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## Product Data Sheet

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Product Name: VEGF Human (121 a.a.), His  
 Cat. No.: GP21042  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Vascular endothelial growth factor A; VEGF-A; Vascular permeability factor; VPF; VEGF; MGC70609.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MAPMAEGGGQ NHHEVVKFMD VYQRSYCHPI ETLVDIFQEY PDEIEYIFKP SCVPLMRCGG CCNDEGLECV PTEESNITMQ IMRIKPHQGQ HIGEMSFLQH NKCECRPKKD RARQEKCDKP RR.		
Formulation	VEGF-121 His Tag in 20mM Tris pH-8 and 10% glycerol.		

### Introduction

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/macrophage migration, 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 is linked to POEMS syndrome, also known as Crow-Fukase syndrome. Mutations in this gene have been associated with proliferative and nonproliferative diabetic retinopathy.

### Biological Activity

The ED50 for this effect is <4.2 ng/ml. Measured in a cell proliferation assay using NIH-3T3 cell, corresponding to a specific activity of less than 238,095.23units/mg.

### Stability

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

Vascular Endothelial Growth Factor-121 Human Recombinant produced in E.Coli is a double, non-glycosylated, polypeptide chain (aa 207-327) containing a total of 142 amino acids and having a molecular mass of 16.3 kDa. The VEGF-121 is fused to a 20 amino acid His tag at N-terminus and purified by proprietary chromatographic techniques.

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