

Synonym

FIGF, VEGFD

Source

Human VEGF-D, His Tag (VED-H5228) is expressed from human 293 cells (HEK293). It contains AA Phe 93 - Ser 201 (Accession # [AAH27948](#)).

Predicted N-terminus: Phe 93

Molecular Characterization

VEGF-D(Phe 93 - Ser 201)
AAH27948 Poly-his

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 13.4 kDa. The protein migrates as 19-22 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.

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.

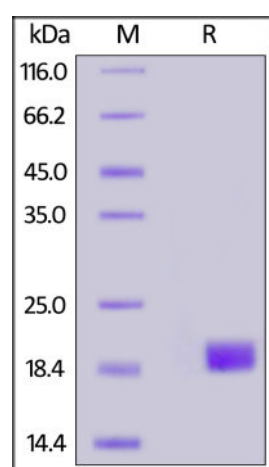
Storage

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

Please avoid repeated freeze-thaw cycles.

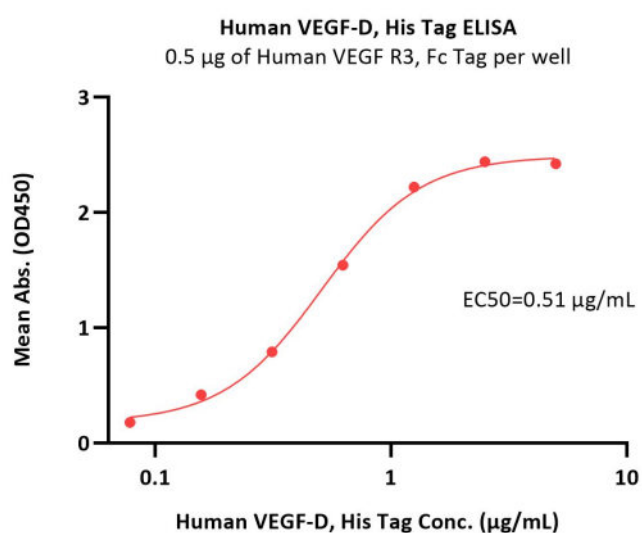
This product is stable after storage at:

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

SDS-PAGE

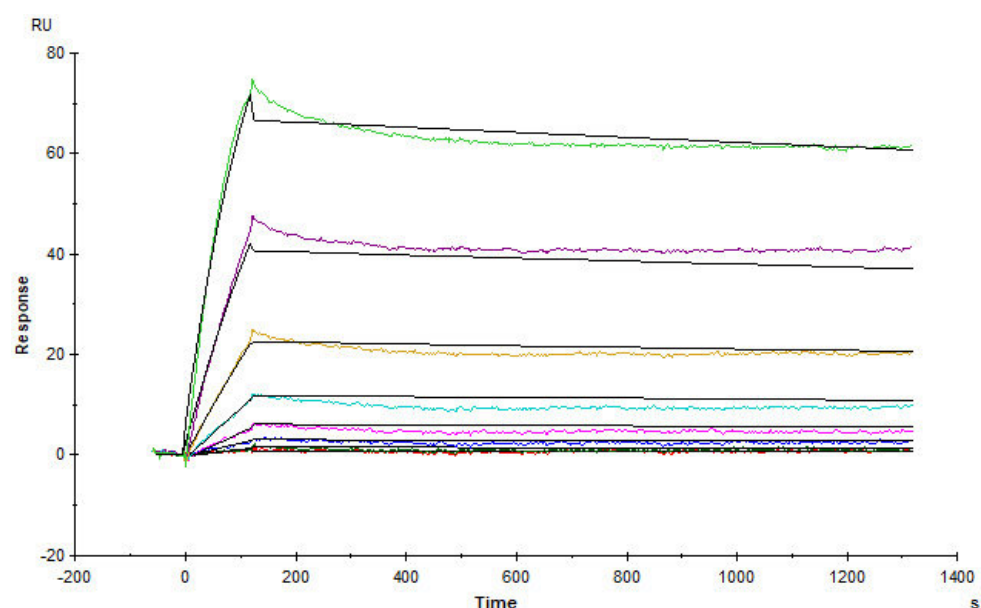
Human VEGF-D, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



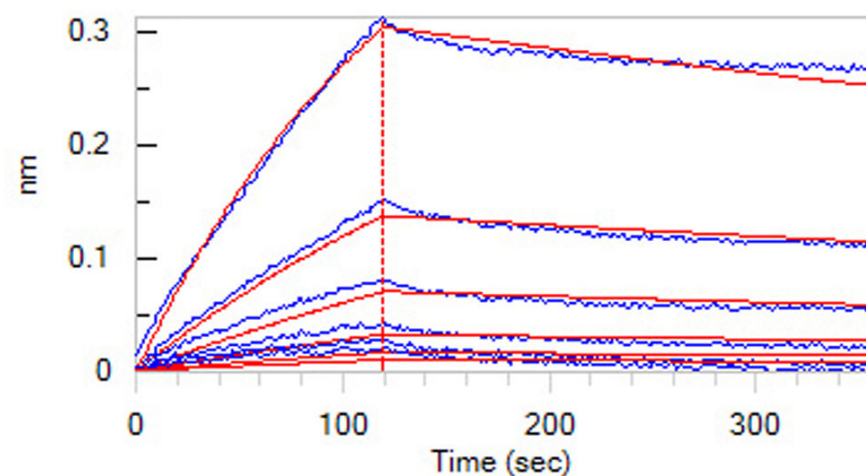
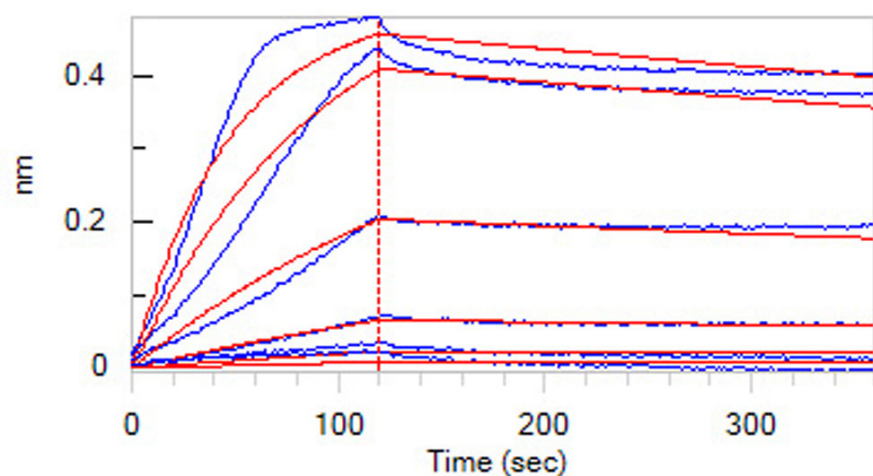
Immobilized Human VEGF R3, Fc Tag (Cat. No. FL4-H5251) at 5 µg/mL (100 µL/well) can bind Human VEGF-D, His Tag (Cat. No. VED-H5228) with a linear range of 0.08-0.6 µg/mL (QC tested).

Bioactivity-SPR



Human VEGF R3, Fc Tag (Cat. No. FL4-H5251) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Human VEGF-D, His Tag (Cat. No. VED-H5228) with an affinity constant of 19.7 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

Bioactivity-BLI



Loaded Biotinylated Human VEGF R3, His,Avitag (Cat. No. FL4-H82E1) on SA Biosensor, can bind Human VEGF-D, His Tag (Cat. No. VED-H5228) with an affinity constant of 110 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Loaded Biotinylated Human VEGF R2, Avitag,His Tag (Cat. No. KDR-H82E5) on SA Biosensor, can bind Human VEGF-D, His Tag (Cat. No. VED-H5228) with an affinity constant of 482 nM as determined in BLI assay (ForteBio Octet Red96e) (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

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