RayBiotech, Inc.
3607 Parkway Lane suite 200
Norcross,GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Certificate of Analysis and Data Sheet

Recombinant Mouse Vascular Endothelial Growth Factor-Sf9

Catalog No.	**Source:**
228-11626	*Baculovirus Sf9 cells*

Synonyms
Vascular endothelial growth factor A, VEGF-A, Vascular permeability factor, VPF, VEGF, MGC70609.

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 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.

Description
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.

Physical Appearance
Sterile Filtered White lyophilized (freeze-dried) powder.

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

Purity
Greater than 95.0% as determined by
(a) Analysis by RP-HPLC
(b) Analysis by SDS-PAGE

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

The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.

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Stability

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).
Please prevent freeze-thaw cycles.

Biological Activity

The ED50 range, determined by the dose-dependent proliferation of human umbilical vein endothelial cells (HUVEC) (measured by 3H-thymidine uptake) is 1-2 ng/ml, corresponding to a specific activity of 1x106 Units/mg.

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