

Synonym

RP1-261G23.1,MGC70609,MVCD1,VEGFA,VPF

Source

Biotinylated Human VEGF165, epitope tag free, primary amine labeling(VE5-H8210) is expressed from human 293 cells (HEK293). It contains AA Ala 27 - Arg 191 (Accession # [P15692-4](#)).
Predicted N-terminus: Ala 27

Molecular Characterization

VEGF165(Ala 27 - Arg 191)
P15692-4

This protein carries no "tag".
The protein has a calculated MW of 19.2 kDa. The protein migrates as 25-28 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.
The protein is designed as a dimer.

Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with biotins using standard chemical labeling method. A standard biotin reagent (13.5 angstroms) is used in this product.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Purity

>90% as determined by SDS-PAGE.
>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.
Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.
For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

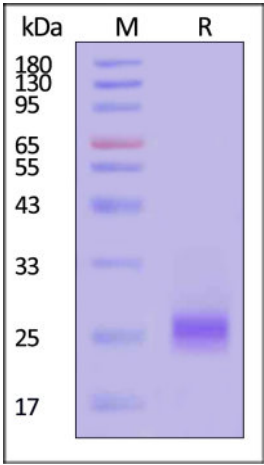
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

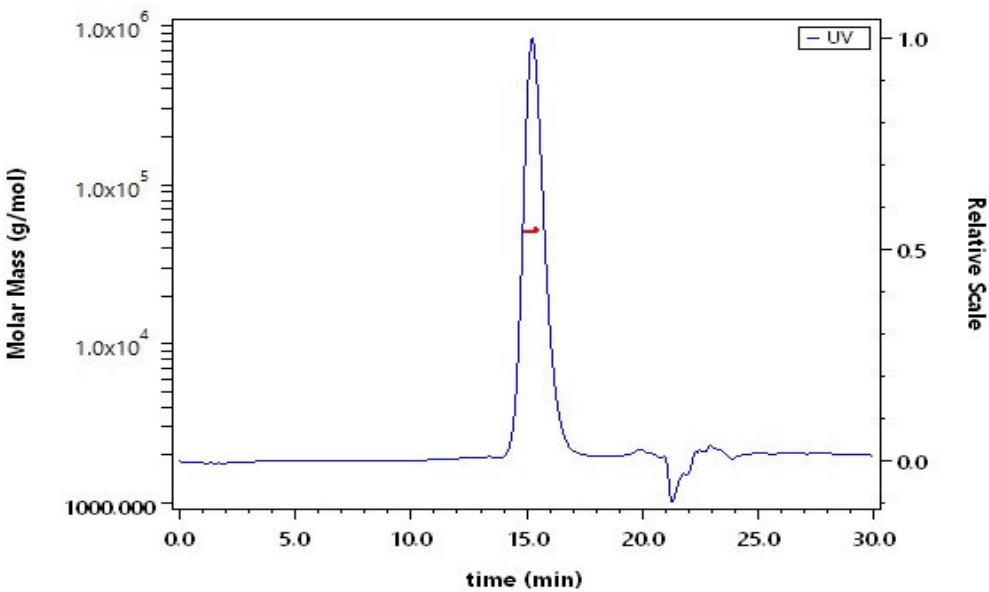
- 20°C to -70°C for 24 months in lyophilized state;
- 70°C for 24 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human VEGF165, epitope tag free, primary amine labeling on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

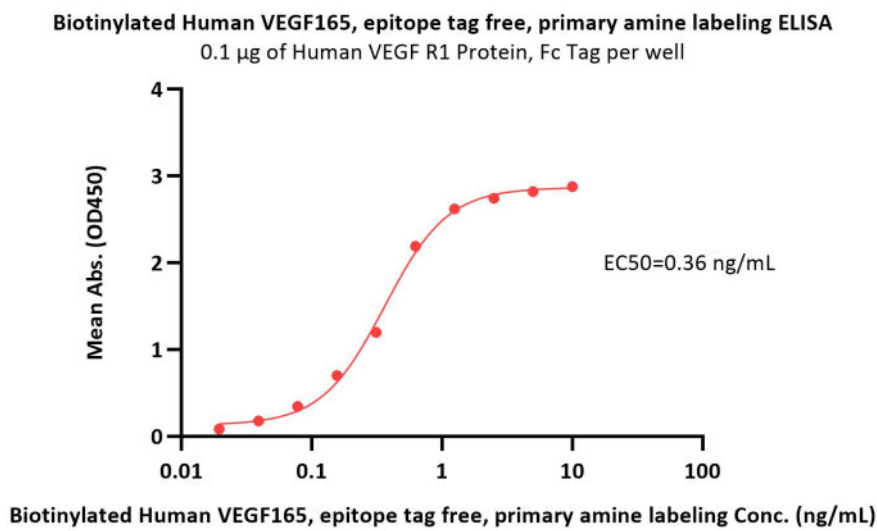
SEC-MALS



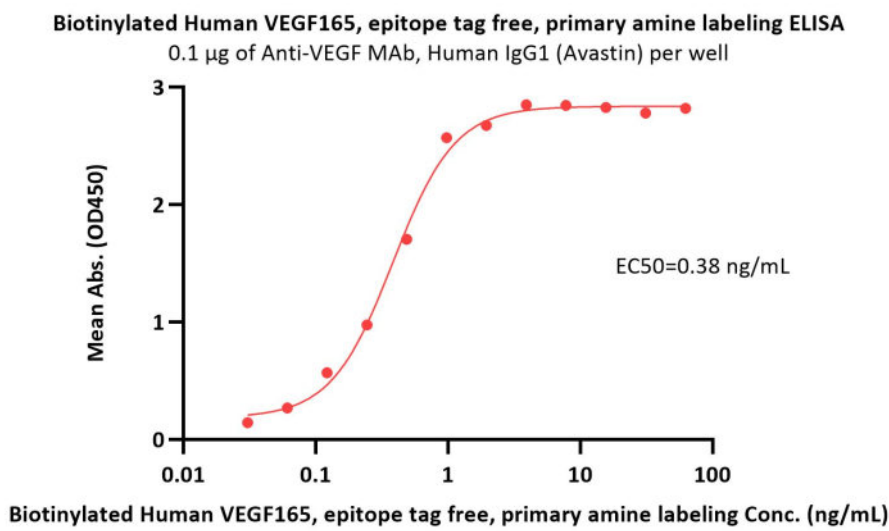
The purity of Biotinylated Human VEGF165, epitope tag free, primary amine labeling (Cat. No. VE5-H8210) is more than 95% and the molecular weight of this protein is around 45-58 kDa verified by SEC-MALS.
[Report](#)



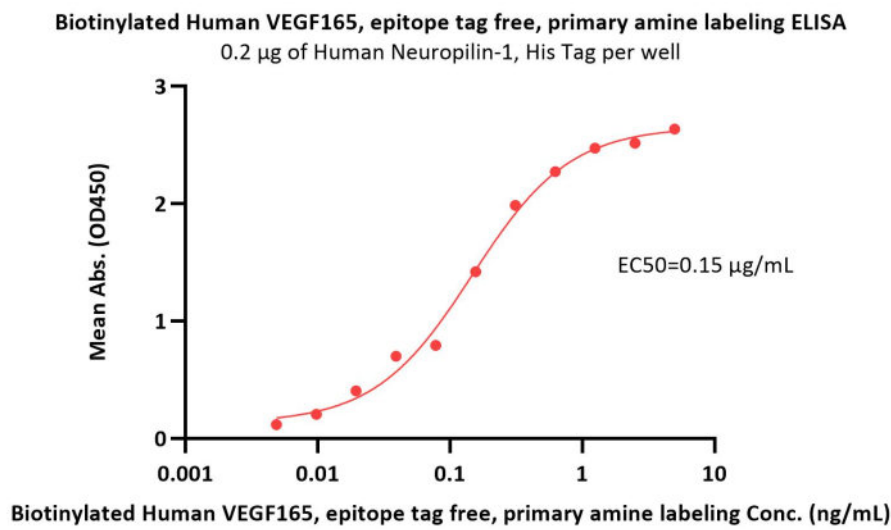
Bioactivity-ELISA



Immobilized Human VEGF R1 Protein, Fc Tag (Cat. No. VE1-H5253) at 1 µg/mL (100 µL/well) can bind Biotinylated Human VEGF165, epitope tag free, primary amine labeling (Cat. No. VE5-H8210) with a linear range of 0.02-1 ng/mL (QC tested).



Immobilized Anti-VEGF MAb, Human IgG1 (Avastin) at 1 µg/mL (100 µL/well) can bind Biotinylated Human VEGF165, epitope tag free, primary amine labeling (Cat. No. VE5-H8210) with a linear range of 0.03-1 ng/mL (Routinely tested).



Immobilized Human Neuropilin-1, His Tag (Cat. No. NR1-H5228) at 2 µg/mL (100 µL/well) can bind Biotinylated Human VEGF165, epitope tag free, primary amine labeling (Cat. No. VE5-H8210) with a linear range of 0.005-0.625 µg/mL (Routinely tested).

Background

VEGF165 is the most abundant splice variant of VEGF-A. VEGF165 is produced by a number of cells including endothelial cells, macrophages and T cells. VEGF165 is involved in angiogenesis, vascular endothelial cell survival, growth, migration and vascular permeability. VEGF gene expression is induced by hypoxia, inflammatory cytokines and oncogenes. VEGF165 binds to heparan sulfate and is retained on the cell surface and in the extracellular matrix. VEGF165 binds to the receptor tyrosine kinases, VEGFR1 and VEGFR2. VEGF165 is the only splice variant that binds to co-receptors NRP-1 and NRP-2 that function to enhance VEGFR2 signaling. Binding of VEGF165 to VEGFR1 and VEGFR2 leads to activation of the PI3K/AKT, p38 MAPK, FAK and paxillin. VEGF plays a key role in tumor angiogenesis in many cancers.

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