

RELIATech GmbH
Lindenerstr. 15
38300 Wolfenbüttel
Germany

Tel.: +49 5331 8586 987
Fax.: +49 5331 8586 989
Email: info@reliatech.de
web: www.reliatech.de

Recombinant Human PIGF-1-His

Description: Human Placenta Growth Factor-1 (PlGF-1), a 19 kDa protein consisting of 131 amino acid residues and fused to a C-terminal His-tag (6x His), is produced as a homodimer. Human Placenta Growth Factor (PlGF) is a polypeptide growth factor and a member of the platelet-derived growth factor family but more related to vascular endothelial growth factor (VEGF). PlGF-1 acts only as a very weak mitogen for some endothelial cell types and as a potent chemoattractant for monocytes. The physiological function in vivo is still controversial. In several reports it was shown not to be a potent mitogen for endothelial cells and not angiogenic in vivo by using different assays. Very recently it was shown by one investigator, that PlGF-1 from cell culture supernatants was angiogenic in the CAM assay and in the rabbit cornea assay. At least one high-affinity receptor for PlGF (FLT-1 or VEGFR-1) has been demonstrated in different primary cell types (e.g. human umbilical vein endothelial cells and monocytes) but PlGF does not bind to KDR/flk-1. Two different proteins can be generated by differential splicing of the human PlGF gene: PlGF-1 (131 aa native chain) and PlGF-2 (152 aa native chain). Both mitogens are secretable proteins, but PlGF-2 can bind to heparin with high affinity. PlGF-1 is a homodimer, but preparations of PlGF show some heterogeneity on SDS gels depending of the varying degrees of glycosylation. All dimeric forms possess a similar biological profile. There is good evidence that heterodimeric molecules between VEGF and PlGF exist and that they are biologically active. Different cells and tissues (e.g. placenta) express PlGF-1 and PlGF-2 at different rates. A much related protein of PlGF is VEGF with about 53% homology and VEGF-B with similar biological activities.

Source:	Insect cells
Molecular Weight:	38 kDa
Purity:	> 95% by SDS-PAGE and visualised by silver stain
Endotoxin level:	< 0.1 ng per µg of PlGF-1
Stabilizer:	BSA (50-fold)
Buffer:	50 mM acetic acid
Formulation:	lyophilized

Biological Activity: Measured by its ability to bind to immobilized rh-sFlt-1 in a functional ELISA. Recombinant human PlGF-1 can bind to immobilized rh-sFlt-1 (100 ng/well) with a linear range at 0.5 - 10 ng/mL.

Reconstitution: The lyophilized PlGF-1 is supplied in lyophilized form with carrier-protein (BSA) and can be reconstituted with 0.1 M acetic acid or PBS. This solution can be diluted into other buffered solutions or stored frozen for future use.

Stability: The lyophilized human PlGF-1, though stable at room temperature, is best stored in working aliquots at -20°C to -70°C. **Avoid repeated freeze-thaw cycles.**

Usage: Human PlGF-1 is offered for research use. Not for drug use. **Not for human use.**

Catalogue number: 300-017S	Size: 2 µg
	Range: 0.1-10.0 ng/ml

**** please note : always centrifuge vials before opening ****