

Active Recombinant Canine VEGF

Cat. No. VEGFA -24D Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Canine VEGF, expressed in E. Coli.

Species Canine

Source E.coli

Description

Vascular endothelial growth factor (VEGF), also known as vascular permeability factor (VPF) or vasculotropin, is a homodimeric 34 - 42 kDa, heparin-binding glycoprotein with potent angiogenic, mitogenic and vascular permeability-enhancing activities specific for endothelial cells. The amino acid sequence of VEGF exhibits primary structural, as well as limited amino acid sequence, homology with that of the A and B chains of PDGF. All eight cysteine residues involved in intra- and inter-chain disulfide bonds are conserved among these growth factors. A cDNA encoding a protein having a 53% amino acid sequence homology in the PDGF-like region of VEGF has been isolated from a human placental cDNA library. This protein, named placenta growth factor (PlGF), is now recognized to be a member of the VEGF family of growth factors. Based on its homology with VEGF, PlGF was also proposed to be an angiogenic factor. Two receptor tyrosine kinases have been described as putative VEGF receptors. Flt-1 (fms-like tyrosine kinase), and KDR (kinase-insert-domain-containing receptor) proteins have been shown to bind VEGF with high affinity.

Form

Lyophilized from a 0.2 µm filtered solution in Acetonitrile and TFA with BSA as a carrier protein.

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Bio-activity	Measured in a cell proliferation assay using HUVEC human umbilical vein endothelial cells. Conn, G. et al. (1990) Proc Natl. Acad. Sci. USA 87:1323.
Molecular Mass	Predicted molecular mass: 19 kDa (monomer)
Endotoxin	<1.0 eu per 1 µg of the protein by the lal</1.0
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Usage	FOR RESEARCH USE ONLY
Quality Control Test	12 months from date of receipt, 20 to 70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, 20 to 70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 100 µg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Warning	Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	VEGFA vascular endothelial growth factor A [Canis lupus familiaris]
Official Symbol	VEGFA
Synonyms	VEGFA; vascular endothelial growth factor A; VPF; VEGF-A; vascular permeability factor; vascular endothelial growth factor 188; VEGF;

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Gene ID	403802
mRNA Refseq	NM_001003175
Protein Refseq	NP_001003175
UniProt ID	Q9MYV3
Chromosome Location	chromosome: 12
Pathway	Bladder cancer, organism-specific biosystem; Bladder cancer, conserved biosystem; Focal adhesion, organism-specific biosystem; Focal adhesion, conserved biosystem; Hemostasis, organism-specific biosystem; Id Signaling Pathway, organism-specific biosystem; Neurophilin interactions with VEGF and VEGFR, organism-specific biosystem;

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