

## Product datasheet

# Recombinant Human VEGFA protein ab55566

★★★★★ [1 Abreviews](#) [5 References](#) [1 Image](#)

### Description

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|--|---|
| <b>Product name</b>                    | Recombinant Human VEGFA protein   |
| <b>Purity</b>                          | > 95 % SDS-PAGE.<br>Proprietary purification method   |
| <b>Expression system</b>               | Escherichia coli  |
| <b>Accession</b>                       | <b><u>P15692-4</u></b>  |
| <b>Protein length</b>                  | Full length protein   |
| <b>Animal free</b>                     | No  |
| <b>Nature</b>                          | Recombinant   |
| <b>Species</b>                         | Human   |
| <b>Sequence</b>                        | APMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYP<br>DEIEYIFKPS<br>CVPLMRCGGCCNDEGLECVPTTEESNITMQIMRIKPPQGG<br>HIGEMSFLQHN<br>KCECRPKKDRARQENPCGPCSERRKHLFVQDPQTCKCS<br>CKNTDSRCKARQ LELNERTCRCDKPRR |
| <b>Actual molecular weight</b>         | 24 kDa including tags   |
| <b>Amino acids</b>                     | 27 to 191   |
| <b>Tags</b>                            | His tag N-Terminus  |
| <b>Additional sequence information</b> | This recombinant VEGF protein comprises a 165 amino acid fragment (27-191) corresponding to the VEGF 165 isoform and is expressed in E. coli with an aminoterminal hexahistidine tag.       |

### Specifications

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Our **Abpromise guarantee** covers the use of **ab55566** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

|                     |                          |
|---------------------|--------------------------|
| <b>Applications</b> | SDS-PAGE<br>Western blot |
| <b>Form</b>         | Liquid                   |

### Preparation and Storage

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## Stability and Storage

Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

pH: 8.00

Constituents: 0.242% Tris, 50% Glycerol

## General Info

### Function

Growth factor active in angiogenesis, vasculogenesis and endothelial cell growth. Induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis and induces permeabilization of blood vessels. Binds to the FLT1/VEGFR1 and KDR/VEGFR2 receptors, heparan sulfate and heparin. NRP1/Neuropilin-1 binds isoforms VEGF-165 and VEGF-145. Isoform VEGF165B binds to KDR but does not activate downstream signaling pathways, does not activate angiogenesis and inhibits tumor growth.

### Tissue specificity

Isoform VEGF189, isoform VEGF165 and isoform VEGF121 are widely expressed. Isoform VEGF206 and isoform VEGF145 are not widely expressed.

### Involvement in disease

Defects in VEGFA are a cause of susceptibility to microvascular complications of diabetes type 1 (MVCD1) [MIM:603933]. These are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new-onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis.

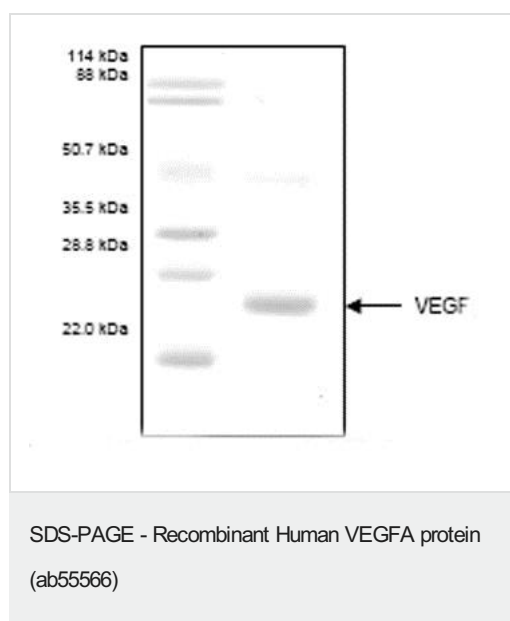
### Sequence similarities

Belongs to the PDGF/VEGF growth factor family.

### Cellular localization

Secreted. VEGF121 is acidic and freely secreted. VEGF165 is more basic, has heparin-binding properties and, although a significant proportion remains cell-associated, most is freely secreted. VEGF189 is very basic, it is cell-associated after secretion and is bound avidly by heparin and the extracellular matrix, although it may be released as a soluble form by heparin, heparinase or plasmin.

## Images



ab55566 on SDS-PAGE

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