

VEGF164 Protein, Mouse (P.pastoris)

Cat. No.:	HY-P7421
Synonyms:	VEGF-AA; rMuVEGF164; VPF
Species:	Mouse
Source:	P. pastoris
Accession:	Q00731-2 (A27-R190)
Gene ID:	22339
Molecular Weight:	Approximately 39 kDa (Disulfide-linked homodimer)

PROPERTIES

AA Sequence	<p>M A P T T E G E Q K S H E V I 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</p> <p>D 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 I T M Q I</p> <p>M 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 K H C E P C</p> <p>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</p> <p>D K P R R</p>
Biological Activity	The ED ₅₀ is <6 ng/mL as measured by HUVEC cells, corresponding to a specific activity of >1.7 × 10 ⁵ units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against 25 mM HEPES and 150 mM NaCl, pH 7.0.
Endotoxin Level	<1.0 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 was found to be significantly more potent at inducing inflammation. In vivo blockade of VEGF receptor (VEGFR)-1 significantly suppressed VEGF164-induced corneal inflammation. In vitro, VEGF164 more potently stimulated intracellular adhesion molecule (ICAM)-1 expression on endothelial cells, an effect that was mediated by VEGFR2. VEGF164 was also more potent at inducing the chemotaxis of monocytes, an effect that was mediated by VEGFR1. In an immortalized human leukocyte cell line, VEGF164 was found to induce tyrosine phosphorylation of VEGFR1 more efficiently^[1]. VEGF164 is an</p>
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important isoform in the pathogenesis of early diabetic retinopathy^[2].

REFERENCES

- [1]. Usui T, et al. VEGF164(165) as the pathological isoform: differential leukocyte and endothelial responses through VEGFR1 and VEGFR2. Invest Ophthalmol Vis Sci. 2004 Feb;45(2):368-74.
- [2]. Ishida S, et al. VEGF164 is proinflammatory in the diabetic retina. Invest Ophthalmol Vis Sci. 2003 May;44(5):2155-62.
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Caution: Product has not been fully validated for medical applications. For research use only.

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