

Recombinant Human Vascular Endothelial Growth Factor 121

#R00142

Size: 10 µg/100 µg/500 µg

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.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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.

AA Sequence

APMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIF
QEYPDEIEYIFKPSCVPLMRCGGCCNDEGLECVPT
ESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK
DRARQENCDKPRR

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.

Product Specification

Accession	P15692-9
GeneID	7422
Species	Human
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.
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 rHuVEGF121 as determined by LAL method.
