

## PLGF-3/PGF Protein, Human, Recombinant (hFc)

### General Information

Synonyms:	PLGF;SHGC-10760;PGFL;PGF;D12S1900;PLGF-2
Protein Construction:	Leu19-Arg221
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P49763-1
Molecular Weight:	48.6 kDa (predicted). Due to glycosylation, the protein migrates to 60-70 kDa based on Tris-Bis PAGE result.

### QC Testing

Biological Activity:	Immobilized Human PGF, hFc Tag at 0.5µg/ml (100µl/Well) on the plate. Dose response curve for Human VEGF R1, His Tag with the EC50 of 12.8ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Placental growth factor (PGF) is another member of the VEGF family of cytokines with pro-angiogenic and pro-inflammatory effects. Retinal inhibition of PGF in combination with VEGF-A prevents vascular leakage and CNV possibly via modulating their own expression in mononuclear phagocytes. PGF-related, optimized strategies to target inflammation-mediated angiogenesis may help to increase efficacy and reduce non-responders in the treatment of wet AMD patients.

Reference

Balser C, et al. Co-inhibition of PGF and VEGF blocks their expression in mononuclear phagocytes and limits neovascularization and leakage in the murine retina. J Neuroinflammation. 2019 Feb 7;16(1):26. doi: 10.1186/s12974-019-1419-2. PMID: 30732627; PMCID: PMC6366121.

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