

VEGF164 Protein, Rat (P.pastoris)

Cat. No.:	HY-P70638
Synonyms:	VEGF-AA; Vascular endothelial growth factor A; Vascular permeability factor; VEGF; VPF
Species:	Rat
Source:	P. pastoris
Accession:	P16612-2 (A27-R190, A36T)
Gene ID:	83785
Molecular Weight:	18-23 kDa

PROPERTIES

AA Sequence	<p>A P T T E G E Q K T H E V V K F M D V Y Q R S Y C R P I E T L V D I F Q E Y P D</p> <p>E I E Y I F K P S C V P L M R C A G C C N D E A L E C V P T S E S N V T M Q I M</p> <p>R I K P H Q S Q H I G E M S F L Q H S R C E C R P K K D R T K P E N H C E P C S</p> <p>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</p> <p>K P R R</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. 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	<p>VEGF164, a growth factor with pivotal roles in angiogenesis, vasculogenesis, and endothelial cell growth, orchestrates a range of cellular responses crucial for vascular development. It stimulates endothelial cell proliferation, facilitates cell migration, prevents apoptosis, and enhances blood vessel permeability by binding to receptors such as FLT1/VEGFR1 and KDR/VEGFR2, as well as heparan sulfate and heparin. During lactation, VEGF164 may contribute to increased vascular permeability, supporting efficient transport of molecules for milk protein synthesis. Additionally, its interaction with the NRP1 receptor initiates signaling pathways essential for motor neuron axon guidance and cell migration, underscoring its involvement in embryonic development processes. Existing as a homodimer with disulfide linkage, VEGF164 also forms a</p>
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heterodimer with PGF and interacts with isoform 2 of BSG, revealing its multifaceted molecular interactions.

Caution: Product has not been fully validated for medical applications. For research use only.

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