# Recombinant Human PDGFRa/CD140a Protein (His Tag)

Catalog Number: PKSH031528



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

### **Description**

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

Species Human

Expression Host

Sequence

Met 1-Glu 524

Accession

NP\_006197.1

Calculated Molecular Weight

Observed molecular weight

Tag

HEK293 Cells

Met 1-Glu 524

NP\_006197.1

57.7 kDa

90-100 kDa

C-His

**Bioactivity** Measured by its ability to bind human PDGFC-Fc in functional ELISA.

### **Properties**

**Purity** > 97 % as determined by reducing SDS-PAGE.

**Endotoxin** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage** 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.

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

**Formulation** Lyophilized from sterile PBS, pH 7.4

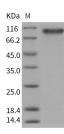
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printed manual.

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

### Data



> 97 % as determined by reducing SDS-PAGE.

## **Background**

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

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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.

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