Catalog # VE0-H52H3



#### Synonym

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

#### Source

Human VEGF110 Protein, His Tag(VE0-H52H3) is expressed from human 293 cells (HEK293). It contains AA Ala 27 - Arg 136 (Accession # <u>NP\_001165097.1</u>).

Predicted N-terminus: His

# **Molecular Characterization**

VEGF110 (Ala 27 - Arg 136) Poly-his NP\_001165097.1

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 14.6 kDa. The protein migrates as 15 kDa and 18-20 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

# Purity

>95% as determined by SDS-PAGE.

#### Formulation

Lyophilized from 0.22  $\mu m$  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

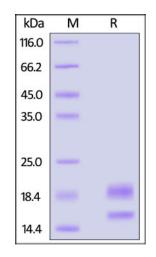
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

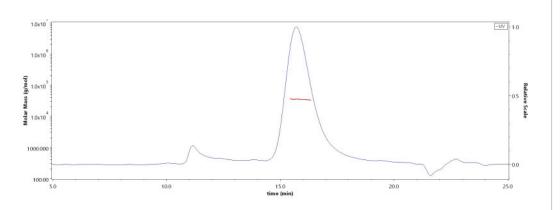
- -20°C to -70°C for 12 months in lyophilized state;
- $70^{\circ}$ C for 3 months under sterile conditions after reconstitution.

# **SDS-PAGE**



Human VEGF110 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

# **SEC-MALS**



The purity of Human VEGF110 Protein, His Tag (Cat. No. VE0-H52H3) is more than 85% and the molecular weight of this protein is around 30-38 kDa verified by SEC-MALS. <u>Report</u>

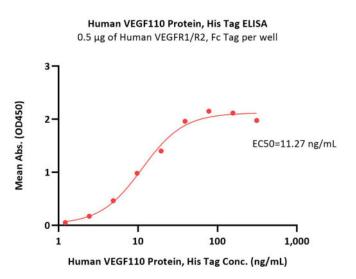
#### **Bioactivity-ELISA**

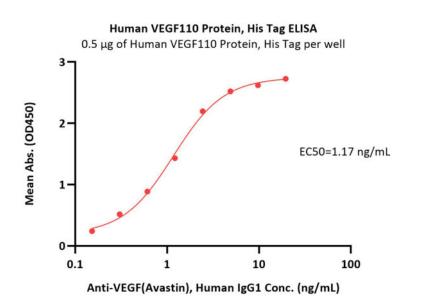


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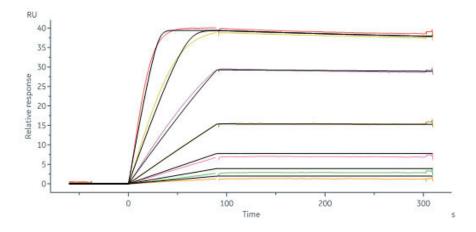




Immobilized Human VEGFR1/R2, Fc Tag at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human VEGF110 Protein, His Tag (Cat. No. VE0-H52H3) with a linear range of 1-78 ng/mL (QC tested).

Immobilized Human VEGF110 Protein, His Tag (Cat. No. VE0-H52H3) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Anti-VEGF(Avastin), Human IgG1 with a linear range of 0.2-2 ng/mL (Routinely tested).

#### **Bioactivity-SPR**



Human VEGFR1/R2 captured on Protein A Chip can bind Human VEGF110 Protein, His Tag (Cat. No. VE0-H52H3) with an affinity constant of 13.8 pM as determined in a SPR assay (Biacore 8K) (Routinely tested).

#### Background

Vascular endothelial growth factor (VEGF), also known as vascular permeability factor (VPF) and VEGF-A, and is a member of the platelet-derived growth factor (PDGF)/vascular endothelial growth factor (VEGF) family and encodes a protein that is often found as a disulfide linked homodimer. This 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, and inhibiting apoptosis. Alternatively spliced transcript variants, encoding either freely secreted or cell-associated isoforms, have been characterized. Alternatively spliced isoforms of 110,121,145,165,183,189 and 206 amino acids in length are expressed in humans.

#### **Clinical and Translational Updates**





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