

#### DESCRIPTION

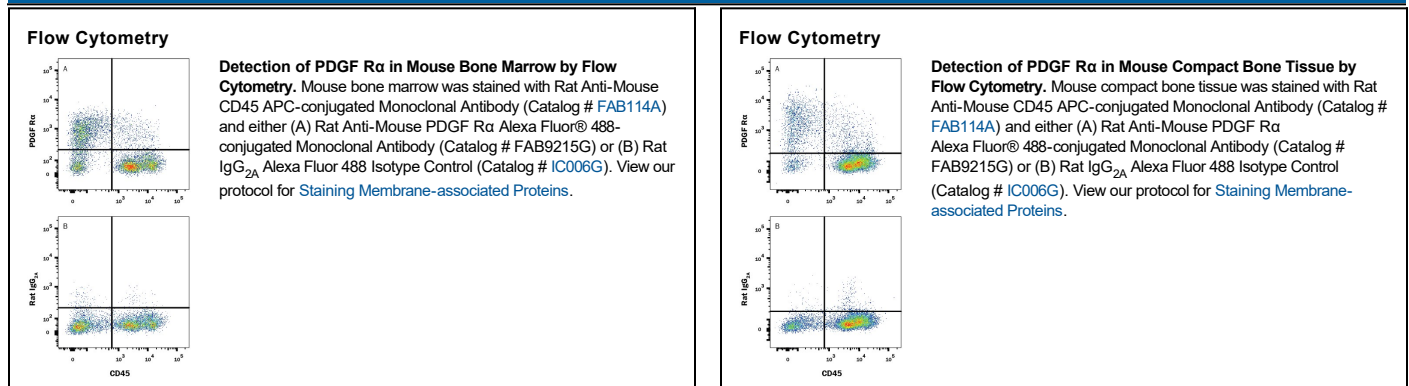
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse PDGF R $\alpha$ in direct ELISAs.
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 189208
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse PDGF R $\alpha$ Leu25-Glu524 (Asp65Glu, Gly439Ala, Thr440Ala), predicted Accession # P26618
<b>Conjugate</b>	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	0.5 $\mu$ g/10 <sup>6</sup> cells	See Below

#### DATA



#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

#### BACKGROUND

PDGF R $\alpha$  (Platelet-Derived Growth Factor Receptor alpha), also known as CD140a, is a 165-170 kDa member of the PDGFR (or class III) subfamily, Tyrosine Kinase family, Protein Kinase superfamily of molecules. Mature mouse PDGF R $\alpha$  is a 1065 amino acid (aa) type I transmembrane glycoprotein that contains five Ig-like domains within a 504 aa extracellular domain. It is expressed on a wide variety of cell types, both fetal and adult. In the fetus, PDGF R $\alpha$  is found on NG2+ oligodendroglial precursors, mesenchyme of both the sclerotome and dermatome (but not myotome), mesenchyme of the lung, hepatoblasts, Leydig cells, and neural crest cells that target the branchial arches. In the adult, PDGF R $\alpha$  has been found constitutively or inducibly on hepatocytes, vascular and visceral smooth muscle, Leydig cells, retinal astrocytes, fibroblasts, monocytes, hepatic stellate cells, CD44+ adipocyte precursors, endothelial cells, osteoblasts, and Ptch+ Gli+ pericryptal colonic subepithelial fibroblasts. On the cell surface, PDGF R $\alpha$  is a monomer. Upon binding to a dimeric ligand, PDGF R $\alpha$  either homodimerizes, or heterodimerizes with PDGF R $\beta$ . The PDGF R $\alpha$  homodimer binds PDGF-AA, -AB, -BB, and -CC, while the  $\alpha\beta$ -heterodimer binds PDGF-AB, -BB, and -CC. Over aa 25-524, mouse PDGF R $\alpha$  shares 93% and 85% aa sequence identity with rat and human PDGF R $\alpha$ , respectively. Over the same aa sequence, mouse PDGF R $\alpha$  shares only 33% aa sequence identity with mouse PDGF R $\beta$ .

**PRODUCT SPECIFIC NOTICES**

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