Synonym

PGF,PLGF,PlGF,PGFL,SHGC-10760

Source

Human PLGF-3 Protein, Fc Tag(PGF-H5255) is expressed from human 293 cells (HEK293). It contains AA Leu 19 - Arg 221 (Accession # P49763-1).
Predicted N-terminus: Leu 19

Molecular Characterization

PLGF(Leu 19 - Arg 221) P49763-1	Fc(Pro 100 - Lys 330) P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 49.2 kDa. The protein migrates as 60-66 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

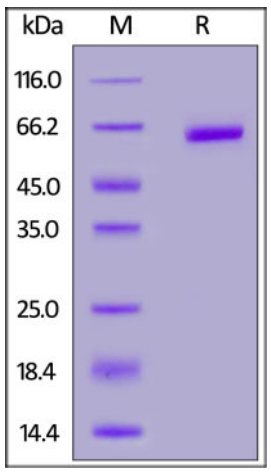
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

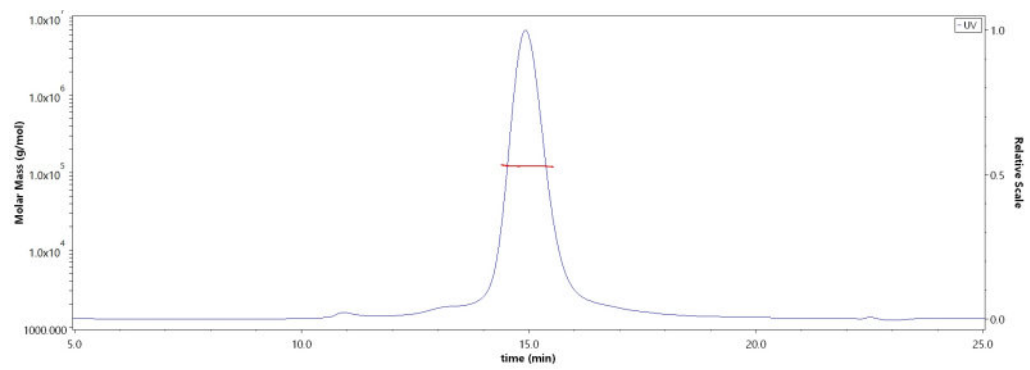
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



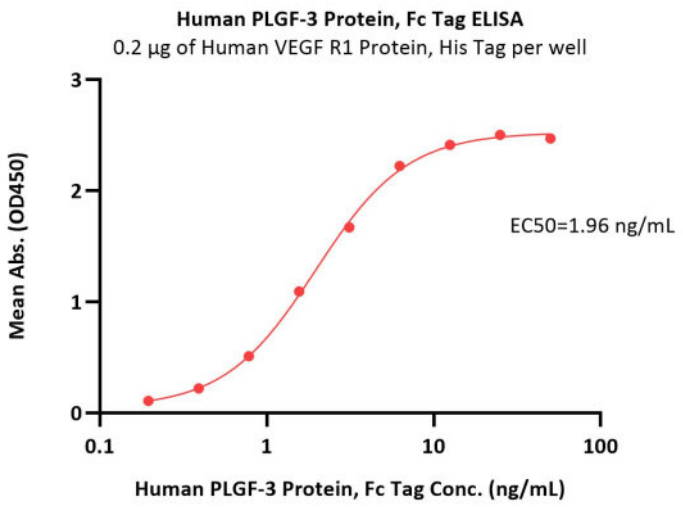
Human PLGF-3 Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS

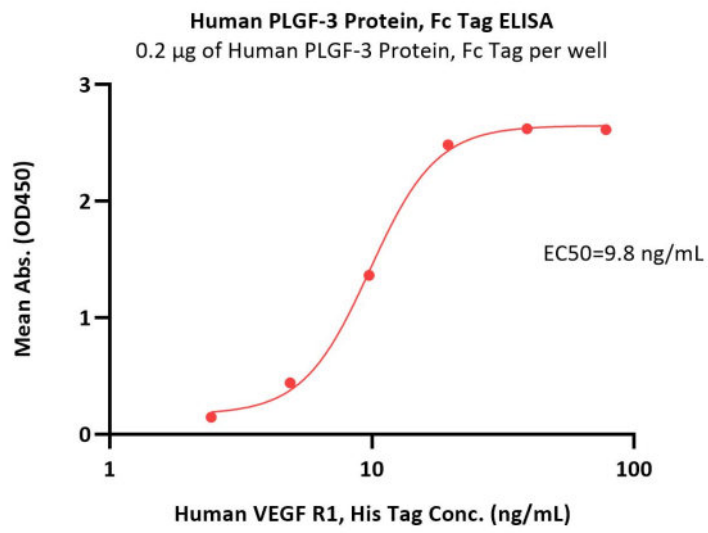


The purity of Human PLGF-3 Protein, Fc Tag (Cat. No. PGF-H5255) is more than 85% and the molecular weight of this protein is around 115-130 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Human VEGF R1 Protein, His Tag (Cat. No. VE1-H52H9) at 2 µg/mL (100 µL/well) can bind Human PLGF-3 Protein, Fc Tag (Cat. No. PGF-H5255) with a linear range of 0.2-3 ng/mL (QC tested).



Immobilized Human PLGF-3 Protein, Fc Tag (Cat. No. PGF-H5255) at 2 µg/mL (100 µL/well) can bind Human VEGF R1, His Tag with a linear range of 2-20 ng/mL (Routinely tested).

Background

Placental growth factor (PGF) is also known as vascular endothelial growth factor-related protein, PLGF and PlGF2, is a member of the VEGF (vascular endothelial growth factor) sub-family - a key molecule in angiogenesis and vasculogenesis, in particular during embryogenesis. The main source of PGF during pregnancy is the placental trophoblast. PGF is also expressed in many other tissues, including the villous trophoblast. PGF is actived in angiogenesis and endothelial cell growth, stimulating their proliferation and migration. PlGF2 binds NRP1/neuropilin-1 and NRP2/neuropilin-2 in a heparin-dependent manner. Also promotes cell tumor growth.

Clinical and Translational Updates