

Active Recombinant Mouse Vegfa Protein

Cat. No. Vegfa-6917M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of Mouse vascular endothelial growth factor A (Vegfa), transcript variant 2 without tag was expressed in E. coli.
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Species	Mouse
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Source	E.coli
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ProteinLength	Ala27-Arg146
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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. [provided by RefSeq, Nov 2015]
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 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Bio-activity	The ED50 is 1-4 ng/mL, corresponding to a specific activity of $1-0.25 \times 10^6$ units/mg, determined by the dose dependent stimulation of HUVEC cells proliferation.
Molecular Mass	14.1 kDa
Endotoxin	Less than 0.1 EU/μg (<0.01 ng/μg) protein as determined by the LAL method
Purity	> 98%, as determined by Coomassie stained SDS-PAGE.
Stability	Unopened vial can be stored between 2 and 8 centigrade for up to 2 weeks, at -20 centigrade for up to 6 months, or at -70 centigrade or below until the expiration date. Aliquots can be stored between 2 and 8 centigrade for up to one week and stored at -20 centigrade or colder for up to 3 months. Avoid repeated freeze/thaw cycles.
Storage	Store at -80 centigrade.
Concentration	Protein formulated and vialled at >50 μg/mL in specified buffer
Storage Buffer	5mM Citric Acid, 5mM NaH ₂ PO ₄ , 150 mM NaCl, pH 4.0

GENE INFORMATION

Gene Name	Vegfa vascular endothelial growth factor A [Mus musculus (house mouse)]
Official Symbol	Vegfa
Synonyms	VEGFA; vascular endothelial growth factor A; vascular permeability factor; Vpf; Vegf; Vegf120; Vegf164; Vegf188
Gene ID	22339

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mRNA Refseq	NM_009505
Protein Refseq	NP_033531
UniProt ID	Q00731

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