

DA3510

Recombinant Human PlGF-2

Alternate names:

PGFL, PLGF, PlGF

Quantity:

5 µg

Background:

Human Placenta Growth Factor-2 (PlGF-2), a 22 kDa protein consisting of 152 amino acid residues is produced as a homodimer. 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 acts only as a weak mitogen for those cell types possessing receptors for binding (e.g. vascular endothelial cells). At least one high-affinity receptor for PlGF (FLT-1 or VEGF-R1) has been demonstrated in different primary cell types (e.g. human umbilical vein endothelial cells and monocytes). In addition to its action as a weak mitogen it is also a chemoattractant for monocytes and endothelial cells. Two different proteins are 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 is apparently a homodimer, but preparations of PlGF show some heterogeneity on SDS gels depending of the varying degrees of glycosylation. All dimeric forms possess similar biological activities. If PlGF is angiogenic in vivo is not clear. However, heterodimers between VEGF and PlGF are mitogenic for endothelial cells and have strong angiogenic activity in vivo (e.g. in the CAM assay or in the cornea pocket assay). Different cells and tissues (e.g. placenta) express PlGF-1 and PlGF-2 at different rates. A very related protein of PlGF is VEGF with about 53% homology and VEGF-B with similar biological activities.

Uniprot ID:

[P49763](#)

NCBI:

[NP_001193941.1](#)

GeneID:

[5228](#)

Species:

Human

Source:

Insect cells

Format:

State: Lyophilized purified protein.

Purity: >90% pure by SDS-PAGE and visualised by silver stain.

Buffer System: 50 mM Acetic Acid with BSA (50-fold) as stabilizer.

Endotoxin Level: 0.1 ng per µg of PlGF-2

Reconstitution: Restore with 50 mM Acetic Acid or PBS/Water. Centrifuge vial before opening!

Description:

Recombinant Human Placenta Growth Factor-2 / PlGF-2.

Result by N-terminal sequencing: LPAVPPQQWA

Length (aa): 152

AA Sequence:

LPAVPPQQWALSAGNGSSEVEVVPFQEVWGRSYCRALERLVDVVSEYPSEVEHMFSPSCVSLLRCTGCCGDE
NLHCV
PVETANVTMQLLKIRSGDRPSYVELTFSQHVRCECRPLREKMKPERRRPKGRGKRREKQRPTDCHLCGDAV
PRR

Biological Activity: Measured by its ability to bind to immobilized recombinant

Human sFlt-1 in a functional ELISA.

Recombinant human PlGF-2 can bind to immobilized rh sFlt-1 (100 ng/well) with a linear range at 0.5-10 ng/ml.

Molecular weight: ~ 45 kDa (Dimer)

Storage:

Store lyophilized at 2-8°C for 6 months or at -20°C long term.

After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.