Recombinant Human PDGFRa/CD140a Protein (His & GST Tag)(Active)

Catalog No. PKSH030409

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

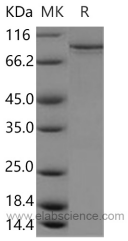
Description

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	Baculovirus-Insect Cells
Sequence	Gln551-Leu1089
Accession	P16234-1
Calculated Molecular Weight	89.2 kDa
Observed molecular weight	92 kDa
Tag	N-His-GST
Bioactivity	The specific activity was determined to be 8 nmol/min/mg using MBP as substrate.

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at< -20°C.
Formulation	Supplied as sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly, 3mM DTT
Reconstitution	Not Applicable

Data



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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Web: www.elabscience.com Email: techsupport@elabscience.com

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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