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VEGF Rat, Yeast

Vascular Endothelial Growth Factor Rat Recombinant, Yeast
GRF0425

Product Overview

Name	VEGF Rat, Yeast

Description

Vascular Endothelial Growth Factor Rat Recombinant, Yeast

Accession (Primary)	Q00731

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 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.

Source

Saccharomyces cerevisiae

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

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

Stability

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 .

Purity

Greater than 90.0% as determined by SDS-PAGE.

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Amino acid sequence

MAPTTEGEQK AHEVVKFMDV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNVTMQI MRIKPHQSQH IGEMSFLQHS RCECRPKKDR TKPEKHCEPC SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC DKPRR.

Biological Activity

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.

Solubility

It is recommended to reconstitute the lyophilized Vascular Endothelial Growth Factor in sterile 18MΩ-cm H 2 O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Precautions

VEGF Rat, Yeast is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (Q00731)