For Research Use Only

Recombinant Human PDGFR beta protein (Myc Tag, His Tag)

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Catalog Number: Eg0147

Basic Information

ED50:
1-5 ng/mL

Species:
Human

Purity:
>90 %, SDS-PAGE

GeneID:
5159

Accession:
P09619-1

Technical Specifications

Purity:
>90 %, SDS-PAGE

Endotoxin Level:
<1.0 EU/μg protein, LAL method

Source:
HEK293-derived Human PDGFR beta protein Leu33-Lys531 (Accession# P09619-1, S180F) with a Myc tag and a His tag at the C-terminus.

Predicted Molecular Mass:
61.6 kDa

SDS-PAGE:
80-100 kDa, reducing (R) conditions

Formulation:
Lyophilized from sterile PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Immobilized Human PDGFR beta (Myc tag, His tag) at 0.5 μg/mL (100 μL/well) can bind Human PDGFB (hFc tag) with a linear range of 1-5 ng/mL.

Storage and Shipping

Storage:
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20℃ to -80℃ as lyophilized proteins.
- 3 months, -20℃ to -80℃ under sterile conditions after reconstitution.

Shipping:
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

Multiple receptor tyrosine kinases and their growth factor ligands have been implicated in cancer progression and metastasis. Among these are the platelet-derived growth factor receptors (PDGFRs). Expression of PDGFRs is mainly restricted to mesenchymal cell types. PDGF is composed of homo-dimers or hetero-dimers of two polypeptide chains, denoted A and B. The two receptor subtypes show different affinities for the dimeric PDGF isoforms. In epithelial tumors, the platelet-derived growth factor receptor B (PDGFRB, also known as PDGFR beta) is mainly expressed by stromal cells of mesenchymal origin. it has also been shown that PDGFRB is also associated with the aggressive behavior of several types of tumors. The 60% of colon cancer patients express high levels of this gene and the PDGFRB expression correlates with lymphatic dissemination of this cancer. Furthermore, PDGFRB signaling in mesenchymal-like tumor cells (as colorectal cancer cells) contributes to invasion and liver metastasis formation.

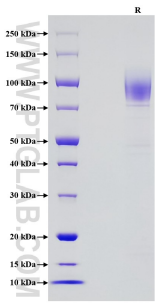
References

1.Ernst J A Steller. et al. (2013). Neoplasia. 15(2):204-217.
2.Arne Ostman. et al. (2007). Adv Cancer Res. 97:247-274.
3.Ombretta Melaiu. et al. (2017). Genes Cancer. 8(1-2):438-452.
4.C E Hart. et al. (1988). Science. 240(4858):1529-1531.
5.Thomas C Wehler. et al. (2008). Oncol Rep. 19(3):697-704.

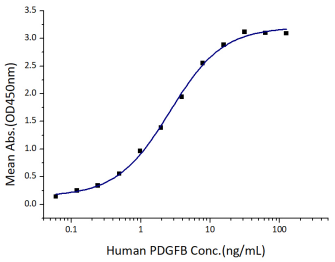
Synonyms

Beta platelet-derived growth factor receptor, Beta-type platelet-derived growth factor receptor, CD140 antigen-like family member B, CD140B, EC:2.7.10.1, JTK12, PDGF R beta, PDGF receptor beta, PDGFR, PDGFR1, PDGFR-1, PDGFRB, PDGF-R-beta, PDGFR-beta, PDGFR β, PDGFR-β, Platelet-derived growth factor receptor 1, Platelet-derived growth factor receptor beta

Selected Validation Data



Purity of Recombinant Human PDGFR beta was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) conditions and stained using Coomassie blue.



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