

## Recombinant Human VEGF-A/VEGF121 Protein

**Catalog Number:** PKSH033207

**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

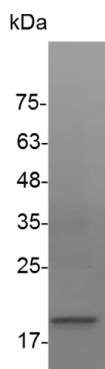
### Description

<b>Species</b>	Human
<b>Source</b>	E.coli-derived Human VEGF-A/VEGF121 protein Ala 14-Arg 134, with an C-terminal His
<b>Calculated MW</b>	15 kDa
<b>Observed MW</b>	18 kDa
<b>Accession</b>	PDB: 3V2A_A
<b>Bio-activity</b>	Measure by its ability to induce proliferation in HUVEC cells. The ED <sub>50</sub> for this effect is <2.5 ng/mL.

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 0.1 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 8.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

Human VEGF121; also known as Vascular endothelial growth factor A; VEGFA; Vascular permeability factor; VPF and VEGF; is a homodimeric, heparin-binding glycoprotein which belongs to the platelet-derived growth factor (PDGF)/vascular endothelial growth factor (VEGF) family. VEGF-A is a glycosylated mitogen that specifically acts on endothelial cells and has various effects; including mediating increased vascular permeability; inducing angiogenesis; vasculogenesis; permeabilization of blood vessels and endothelial cell growth; increasing microvascular permeability; promoting cell migration and inhibiting apoptosis. Alternatively spliced transcript variants of VEGF-A encode either secreted or cell-associated isoforms. The lymphangiogenesis may be promoted by upregulation of VEGF121; which may in turn act in part via induction of VEGF-C. It binds to the FLT1/VEGFR1 and KDR/VEGFR2 receptors; heparan sulfate and heparin. NRP1/Neuropilin-1 binds isoforms VEGF-165 and VEGF-145. Isoform VEGF165B binds to KDR but does not activate downstream signaling pathways; does not activate angiogenesis and inhibits tumor growth.

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Toll-free: 1-888-852-8623

Web: [www.elabscience.com](http://www.elabscience.com)

Tel: 1-832-243-6086

Email: [techsupport@elabscience.com](mailto:techsupport@elabscience.com)

Fax: 1-832-243-6017