



Product Datasheet

Product Name	Recombinant Human Vascular Endothelial Growth Factor (121 a.a.)
Cata No	CB500245
Source	Escherichia Coli.
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-121 Human Recombinant produced in E.Coli is a double, non-glycosylated, polypeptide chain containing 121 amino acids and having a molecular mass of 28423 Dalton. VEGF₁₂₁ circulates more freely than other

Purity

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Biological Activity

Determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 0.2-0.4 ng/ml.

Solubility

It is recommended to reconstitute the lyophilized Vascular Endothelial Growth Factor -121 in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Storage

Lyophilized Vascular Endothelial Growth Factor 121 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution VEGF-121 should be stored at 4°C between 2-7 days and for future use below -18°C.

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