

## VEGF-A Protein, Rabbit (P. pastoris, His)

<b>Cat. No.:</b>	HY-P700497
<b>Synonyms:</b>	VEGFA; VPF; VEGF; MVCD1; vascular endothelial growth factor A; vascular permeability factor
<b>Species:</b>	Rabbit
<b>Source:</b>	P. pastoris
<b>Accession:</b>	XP_002714743.1 (Y51-R511)
<b>Gene ID:</b>	/
<b>Molecular Weight:</b>	51.7 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> Y L W L L H A P L L   H V S L D S L V A A   F S V V F E V L P S   S L D I P G S K K E E Q A S T Q L G G V   E E E H E A S G V V   T R Q L A F V V D A   I T N P T L E K E T K T I T R I H K A P   K F P S H F G F W K   R A E E E R G G K S   S G E K S R K T D G V G E R A Q A G E Q   R E G P G Q R A A A   L T D R Q T D T A P   S P S A H L L P G R R P T V D A A A S G   G Q Q P E P A P E G   G V E G V G A R G I   A L K L F V Q L L G C S R S G G V V V R   A G G A E P S G A A   R S V S S G R E E P   P P P P P E E E G E E E G E K E E E E R G   P R W R L G A G E P   G S W T G E A A V C   A D S A P A A R A P Q A L A R A S A P G   A R G A R G G A E E   S G P S R S P S R R   G S A S R A G P G R A S E T M N F L L S   W V H W S L A L L L   Y L H H A K W S Q A   A P M A E E G D N K P H E V V K F M E V   Y R R S Y C Q 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 V R C G G C   C N D E S L E C V P   T E E F N V 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 C D K P R   R </pre>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	The VEGF-A Protein, a versatile growth factor, plays a crucial role in angiogenesis, vasculogenesis, and endothelial cell
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growth. Its diverse effects include inducing endothelial cell proliferation, promoting cell migration, inhibiting apoptosis, and inducing permeabilization of blood vessels. VEGF-A achieves these functions by binding to receptors FLT1/VEGFR1 and KDR/VEGFR2, as well as heparan sulfate and heparin. Notably, its interaction with the NRP1 receptor initiates a signaling pathway essential for motor neuron axon guidance and cell body migration during embryonic development. Additionally, VEGF-A binds to the DEAR/FBXW7-AS1 receptor, further expanding its regulatory roles. Structurally, VEGF-A exists as a homodimer linked by disulfide bonds and can also form heterodimers with PGF. Interactions with NRP1 and BSG underscore the intricate molecular relationships that underlie the multifaceted functions of VEGF-A in orchestrating vascular processes and embryonic development.

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

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