

Human PIGF-1 (glycosylated)

Synonyms: PIGF, placental growth factor

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
5 µg	1815.952.005		
20 µg	1815.952.020		
200 µg	1815.952.200		

Please enquire for bulk quantities and other vial sizes

Description

Human Placenta Growth Factor-1 (PIGF-1), a 19 kDa protein consisting of 131 amino acid residues is produced as a homodimer. Human Placenta Growth Factor (PIGF) is a polypeptide growth factor and a member of the platelet-derived growth factor family but more related to vascular endothelial growth factor (VEGF). PIGF-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 PIGF-1 from cell culture supernatants was angiogenic in the CAM assay and in the rabbit cornea assay. At least one high-affinity receptor for PIGF (FLT-1 or VEGF-R1) has been demonstrated in different primary cell types (e.g. human umbilical vein endothelial cells and monocytes) but PIGF does not bind to KDR/flk-1. Two different proteins can be generated by differential splicing of the human PIGF gene: PIGF-1 (131aa native chain) and PIGF-2 (152aa native chain). Both mitogens are secretable proteins, but PIGF-2 can bind to heparin with high affinity. PIGF-1 is a homodimer, but preparations of PIGF 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 PIGF exist and that they are biologically active. Different cells and tissues (e.g. placenta) express PIGF-1 and PIGF-2 at different rates. A closely related protein of PIGF is VEGF with about 53% homology and VEGF-B with similar biological activities.

- **Source** Insect cells
- **Purity** ≥ 95 % (SDS-PAGE, silver stained)

Biological Activity

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

Reconstitution

Centrifuge vial prior to opening. The PIGF-1 is supplied in lyophilized form with carrier-protein (BSA) and can be reconstituted with 50mM acetic acid or PBS/water. This solution can be diluted into other buffered solutions or stored frozen for future use.

Amino Acid Sequence

LPAVPPQQWA LSAGNGSSEV EVVPFQEVWG RSYCRALERL VDVVSEYPSE VEHMFSPSCV SLLRCTGCCG
DENLHCVPVE TANVTMQLLK IRSGDRPSYV ELTFSQHVRC ECRPLREKMK PERCGDAVPR R

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

ORDERING
Tel.: +49 40 43208448-0
order@active-bioscience.de
www.active-bioscience.de

TECHNICAL SUPPORT
Tel.: +49 40 43208448-11
support@active-bioscience.de

Active Bioscience GmbH
Oberaltenallee 8
D-22081 Hamburg
HRB 98170 Amtsgericht Hamburg