

PlGF active protein

Rat PlGF

CATALOG # AAA79147	HOST Insect Cells	REACTIVITY Rat
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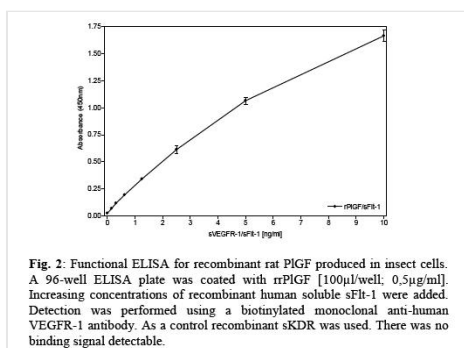
PRODUCT SYNONYMS

PlGF; Rat PlGF; Recombinant Rat Placenta Growth Factor; Placenta Growth Factor; PlGF active protein

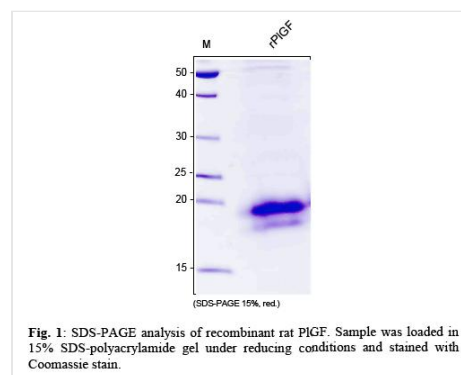
PRODUCT SPECIFICATIONS

Host	Insect Cells
Reactivity	Rat
Purity/Purification	> 95% by SDS-PAGE & silver stain
Form/Format	Freeze dried; 25 mM Tris, pH 8.5
Sequence	ALSAGNNSTE MEVVPFNEVW GRSYCRPMEK LVYIADEHPN EVSHIFSPSC VLLSRCSGCC GDEGLHCVAL KTANITMQIL KIPPNRDPHS YVEMTFSQDV LCECRPILET TKAERRKTG KRKQSKTQTE EPHL
Sequence Length	135
N Terminal Sequence	ALSAGNNSTEMEV
Reconstitution	The rat PlGF is supplied in lyophilized form and can be reconstituted with water. This solution can be diluted into other buffered solutions or stored frozen for future use.
Biological Activity	Measured by its ability to bind recombinant human sFlt-1 in a functional ELISA. Recombinant human sFlt-1 can bind to immobilized recombinant rat PlGF (50ng/well) with a linear range at 0.1 - 5ng/mL
Preparation and Storage	The lyophilized rat PlGF, though stable at room temperature, is best stored in working aliquots at -20 degree C to -70 degree C. Avoid repeated freeze and thaw cycles.

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for PIGF active protein	Placenta growth factor (PIGF) is a member of the vascular endothelial growth factor (VEGF) family of growth factors. PIGF and VEGF share primary structural as well as limited amino acid sequence homology with the A and B chains of PDGF. All eight cysteine residues involved in intra and interchain disulfides are conserved among these growth factors. As a result of alternative splicing, three PIGF RNAs encoding monomeric human PIGF-1, PIGF-2 and PIGF-3 isoform precursors containing 149, 179 and 219 amino acid residues, respectively, have been described. In normal mouse and rat tissues, only one PIGF mRNA encoding the equivalent of human PIGF-2 has been identified. Rat PIGF shares about 60% amino acid identity with human PIGF-2. The gene for PIGF has been mapped to rat chromosome 6. PIGF binds with high affinity to Flt1, but not to Flk1/KDR. However, little information regarding the expression pattern and cellular localization of PIGF mRNA in rat placenta during pregnancy is known. RT-PCR analysis shows that the expression level of PIGF mRNA increased as gestation advanced. Using in situ hybridization histochemistry, positive cells of PIGF mRNA were detected in chorionic villi, in the trophoblast and stroma cells surrounding the blood vessels within chorionic villi on day 13 and 15. The expression pattern of PIGF mRNA in rat placenta during pregnancy demonstrates that PIGF plays a functional role for placental growth and fetal development during mid-late pregnancy. The full ORF of rat PIGF (Met1-Leu158) was cloned from total RNA of rat sinusoidal endothelial cells using standard protocols. The native protein expressed in insect cells starts with Ala24.
Product Categories/Family for PIGF active protein	Cytokines & Growth Factors
References	1. Osol G et al, Am J Physiol Heart Circ Physiol 294, 2008 2. Choi WS et al, J Vet Sci 6(3), 2005 3. Koh PO et al, J Vet Med Sci 69(9), 2007 4. Torry RJ et al, J Heart Lung Transplant 28(2), 2009 5. Sands M et al, Respir Res 12, 2011

NCBI AND UNIPROT INFORMATION

NCBI GI #	16758378
NCBI GeneID	94203
NCBI Accession #	NP_446047.1
NCBI GenBank Nucleotide #	NM_053595
UniProt Accession #	Q63434
Molecular Weight	15,14 kDa
NCBI Official Full Name	placenta growth factor
NCBI Official Synonym Full Names	placental growth factor
NCBI Official Symbol	Pgf
NCBI Official Synonym Symbols	Plgf
NCBI Protein Information	placenta growth factor
UniProt Protein Name	Placenta growth factor
UniProt Gene Name	Pgf
UniProt Synonym Gene Names	Plgf; PIGF
UniProt Entry Name	PLGF_RAT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.