

rmVEGF

recombinant murine Vascular Epidermal Growth Factor from *E.coli*

Product	Cat#	Package size
rmVEGF - rec. murine Vascular Endothelial Growth Factor	C6393.0002	2µg
rmVEGF - rec. murine Vascular Endothelial Growth Factor	C6393.0010	10µg
rmVEGF - rec. murine Vascular Endothelial Growth Factor	C6393.1000	1mg

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

Product 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/macrophage migration, 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 is linked to POEMS syndrome, also known as Crow-Fukase syndrome. Mutations in this gene have been associated with proliferative and nonproliferative diabetic retinopathy.

Recombinant Vascular Endothelial Growth Factor from mouse produced in *E.Coli* is a double, non-glycosylated, polypeptide chain of 165 amino acids and a molecular weight of approx. 39 kDa.

Purity: >95% (RP-HPLC)

Source: *E.coli*

Formulation

The protein was lyophilised from a concentrated sterile filtered (0.2µm / 1mg/mL) PBS solution, pH7.4.

Solubility

It is recommended to briefly centrifuge the vial prior to opening to bring the contents to the bottom. Reconstitute the lyophilised rmVEGF in sterile bidistilled water not less than 100µg/mL, which can then be further diluted to other aqueous solutions. This solution can then be stored at +2°C to +8°C for 1 week or at -20°C for future use. Stock solutions should be apportioned into working aliquots and stored at -20°C. Further dilutions should be made in appropriate buffered solutions.

Stability

Lyophilised rmVEGF although stable at room temperature for 3 weeks, should be stored desiccated at -20°C. Reconstituted rmVEGF is best stored refrigerated at +2°C to +8°C between 2-7 days and at -20°C for long term storage. For long term storage it is recommended to add a carrier protein (e.g. 0.1% HSA or BSA).

Please prevent from repeated freeze-thaw cycles.

Biological Activity

The biological activity of rmVEGF is determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 1.0 to 7.0 ng/mL.

Amino acid sequence

MAPTTEGEQK SHEVIKFM DV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNTMQI MRIPHQSQH IGEMSFLOQS RCECRPKKDR TKPEKHCEPC SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC DKPRR.

Usage

The Genaxxon rmVEGF is offered for research, laboratory or further manufacturing purposes only.

The product may not be used as drug, agricultural or pesticidal product, food additive or household chemical.