

Vascular Endothelial Growth Factor, His Tag, human recombinant (rHuVEGF-His)

Catalog No: 95028 Lot No: XXXXX Source: *E. coli*

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/ 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 mitogenesisand 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 are 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 *E. coli* is a non-glycosylated, polypeptide chain (aa 207-371) containing 185 amino acids and having a molecular mass of 21.3 kDa. VEGF is fused to a 20 a. a His Tag at N-terminus and purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered clear solution.

Formulation

VEGF His (0.5 mg/ml) is supplied in 20 mM Tris-HCl pH 8.5, 50%glycerol, 5 mM DTT, 200 mM NaCl and 2 mM EDTA.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 90% as determined by SDS-PAGE.

Amino Acid Sequence

MGSSHHHHHH SSGLVPRGSH TEESNITMQI MRIKPHQGQH IGEMSFLQHN KCECRPKKDR ARQENPCGPC SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC APMAEGGGQN HHEVVKFMDV YQRSYCHPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC CNDEGLECVP DKPRR

Usage

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