PLGF Protein, Human

Cat. No.:	HY-P74627
Synonyms:	Placenta growth factor; PlGF; PGF; PGFL
Species:	Human
Source:	E. coli
Accession:	P49763-2 (L19-R149)
Gene ID:	5228
Molecular Weight:	Approximately 14.9 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The PLGF-2 Protein, a growth factor with significant activity in angiogenesis and endothelial cell growth, plays a crucial role in stimulating the proliferation and migration of these cells. Through binding to the FLT1/VEGFR-1 receptor, PLGF-2 orchestrates angiogenic processes and contributes to the regulation of vascular growth. Notably, the isoform PlGF-2 exhibits additional binding capabilities, forming interactions with NRP1/neuropilin-1 and NRP2/neuropilin-2 in a heparin-dependent manner. Beyond its angiogenic functions, PLGF-2 also promotes tumor growth, implicating its involvement in pathological angiogenesis associated with cancer. Structurally, PLGF-2 exists as an antiparallel homodimer linked by disulfide bonds, and it can further manifest as a heterodimer with VEGFA/VEGF. The presence of isoform PlGF-3 as both a homodimer and monomer adds to the complexity of PLGF proteins, highlighting their diverse roles in modulating vascular processes and tumorigenesis.

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