

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant VEGF121, Human

Catalog Number: BK0180-50µg

Source: Escherichia coli.

Quantity: 50µg

### Description:

VEGF-A121 is one of five isoforms (121, 145, 165, 189, and 206) of VEGF protein, a cytokine belonging to the Platelet Differentiation Growth Factor (PDGF) family, and existing as a disulfide-linked homodimeric glycoprotein. In contrast to the longer isoforms, VEGF-A121 is more freely diffusible, and cannot bind to heparin. In vivo, VEGF is expressed predominantly in lung, heart, kidney, and adrenal glands, and the expression of VEGF is up-regulated by a number of growth factors, including PDGF, Fibroblast Growth Factor (FGF), Epidermal Growth Factor (EGF), and Tumor Necrosis Factor (TNF). VEGF signals via binding to two tyrosine kinase receptors: the Fms-like tyrosine kinase 1 (Flt-1) and the kinase domain receptor (KDR). VEGF is a specific mitogen and survival factor, contributing to abnormal angiogenesis and cancer development. Recombinant human VEGF-A121 (rhVEGF-A121) produced in E.coli is a disulfide-linked homodimer containing two non-glycosylated polypeptide chains of 121 amino acids each. A fully biologically active molecule, rhVEGF-A121 has a molecular mass of 28.2 kDa analyzed by non-reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Molecular Weight:

28.2 kDa, observed by non-reducing SDS-PAGE.

### Purity:

> 95% as analyzed by SDS-PAGE and HPLC.

### Biological Activity:

ED50 < 5 ng/mL, measured by a cell proliferation assay using HUVEC Cells, corresponding to a specific activity of > 2 × 10<sup>5</sup> units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

MPMAEGGGQNH-  
HEVVKFMDEVYQRSYCHPIETLVDIFQEYYPDEIEYI  
FKP-  
SCVPLMRCGGCCNDEGLECVPTTEESNITMQIM-  
RIKPHQGQHIGEMSFLQHNKCECRPKKDRARQE  
KCDKPRR

### Endotoxin:

< 0.2 EU/µg, determined by LAL method.

### Reconstitution:

Reconstituted in ddH<sub>2</sub>O or PBS at 100 µg/ml.

### Storage:

Lyophilized recombinant human VEGF-A121 (rhVEGF-A121) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, rhVEGF-A121 remains stable up to 2 weeks at 4 °C or up to 3 months at -20 °C.

### Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. For research use only.