



Product Datasheet

Product Name	Recombinant Mouse Vascular Endothelial Growth Factor(rmVEGF)
Cata No	CB500238
Source	Escherichia Coli.
Abbreviated Name	Vascular endothelial growth factor A, VEGF-A, Vascular permeability factor, VPF, VEGF,

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 Mouse Recombinant produced in E.Coli is a double, non-glycosylated, polypeptide chain containing 165 amino acids and having a molecular mass of 39035 Dalton.
The VEGF is purified by proprietary chromatographic techniques.

Purity

Greater than 95.0% as determined by:

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

Specific Activity

The biological activity is determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 1.0-5.0 ng/ml.

Storage

Lyophilized Vascular Endothelial Growth Factor 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.

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 in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.