

# Human VEGF-D / VEGFD / FIGF Protein (His Tag)

Catalog Number: 10557-H08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

VEGF-D; VEGFD

### Protein Construction:

A DNA sequence encoding the mature form of human VEGFD (NP\_004460.1) corresponding to amino acid (Phe 93-Ser 201) was expressed with a C-terminal polyhistidine tag.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE.

### Bio Activity:

1. Measured in a cell proliferation assay using human umbilical vein endothelial cells (HUVEC).

The ED50 for this effect is 0.3- 1.6 µg/mL.

2. Captured VEGFR3/FLT4 Protein, Human (Cat.No.10806-H02H) on proA Chip can bind VEGF-D (Cat.No.10557-H08H) with an affinity constant of 39.03 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Phe 93

### Molecular Mass:

The recombinant mature form of human VEGFD consists of 120 amino acids and has a predicted molecular mass of 13.6 kDa. In SDS-PAGE under reducing conditions, it migrates with an apparent molecular mass of 20-22 kDa due to glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

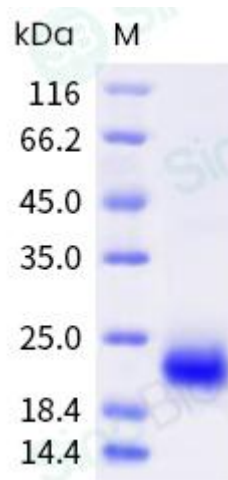
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Vascular endothelial growth factor D (VEGF-D), also known as C-fos induced growth factor (FIGF), belongs to the platelet-derived growth factor/vascular endothelial growth factor (PDGF/VEGF) family. FIGF protein is active in angiogenesis, lymphangiogenesis, and endothelial cell growth. FIGF protein is secreted as a non-covalent homodimer in an antiparallel fashion. Human FIGF protein is expressed in adult lung, heart, muscle, and small intestine, and is most abundantly expressed in fetal lungs and skin. FIGF protein is structurally and functionally similar to VEGF-C. Therefore, FIGF protein binds and activates VEGFR-2 (Flk1) and VEGFR-3 (Flt4) receptors, and may particularly be involved in cancers, such as breast cancer, epithelial ovarian carcinoma and so on.

## References

1. Avantiaggiato V, *et al.* (1998) Embryonic expression pattern of the murine figf gene, a growth factor belonging to platelet-derived growth factor/vascular endothelial growth factor family. *Mech Dev.* 73(2):221-4.
2. Rocchigiani M, *et al.* (1998) Human FIGF: cloning, gene structure, and mapping to chromosome Xp22.1 between the PIGA and the GRPR genes. *Genomics* 47(2):207-16.
3. Karpanen T, *et al.* (2008) VEGF-D: a modifier of embryonic lymphangiogenesis. *Blood.* 112(5): 1547-8.

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