
Product Data Sheet

Product Name: VEGF (121a.a.) Human, HEK

Cat. No.: GP21043

Batch No.: 1

Product Data

Purity	>98%	Source	HEK.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Vascular endothelial growth factor A; VEGF-A; Vascular permeability factor; VPF; VEGF; MGC70609.		
Solubility	It is recommended to reconstitute the lyophilized VEGF in sterile PBS containing 0.1% endotoxin-free recombinant HSA.		
Formulation	VEGF was lyophilized from a 0.2µm filtered solution containing 1xPBS.		

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/ 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 mitogenesisand 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.

Biological Activity

The specific activity was determined by the dose-dependent stimulation of the proliferation of HUVEC cells (Human Umbilical Vein Endothelial Cells), the ED50 is 3ng/ml.

Stability

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

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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.

Background

Recombinant Human VEGF 121 amino acids, produced in HEK cells is a glycosylated 37kDa homodimer and 50kDa homotrimer. The VEGF is purified by proprietary chromatographic techniques.

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