

DESCRIPTION

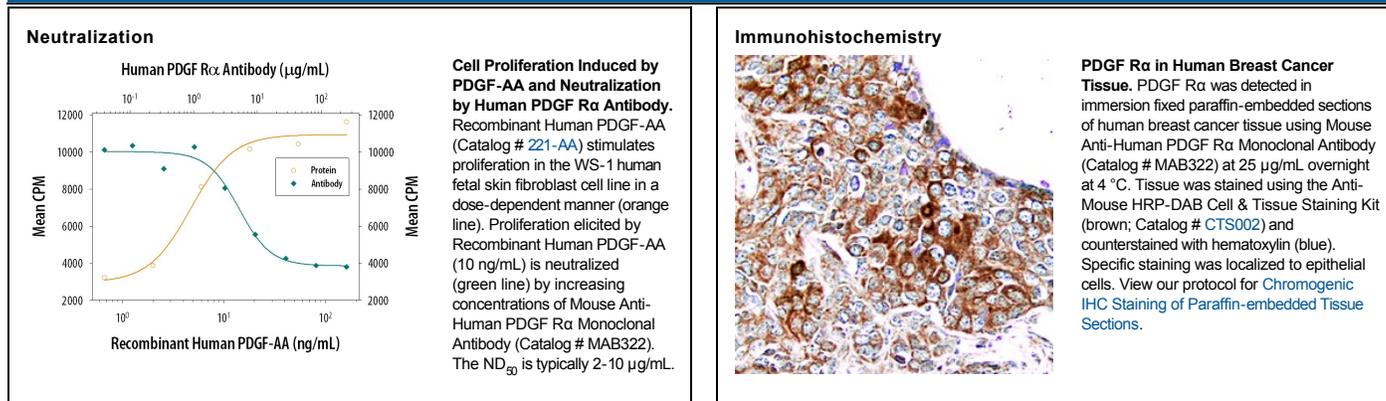
Species Reactivity	Human
Specificity	Detects human PDGF R α in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human PDGF R β or recombinant mouse PDGF R α is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 35248
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human PDGF R α
Endotoxin Level	<0.10 EU per 1 μ g of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS.

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
Western Blot	1 μ g/mL	Recombinant Human PDGF R α (Catalog # 322-PR) under non-reducing conditions only
Immunohistochemistry	8-25 μ g/mL	See Below
Neutralization	Measured by its ability to neutralize PDGF-AA-induced proliferation in the WS-1 human fetal skin fibroblast cell line. The Neutralization Dose (ND ₅₀) is typically 2-10 μ g/mL in the presence of 10 ng/mL Recombinant Human PDGF-AA.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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 R α binds all three PDGF isoforms with high affinity, PDGF R β binds PDGF-BB and AB, but not PDGF-AA. Both PDGF R α and PDGF R β 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 R α is expressed in oligodendrocyte progenitor cells, mesothelial cell and liver endothelial cells. Soluble PDGF-R α has been detected in cell conditioned medium and human plasma. Recombinant soluble PDGF R α 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.