

**Synonym**

FLT, VEGFR1, FLT1

**Source**

Human VEGF R1 Protein, Fc Tag(VE1-H5253) 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	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus

The protein has a calculated MW of 108 kDa. The protein migrates as 140-170 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**

>90% as determined by SDS-PAGE.

**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.*

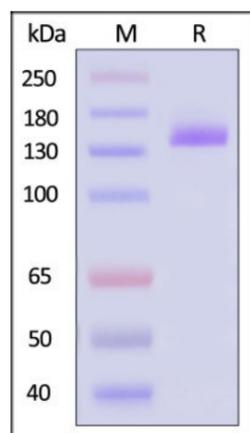
**Storage**

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

*Please avoid repeated freeze-thaw cycles.*

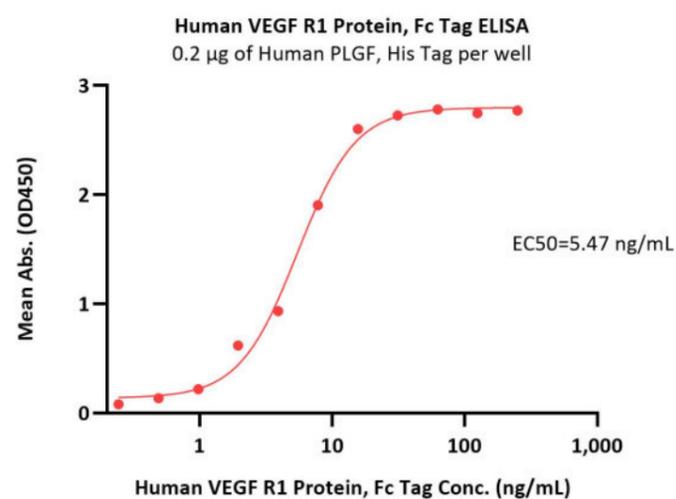
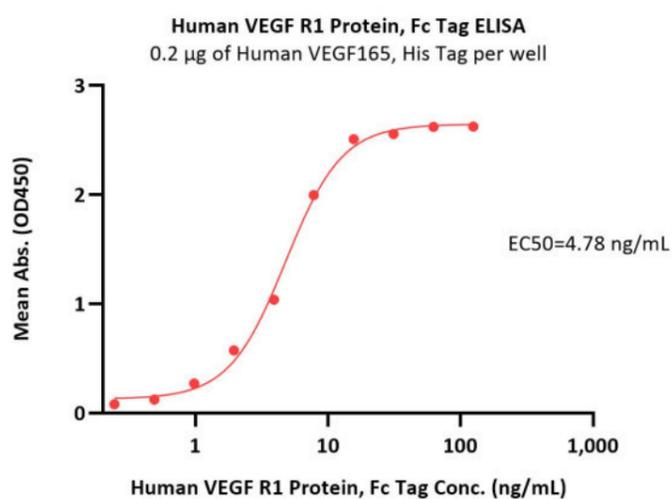
This product is stable after storage at:

- -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, Fc Tag 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](#)).

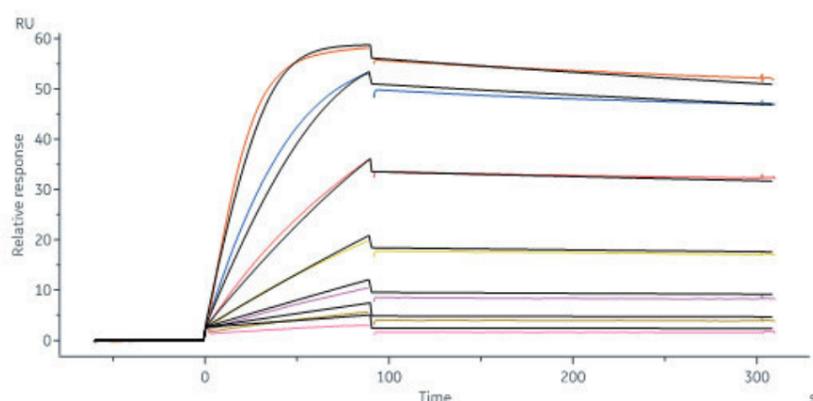
**Bioactivity-ELISA**



Immobilized Human VEGF165, His Tag (Cat. No. VE5-H5248) at 2 µg/mL (100 µL/well) can bind Human VEGF R1 Protein, Fc Tag (Cat. No. VE1-H5253) with a linear range of 0.2-16 ng/mL (QC tested).

Immobilized Human PLGF, His Tag (Cat. No. PGF-H5229) at 2 µg/mL (100 µL/well) can bind Human VEGF R1 Protein, Fc Tag (Cat. No. VE1-H5253) with a linear range of 0.2-16 ng/mL (Routinely tested).

### Bioactivity-SPR



Human VEGF R1 Protein, Fc Tag (Cat. No. VE1-H5253) captured on Protein A Chip can bind Human VEGF-B, His Tag (Cat. No. VE6-H5225) with an affinity constant of 0.52 nM as determined in a SPR assay (Biacore 8K) (Routinely 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

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.