



Vascular Endothelial Growth Factor-121, human recombinant, His Tag (rHuVEGF-121-His)

Catalog No: 08568
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/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-121 human recombinant produced in *E. coli* is a double, non-glycosylated, polypeptide chain containing a total of 142 amino acids and having a molecular mass of 16.3 kDa. VEGF-121 is fused to 20 amino acid His Tag at N-terminus and purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered colorless solution.

Formulation

VEGF-121 His Tag in 20 mM Tris pH 8.

Stability

Liquid VEGF 121, although stable at 10°C for 1 week, 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 95.0% as determined by SDS-PAGE.

Amino Acid Sequence

MGSSHHHHHH SSSLVPRGSH MAPMAEGGGQ NHHEVVKFMD VYQRSYCHPI ETLVDIFQEY PDEIEYIFKP SCVPLMRCGG
CCNDEGLECV PTEESNITMQ IMRIKPHQGQ HIGEMSFLQH NKCECRPKKD RARQEKCDKP RR

Activity

The ED50 for this effect is <4.2 ng/ml. Measured in a cell proliferation assay using NIH-3T3 cell, corresponding to a specific activity of less than 238,095.23 units/mg.

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