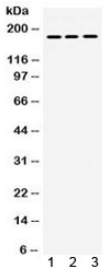
PDGFR alpha Antibody / CD140a (R31979)

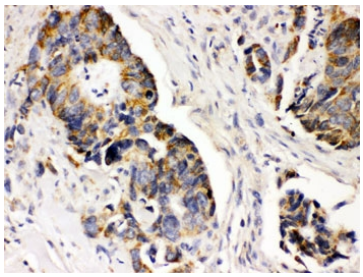
Catalog No.	Formulation	Size
R31979	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

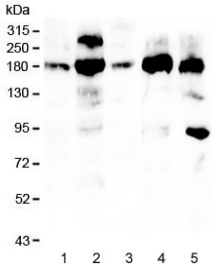
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	P16234
Localization	Cytoplasmic, membrane
Applications	Western blot: 0.1-0.5ug/ml Immunohistochemistry (FFPE): 0.5-1ug/ml
Limitations	This PDGFR alpha antibody is available for research use only.



PDGFR Alpha Antibody Multi-Species WB. Western blot analysis of rat brain (lane 1), human HeLa (lane 2), and mouse NIH3T3 (lane 3) lysates using PDGFR Alpha Antibody / Receptor Tyrosine Kinase Antibody demonstrates strong immunoreactive bands at approximately 180 kDa. PDGFRA is a cell-surface receptor tyrosine kinase that mediates platelet-derived growth factor signaling and regulates cellular proliferation, migration, differentiation, and survival. The observed molecular weight is consistent with mature glycosylated PDGFRA, which commonly migrates at substantially higher apparent molecular weights than its predicted core protein size due to extensive post-translational glycosylation. Detection of comparable bands across rat, human, and mouse samples supports conserved expression of PDGFRA among multiple species. Expected and observed molecular weight: 120-195 kDa, depending on glycosylation level.



PDGFR Alpha Antibody Intestinal Cancer IHC. Immunohistochemistry staining of FFPE human intestinal cancer tissue using PDGFR Alpha Antibody / Receptor Tyrosine Kinase Antibody demonstrates cytoplasmic and membranous HRP-DAB brown staining within malignant gland-forming epithelial cells. The staining pattern is consistent with expression of PDGFRA, a receptor tyrosine kinase that mediates platelet-derived growth factor signaling and regulates cellular proliferation, migration, differentiation, and survival. PDGFRA has been implicated in tumor-associated growth factor signaling networks and contributes to cellular communication within the tumor microenvironment. The observed staining highlights PDGFRA expression in intestinal carcinoma-associated epithelial populations. HIER was performed by boiling tissue sections in pH 6, 10 mM citrate buffer for 20 minutes followed by cooling prior to immunostaining.



PDGFR Alpha Antibody Cancer Cell Panel WB. Western blot analysis of human HT1080 (lane 1), Caco-2 (lane 2), U-2 OS (lane 3), PC-3 (lane 4), and 293T (lane 5) cell lysates using PDGFR Alpha Antibody / Receptor Tyrosine Kinase Antibody demonstrates immunoreactive bands predominantly within the 180-195 kDa range, consistent with expression of glycosylated PDGFRA. Variation in apparent molecular weight and band intensity among cell lines is expected due to differences in receptor glycosylation, maturation state, and expression level. PDGFRA is a receptor tyrosine kinase that mediates platelet-derived growth factor signaling and regulates cellular proliferation, migration, differentiation, and survival. The observed banding patterns support endogenous PDGFRA expression across multiple human cancer-derived and immortalized cell lines. Expected and observed molecular weight: 120-195 kDa, depending on glycosylation level.

Description

PDGFRA Antibody detects Platelet-derived growth factor receptor alpha, also called PDGFR2 and CD140a, 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.

Learn more about PDGFRA expression, platelet-derived growth factor signaling, mesenchymal development, and receptor tyrosine kinase biology on our PDGFR Alpha Antibody / Receptor Tyrosine Kinase Antibody page.

Application Notes

Optimal dilution of the PDGFR alpha antibody should be determined by the researcher.

Immunogen

Amino acids DFLKSDHPAVARMRVDSDNAYIGVTYKNEEDKLKD of human PDGFRA were used as the immunogen for the PDGFR alpha antibody.

Storage

After reconstitution, the PDGFR alpha antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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