

ARG42742 anti-CD140a / PDGFRA antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CD140a / PDGFRA
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat, Bov
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CD140a / PDGFRA
Species	Human
Immunogen	Synthetic peptide corresponding to aa. 968-1002 of Human CD140a / PDGFRA. (DFLKSDHPAVARMRVSDSNAYIGVTYKNEEDKLKD)
Conjugation	Un-conjugated
Alternate Names	Platelet-derived growth factor receptor alpha; PDGFR2; Alpha-type platelet-derived growth factor receptor; RHEPDGFRA; PDGFR-2; Platelet-derived growth factor receptor 2; CD140A; Platelet-derived growth factor alpha receptor; CD140 antigen-like family member A; CD antigen CD140a; PDGF-R-alpha; Alpha platelet-derived growth factor receptor; CD140a antigen; EC 2.7.10.1; PDGFR-alpha

Application Instructions

Application table	Application	Dilution
	IHC-P	1:200 - 1:1000
	WB	1:500 - 1:2000
Application Note	IHC-P: Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	180 kDa	

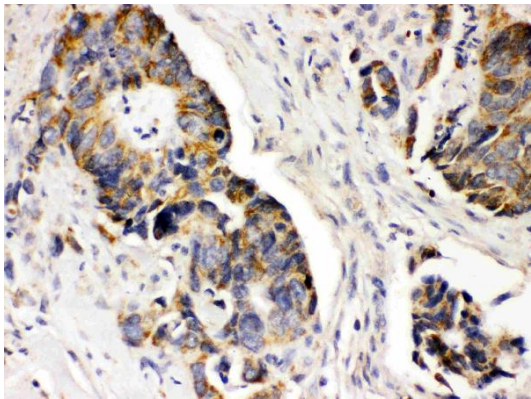
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na2HPO4, 0.9% NaCl, 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Sodium azide
Stabilizer	5% BSA
Concentration	0.5 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

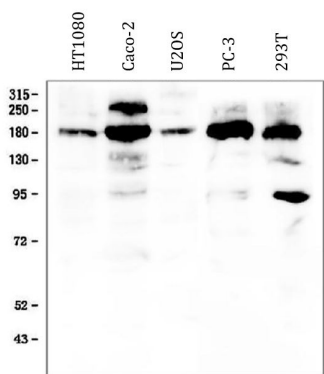
Bioinformation

Gene Symbol	PDGFRA
Gene Full Name	platelet-derived growth factor receptor, alpha polypeptide
Background	<p>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. Studies suggest that this gene plays a role in organ development, wound healing, and tumor progression. Mutations in this gene have been associated with idiopathic hypereosinophilic syndrome, somatic and familial gastrointestinal stromal tumors, and a variety of other cancers. [provided by RefSeq, Mar 2012]</p>
Function	<p>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. [UniProt]</p>
Calculated Mw	123 kDa
PTM	<p>N-glycosylated.</p> <p>Ubiquitinated, leading to its degradation.</p> <p>Autophosphorylated on tyrosine residues upon ligand binding. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit. Phosphorylation at Tyr-731 and Tyr-742 is important for interaction with PIK3R1. Phosphorylation at Tyr-720 and Tyr-754 is important for interaction with PTPN11. Phosphorylation at Tyr-762 is important for interaction with CRK. Phosphorylation at Tyr-572 and Tyr-574 is important for interaction with SRC and SRC family members. Phosphorylation at Tyr-988 and Tyr-1018 is important for interaction with PLCG1. [UniProt]</p>
Cellular Localization	Cell membrane; Single-pass type I membrane protein. Note=The activated receptor is rapidly internalized and degraded. [UniProt]



ARG42742 anti-CD140a / PDGFRA antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human intestinal cancer tissue. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG42742 anti-CD140a / PDGFRA antibody at 1 µg/ml dilution, overnight at 4°C.



ARG42742 anti-CD140a / PDGFRA antibody WB image

Western blot: 50 µg of sample under reducing conditions. HT1080, Caco-2, U2OS, PC-3 and 293T whole cell lysates stained with ARG42742 anti-CD140a / PDGFRA antibody at 0.5 µg/ml dilution, overnight at 4°C.