Datasheet for ABIN1589698

anti-PLGF antibody (Biotin)

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Overview

Quantity:	50 µg
Target:	PLGF (PGF)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PLGF antibody is conjugated to Biotin
Application:	ELISA, Immunofluorescence (IF)

Product Details

Purpose:	PlGF antibody
Immunogen:	Recombinant human PlGF-2 (produced in insect cells)
Clone:	178-G10
Isotype:	IgG1
Specificity:	Recombinant human PlGF-2 (produced in insect cells)
Characteristics:	Chromosomal location: 2p21-p16 The monoclonal antibody was produced with the help of BALB/c mice using recombinant human PlGF-2 (produced in insect cells) as the immunizing antigen.
Purification:	Mouse IgG1 antibody (clone #178/G10) from hybridomas was purified from cell culture supernatant.

Target Details

Target:	PLGF (PGF)
Alternative Name:	PlGF (PGF Products)
Background:	PlGF, placental growth factor,Placenta growth factor (PlGF) is a member of the PDGF/VEGF family of growth factors that share a conserved pattern of eight cysteines. Alternate splicing results in at least three human mature PlGF forms containing 131 (PlGF1), 152 (PlGF2), and 203 (PlGF3) amino acids (aa) respectively. Only PlGF2 contains a highly basic heparinbinding 21 aa insert at the C-terminus. In the mouse, only one P lGF that is the equivalent of human PlGF2 has been identified. Human PlGF1 shares 56 % , 55 %, 74 % and 95 % aa identity with the appropriate isoform of mouse, rat, canine and equine PlGF. PlGF is mainly found as variably glycosylated, secreted, 55 - 60 kDa disulfide linked homodimers. Mammalian cells expressing PlGF include villous trophoblasts, decidual cells, erythroblasts, keratinocytes and some endothelial cells. Circulating PlGF increases during pregnancy, reaching a peak in mid-gestation, this increase is attenuated in preeclampsia. However, deletion of PlGF in the mouse does not affect development or reproduction. Postnatally, mice lacking PlGF show impaired angiogenesis in response to ischemia. PlGF binds and signals through VEGF R1/Flt1, but not VEGF R2/Flk-1/KDR, while VEGF binds both but signals only through the angiogenic receptor, VEGF R2. PlGF and VEGF therefore compete for binding to VEGF R1, allowing high PlGF to discourage VEGF/VEGF R1 binding and promote VEGF/VEGF R2mediated angiogenesis. However, PlGF (especially PlGF1) and some forms of VEGF can form dimers that decrease the angiogenic effect of VEGF on VEGF R2. PlGF2, but not PLGF-1, shows heparindependent binding of neuropilin (Npn)-1 and Npn2. PlGF induces monocyte activation, migration, and production of inflammatory cytokines and VEGF. These activities facilitate wound and bone fracture healing, but also contribute to inflammation in active sickle cell disease and atherosclerosis.
Gene ID:	5281
NCBI Accession:	NM_001207012, NP_001193941
UniProt:	P49763
Pathways:	VEGFR1 Specific Signals

Application Details

Application Notes:	ELISA: Use at 1-2 µg/mL.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/mL.
Buffer:	PBS, BSA (50x), 0.02 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Centrifuge vial prior to opening.
Storage:	4 °C,-20 °C
Storage Comment:	The lyophilized antibody is stable for at least 2 years at -20°C. After sterile reconstitution the antibody is stable at 2-8°C for up to 6 months. Frozen aliquots are stable for at least 6 months when stored at -20°C. Addition of a carrier protein or 50% glycerol is recommended for frozen aliquots.
Expiry Date:	24 months