

# PDGFR $\alpha$ Mouse Monoclonal Antibody(5D1)

## Catalog No: RA10172

### Basic Information

Host species	Mouse
Applications	IHC
Species Cross-Reactivity	H,R,M
Specificity	The antibody can detect endogenous PDGFR $\alpha$ proteins.
Recommended dilutions	IHC: 1:100-200 Optimal dilutions should be determined by the end user.

### Applications

Formulation	PBS, pH 7.4, containing 0.02% sodium azide as Preservative and 50% Glycerol.
Storage	Store at -20°C. Avoid repeated freeze-thaw cycles.
Concentration	1 mg/ml
Clonality	Monoclonal

### Background

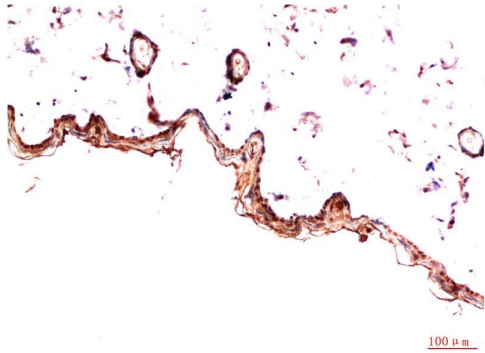
#### Alternative Names

Observed band	180
Human Gene ID	5156
Human Swiss-Prot Number	P16234

#### Background

Platelet derived growth factor (PDGF) family proteins exist as several disulphide-bonded, dimeric isoforms (PDGF AA, PDGF AB, PDGF BB, PDGF CC, and PDGF DD) that bind in a specific pattern to two closely related receptor tyrosine kinases, PDGF receptor  $\alpha$  (PDGFR $\alpha$ ) and PDGF receptor  $\beta$  (PDGFR $\beta$ ). PDGFR $\alpha$  and PDGFR $\beta$  can each form heterodimers with EGFR, which is also activated by PDGF. Various cells differ in the total number of receptors present and in the receptor subunit composition, which may account for responsive differences among cell types to PDGF binding. Ligand binding induces receptor dimerization and autophosphorylation, followed by binding and activation of cytoplasmic SH2 domain-containing signal transduction molecules, such as GRB2, Src, GAP, PI3 kinase, PLC $\gamma$ , and NCK. A number of different signaling pathways are initiated by activated PDGF receptors and lead to control of cell growth, actin reorganization, migration, and differentiation.

Selected Validation Data



Immunohistochemical analysis of paraffin-embedded Rat Skin Tissue using PDGFR  $\alpha$  Mouse mAb diluted at 1:200.



Immunohistochemical analysis of paraffin-embedded Human Skin Tissue using PDGFR  $\alpha$  Mouse mAb diluted at 1:200