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# PLGF Monoclonal Mouse Antibody (PLGF94)

## Product Description

The onset of angiogenesis is believed to be an early event in tumorigenesis and may facilitate tumor progression and metastasis. Several growth factors with angiogenic activity have been described. These include Fibroblast Growth Factor (FGF), Platelet Derived Growth Factor (PDGF), Vascular Endothelial Growth Factor (VEGF) and Placenta Growth Factor (PLGF). Placenta growth factor (PLGF) is a secreted protein primarily produced by placental trophoblasts but also expressed in other endothelial cells and tumors. There are three isoforms, PLGF-1, PLGF-2, and PLGF-3. PLGF-2 is expressed up until week 8 in the placenta; the placental tissues continuously express PLGF-1 and PLGF-3 but only PLGF-1 is found in colon and mammary carcinomas. PLGF acts to stimulate angiogenesis, endothelial growth and migration. PLGF is a powerful promoter of tumor growth and is upregulated in some cancers, and PLGF is thought to aid in atherosclerotic lesions and neovascular growth surrounding the lesion. Also, PLGF appears to aid aldosterone mediated atherosclerosis. Serum levels of PLGF in some cases are used as a potential biomarker for disease or genetic defect. Recent research indicates that PLGF levels are lower in mothers with Down syndrome fetuses. Evidence has suggested VEGF to be an obligatory component in PLGF signaling. While VEGF homodimers and VEGF/PLGF heterodimers function as potent mediators of mitogenic and chemotactic responses in endothelial cells, PLGF homodimers are effectual only at extremely high concentrations. Indeed, many of the physiological effects attributed to VEGF may actually be a result of VEGF/PLGF. VEGF and PLGF share a common receptor, Flt-1, and may also activate Flk-1/KDR.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

**Catalog number key for antibody number 0094, Anti-PLGF (PLGF94)**

## Product attributes

Antibody number	#0094
Antibody reactivity (target)	PLGF
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	PLGF94
Isotype	IgG1, kappa
Molecular weight	18 kDa
Synonyms	PGFL; PIGF; placental growth factor (PGF); Vascular endothelial growth factor related protein
Human gene symbol	PGF
Entrez gene ID	5228
SwissProt	P49763
Unigene	252820
Immunogen	Recombinant human PLGF protein
Antibody target cellular localization	Secreted (extracellular)
Species reactivity	Human
Antibody application notes	For coating for ELISA, order Ab without BSA. Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Optimal dilution and staining procedure for a specific application should be determined by user. Recommended starting concentrations for titration are 1-2 ug/mL for most applications, or 1 ug/million cells/100 uL for flow cytometry
Positive control	HepG2 or HEK293T cells. Human placental and brain tumors.
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C. Protect fluorescent conjugates from light. Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Angiogenesis
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.
Cell/tissue expression	Endothelial cells, Placenta
Tumor expression	Breast cancer, Colorectal cancer

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF®405S Features</a>
BNC88	CF®488A	490/515	488	GFP, FITC	<a href="#">CF®488A Features</a>
BNC68	CF®568	562/583	532, 561	RFP, TRITC	<a href="#">CF®568 Features</a>
BNC94	CF®594	593/614	561	Texas Red®	<a href="#">CF®594 Features</a>
BNC40	CF®640R	642/662	633-640	Cy®5	<a href="#">CF®640R Features</a>
BNC47	CF®647	650/665	633-640	Cy®5	<a href="#">CF®647 Features</a>
BNC74	CF®740	742/767	633-685	775/50	<a href="#">CF®740 Features</a>
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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