

PLGF-2/PGF Protein, Human, Recombinant (His)

General Information

Synonyms:	PLGF-2;PLGF2;PLGF;PGF;PGFL
Protein Construction:	Leu19-Arg170
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P49763-3
Molecular Weight:	25-30 KDa (reducing condition)
AA Sequence:	Leu19-Arg170

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM PB, 150 mM NaCl, pH 7.2.

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:

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 is a protein that in humans is encoded by the PGF gene. It is a secreted protein and belongs to the PDGF/VEGF growth factor family. Alternate 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. PLGF is mainly found as a variably glycosylated, secreted, 55 - 60 kDa disulfide linked homodimer. The protein 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. PlGF (especially PlGF-1) and some forms of VEGF can form dimers that decrease the angiogenic effect of VEGF on VEGF R2. PlGF-2, like VEGF164/165, shows heparin-dependent binding of neuropilin (Npn)-1 and Npn-2, and can inhibit nerve growth cone collapse. Circulating PlGF often correlates with tumor stage and aggressiveness, and therapeutic PlGF-2 antibodies are being investigated for their ability to inhibit tumor growth and angiogenesis.

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