

Rat VEGF164 / VEGFA Protein

Catalog Number: 80006-RNAB



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

VEGFA

Protein Construction:

A DNA sequence encoding the rat VEGF 164 isoform (AAA41211.1) (Met 1-Arg 190) was expressed.

Source: Rat

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 86 % as determined by SDS-PAGE

Bio Activity:

Measured in a cell proliferation assay using human umbilical vein endothelial cells (HUVEC). The ED₅₀ for this effect is typically 1-10 ng/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ala 27

Molecular Mass:

The secreted recombinant rat VEGF164 consists of 164 amino acids and has a predicted molecular mass of 19.2 kDa. The apparent molecular mass of the rat VEGF164 is approximately 25 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, pH 7.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

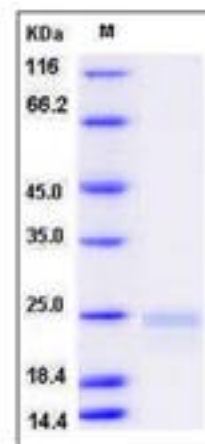
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Vascular endothelial growth factor (VEGF), also known as vascular permeability factor (VPF) and VEGF-A, is a potent mediator of both angiogenesis and vasculogenesis in the fetus and adult. It is a member of the platelet-derived growth factor (PDGF)/vascular endothelial growth factor (VEGF) family and often exists as a disulfide-linked homodimer. VEGF-A protein 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, inhibiting apoptosis and tumor growth. VEGF-A protein is also a vasodilator that increases microvascular permeability, thus it was originally referred to as vascular permeability factor.

References

1. Woolard J. *et al.* (2004) VEGF165b, an inhibitory vascular endothelial growth factor splice variant: mechanism of action, in vivo effect on angiogenesis and endogenous protein expression. *Cancer Res.* 64(21): 7822-7835.
2. Jia SF, *et al.* (2008) VEGF165 is necessary to the metastatic potential of Fas(-) osteosarcoma cells but will not rescue the Fas(+) cells. *J Exp Ther Oncol.* 7(2): 89-97.
3. Cimpean AM, *et al.* (2008) Vascular endothelial growth factor A (VEGF A) as individual prognostic factor in invasive breast carcinoma. *Rom J Morphol Embryol.* 49(3): 303-8.

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