

Synonym

FIGF, VEGFD

Source

Human VEGF-D Protein, His Tag(VED-H52H3) is expressed from human 293 cells (HEK293). It contains AA Phe 93 - Ser 201 (Accession # O43915). Predicted N-terminus: Phe 93

Molecular Characterization

VEGF-D(Phe 93 - Ser 201) O43915

Poly-his

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

The protein has a calculated MW of 18.0 kDa. The protein migrates as 25-30 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> 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.

>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

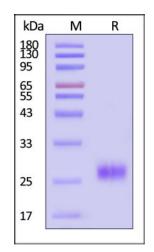
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

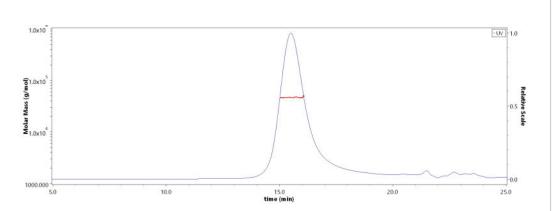
SDS-PAGE



Human VEGF-D 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 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

Bioactivity-ELISA

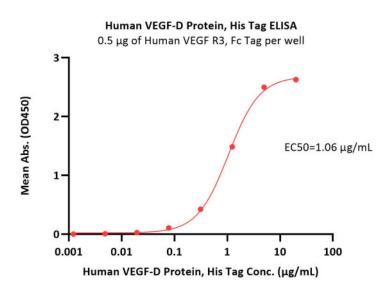
SEC-MALS



The purity of Human VEGF-D Protein, His Tag (Cat. No. VED-H52H3) is more than 90% and the molecular weight of this protein is around 40-52 kDa verified by SEC-MALS.

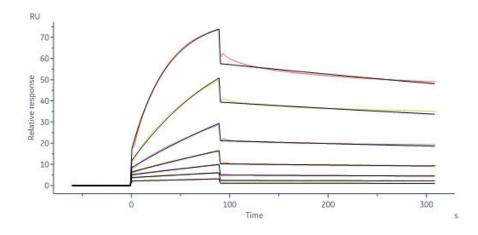
Report





Immobilized Human VEGF R3, Fc Tag (Cat. No. FL4-H5251) at 5 μ g/mL (100 μ L/well) can bind Human VEGF-D Protein, His Tag (Cat. No. VED-H52H3) with a linear range of 0.001-5 μ g/mL (QC tested).

Bioactivity-SPR



Human VEGF R3, Fc Tag (Cat. No. FL4-H5251) captured on Protein A Chip can bind Human VEGF-D Protein, His Tag (Cat. No. VED-H52H3) with an affinity constant of 38.9 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Vascular endothelial growth factor D (VEGF-D) is also known as C-fos induced growth factor (FIGF), which belongs to the PDGF / VEGF growth factor family and is active in angiogenesis, lymphangiogenesis, and endothelial cell growth, stimulating their proliferation and migration and also has effects on the permeability of blood vessels. This secreted protein VEGF-D / FIGF undergoes a complex proteolytic maturation, generating multiple processed forms that bind and activate VEGFR-2 and VEGFR-3. The structure and function of this protein is similar to those of VEGFC. FIGF / VEGF-D is highly expressed in lung, heart, small intestine and fetal lung. FIGF / VEGF-D may function in the formation of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-2 (KDR / FLK1) and VEGFR-3 (FLT4) receptors.

Clinical and Translational Updates

