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ARG43854
anti-CD140a / PDGFRA antibody [16A1] (PE-Cyanine 7)

Package: 100 tests
Store at: 4°C

Summary

Product Description	PE-Cyanine 7-conjugated Mouse Monoclonal antibody human CD140a / PDGFRA
Tested Reactivity	Hu
Tested Application	FACS
Host	Mouse
Clonality	Monoclonal
Clone	16A1
Isotype	IgG1 kappa
Target Name	CD140a / PDGFRA
Species	Human
Immunogen	Human CD140a / PDGFRA fusion protein.
Conjugation	PE-Cyanine 7
Alternate Names	PDGFRA; Platelet Derived Growth Factor Receptor Alpha; PDGFR2; Platelet-Derived Growth Factor Receptor, Alpha Polypeptide; Alpha-Type Platelet-Derived Growth Factor Receptor; Platelet-Derived Growth Factor Receptor Alpha; Platelet-Derived Growth Factor Receptor 2; CD140 Antigen-Like Family Member A; CD140a Antigen; PDGF-R-Alpha; EC 2.7.10.1; PDGFR-2; CD140a; GAS9; Alpha Platelet-Derived Growth Factor Receptor; Platelet-Derived Growth Factor Alpha Receptor; PDGFR-Alpha; RHEPDGFRA; EC 2.7.10; CD140A

Application Instructions

Application table

Application	Dilution
FACS	4 µl / 10^6 cells

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

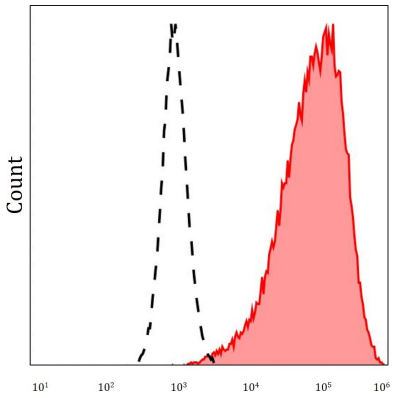
Properties

Form	Liquid
Purification	Protein-A affinity chromatography
Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide
Storage instruction	Aliquot and store in the dark at 4°C. Keep protected from prolonged exposure to light. Do not freeze. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Bioinformation

Gene Symbol	PDGFRA
Gene Full Name	Platelet Derived Growth Factor Receptor Alpha
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. 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.
Function	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 Ca2+ 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.
Calculated Mw	123 kDa
PTM	Disulfide bond, Glycoprotein, Phosphoprotein, Ubl conjugation
Cellular Localization	Cell membrane, Cell projection, Golgi apparatus, Membrane

Images



ARG43854 anti-CD140a / PDGFRA antibody [16A1] (PE-Cyanine 7) FACS image

Flow Cytometry: Human whole blood stained withARG43854 anti-CD140a / PDGFRA antibody [16A1] (PE-Cyanine 7) at 4 µg.