Active Recombinant Mouse VEGF165 Protein (165 aa)

Cat. No. Vegfa-014V **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse VEGF165 Protein without tag was expressed in E. coli.
Species	Mouse
Source	E.coli
ProteinLength	165
Description	VEGF was initially purified from media conditioned by normal bovine pituitary folliculo-stellate cells and by a variety of transformed cell lines as a mitogen specific for vascular endothelial cells. It was subsequently found to be identical to an independently discovered vascular permeability factor (VPF), which was previously identified in media conditioned by tumor cell lines based on its ability to increase the permeability of capillary blood vessels. Three mouse cDNA clones, which arise through alternative splicing and which encode mature mouse monomeric VEGF having 120, 164, or 188, amino acids, respectively, have been identified. Two receptor tyrosine kinases (RTKs), Flt-1 and Flk-1 (the mouse homologue of human KDR), both members of the type III subclass of RTKs containing seven immunoglobulin-like repeats in their extracellular domains, have been shown to bind VEGF with high affinity. The roles of the homodimers of KDR, Flt, and the heterodimer ofKDR/Flt in VEGF signal transduction remain to be elucidated.In vivo, VEGF has been found to be a potent angiogenesis inducer.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.

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Bio-activity	Measured by its ability to stimulate 3H-thymidine incorporation in HUVE cells. The ED50 for this effect is typically 2 - 4 ng/mL, corresponding to a Specific Activity of 2.5 × 10^5 IU/mg.
Molecular Mass	Recombinant murine VEGF165 is a 39.0 kDa disulfide-linked homodimeric protein consisting of two 165 amino acid polypeptide chains.
AA Sequence	MAPTTEGEQKSHEVIKFMDVYQRSYCRPIETLVDIFQEYPDEIEYIFKPSCVPLMRCA GCCNDEALECVPTSESNITMQIMRIKPHQSQHIGEMSFLQHSRCECRPKKDRTKPE KHCEPCSERRKHLFVQDPQTCKCSCKNTDSRCKARQLELNERTCRCDKPRR
Endotoxin	Less than 1 EU/mg of rmVEGF165 as determined by LAL method
Purity	>95% by SDS-PAGE and HPLC analyses
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 to -70 centigrade. Avoid repeated freeze/thaw cycles.
Storage Buffer	Lyophilized from a 0.2mm filtered solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at < -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

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Gene Name	Vegfa vascular endothelial growth factor A [Mus musculus]
Official Symbol	Vegfa
Synonyms	VEGFA; vascular endothelial growth factor A; vascular permeability factor; Vpf; Vegf; Vegf120; Vegf164; Vegf188;
Gene ID	22339
mRNA Refseq	NM_001025250
Protein Refseq	NP_001020421
UniProt ID	Q00731

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