

## VEGF-AA Protein, Canine (HEK293)

Cat. No.:	HY-P73473
Synonyms:	VEGFA; Vascular endothelial growth factor A; VPF; VEGF
Species:	Canine
Source:	HEK293
Accession:	NP_001103972.1 (M1-R190)
Gene ID:	403802
Molecular Weight:	Approximately 23 kDa

### PROPERTIES

AA Sequence	<p>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    G G E H K P H E V V</p> <p>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 E I E Y    I F K P S C V P L M</p> <p>R C G G C C N D E G    L E C V P T E E F N    I T M Q I M R I K P    H Q G Q H I G E M S</p> <p>F L Q H S 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</p> <p>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</p>
Biological Activity	<p>1. Immobilized canine VEGF164/VEGFA at 10 µg/mL (100 µL/well) can bind human VEGFR2-Fc and the EC<sub>50</sub> is 33.83-78.95 ng/mL.</p> <p>2. Measured in a cell proliferation assay using human umbilical vein endothelial cells (HUVEC). The ED<sub>50</sub> for this effect is typically 2-12 ng/mL.</p>
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.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
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>VEGFA Protein has activity in angiogenesis and endothelial cell growth.</p> <p>VEGFA Protein induces endothelial cell proliferation, promotes cell migration, inhibits cell apoptosis, and induces vascular</p>
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permeability.

VEGFA Protein can bind to receptors such as FLT1/VEGFR1 and KDR/VEGFR2, receptors such as DEAR/FBXW7-AS1, and sulfated acetylheparins and heparins.

The binding of VEGFA protein to NRP1 receptor initiates the signaling pathways required for motor neuron axon guidance and cell body migration, including the migration of facial motor neurons from rhomboid 4 to the tail of rhomboid 6 during embryonic development.

VEGF-A Protein is involved in the progression and malignant transformation of canine mastocytoma (MCT)

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

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