

Recombinant Mouse Vascular Endothelial Growth Factor A (rm VEGF-A)

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, 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. Recombinant mouse VEGF produced in *E.Coli* is a double, non-glycosylated, polypeptide chain containing 165 amino acids and having a molecular mass of 39 kDa.

Synonyms : Vascular permeability factor, VPF

Source: *Escherichia coli*

AA Sequence: MAPTTEGEQK SHEVIKFMDV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS
CVPLMRCAGC CNDEALECVP TSESNITMQI MRIKPHQSQH IGEMSFLQHS
RCECRPKKDR TKPEKHCEPC SERRKHLFVQ DPQTCKCSCCK NTDSRCKARQ
LELNERTCRC DKPRR

Formulation: Lyophilisate from a 0.22 µm filtered carrier free solution in PBS, pH 7.1

Reconstitution: Reconstitute in sterile endotoxin free water not less than 100 µg/ml

Stability: The lyophilized protein is stable for at least 2 years at -20°C. Reconstituted rm VEGF is stable for at least 3 months when stored in concentrated working aliquots (100 ng/µl or higher) at -20°C. Avoid repeated freeze/thaw cycles.

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 – 5.0 ng/ml

Purity: 95% (verified by SDS-PAGE / silver stain)

Endotoxicity: The endotoxin level is less than 0.1 ng per µg (1EU/µg) determined by LAL method

Order N°: rm VEGF+Size
available sizes: 2 µg, 10 µg, 50 µg

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