

## Recombinant Human PDGFRα/CD140a Protein (His Tag)

**Catalog Number:** PKSH031528

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

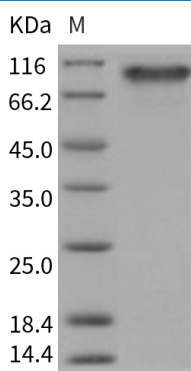
### Description

<b>Species</b>	Human
<b>Source</b>	HEK293 Cells-derived Human PDGFRα/CD140a protein Met 1-Glu 524, with an C-terminal His
<b>Calculated MW</b>	57.7 kDa
<b>Observed MW</b>	90-100 kDa
<b>Accession</b>	NP_006197.1
<b>Bio-activity</b>	Measured by its ability to bind human PDGFC-Fc in functional ELISA.

### Properties

<b>Purity</b>	> 97 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 97 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

PDGFRA; also known as CD140a; together with the structurally homolog protein PDGFRB (CD140b); are cell surface receptors for members of the platelet-derived growth factor family. They are members of the class III subfamily of receptor tyrosine kinase (RTKs) with the similar structure characteristics of five immunoglobulin-like domains in their extracellular region and a split kinase domain in their intracellular region. PDGFRA is expressed in oligodendrocyte progenitor cells and mesothelial cell; and binds all three ligand isoforms PDGF-AA; PDGF-BB and PDGF-AB with high affinity; whereas PDGFRB dose not bind PDGF-AA. PDGFRA plays an essential role in regulating proliferation; chemotaxis and migration of mesangial cells. Recent studies have indicated that PDGFRA acts as a critical mediator of signaling in testis organogenesis and Leydig cell differentiation; and in addition; particularly important for kidney development. Additionally; PDGFRA is involved in tumor angiogenesis and maintenance of the tumor microenvironment and has been implicated in development and metastasis of Hepatocellular carcinoma (HCC). PDGFRA may represent a potential therapeutic target in thymic tumours. PDGFRA gene amplification rather than gene mutation may be the underlying genetic mechanism driving PDGFRA overexpression in a portion of gliomas.