



## Product Datasheet

<b>Product Name</b>	Recombinant Mouse Vascular Endothelial Growth Factor, Sf9
<b>Cata No</b>	CB500128
<b>Source</b>	Baculovirus Sf9 cells
<b>Synonyms</b>	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 Mouse Recombinant produced in Sf9 insect cells is a double, glycosylated, polypeptide chain containing 164 amino acids and having a molecular mass of 48 kDa.

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 ED<sub>50</sub> range, determined by the dose-dependent proliferation of human umbilical vein endothelial cells (HUVEC) (measured by <sup>3</sup>H-thymidine uptake) is 1-2 ng/ml, corresponding to a specific activity of 1x10<sup>6</sup> Units/mg.

### Storage

Lyophilized Vascular Endothelial Growth Factor Sf9 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution VEGF-Sf9 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).

### Formulation

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

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