

VEGF Human

Description: Vascular Endothelial Growth Factor Human Recombinant produced in E.Coli is a double, non-glycosylated, polypeptide chain containing 165 amino acids and having a molecular mass of 38231 Dalton. The VEGF is purified by proprietary chromatographic techniques.

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

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Amino Acid Sequence: APMAEGGGQN HHEVVKFMDV YQRSYCHPIE TLVDIFQEYP
DEIEYIFKPS CVPLMRCGGC CNDEGLECVP TEESNITMQI MRIKPHQGQH IGEMSFLQHN
KCECRPKKDR ARQENPCGPC SERRKHLFVQ DPQTKCCK NTDSRCKARQ LELNERTCRC
DKPRR

Purity: Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Formulation:

The VEGF protein was lyophilized from a concentrated (1mg/ml) solution with no additives.

Stability:

Lyophilized VEGF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution VEGF should be stored at 4°C between 2-7 days and for future use 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.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Solubility:

It is recommended to reconstitute the lyophilized VEGF in sterile 18M-cm H₂O not less than 100

Introduction:

Vascular endothelial growth factor (VEGF) 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 the VEGF protein are linked to POEMS syndrome, also known as Crow-Fukase syndrome. Mutations in the VEGF gene have been associated with proliferative and nonproliferative diabetic retinopathy.

Biological Activity:

VEGF activity was determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 1-8ng/ml, corresponding to a Specific Activity of 125,000-1,000,000IU/mg.

Catalog #:CYP5-248

References:

Title:Expression of VEGF and Its Receptors in the Bovine Endometrium Throughout the Estrous Cycle: Effects of VEGF on Prostaglandin Production in Endometrial Cells.Publication:Journal of Reproduction and DevelopmentVol. 56 (2010) No. 2 April P 223-229
Link:https://www.jstage.jst.go.jp/article/jrd/56/2/56_09-139S/_article

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