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Datasheet for ABIN6264103
anti-PDGFRB antibody (C-Term)

2 Images

Overview

| | |
|----------------------|--|
| Quantity: | 100 µL |
| Target: | PDGFRB |
| Binding Specificity: | C-Term |
| Reactivity: | Human, Mouse, Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This PDGFRB antibody is un-conjugated |
| Application: | Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC) |

Product Details

| | |
|-----------------------|---|
| Immunogen: | A synthesized peptide derived from human PDGF Receptor beta, corresponding to a region within C-terminal amino acids. |
| Isotype: | IgG |
| Specificity: | PDGF Receptor beta Antibody detects endogenous levels of total PDGF Receptor beta. |
| Predicted Reactivity: | Pig,Horse,Sheep,Rabbit,Dog,Chicken,Xenopus |
| Purification: | The antiserum was purified by peptide affinity chromatography using SulfoLink™ Coupling Resin (Thermo Fisher Scientific). |

Target Details

| | |
|---------|--------|
| Target: | PDGFRB |
|---------|--------|

Target Details

Alternative Name: PDGFRB ([PDGFRB Products](#))

Background: Description: Tyrosine-protein kinase that acts as cell-surface receptor for homodimeric PDGFB and PDGFD and for heterodimers formed by PDGFA and PDGFB, and plays an essential role in the regulation of embryonic development, cell proliferation, survival, differentiation, chemotaxis and migration. Plays an essential role in blood vessel development by promoting proliferation, migration and recruitment of pericytes and smooth muscle cells to endothelial cells. Plays a role in the migration of vascular smooth muscle cells and the formation of neointima at vascular injury sites. Required for normal development of the cardiovascular system. Required for normal recruitment of pericytes (mesangial cells) in the kidney glomerulus, and for normal formation of a branched network of capillaries in kidney glomeruli. Promotes rearrangement of the actin cytoskeleton and the formation of membrane ruffles. Binding of its cognate ligands - homodimeric PDGFB, heterodimers formed by PDGFA and PDGFB or homodimeric PDGFD - 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 PLCG1, PIK3R1, PTPN11, RASA1/GAP, CBL, SHC1 and NCK1. 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. Phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, leads to the activation of the AKT1 signaling pathway. Phosphorylation of SHC1, or of the C-terminus of PTPN11, creates a binding site for GRB2, resulting in the activation of HRAS, RAF1 and down-stream MAP kinases, including MAPK1/ERK2 and/or MAPK3/ERK1. Promotes phosphorylation and activation of SRC family kinases. Promotes phosphorylation of PDCD6IP/ALIX and STAM. 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.

Gene: PDGFRB

Molecular Weight: 123kDa

Gene ID: 5159

UniProt: [P09619](#)

Pathways: [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Inositol Metabolic Process](#), [Glycosaminoglycan Metabolic Process](#), [Smooth Muscle Cell Migration](#), [Platelet-derived growth Factor Receptor Signaling](#)

Application Details

Application Notes: WB 1:500-1:2000, IHC 1:50-1:200, IF/ICC 1:100-1:500, ELISA(peptide) 1:20000-1:40000

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 mg/mL

Buffer: Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.

Preservative: Sodium azide

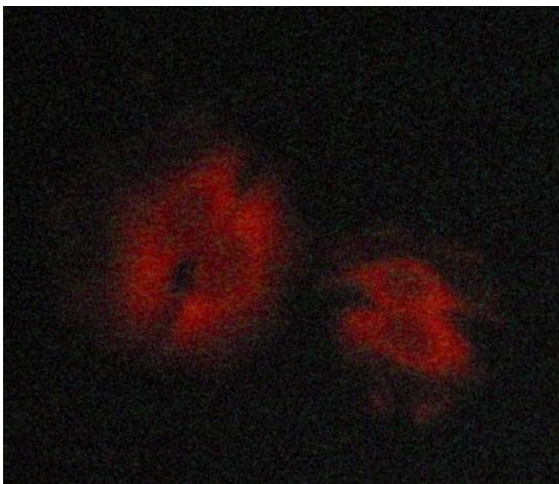
Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C

Storage Comment: Store at -20 °C. Stable for 12 months from date of receipt.

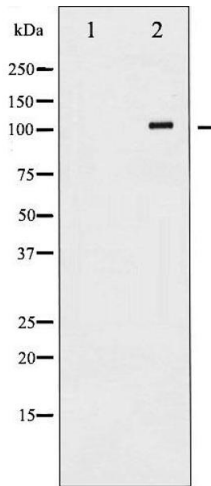
Expiry Date: 12 months

Images



Immunofluorescence (fixed cells)

Image 1. ABIN6269125 staining MCF-7 cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37°C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37°C. A Alexa Fluor® 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.



Western Blotting

Image 2. Western blot analysis of PDGFR beta expression in H₂O₂ treated LOVO whole cell lysates, The lane on the left is treated with the antigen-specific peptide.