Human PDGF Rα PE-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # PRa292

Catalog Number: FAB1264P

100 Tests

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PDGF Rα. Recognizes the PDGF receptor α-subunit; it does not recognize the PDGF receptor β-subunit. Binds to the PDGF receptor α-subunit of primate species (human, monkey, baboon) and dog. Does not recognize rat or mouse receptors and its ability to bind to receptors from other species has not been tested.
Source	Monoclonal Mouse IgG_1 Clone # PRa292
Purification	Protein A or G purified from ascites
Immunogen	Human osteosarcoma cell membrane extracts
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

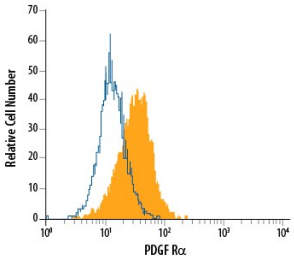
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of PDGF Rα in U-118-MG Human Cell Line by Flow Cytometry. U-118-MG human glioblastoma/astrocytoma cell line was stained with Mouse Anti-Human PDGF Rα PE-conjugated Monoclonal Antibody (Catalog # FAB1264P, filled histogram) or isotype control antibody (Catalog # IC002P, open histogram). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

PDGF is a major serum mitogen that can exist as a homo- or heterodimeric protein consisting of disulfide-linked PDGF-A and PDGF-B chains. The PDGF-AA, PDGF-BB and PDGF-AB isoforms have been shown to bind to two distinct cell surface PDGF receptors with different affinities. Whereas PDGF Rα binds all three PDGF isoforms with high affinity, PDGF Rβ binds PDGF-BB and AB, but not PDGF-AA. Both PDGF Rα and PDGF Rβ are members of the class III subfamily of receptor tyrosine kinases (RTK) that also includes the receptors for M-CSF, SCF and Flt3 ligand. All class III RTKs are characterized by the presence of five immunoglobulin-like domains in their extracellular region and a split kinase domain in their intracellular region. PDGF binding induces receptor homo-and heterodimerization and signal transduction. The expression of the α and β receptors is independently regulated in various cell types. Only PDGF Rα is expressed in oligodendrocyte progenitor cells, mesothelial cell and liver endothelial cells. Soluble PDGF-Rα has been detected in cell conditioned medium and human plasma. Recombinant soluble PDGF Rα binds PDGF with high affinity and is a potent PDGF antagonist (1).

References:

1. Heldin, C.H. and L. Claesson-Welsh (1994) *Guidebook to Cytokines and Their Receptors*, Nicola, N.A. (ed) Oxford University Press, New York, NY p. 202.

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