VEGF165 Protein, Human (P.pastoris)

Cat. No.:	HY-P7110
Synonyms:	VEGF-AA; rHuVEGF165; VPF; Folliculostellate cell-derived growth factor; Glioma-derived endothelial cell mitogen
Species:	Human
Source:	P. pastoris
Accession:	P15692-4 (A27-R191)
Gene ID:	7422
Molecular Weight:	Approximately 38.2 kDa (Disulfide-linked homodimer)

PROPERTIES

AA Sequence	A P M A E G G G Q N H H E V V K F M D V Y Q R S Y C H P I E T L V D I F Q E Y P D E I E Y I F K P S C V P L M R C G G C C N D E G L E C V P T E E S N I T M Q I M R I K P H Q G Q H I G E M S F L Q H N K C E C R P K K D R A R Q E N P C G P C S E R R K H L F V Q D P Q T C K C S C K N T D S R C K A R Q L E L N E R T C R C D K P R R
Biological Activity	The ED_{50} is 1-5 ng/mL as measured by HUVEC cells, corresponding to a specific activity of 2×10^5 - 1×10^6 units/mg.
Appearance	Lyophilized powder
Formulation	Lyophilized after extensive dialysis against 25 mM HEPES and 150 mM NaCl, pH 7.0.
Endotoxin Level	<0.5 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	Vascular Endothelial Growth Factor (VEGF) has multiple isoforms, created by alternative splicing or proteolytic cleavage, and characterized by different receptor-binding and matrix-binding properties. These isoforms are known to give rise to a spectrum of angiogenesis patterns marked by differences in branching, which has functional implications for tissues. VEGF-A is a key member of the VEGF family of cytokines, along with VEGF-B, -C, -D, and PlGF. VEGF-A mediates angiogenesis, the expansion of an existing vascular bed by sprouting of new blood vessels. The vegfa gene is translated into a number of splice

isoforms, the most notable in humans being VEGF121, VEGF165, and VEGF189[1].

REFERENCES

[1]. Vempati P, et al. Extracellular regulation of VEGF: isoforms, proteolysis, and vascular patterning. Cytokine Growth Factor Rev. 2014 Feb;25(1):1-19.

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