Recombinant Human VEGFA protein

Cat. No. VEGFA-309H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human VEGFA(Met1-Asp147,with last 6 amino acids switch from CDKPRR to SLTRKD) was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	1-147 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.
Predicted N Terminal	Ala 27
Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant human VEGF consists of 121 amino acids and has a predicted molecular mass of 14 kDa. The apparent molecular mass of the human VEGF121b is approximately 20 and 16 kDa in SDS-PAGE under reducing conditions due to glycosylation.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method
Purity	(28+70.8) % as determined by SDS-PAGE
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

Gene Name	VEGFA vascular endothelial growth factor A [Homo sapiens]

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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
mRNA Refseq	NM_001025366
Protein Refseq	NP_001020537
UniProt ID	P15692

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