



Product Datasheet

Product Name	Recombinant Human Vascular Endothelial Growth Factor, Sf9
Cata No	CB500127
Source	<i>Baculovirus Sf9 cells</i>
Synonyms	Vascular endothelial growth factor A, VEGF-A, Vascular permeability factor, VPF, VEGF, MGC70609.

Description

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.

Vascular Endothelial Growth Factor Human Recombinant produced in Sf9 insect cells is a double, glycosylated, polypeptide chain containing 165 amino acids and having a molecular mass of 38.6 kDa.

The VEGF is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Biological Activity

Determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 1.0-6.0 ng/ml, corresponding to a specific activity of 1×10^6 Units/mg to 1.7×10^5 Units/mg.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Formulation

The protein was lyophilized from a concentrated (1mg/ml) solution with no additives.

Reconstitution

It is recommended to reconstitute the lyophilized Vascular Endothelial Growth Factor-Sf9 in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Vascular Endothelial Growth Factor Sf9 although stable at room temperature for 3 weeks, should be stored desiccated below -18 $^{\circ}$ C. Upon reconstitution VEGF Sf9 should be stored at 4 $^{\circ}$ C between 2-7 days and for future use below -18 $^{\circ}$ C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

*** For Non-Clinical Research Use Only ***



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Please prevent freeze-thaw cycles.

Sequence

APMAEGGGQN HHEVVKFMDV YQRSYCHPIE

TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC

CNDEGLECVP TEESNIP **Product Data sheet**

IGEMSFLQHN KCECRPKKDR ARQENPCGPC

SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ

LELNERTCRC DKPRR

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