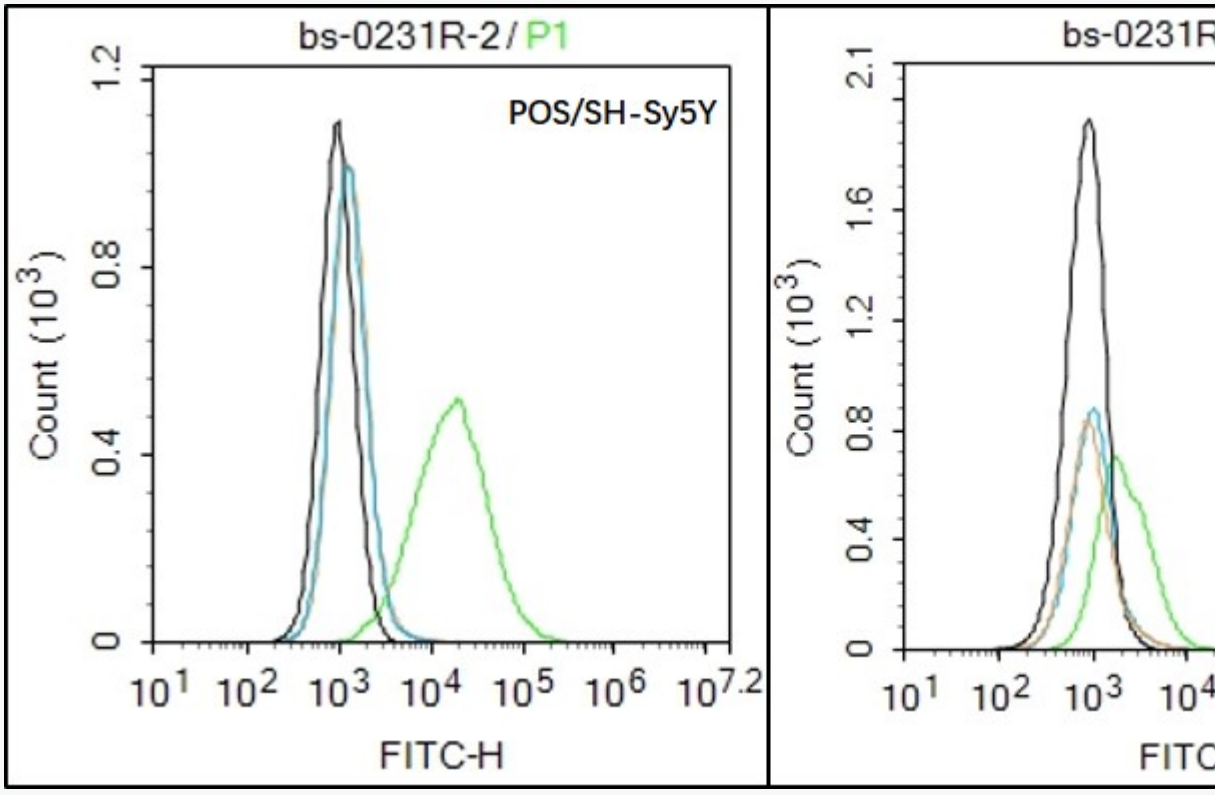
Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous

Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 mi

Incubation: Anti-PDGFRA Polyclonal Antibody, Unconjugated(SL0231R) 1:200, overnight a

conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com



Black line : Positive blank control (SH-Sy5Y); Negative blank control (A431）

Green line : Primary Antibody (Rabbit Anti-PDGFRA antibody (SL0231R))

Orange line：Isotype Control Antibody (Rabbit IgG) .

Blue line : Secondary Antibody (Goat anti-rabbit IgG-AF488)

SH-Sy5Y（Positive）and A431（Negative control）cells (black) were fixed with 4% PFA fo

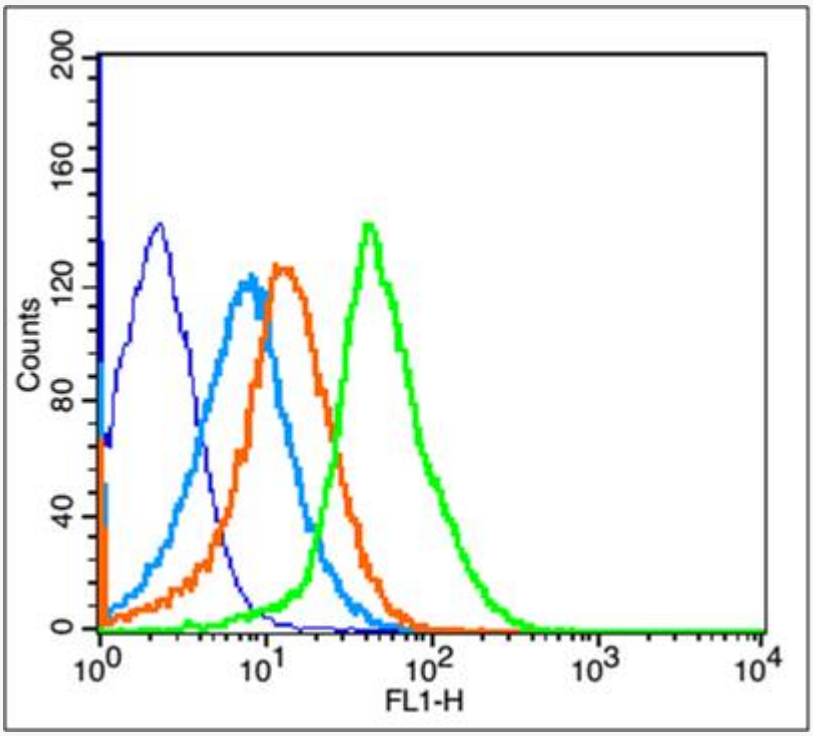
temperature,permeabilized with 90% ice-cold methanol for 20 min at -20℃, and incubated in

for 30 min at room temperature. Cells were then stained with PDGFRA Antibody(SL0231R)a

buffer and incubated for 30 min at room temperature, washed twice with 2% BSA in PBS, fol

antibody(blue) incubation for 40 min at room temperature. Acquisitions of 20,000 events were

with primary antibody (green), and isotype control (orange).



Blank control: Mouse Kidney (blue).

Primary Antibody:Rabbit Anti-PDGFRA antibody (SL0231R,Green); Dilution: 1µg in 100 µL

BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions;

Secondary Antibody: Goat anti-rabbit IgG-FITC(white blue), Dilution: 1:200 in 1 X PBS cont

Protocol

The cells were fixed with 2% paraformaldehyde for 10 min at 37°C. Primary antibody (SL023

were incubated for 30 min at room temperature, followed by 1 X PBS containing 0.5% BSA +

to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/FITC antibo

blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 40 m

20,000 events was performed.