

RP02896

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# Recombinant Human Placenta growth factor/PlGF-131/PlGF-1 Protein

Catalog No.: RP02896

Recombinant

## Sequence Information

| Species      | Gene ID | Swiss Prot |
|--------------|---------|------------|
| HEK293 cells | 5228    | P49763-2   |

### Tags

C-hFc

### Synonyms

D12S1900; PGFL; PlGF; PLGF; PlGF-2; SHGC-10760;PGF;PGFL;PlGF;PLGF;PlGF-2;SHGC-10760

## Product Information

| Source       | Purification |
|--------------|--------------|
| HEK293 cells |              |

### Endotoxin

< 0.1 EU/μg

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### 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 (1, 2). 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 (1, 2). Only PlGF-2 contains a highly basic heparin-binding 21 aa insert at the C-terminus (1). 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 (3). Mammalian cells expressing PlGF include villous trophoblasts, decidual cells, erythroblasts, keratinocytes, and some endothelial cells (1, 4-6). Circulating PlGF increases during pregnancy, reaching a peak in mid-gestation; this increase is attenuated in preeclampsia (7). However, deletion of PlGF in the mouse does not affect development or reproduction. Postnatally, mice lacking PlGF show impaired angiogenesis in response to ischemia (8).

## Basic Information

### Description

Recombinant Human Placenta growth factor/PlGF-131/PlGF-1 Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Leu19-Arg149) fused with a hFc tag at the C-terminus.

### Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized human VEGFR1/Flt-1 (Catalog: RP01188) at 2 μg/mL (100 μL/well) can bind Human Placenta growth factor/PLGF-131 (Catalog: RP02896) with a linear range of 0.17-41.1 ng/mL.

### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

## Contact



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