

## Recombinant Human VEGFA protein, His-tagged

Cat. No. VEGFA-584H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human VEGFA (P15692) aa. (Pro28~Arg147) fused with His tag was produced in E. coli cells.

**Species** Human

**Source** E.coli

**ProteinLength** Pro28~Arg147

#### Description

This gene is a member of the PDGF/VEGF growth factor family. It encodes a heparin-binding protein, which exists as a disulfide-linked homodimer. This growth factor induces proliferation and migration of vascular endothelial cells, and is essential for both physiological and pathological angiogenesis. Disruption of this gene in mice resulted in abnormal embryonic blood vessel formation. This gene is upregulated in many known tumors and its expression is correlated with tumor stage and progression. Elevated levels of this protein are found in patients with POEMS syndrome, also known as Crow-Fukase syndrome. Allelic variants of this gene have been associated with microvascular complications of diabetes 1 (MVCD1) and atherosclerosis. Alternatively spliced transcript variants encoding different isoforms have been described. There is also evidence for alternative translation initiation from upstream non-AUG (CUG) codons resulting in additional isoforms. A recent study showed that a C-terminally extended isoform is produced by use of an alternative in-frame translation termination codon via a stop codon readthrough mechanism, and that this isoform is antiangiogenic. Expression of some isoforms derived from the

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	AUG start codon is regulated by a small upstream open reading frame, which is located within an internal ribosome entry site.
<b>Form</b>	Freeze-dried powder
<b>Molecular Mass</b>	Predicted Molecular Mass: 18.2kDa; Accurate Molecular Mass: 17&18kDa as determined by SDS-PAGE reducing conditions.
<b>Purity</b>	>98%
<b>Characteristic</b>	Isoelectric point is 6.3.
<b>Applications</b>	Cell culture; Activity Assays.
<b>Stability</b>	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
<b>Storage</b>	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
<b>Storage buffer</b>	20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
<b>Reconstitution</b>	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex

## GENE INFORMATION

**Gene Name**      **VEGFA vascular endothelial growth factor A [ Homo sapiens (human) ]**

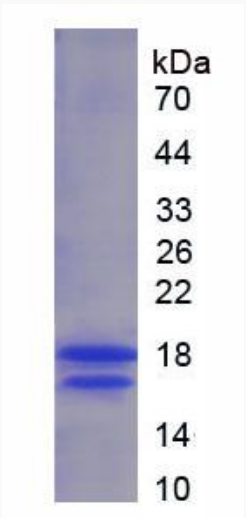
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<b>Official Symbol</b>	VEGFA
<b>Synonyms</b>	VEGFA; VPF; VEGF; MVCD1; vascular endothelial growth factor A; vascular endothelial growth factor A121; vascular endothelial growth factor A165; vascular permeability factor
<b>Gene ID</b>	7422
<b>mRNA Refseq</b>	NM_001025366.2
<b>Protein Refseq</b>	NP_001020537.2
<b>UniProt ID</b>	P15692

**SDS-PAGE**



The SDS-PAGE gel image shows a single prominent protein band at approximately 18 kDa. The molecular weight markers on the right are labeled in kDa: 70, 44, 33, 26, 22, 18, 14, and 10. The band is located between the 14 and 22 kDa markers, very close to the 18 kDa marker.

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