# Vascular Endothelial Growth Factor, human recombinant (rHuVEGF-Yeast)

**Catalog No:** 99850
**Lot No:** XXXXX
**Source:** *Pichia pastoris*
**Synonyms:** Vascular endothelial growth factor A, VEGF-A, Vascular permeability factor, VPF, VEGF, MGC70609

## Background

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.

## Description

Vascular Endothelial Growth Factor human recombinant produced in Yeast is a double, glycosylated, polypeptide chain containing 165 amino acids and having a molecular mass of 42 kDa.

## Physical Appearance

Sterile filtered colorless liquid formulation.

## Formulation

The protein contains 20 mM phosphate buffered saline, pH 7.4.

## Stability

Vascular Endothelial Growth Factor, although stable at 15°C for 2 weeks, should be stored 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 SDS-PAGE.

## Activity

Determined by its ability to stimulate 3H-Thymidine incorporation in human umbilical vein endothelial cells (HUVEC), the ED50 for this effect was found to be 2 - 6 ng/ml.

## Usage

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