



### Synonym

FLT, VEGFR1, FLT1

### Source

Human VEGF R1 Protein, His Tag(VE1-H52H9) is expressed from human 293 cells (HEK293). It contains AA Ser 27 - Asn 756 (Accession # [P17948-1](#)).

Predicted N-terminus: Ser 27

### Molecular Characterization

VEGF R1(Ser 27 - Asn 756)  
P17948-1 Poly-his

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

The protein has a calculated MW of 84.1 kDa. The protein migrates as 110-130 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>95% as determined by SDS-PAGE.

>90% 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

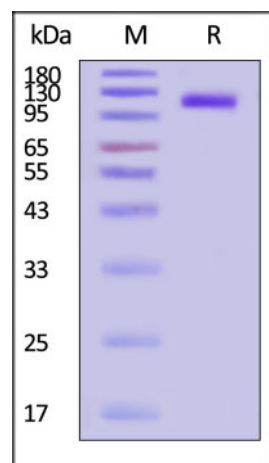
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

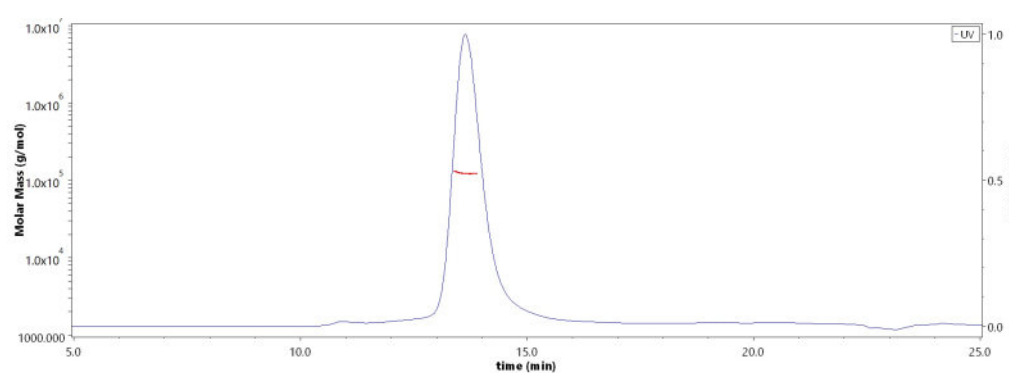
### SDS-PAGE



Human VEGF R1 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% (With [Star Ribbon Pre-stained Protein Marker](#)).

### Bioactivity-ELISA

### SEC-MALS

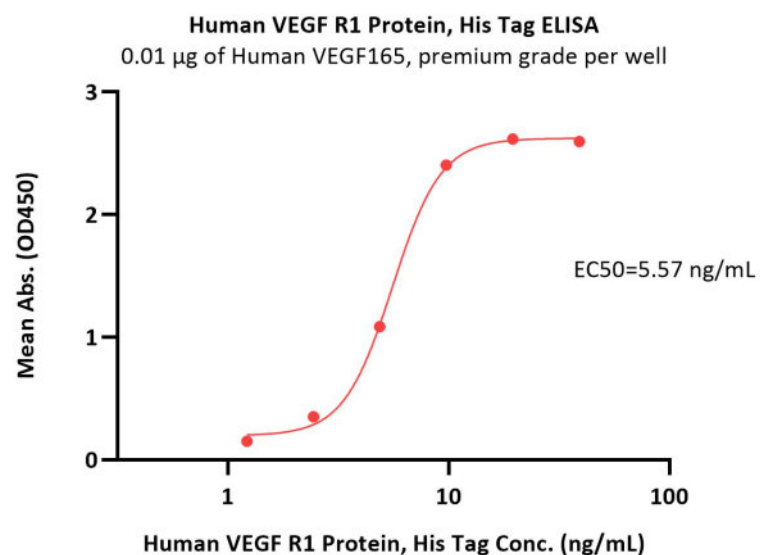


The purity of Human VEGF R1 Protein, His Tag (Cat. No. VE1-H52H9) is more than 90% and the molecular weight of this protein is around 115-135 kDa verified by SEC-MALS.

[Report](#)

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Immobilized Human VEGF165, premium grade (MALS verified) (Cat. No. VE5-H4210) at 0.1 µg/mL (100 µL/well) can bind Human VEGF R1 Protein, His Tag (Cat. No. VE1-H52H9) with a linear range of 1.2-10 ng/mL (QC tested).

## Background

Vascular endothelial growth factor receptor 1 (VEGFR1) is also known as Fms-like tyrosine kinase 1 (FLT-1), Tyrosine-protein kinase receptor FLT, is a single-pass type I membrane protein and secreted protein which belongs to the protein kinase superfamily, Tyr protein kinase family and CSF-1/PDGF receptor subfamily. VEGFR1 is detected in normal lung, but also in placenta, liver, kidney, heart and brain tissues and specifically expressed in most of the vascular endothelial cells, and also expressed in peripheral blood monocytes. VEGFR1 acts as a cell-surface receptor for VEGFA, VEGFB and PGF, and plays an essential role in the development of embryonic vasculature, the regulation of angiogenesis, cell survival, cell migration, macrophage function, chemotaxis, and cancer cell invasion. VEGFR1 may play an essential role as a negative regulator of embryonic angiogenesis by inhibiting excessive proliferation of endothelial cells. VEGFR1 can promote endothelial cell proliferation, survival and angiogenesis in adulthood.

## Clinical and Translational Updates

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