Product Information

Placenta Growth Factor, human recombinant, expressed in *E. coli*

Catalog Number P1588
Storage Temperature –20 °C

Synonym: PIGF

Product Description
Placenta growth factor (PIGF) is a member of the vascular endothelial growth factor (VEGF) family of growth factors. PIGF (29 kDa) has ~53% amino acid sequence homology in the PDGF-region of VEGF and was isolated from a human placental cDNA library. The gene for PIGF is organized into seven exons and is mapped to chromosome 14. A DNA sequence encoding the mature human PIGF protein sequence (amino acid residues 21–149 of the 149 amino acid residue form of PIGF) was expressed in *Escherichia coli* to produce the recombinant form of human PIGF.

PIGF mRNA is detected in human umbilical vein endothelial cells. PIGF is also detected in placenta, choriocarcinoma cell lines, and in renal cell carcinoma associated with angiogenesis. Placenta growth factor will potentiate VEGF that is present at low concentrations *in vitro* and *in vivo*. PIGF binds with high affinity to Flt-1, but not to Flk-1/KDR.

Recombinant human Placenta Growth Factor is lyophilized from a 0.2 μm filtered solution of 30% acetonitrile and 0.1% TFA containing 50 μg of bovine serum albumin per 1 μg of cytokine.

The activity of human, recombinant placenta growth factor is measured by its ability to bind recombinant human Flt-1/Fc in ELISA.

Immobilized recombinant human Flt-1/Fc at 2 μg/ml (100 μg/well) binds recombinant human placenta growth factor with a linear range of 0.15–0.9 ng/ml.

Purity: ≥95% (SDS-PAGE)

Endotoxin: <1.0 endotoxin unit/μg cytokine (LAL method)

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions
Reconstitute the contents of the vial with sterile phosphate buffered saline (PBS) containing at least 0.1% HSA or BSA. The rhPIGF concentration should be ≥10 μg/ml.

Storage/Stability
Store the product at –20 °C.

Upon reconstitution store aliquots at –20 to –70 °C. Aliquots can be stored for up to 3 months under sterile conditions. Avoid repeated freezing and thawing.

References