

Recombinant Human Placenta Growth Factor/PGF/PIGF/PLGF (C-6His)

Catalog Number: PKSH033937

Note: Centrifuge before opening to ensure complete recovery of vial contents.

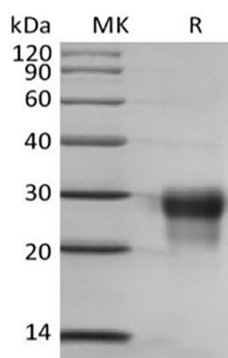
Description

Species	Human
Source	HEK293 Cells-derived Human PGF;PIGF;PLGF protein Leu19-Arg170, with an C-terminal His
Calculated MW	18.2 kDa
Observed MW	25-30 kDa
Accession	P49763-3
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.2. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

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 PlGF during pregnancy is the placental trophoblast. PlGF 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.