

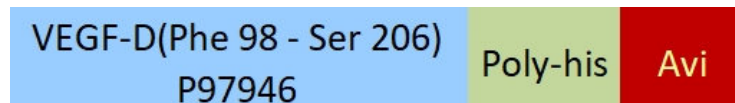
**Synonym**

FIGF, VEGFD

**Source**

Biotinylated Mouse VEGF-D Protein, His,Avitag(VED-M82E4) is expressed from human 293 cells (HEK293). It contains AA Phe 98 - Ser 206 (Accession # [P97946](#)).

Predicted N-terminus: Phe 98

**Molecular Characterization**

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 19.6 kDa. The protein migrates as 26-30 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Labeling**

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

**Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

**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.*

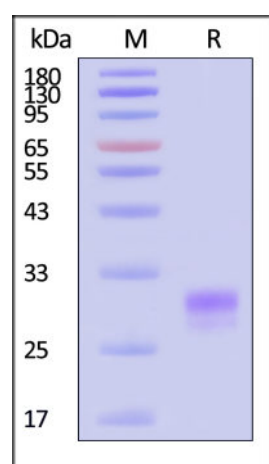
**Storage**

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.

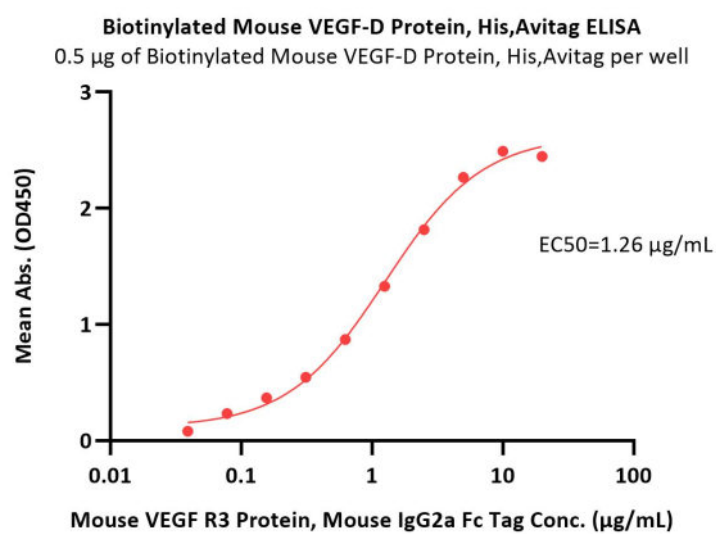
**SDS-PAGE**

Biotinylated Mouse VEGF-D Protein, His,Avitag 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**

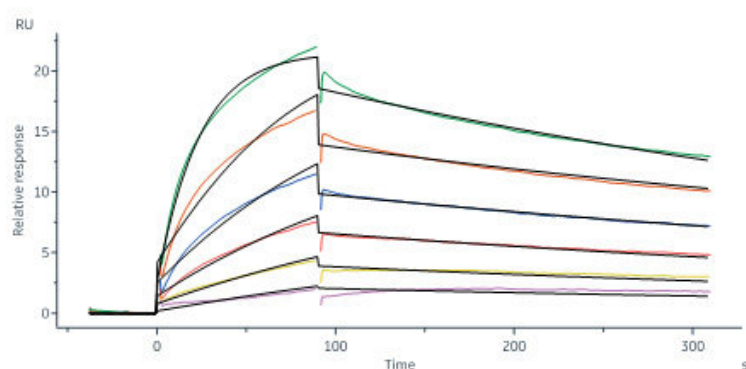
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and more!





Immobilized Biotinylated Mouse VEGF-D Protein, His,Avitag (Cat. No. VED-M82E4) at 5 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Mouse VEGF R3 Protein, Mouse IgG2a Fc Tag (Cat. No. FL4-M5251) with a linear range of 0.039-5 µg/mL (QC tested).

### Bioactivity-SPR



Biotinylated Mouse VEGF-D Protein, His,Avitag (Cat. No. VED-M82E4) immobilized on CM5 Chip can bind Mouse VEGF R3 Protein, Mouse IgG2a Fc Tag (Cat. No. FL4-M5251) with an affinity constant of 10.6 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

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