

Active GMP Recombinant Mouse Vegfa 121 Protein, His-Tagged

Cat. No. Vegfa-01M **Lot. No.** (See product label)

SPECIFICATION

Product Overview

GMP Recombinant Mouse Vegfa 121 Protein, His-Tagged was expressed in Escherichia coli cell-derived in an animal component free process under cGMP guidelines.

Species

Mouse

Source

E.coli

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. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. 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 AUG start codon is regulated by a small upstream open reading frame, which is located within an internal ribosome entry site.

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Form	Lyophilized
Bio-activity	Measure by its ability to induce proliferation in HUVEC cells. The ED50 for this effect is <3 ng/mL.
AA Sequence	MAPTTEGEQKSHEVIKFMDEVYQRSYCRPIETLVDIFQEYPDEIEYIFKPSCVPLMRCA GCCNDEALECVPTSESNITMQIMRIKPHQSQHIGEMSFLQHSRCECRPKKDRTKPE KCDKPRR with polyhistidine tag at the C-terminus
Endotoxin	<0.1 EU per 1 µg of the protein by the LAL method.
Purity	>95% as determined by SDS-PAGE analysis. Purified by Ni-NTA chromatography.
Notes	Please use within one month after protein reconstitution.
Storage	Lyophilized protein should be stored at -20°C. Upon reconstitution, protein aliquots should be stored at -20°C or -80°C.
Storage Buffer	The protein was lyophilized from a solution containing 1X PBS, pH 8.0.
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile H2O to a concentration not less than 100 µg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.

GENE INFORMATION

Gene Name	Vegfa vascular endothelial growth factor A [Mus musculus (house mouse)]
Official Symbol	Vegfa
Synonyms	VPF; VEGF; MVCD1

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Gene ID	22339
mRNA Refseq	NM_001025250.3
Protein Refseq	NP_001020421.2
UniProt ID	Q00731
	