

Synonym

VEGFC,Flt4-L,VRP

Source

Human VEGF-C, His Tag(VEC-H4225) is expressed from human 293 cells (HEK293). It contains AA Thr 103 - Arg 227 (Accession # [AAH35212.1](#)).

Predicted N-terminus: Thr 103

Molecular Characterization

VEGF-C(Thr 103 - Arg 227)
AAH35212.1 Poly-his

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 14.9 kDa. The protein migrates as 19-25 kDa 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.

>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.

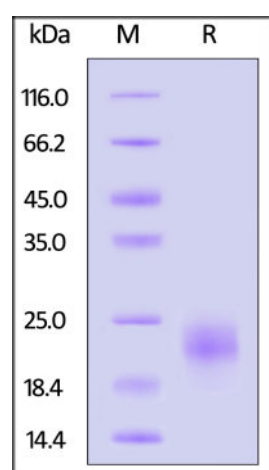
Storage

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

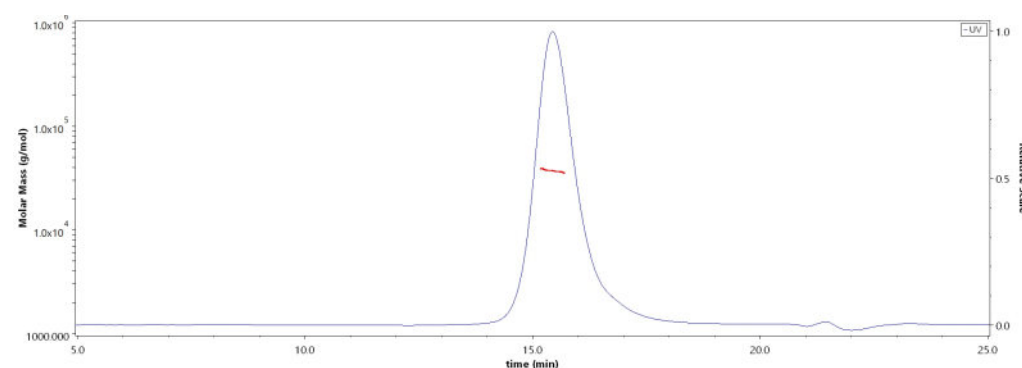
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

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

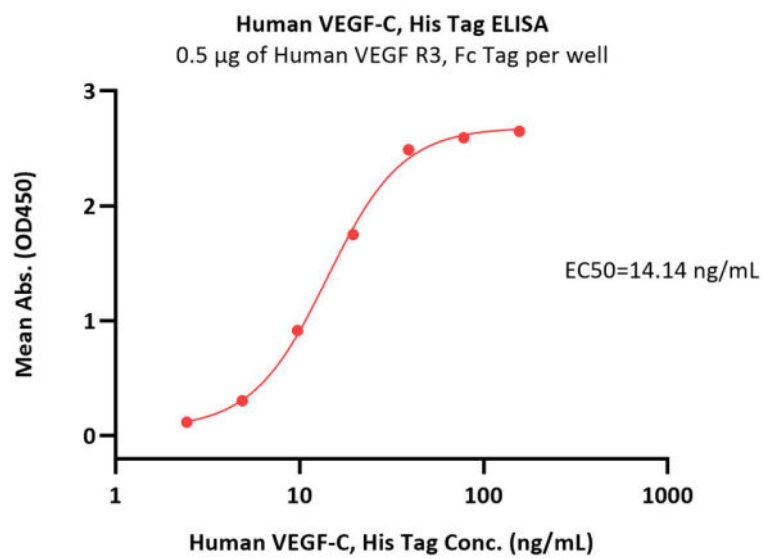
SDS-PAGE

Human VEGF-C, 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%.

Bioactivity-ELISA**SEC-MALS**

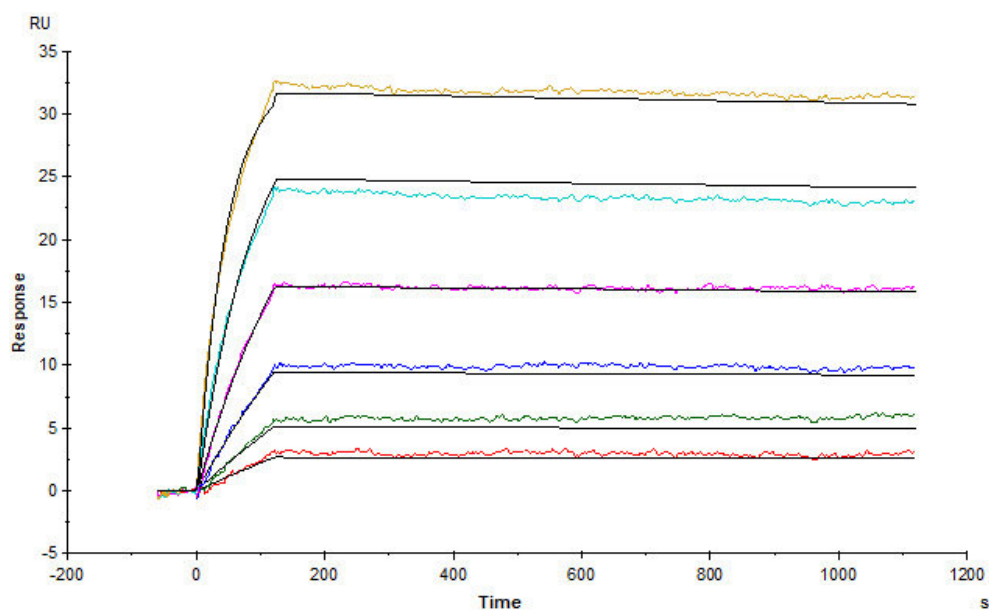
The purity of Human VEGF-C, His Tag (Cat. No. VEC-H4225) is more than 95% and the molecular weight of this protein is around 32-42 kDa verified by SEC-MALS.

[Report](#)



Immobilized Human VEGF R3, Fc Tag (Cat. No. FL4-H5251) at 5 µg/mL (100 µL/well) can bind Human VEGF-C, His Tag (Cat. No. VEC-H4225) with a linear range of 2-20 ng/mL (QC tested).

Bioactivity-SPR



Human VEGF-C, His Tag (Cat. No. VEC-H4225) captured on CM5 Chip via anti-His antibody can bind Human VEGF R3, Fc Tag (Cat. No. FL4-H5251) with an affinity constant of 41.1 pM as determined in SPR assay (Biacore T200) (Routinely tested).

Background

Vascular endothelial growth factor C is also known as VEGFC, Flt4-L and VRP, it contains the C-terminal propeptide which has an unusual structure with tandemly repeated cysteine-rich motifs. Upon biosynthesis, VEGFC is secreted as a non-covalent homodimer in an anti-parallel fashion. VEGFC is a member of the platelet-derived growth factor/vascular endothelial growth factor (PDGF/VEGF) family, is active in angiogenesis, lymphangiogenesis and endothelial cell growth and survival, and can also affect the permeability of blood vessels. This secreted protein undergoes a complex proteolytic maturation, generating multiple processed forms that bind and activate VEGFR-3 receptors. Only the fully processed form can bind and activate VEGFR-2 receptors. The structure and function of this protein is similar to those of vascular endothelial growth factor D (VEGF-D). VEGFC may function in angiogenesis of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Overexpression of VEGF-C causes lymphatics to enlarge possibly facilitates metastasis.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.