

Active Recombinant Human Vascular Endothelial Growth Factor A

Cat. No. VEGFA-583H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human VEGF-121 produced in E.Coli is a double, non-glycosylated, polypeptide chain containing 121 amino acids and having a molecular mass of 28423 Dalton.
Species	Human
Source	E.coli
Description	Vascular endothelial growth factor A (VEGF-A) is a protein that in humans is encoded by the VEGFA gene.
Form	Lyophilized with no additives.
Purity	Purity Greater than 95% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	The biological activity is determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 0.1-0.4 ng/ml.
Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.
Solubility	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is

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recommended to reconstitute the lyophilized VEGF in sterile water at a concentration of 0.1 mg/s/ml, which can then be further diluted to other aqueous solutions.

Purity Greater than 95% as determined by

Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.

Protein Content determined by

UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.

Endotoxin Level

Endotoxin level as measured by LAL is <0.01ng/ug or <0.1EU/ug.

Amino acid sequence

APMAEGGGQN HHEVVKFMDV YQRSYCHPIE TLVDIFQEYP DEIEYIFKPS
CVPLMRCGGC CNDEGLECVP TEESNITMQI MRIKPHQGQH IGEMSFLQHN
KCECRPKKDR ARQENCDKPR R

Storage

Lyophilized product is very stable at -20 degrees. Reconstituted material should be aliquoted and frozen at -20. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.

GENE INFORMATION

Gene Name

VEGFA vascular endothelial growth factor A [Homo sapiens]

Official Symbol

VEGFA

Synonyms

VPF; VEGF; VEGFA_HUMAN; Vascular permeability factor; VEGF-A; VEGFA; MGC70609; Vegf120; Vegf164; Vegf188; vascular endothelial growth factor A; MGC70609; Vascular endothelial growth factor A precursor; Vascular permeability factor

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Gene ID	7422
mRNA Refseq	NM_001025366
Protein Refseq	NP_001020537
MIM	192240
UniProt ID	P15692
Chromosome Location	6p12
Pathway	Cytokine-cytokine receptor interaction; Focal adhesion; Pancreatic cancer; Renal cell carcinoma; VEGF signaling pathway; mTOR signaling pathway; Hemostasis; Signaling by VEGF.
Function	cell surface binding ;extracellular matrix binding; growth factor activity; growth factor activity; heparin binding; platelet-derived growth factor receptor binding; protein binding; protein homodimerization activity; vascular endothelial growth factor receptor binding.
PDBrendering based on 1bj1.	