

# Recombinant Mouse Vascular Endothelial Growth Factor (rm VEGF-Sf9)

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

**Introduction:** Vascular endothelial growth factor is important signaling protein involved in both vasculogenesis and angiogenesis. As its name implies, VEGF activity has been mostly studied on cells of vascular endothelium, although it does have effects on a number of other cell types ( e.g. stimulation monocyte/ macrophage migration, neurons, cancer cells, kidney epithelial cells). VEGF mediates increased vascular permeability, induces angiogenesis, vasculogenesis and endothelial cell mitogenesis and cell migration. VEGF is also a vasodilator and increases microvascular permeability and was originally referred 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 165 amino acids and having a molecular mass of 38814 Dalton. The VEGF is purified by proprietary chromatographic techniques.

**Source:** Baculovirus Sf9 cells

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** The protein was lyophilized from a concentrated (1 mg/ml) solution with no additives. The aliquots of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized Vascular Endothelial Growth Factor Sf9 in sterile water not less than 100 µg/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° 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.

**Purity:** Greater than 90.0% 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 1.0-2.0 ng/ml, corresponding to a specific activity of  $1 \times 10^6$  Units/mg.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	12344652
<i>medium</i>	10 µg	Cat.N°	12344653
<i>large</i>	50 µg	Cat.N°	12344655

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