

Vascular Endothelial Growth Factor Active Protein | VEGF active protein

Recombinant Human Vascular Endothelial Growth Factor

CATALOG #
AAA38128

HOST
E Coli

PRODUCT SYNONYMS

Vascular Endothelial Growth Factor; Recombinant Human Vascular Endothelial Growth Factor; VEGF Human; Vascular Endothelial Growth Factor Human Recombinant; Vascular endothelial growth factor A; VEGF-A; Vascular permeability factor; VPF; VEGF; MGC70609; VEGF active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Form/Format	The VEGF protein was lyophilized from a concentrated (1mg/ml) solution with no additives. Sterile Filtered White lyophilized (freeze-dried) powder.
Sequence	APMAEGGGQN HHEVVKFM DV YQRSYCHPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC CNDEGLECVP TEESNITMQI MRIKPHQGQH IGEMSFLQHN KCECRPKKDR ARQENPCGPC SERRKHLFVQ DPQTKCSCK NTDSRCKARQ LELNERTCRC DKPRR
Sequence Length	412
Solubility	It is recommended to reconstitute the lyophilized VEGF in sterile 18M-cm H ₂ O not less than 100 ug/ml, which can then be further diluted to other aqueous solutions.
Protein Content	VEGF protein quantitation was carried out by two independent methods:1. UV spectroscopy at 280 nm using the absorbency value of 0.2875 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a calibrated solution of VEGF as a Reference Standard.
Biological Activity	VEGF activity was determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 1-8ng/ml, corresponding to a Specific Activity of 125,000-1,000,000IU/mg.
Preparation and Storage	Lyophilized VEGF although stable at room temperature for 3 weeks, should be stored desiccated below -18 degree C. Upon reconstitution VEGF should be stored at 4 degree C between 2-7 days and for future use below -18 degree C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for VEGF active protein

Description: Vascular Endothelial Growth Factor Human Recombinant produced in E Coli is a double, non-glycosylated, polypeptide chain containing 165 amino acids and having a molecular mass of 38231 Dalton. The VEGF is purified by proprietary chromatographic techniques.

Introduction: Vascular endothelial growth factor (VEGF) is an important signaling protein involved in both vasculogenesis and angiogenesis. As its name implies, VEGF activity has been mostly studied on cells of the vascular endothelium, although it does have effects on a number of other cell types (e.g. stimulation monocyte/macrophage migration, neurons, cancer cells, kidney epithelial cells). VEGF mediates increased vascular permeability, induces angiogenesis, vasculogenesis and endothelial cell growth, promotes cell migration, and inhibits apoptosis. In vitro, VEGF has been shown to stimulate endothelial cell mitogenesis and cell migration. VEGF is also a vasodilator and increases microvascular permeability and was originally referred to as vascular permeability factor. Elevated levels of the VEGF protein are linked to POEMS syndrome, also known as Crow-Fukase syndrome. Mutations in the VEGF gene have been associated with proliferative and nonproliferative diabetic retinopathy.

Product Categories/Family for VEGF active protein

Cytokines and Growth Factors; Growth Factors; VEGF

NCBI AND UNIPROT INFORMATION

NCBI GI #	76781480
NCBI GeneID	7422
NCBI Accession #	NP_001020537.2
NCBI GenBank Nucleotide #	NM_001025366.2
UniProt Accession #	P15692; O60720; O75875; Q074Z4; Q16889; B5BU86; H0Y2S8; H0Y407; H0Y414; H0Y462; H0Y8N2; H3BLW7
Molecular Weight	34,406 Da
NCBI Official Full Name	vascular endothelial growth factor A isoform a
NCBI Official Synonym Full Names	vascular endothelial growth factor A
NCBI Official Symbol	VEGFA
NCBI Official Synonym Symbols	VPF; VEGF; MVCD1
NCBI Protein Information	vascular endothelial growth factor A; vascular permeability factor
UniProt Protein Name	Vascular endothelial growth factor A
UniProt Gene Name	VEGFA
UniProt Synonym Gene Names	VEGF; VEGF-A; VPF
UniProt Entry Name	VEGFA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-vegf-active-protein/vascular-endothelial-growth-factor/38128>