



# Recombinant Protein Technical Manual

## Recombinant Human PDGFR $\alpha$ /CD140a Protein (His Tag)

RPES0498

### Product Data:

**Product SKU:** RPES0498

**Size:** 10 $\mu$ g

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P16234

### Protein Information:

**Molecular Mass:** 57 kDa

**AP Molecular Mass:** 93 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 95% as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per  $\mu$ g as determined by the LAL method.

**Storage:** Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2  $\mu$ m filtered solution of PBS, pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** CD140A;PDGFR-2;PDGFR2;RHEPDGFRA;Platelet-derived growth factor receptor alpha; PDGFR-alpha; Alpha platelet-derived growth factor receptor;CD140 antigen-like family member A; Platelet-derived growth factor alpha receptor; Platelet-derived growth factor receptor 2

## Immunogen Information:

**Sequence:** Gln24-Glu524

## Background:

Platelet-derived Growth Factor Receptor Alpha (PDGF R $\alpha$ ) is an enzyme that belongs to the class III subfamily of receptor tyrosine kinases. It is a type I transmembrane glycoprotein, and can form homo- or heterodimeric receptors when engaged by dimers of the PDGF family of growth factors, PDGF R $\alpha$  is strongly expressed in oligodendrocyte, lung, skin and intestinal progenitor cells and induced by inflammation or growth in culture, but is lowly expressed in most mesenchymal cells. PDGF R $\alpha$  autophosphorylates upon dimerization, activating signaling cascades in PI-3kinase Ras-MAP kinase, and PLC- $\gamma$  pathways. PDGF R $\alpha$  has influence on local gradients of epithelially produced PDGF-AA or PDGF-CC during formation of the cranial ,cardiac neural crest and interstitial kidney mesenchyme.