Human / Cynomolgus VEGF / VEGFA / VEGF165 Protein

Catalog Number: 11066-HNAB

General Information

Gene Name Synonym:

VEGFA

Protein Construction:

A DNA sequence encoding the human / cynomolgus VEGF165 isoform (P15692-4) (Met1-Arg191) was expressed. Human and Cynomolgus VEGF165 sequences are identical.

Source: Human, Cynomolgus

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

Measured in a cell proliferation assay using human umbilical vein endothelial cells (HUVEC).
The ED_{50} for this effect is typically 3-12 ng/ml
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Endotoxin:

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

Predicted N terminal: Ala 27

Molecular Mass:

The recombinant human / cynomolgus VEGF165 consists of 165 amino acids after removal of the signal peptide and predicts a molecular mass of 19.2 kDa. Due to different glycosylation, the apparent molecular mass of human VEGF165 is approximately 20 and 22 kDa in SDS-PAGE under reducing conditions, corresponding to the monomer.

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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

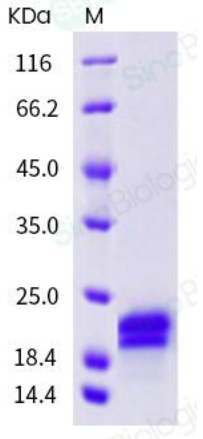
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.