Recombinant Human Vascular Endothelial Growth Factor $_{121}$ (rHuVEGF$_{121}$)

PrimeGene Technical Data Sheet

Catalog Number:	105-16Y
Source:	*Yeast*
Molecular Weight:	Theoretically as a disulfide-linked homodimeric protein, the product consists of two 121 amino acid polypeptide chains. As a result of glycosylation, it migrates to at least two bands with molecular weights ranging from 14.4-20 kDa in SDS-PAGE under reducing conditions.
Quantity:	2μg/10μg/1000μg
AA Sequence:	APMAEGGGQN HHEVVKFMDV YQRSYCHPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC CNDEGLECVP TEESNITMQI MRIKPHQGQH IGEMSFLQHN KCECRPKKDR ARQENCDKPR R
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED_{50} as determined by a cell proliferation assay using human umbilical vein endothelial cells (HUVEC) is between 0.2-0.4 ng/ml.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Endotoxin:	Less than 0.1 EU/μg of rHuVEGF$_{121}$ as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE**.

Human Vascular Endothelial Growth Factor $_{121}$

Vascular Endothelial Growth Factor is a sub-family of growth factors produced by cells, which stimulates vasculogenesis and angiogenesis. VEGF's normal function is to create new blood vessels during embryonic development, new blood vessels after injury, muscle following exercise, and new vessels (collateral circulation) to bypass blocked vessels. Humans express alternately spliced isoforms of 121, 145, 165, 183, 189, and 206 amino acids (a.a.) in length. VEGF production can be induced in cells that are not receiving enough oxygen. VEGF165 appears to be the most abundant and potent isoform, followed by VEGF121 and VEGF189. Recombinant human VEGF121 contains 121 amino acids residues and it is a disulfide-linked homodimer. In addition, it shares 88 % a.a. with corresponding regions of mouse and rat, 96 % with porcine, 95 % with canine, and 93 % with feline, equine and bovine VEGF, respectively.

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