



## Vascular Endothelial Growth Factor (121), HEK, human recombinant (rHuVEGF-121-HEK)

**Catalog No:** 97581  
**Lot No:** XXXXX  
**Source:** HEK293  
**Synonyms:** Vascular endothelial growth factor A, VEGF-A, Vascular permeability factor, VPF, VEGF, MGC70609

### Background

Vascular endothelial growth factor 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/ macrophagemigration, 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 this protein are linked to POEMS syndrome, also known as Crow-Fukase syndrome. Mutations in this gene have been associated with proliferative and nonproliferative diabetic retinopathy.

### Description

VEGF 121 amino acids human recombinant produced in HEK cells is a glycosylated 37 kDa homodimer and 50 kDa homotrimer. VEGF is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

VEGF was lyophilized from a 0.2 µm filtered solution containing 1xPBS.

### Solubility

It is recommended to reconstitute the lyophilized VEGF in sterile PBS containing 0.1% endotoxin-free recombinant HSA.

### Stability

Lyophilized VEGF, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution VEGF should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Purity

Greater than 95% as observed by SDS-PAGE.

### Activity

The specific activity was determined by the dose-dependent stimulation of the proliferation of HUVEC cells (Human Umbilical Vein Endothelial Cells) and is typically 3 ng/ml.

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#### Usage

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