Active Recombinant Mouse Vegfa Protein

Cat. No. Vegfa-7364M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Vascular Endothelial Growth Factor164 without tag was expressed in E. coli.
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.
Form	Lyophilized

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Bio-activity	The ED50 for stimulation of cell proliferation by human umbilical vein endothelial cells for VEGF164 has been determined to be in the range of 1-5 ng/mL.
Molecular Mass	38.4 kDa
AA Sequence	APTTEGEQKSHEVIKFMDVYQRSYCRPIETLVDIFQEYPDEIEYIFKPSCVPLMRCAG CCNDEALECVPTSESNITMQIMRIKPHQSQHIGEMSFLQHSRCECRPKKDRTKPEN HCEPCSERRKHLFQDPQTCKCSCKNTDSRCKARQLELNERTCRCDKPRR
Endotoxin	< 0.1 ng/μg of VEGF164
Purity	> 95 % by SDS-PAGE and Silver staining
Stability	Shelf life: one year from despatch.
Storage	Store (following reconstitution in aliquots) at -20 centigrade or below. Avoid repeated freezing and thawing.
Storage Buffer	50 mM Acetic Acid
Reconstitution	The lyophilized VEGF164 is soluble in water and most aqueous buffers. The lyophilized VEGF164 should be reconstituted in PBS or medium containing at least 0.1 % human or bovine serum albumin to a concentration not lower than 50 μg/mL.

GENE INFORMATION

Gene Name	Vegfa vascular endothelial growth factor A [Mus musculus (house mouse)]
Official Symbol	Vegfa
Synonyms	Vegfa; vascular endothelial growth factor A; V; Veg; Vpf; Vegf; VEGF12; VEGF16;

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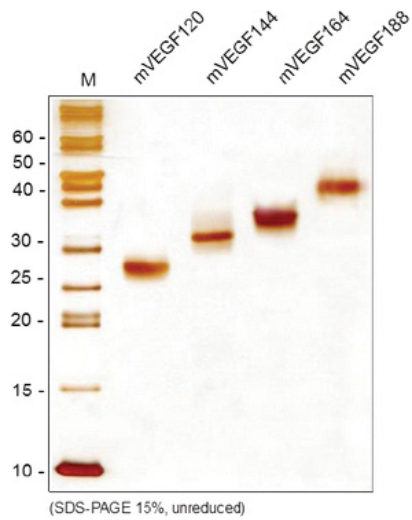
	VEGF18; vascular endothelial growth factor A; vascular permeability factor
Gene ID	22339
mRNA Refseq	NM_001025250
Protein Refseq	NP_001020421
UniProt ID	Q00731
SDS-PAGE	 (SDS-PAGE 15%, unreduced)

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