

Synonym

KDR,CD309,FLK1,VEGFR,VEGFR2

Source

Human VEGF R2, Fc Tag(VE2-H5255) is expressed from human 293 cells (HEK293). It contains AA Ala 20 - Glu 764 (Accession # [AAI31823.1](#)).
Predicted N-terminus: Ala 20

Molecular Characterization

VEGF R2(Ala 20 - Glu 764)	Fc(Pro 100 - Lys 330)
AAI31823.1	P01857

This protein carries a human IgG1 Fc tag at the C-terminus.
The protein has a calculated MW of 109.7 kDa. The protein migrates as 140-170 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

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

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH7.5 with trehalose as protectant.
Contact us for customized product form or formulation.

Reconstitution

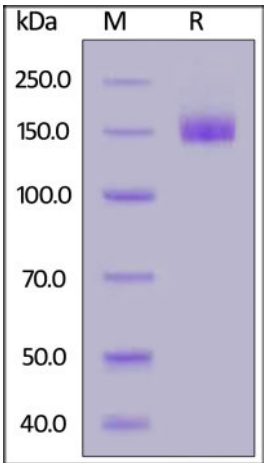
Please see Certificate of Analysis for specific instructions.
For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

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:

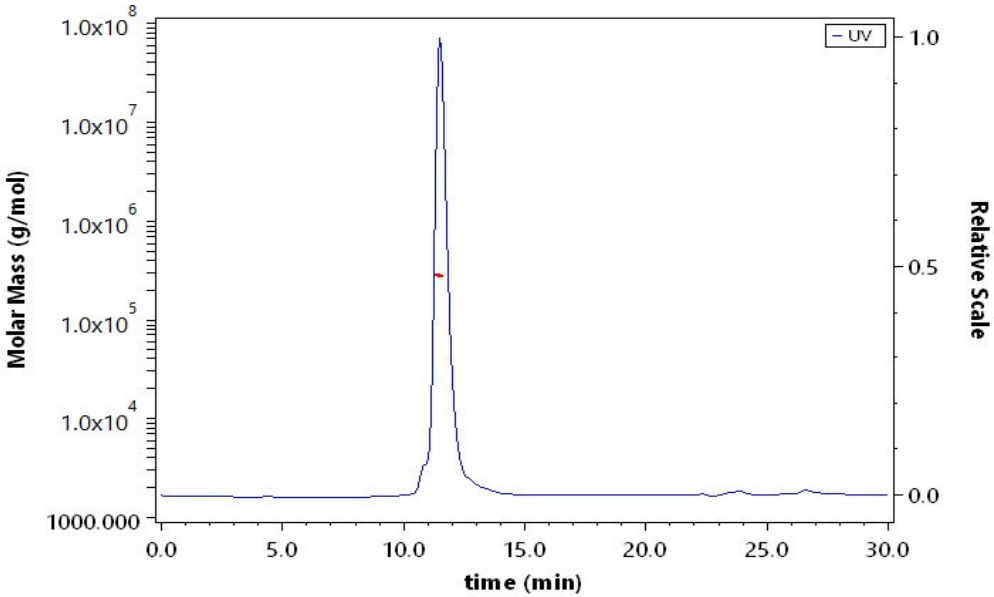
- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human VEGF R2, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

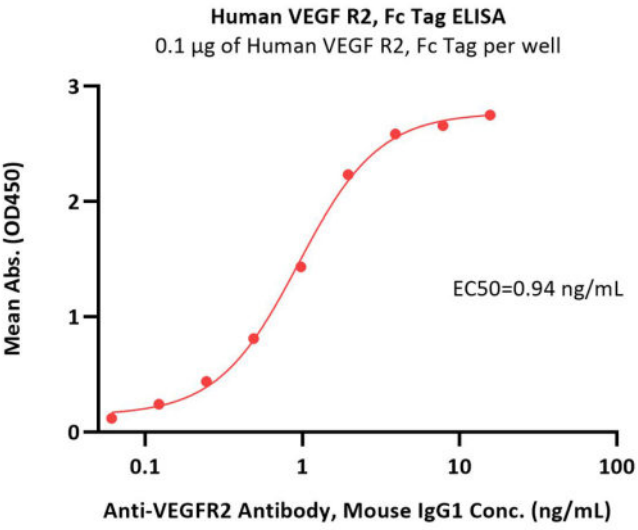
SEC-MALS



The purity of Human VEGF R2, Fc Tag (Cat. No. VE2-H5255) is more than 90% and the molecular weight of this protein is around 256-313 kDa verified by SEC-MALS.
[Report](#)

Bioactivity-ELISA





Immobilized Human VEGF R2, Fc Tag (Cat. No. VE2-H5255) at 1 µg/mL (100 µL/well) can bind Anti-VEGFR2 Antibody, Mouse IgG1 with a linear range of 0.1-2 ng/mL (QC tested).

Background

Kinase insert domain receptor (KDR) is also known as CD309, FLK1, VEGFR, VEGFR2, and is one of the subtypes of VEGFR. VEGF receptors are receptors for vascular endothelial growth factor (VEGF). There are three main subtypes of VEGFR, numbered 1, 2 and 3. The VEGF receptors have an extracellular portion consisting of 7 immunoglobulin-like domains, a single transmembrane spanning region and an intracellular portion containing a split tyrosine-kinase domain. VEGF-A binds to VEGFR-1 (Flt-1) and VEGFR-2 (KDR/Flk-1). VEGFR-2 appears to mediate almost all of the known cellular responses to VEGF. The function of VEGFR-1 is less well defined, although it is thought to modulate VEGFR-2 signaling. Another function of VEGFR-1 may be to act as a dummy/decoy receptor, sequestering VEGF from VEGFR-2 binding (this appears to be particularly important during vasculogenesis in the embryo). In addition, VEGFR2 is able to interact with HIV-1 extracellular Tat protein upon VEGF activation, and seems to enhance angiogenesis in Kaposi's sarcoma lesions.

