

## Recombinant PDGFR $\alpha$ protein

**Catalog No:** 31190

**Quantity:** 10  $\mu$ g

**Expressed In:** Baculovirus

**Source:** Human

**Buffer Contents:** 10  $\mu$ g of Recombinant PDGFR $\alpha$  protein in 50 mM Tris-HCl, pH 8.0; 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20% glycerol. Protein is supplied at 0.446  $\mu$ g/ $\mu$ l.

**Background:** PDGFR $\alpha$  (Platelet Derived Growth Factor Receptor alpha) is a tyrosine protein kinase that acts as a cell-surface receptor for PDGFA, PDGFB and PDGFC and plays an essential role in the regulation of embryonic development, cell proliferation, survival and chemotaxis. PDGFR $\alpha$  may promote or inhibit cell proliferation and migration, and plays an important role in the differentiation of bone marrow-derived mesenchymal stem cells. It is required for normal embryonic development of several tissue and organ types and plays a role in cell migration and chemotaxis in wound healing and platelet activation. Binding of its ligands - homodimers or heterodimers of PDGFA and PDGFB leads to the activation of several signaling cascades.

**Protein Details:** Recombinant human PDGFR $\alpha$  protein was produced using baculovirus infected Sf9 cells. The protein was made against amino acids Q551-L1089, accession number NM\_006206 and N-terminally fused to GST-Factor Xa cleavage site. Purified by GSH-agarose affinity purification.

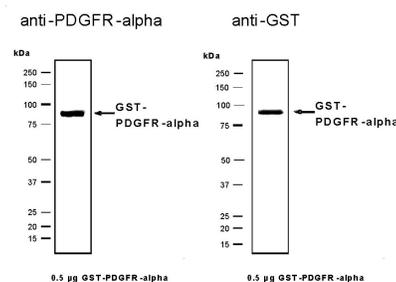
**Application Notes:** Recombinant PDGFR $\alpha$  is suitable for kinase assays and Western blot. The molecular weight of the protein is ~87.851 kDa. The activity of the protein is ~10 pmol/ $\mu$ g min.

Recommended kinase reaction conditions: 60 mM HEPES-NaOH, pH 7.5, 3 mM MgCl<sub>2</sub>, 3 mM MnCl<sub>2</sub>, 3  $\mu$ M Na-orthovanadate, 1.2 mM DTT, ATP (variable), 2.5  $\mu$ g/50  $\mu$ l PEG20.000, Substrate: PolyAEKY 2.5  $\mu$ g / 50  $\mu$ l, Recombinant PDGFR $\alpha$ : 200 ng/50  $\mu$ l.

Kinase activity may vary depending on the substrate and reaction conditions used.

**Storage and Guarantee:** This product is guaranteed for 6 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



### Recombinant PDGFR $\alpha$ protein tested by SDS-PAGE gel.

0.5  $\mu$ g of PDGFR $\alpha$  protein was analyzed using SDS/PAGE followed by Western blot with either an anti-PDGFR $\alpha$  or anti-GST antibody.