

Recombinant Human VEGFA Protein

Cat. No. VEGFA-060H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant human VEGF121 (rhVEGF121) Ala207-Arg327 (Accession # NP_001020539) was expressed in human 293 cells (HEK293).

Species Human

Source HEK293

ProteinLength 207-327 a.a.

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. [provided by RefSeq, Nov 2015]
Molecular Mass	rhVEGF121 contains no "Tags" and has a calculated MW of 14 kDa. DTT-reduced protein migrates as a 16-20 kDa polypeptide due to glycosylation.
Endotoxin	Less than 0.01 ng endotoxin/ 1 g rhVEGF121.
Purity	>97% as determined by SDS-PAGE of 6 g reduced recombinant proteins. All lots are greater than 97% pure.
Notes	Research Use Only. Not for use in diagnostic or therapeutic procedures.
Storage	Store at -20 centigrade in lyophilized state. It is recommended that the reconstituted protein should be aliquot under sterile conditions and store at -20 centigrade or -8 centigrade centigrade. Avoid repeated freeze-thaw cycles.
Storage Buffer	Bulk protein in a 0.22 m filtered solution of PBS, pH 7.4 and delivered as lyophilized powder. Normally 2-7% mannitol and trehalose before lyophilization are added as protectants.

GENE INFORMATION

Gene Name	VEGFA vascular endothelial growth factor A [Homo sapiens]
Official Symbol	VEGFA
Synonyms	VEGFA; vascular endothelial growth factor A; vascular endothelial growth factor, VEGF; VEGF A; VPF; vascular permeability factor; VEGF; MVCD1; MGC70609;
Gene ID	7422

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mRNA Refseq	NM_001025366
Protein Refseq	NP_001020537
MIM	192240
UniProt ID	P15692

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