

# Recombinant Human Placental Growth Factor

**Cat. No.** PGF-98H    **Lot. No.** (See product label)

## SPECIFICATION

|                            |                                                                                                                                                                                                                                                                  |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>    | Recombinant Human Placenta Growth Factor-2 produced in insect cells is a homodimer, glycosylated polypeptide chain containing 2 x 152 amino acids and having a total molecular mass of 44 kDa. The PLGF-2 is purified by proprietary chromatographic techniques. |
| <b>Species</b>             | Human                                                                                                                                                                                                                                                            |
| <b>Source</b>              | Insect Cells                                                                                                                                                                                                                                                     |
| <b>Description</b>         | PLGF is a growth factor active in angiogenesis, and endothelial cell growth, stimulating their proliferation and migration. It binds to receptor vegfr-1/flt1. PLGF-2 binds neuropilin-1 and 2 in a heparin-dependent manner.                                    |
| <b>Physical Appearance</b> | Sterile Filtered White lyophilized (freeze-dried) powder.                                                                                                                                                                                                        |
| <b>Purity</b>              | Greater than 80.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.                                                                                                                                                                          |
| <b>Formulation</b>         | Lyophilized from a concentrated (1 mg/ml) solution containing BSA.                                                                                                                                                                                               |
| <b>Solubility</b>          | It is recommended to reconstitute the lyophilized Placenta Growth Factor 2 in sterile 20 mM acetic acid not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.                                                                   |
| <b>Specific Activity</b>   | PLGF-2 human Recombinant can bind to immobilized rh-sFlt-1 (100 ng/well) with a                                                                                                                                                                                  |

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linear range at 0.3 – 10 ng/mL.

#### Stability

Lyophilized Placenta Growth Factor-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution PLGF2 should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

## GENE INFORMATION

#### Gene Name

PGF placental growth factor [ Homo sapiens ]

#### Synonyms

PGF; PLGF; PIGF-2; PIGF; PGFL; D12S1900; SHGC-10760; Placenta growth factor; Placental growth factor; Factor-related protein; Placental growth factor-like; Placental growth factor, vascular endothelial growth; Placental growth factor, vascular endothelial growth factor-related protein

#### Gene ID

5228

#### mRNA Refseq

NM\_002632

#### Protein Refseq

NP\_002623

#### MIM

601121

#### UniProt ID

P49763

#### Chromosome Location

14q24-q31

#### Pathway

Bladder cancer; Cytokine-cytokine receptor interaction; Focal adhesion; Pancreatic cancer; Pathways in cancer; Renal cell carcinoma; mTOR signaling pathway

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**Function**

Growth factor activity; Heparin binding; Protein binding; Protein heterodimerization activity; Protein homodimerization activity

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