Recombinant Human PDGFRa/CD140a Protein (Active)

Catalog No. PKSH031527

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

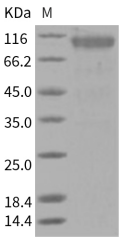
Description

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	HEK293 Cells
Sequence	Met 1-Glu 524
Accession	NP_006197.1
Calculated Molecular Weight	56.8 kDa
Observed molecular weight	90-100 kDa
Tag	None
Bioactivity	Measured by its ability to bind mouse PDGF-C in functional ELISA.

Properties

Purity	> 95 % 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℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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



> 95 % as determined by reducing SDS-PAGE.

Toll-free: 1-888-852-8623 Tel: 1-832-243-6086 Fax: 1-832-243-6017
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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 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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