

CHASELECTION**Recombinant Human PGF****货号(Catalog Number):** CY133FXXXX(L)**别名(synonym):** PlGF3; PlGF-3**来源(Source):** Human embryonic kidney cell, HEK293-derived human PGF protein**蛋白结构 (Structure):**

该蛋白不含标签

基因 ID: P49763.**氨基酸序列:**

Leu19-Arg221

分子量大小(MW):

22.8 kDa.

纯度 (Purity) :

≥95%, determined by SDS-PAGE.

SDS-PAGE

4 ug/lane protein was resolved with SDS-PAGE under non-reducing (NR) and reducing (R) conditions and visualized by Coomassie Blue staining.

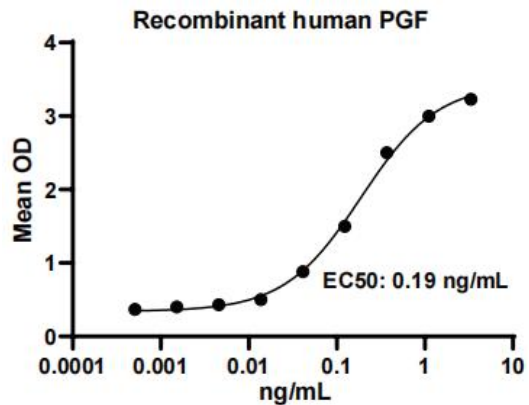
内毒素含量(Endotoxin): <0.01 EU per 1 µg of the protein by the LAL method.**制剂(Formulation):**

Solution protein.

Dissolved in sterile PBS buffer.

This solution can be diluted into other aqueous buffers.

Centrifuge the vial prior to opening.

活性检测 (Biological Activity) :

Measured by its binding ability in a functional ELISA.

储存与运输(Storage):

Avoid repeated freeze-thaw cycles.

It is recommended that the protein be aliquoted for optimal storage.

36 months from date of receipt, -20 to -70 as supplied.

产品背景介绍 (Production):

Placenta growth factor (PGF) is a member of the PDGF/VEGF family of growth factors that share a conserved pattern of eight cysteines. Alternative splicing likely results in four human mature PlGF forms containing 131 (PlGF-1), 152 (PlGF-2), 203 (PlGF-3), or 224 (PlGF-4) amino acids (aa) . The PlGF-3 form is limited to humans. PlGF-3 and PlGF-1 do not contain a heparin binding insert at the C-terminus. Within the region shared with other PlGF isoforms (aa 18-131), human PlGF-3 shares 68%, 66%, 96%, 96%, 87% and 77% aa sequence identity with mouse, rat, porcine, equine, canine and bovine PlGF, respectively. PlGF is mainly found as a variably glycosylated, secreted, 55 - 60 kDa, disulfide linked homodimer. Mammalian cells expressing all forms of PlGF include villous trophoblasts and decidual cells, with smaller amounts in erythroblasts, keratinocytes and some endothelial cells. Circulating PlGF increases during pregnancy, reaching a peak in mid-gestation; this increase is attenuated in preeclampsia. However,



deletion of PlGF in the mouse, which expresses only PlGF-2, does not affect development or reproduction . Postnatally, mice lacking PlGF show impaired angiogenesis in response to ischemia. PlGF binds and signals through VEGF R1/Flt-1 and Neuropilins (some isoforms), but not VEGF R2/Flk-1/KDR. In contrast, VEGF binds both VEGF R1 and R2, but signals mainly through the angiogenic receptor, VEGF R2. PlGF and VEGF therefore compete for binding to VEGF R1, resulting in a PlGF inhibition of VEGF/VEGF R1 binding coupled to a subsequent promotion of VEGF/VEGF R2-mediated angiogenesis. However, PlGF (especially PlGF-1) and some forms of VEGF can form dimers that can alter the angiogenic effect of VEGF on VEGF R2. PlGF induces monocyte activation, migration, and production of inflammatory cytokines and VEGF. These activities facilitate wound and bone fracture healing, and also contribute to inflammation in active sickle cell disease and atherosclerosis. Circulating PlGF often correlates with tumor stage and aggressiveness.

