

32-6594: VEGF Rat, Yeast

Application : Functional Assay

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

Description

Source: *Saccharomyces cerevisiae*

Sterile Filtered White lyophilized (freeze-dried) powder.

Vascular endothelial growth factor is an important signaling protein involved in both angiogenesis and vasculogenesis. 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 VEGF is linked to POEMS syndrome, also known as Crow-Fukase syndrome. Mutations in VEGF have been associated with proliferative and nonproliferative diabetic retinopathy.

Vascular Endothelial Growth Factor Rat Recombinant produced in yeast is a disulfide-linked homodimer consisting of 2x165 amino acid polypeptide chains, having a molecular mass of approximately 25.7kDa each. VEGF is purified by proprietary chromatographic techniques.

Product Info

Amount : 100 µg / 250 µg

Purification : Greater than 90.0% as determined by SDS-PAGE.

Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.

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

Storage condition : Lyophilized VEGF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Vascular Endothelial Growth Factor should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

Amino Acid : MAPTTEGEQK AHEVVKFMDV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP
TSESNVTMQI MRIKPHQSQH IGEMSFLQHS RCECRPKKDR TKPEKHCEPC SERRKHLFVQ DPQTCKCCK
NTDSRCKARQ LELNERTCRC DKPRR.

Application Note

The ED₅₀ was measured in a cell proliferation assay using HUVEC human umbilical vein endothelial cells and was found to be 0.75-3.75 ng/ml.