

Recombinant Human VEGF-A/VEGF121 Protein

Catalog No.: RP01162

Sequence Information

Species **Gene ID**
Human 7422

Swiss Prot **Tags**
P15692-9 N-His

Synonyms

VEGFA, MVCD1, VEGF, VPF,
vascular endothelial growth factor
A, MVCD1, VEGF, VPF, L VEGFA,
VEGF A

Product Information

Source **Purification**
HEK293 cells ≥ 95 % as
determined by
SDS-PAGE.

Calculated MW **Observed MW**
14.91 kDa 17-22 kDa

Endotoxin

< 0.1 EU/μg of the protein by LAL
method.

Formulation

Lyophilized from a 0.22 μm filtered
solution of PBS, pH 7.4. Contact us
for customized product form or
formulation.

Reconstitution

Centrifuge the vial before opening.
Reconstitute to a concentration of
0.1-0.5 mg/mL in sterile distilled
water. Avoid vortex or vigorously
pipetting the protein. For long
term storage, it is recommended
to add a carrier protein or stabilizer
(e.g. 0.1% BSA, 5% HSA, 10% FBS
or 5% Trehalose), and aliquot the
reconstituted protein solution to
minimize free-thaw cycles.

Background

This protein is a member of the PDGF/VEGF growth factor family. It encodes a heparin-binding protein, which exists as a disulfide-linked homodimer. This growth factor induces proliferation and migration of vascular endothelial cells, and is essential for both physiological and pathological angiogenesis. Disruption of this gene in mice resulted in abnormal embryonic blood vessel formation. This protein is upregulated in many known tumors and its expression is correlated with tumor stage and progression. Elevated levels of this protein are found in patients with POEMS syndrome, also known as Crow-Fukase syndrome.

Basic Information

Description

Recombinant Human VEGF-A/VEGF121 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala27-Arg147) of human VEGF121 (Accession #NP_001165099.1) fused with a 6×His tag at the N-terminus.

Activity

1. Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human VEGF121 at 1 μg/mL (100 μL/well) can bind Recombinant Human VEGFR2 with a linear range of 4-10 ng/mL.
2. Measured in a cell proliferation assay using HUVEC human umbilical vein endothelial cells. The ED₅₀ for this effect is 0.09-0.36 ng/mL.
3. Recombinant Human VEGFA (40 ng/mL) and bFGF (50 ng/mL, Cat. RP01162) induce mesoderm cells to differentiate into hematopoietic stem and progenitor cells. After 4 days induction, pebbly-like CD43+ hematopoietic stem and progenitor cells appeared in the hematogenic endothelium.

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

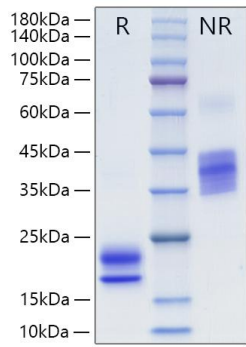
Contact

☎ | 400-999-6126

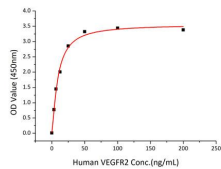
✉ | cn.market@abclonal.com.cn

🌐 | www.abclonal.com.cn

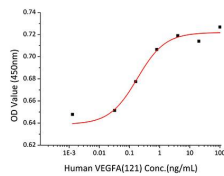
Validation Data



Recombinant Human VEGF-A/VEGF121 Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.



Immobilized Recombinant Human VEGF121 at 1 μ g/mL (100 μ L/well) can bind Recombinant Human VEGFR2 with a linear range of 4-10 ng/mL.



Recombinant Human VEGF-A promotes the proliferation of HUVEC human umbilical vein endothelial cells. The ED₅₀ for this effect is 0.09-0.36 ng/mL.