

## VEGF165 Protein, Human, Recombinant (His & Avi), Biotinylated

### General Information

Synonyms:	vascular endothelial growth factor A
Protein Construction:	A DNA sequence encoding the human, Cynomolgus VEGF165 (P15692-4) (Ala27-Arg191) was expressed with a C-terminal AVI tag followed by a polyhistidine tag. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. Predicted N terminal: Ala 27
Species:	Human,Cynomolgus
Expression Host:	HEK293 Cells
Accession:	P15692-4
Molecular Weight:	23.1 kDa (predicted); 28.3 kDa (reducing condition, due to glycosylation)

### QC Testing

Biological Activity:	1.Measured in a cell proliferation assay using human, Cynomolgus umbilical vein endothelial cells (HUVEC). The ED50 for this effect is typically 4-16 ng/mL. 2.Loaded Avastin on ProA Biosensor, can bind Biotinylated Human, Cynomolgus VEGF protein, His & AVI Tag with an affinity constant of 0.443nM as determined in BLI assay (Routinely tested).
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

Reconstitution:	A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>
Shipping:	In general, Lyophilized powders are shipping with blue ice.

### Protein Background

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. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

### Reference

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