

Technical Data Sheet



Human Vascular Endothelial Growth Factor (rh-VEGF)

General Information

Catalog Number: A03S

Formulation: Lyophilized from 20 mM PB, pH 7.4

Mol. Wt.: 20 kDa

Theory pI: 7.60

Resources: *Escherichia coli* (*E. coli*)

Species: *human*

Purity: $\geq 95\%$ by SDS-PAGE analysis

Endotoxin: <1.0 EU/ μ g protein

Storage Condition: -20°C , 3 years

EC₅₀: Typically 2~5 ng/ml
(Determined by human umbilical vein endothelial cells-HUVECs)

Biological Activity: Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using human umbilical vein endothelial cells(HUVEC) is between 1.0-8.0 ng/ml.

Packing: In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.

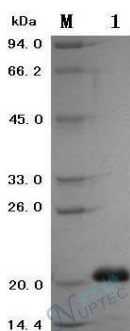
Application: This product can be for research use or further manufacturing use.

Product is stable for up to three years from date of receipt at -20°C to -80°C .

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Description

Vascular endothelial growth factor (VEGF), also known as vascular permeability factor (VPF), is a potent mediator of both angiogenesis and vasculogenesis in the fetus and adult. VEGF is a glycosylated mitogen that specifically acts on endothelial cells and has various effects, including mediating increased vascular permeability, inducing angiogenesis, vasculogenesis and endothelial cell growth, promoting cell migration, and inhibiting apoptosis. Six forms of human VEGF mRNA encoding VEGF proteins of 121, 145, 165, 183, 189, and 206 amino acids are produced from a single gene as a result of alternative splicing. VEGF165 appears to be the major gene product found in human tissue and is the most effective angiogenic factor in the VEGF family.



1:rh-VEGF165

M: Protein marker standard

Figure 1: Analysis of rh-VEGF165 by SDS-PAGE

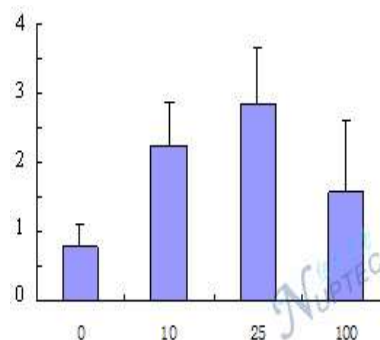


Figure 2: Proliferation of HUVECs examined by means of increased cell number in the presence of rh-VEGF165 for 96h

Notes:

It is recommended that the product is reconstituted with sterile water into a final concentration of 0.5 mg/ml.

The use of strong acids and alkalis, strong oxidants, and high concentrations of organic solvents should be avoided to protect the product from denaturation.

Research use only or for further manufacturing