

# Anti-PLGF Antibody [JA63-15]

ET1704-99



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IHC-P
<b>Molecular Wt:</b>	Predicted band size: 25 kDa
<b>Clone number:</b>	JA63-15

<b>Description:</b>	Placental growth factor is a protein that in humans is encoded by the PGF gene. Placental growth factor (PGF) is a member of the VEGF (vascular endothelial growth factor) sub-family - a key molecule in angiogenesis and vasculogenesis, in particular during embryogenesis. The main source of PGF during pregnancy is the placental trophoblast. PGF is also expressed in many other tissues, including the villous trophoblast. The placental growth factor (PGF) gene is a protein-coding gene and a member of the vascular endothelial growth factor (VEGF) family. The PGF gene is expressed only in human umbilical vein endothelial cells (HUVE) and the placenta. PGF is ultimately associated with angiogenesis. Specifically, PGF plays a role in trophoblast growth and differentiation. Trophoblast cells, specifically extravillous trophoblast cells, are responsible for invading the uterine wall and the maternal spiral arteries. The extravillous trophoblast cells produce a blood vessel of larger diameter for the developing fetus that is independent of maternal vasoconstriction. This is essential for increased blood flow and reduced resistance. Proper development of blood vessels in the placenta is crucial for the higher blood requirement of the fetus later in pregnancy. Under normal physiologic conditions, PGF is also expressed at a low level in other organs including the heart, lung, thyroid, and skeletal muscle.
<b>Immunogen:</b>	Synthetic peptide within Human PLGF aa 48-97 / 221.
<b>Positive control:</b>	JAR cell lysates, SH-SY5Y cell lysates, HepG2, MCF-7, human liver carcinoma tissue, rat kidney tissue, human colon carcinoma tissue, mouse testis tissue.
<b>Subcellular location:</b>	Secreted.
<b>Database links:</b>	SwissProt: P49763 Human   P49764 Mouse   Q63434 Rat
<b>Recommended Dilutions:</b>	
<b>WB</b>	1:500-1:1,000
<b>IHC-P</b>	1:50-1:200
<b>Storage Buffer:</b>	1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
<b>Storage Instruction:</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.
<b>Purity:</b>	Protein A affinity purified.

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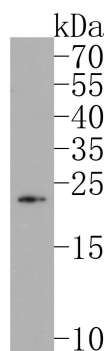
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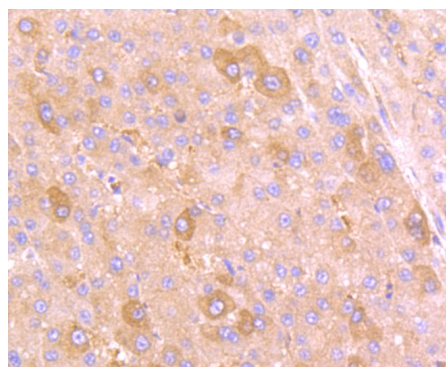
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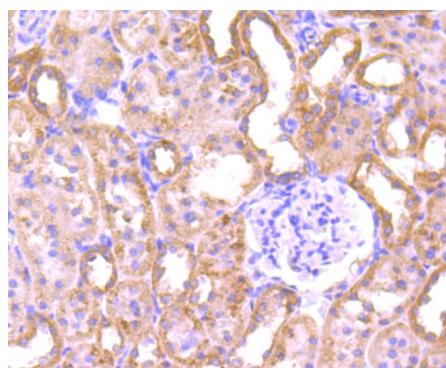
## Images



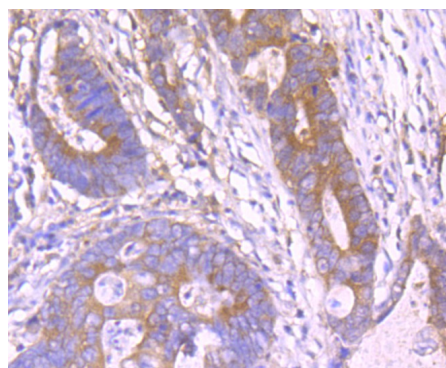
**Fig1:** Western blot analysis of PLGF on JAR cell lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ET1704-99, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.



**Fig2:** Immunohistochemical analysis of paraffin-embedded human liver carcinoma tissue using anti-PLGF antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1704-99, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig3:** Immunohistochemical analysis of paraffin-embedded rat kidney tissue using anti-PLGF antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1704-99, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig4:** Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue using anti-PLGF antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1704-99, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

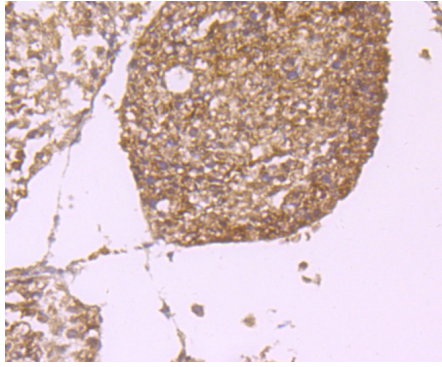
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**Fig5:** Immunohistochemical analysis of paraffin-embedded mouse testis tissue using anti-PLGF antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1704-99, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Beiswenger TR et al. The effect of cigarette smoke extract on trophoblast cell viability and migration: the role of adrenomedullin. *Reprod Sci* 19:526-33 (2012).
2. Mansfield AS et al. Regional immunity in melanoma: immunosuppressive changes precede nodal metastasis. *Mod Pathol* 24:487-94 (2011).

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