



Anti-human PlGF-Biotin

20140324BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	102-PABi04
Size:	50 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Produced from sera of rabbits immunized with highly pure recombinant human PlGF-2 [Leu19 – Arg170] produced in insect cells.

Target Background

Synonyms:	Placenta growth factor, PlGF
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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 VEGFR-1) 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 much related protein of PlGF is VEGF with about 53% homology and VEGF-B with similar biological activities.

References

1. DiPalma, T. et al. (1996) Mamm. Genome 7:6.
2. Cao, Y. et al. (1997) Biochem. Biophys. Res. Commun. 235:493.
3. Ferrara, N. et al. (1997) Endocrin. Rev. 18:4
4. Kim KJ et al, Exp Mol Med 44:10-9, 2012
5. De Falco S, Exp Mol Med 44:1-9, 2012

Database References Antigen

Protein RefSeq:	NP_001193941.1
Uniprot ID:	P49763
mRNA RefSeq:	NM_001207012.1

Product Specifications

Species reactivity	human
Clone/Ab feature	Rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Antigen affinity purified
Immunogen	Recombinant human PlGF-2 (RT #300-019)
Formulation	lyophilized
Buffer	PBS; 50X BSA
Preservative	0,02% sodium azide
Conjugation	Biotin

Warnings: Reagents contain sodium azide. Under acidic conditions sodium azide yields hydrazoic acid, this is extremely toxic. Azide compounds should be diluted with running water before discarding. These precautions are recommended to avoid deposits in plumbing where explosive condition may develop.

Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.



AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

ELISA: Use at 1-5 µg/ml

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!



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Handling/Applications

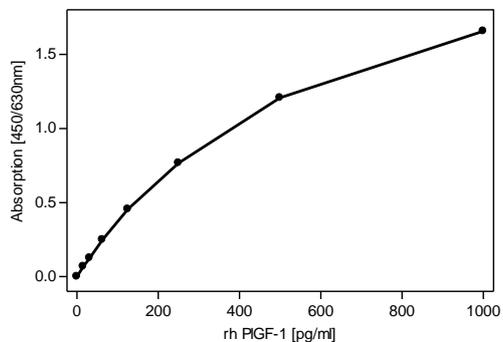


Figure 1. PIGF Sandwich-ELISA using recombinant human PIGF-1 as standard [Cat# 300-015]. Mouse anti-human PIGF #178/G10 (Cat# 101-M67) was used as capture antibody, Biotinylated rabbit anti-human PIGF (Cat# 102-PABi04) was used for detection.