

Recombinant Mouse Placenta growth factor/PlGF /PGF Protein

Catalog No.: RP01080

Sequence Information

Species	Gene ID
Mouse	18654
Swiss Prot	Tags
P49764	C-hFc&His

Synonyms

PGF, PLGF, PlGF2, PlGF, PGFL, SHGC-10760, PGF

Product Information

Source	Purification
HEK293 cells	≥ 85 % as determined by SDS-PAGE.

Calculated MW/Observed MW

44.66 kDa 60 kDa

Endotoxin

< 1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1–0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Placenta growth factor (PlGF) is a member of the PDGF/VEGF family of growth factors that share a conserved pattern of eight cysteines. Alternative splicing results in at least three human mature PlGF forms containing 131 (PlGF-1), 152 (PlGF-2), and 203 (PlGF-3) amino acids (aa) respectively. Only PlGF-2 contains a highly basic heparin-binding 21 aa insert at the C-terminus. Human PlGF-1 shares 56%, 55%, 74% and 95% aa identity with the comparable isoform of mouse, rat, canine, and equine PlGF, respectively. PlGF is mainly found as variably glycosylated, secreted, 55–60 kDa disulfide linked homodimers. Mammalian cells expressing PlGF include villous trophoblasts, decidual cells, erythroblasts, keratinocytes, and some endothelial cells. Circulating PlGF increases during pregnancy, reaching a peak in mid-gestation; this increase is attenuated in preeclampsia. However, deletion of PlGF in the mouse does not affect development or reproduction. Postnatally, mice lacking PlGF show impaired angiogenesis in response to ischemia.

Basic Information

Description

Recombinant Mouse Placenta growth factor/PlGF/PGF Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1–Pro158) of mouse PLGF/PGF (Accession #NP_032853.1) fused with an Fc, 6×His tag at the C-terminus.

Activity

Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human VEGFR1 at 500 ng/mL (100 μL/well) can bind Recombinant Mouse PLGF with a linear range of 12–49 ng/mL.

Shipping

Lyophilized proteins are shipped at ambient temperature. Liquid proteins are shipped at frozen temperature with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at –20°C

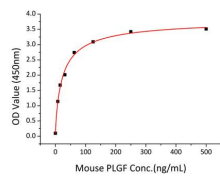
Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

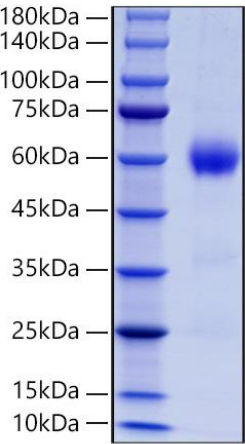
Contact

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Validation Data



Immobilized Recombinant Human VEGFR1 at 500ng/mL (100 μ L/well) can bind Recombinant Mouse PLGF with a linear range of 12-49 ng/mL.



Recombinant Mouse Placenta growth factor/PIGF/PGF Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.