Recombinant Murine Vascular Endothelial Growth Factor 120

Cat. No. Vegfa-16M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant murine $VEGF_{120}$produced in*E. coli*is a 28.4 kDa disulfide-linked homodimeric protein consisting of two 121 amino acid polypeptide chains.
Species	Mouse
Source	E.coli
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.
Purity	>96% by SDS-PAGE and HPLC analyses.

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Formulation	Lyophilized from a 0.2mm filtered solution in PBS, pH 7.4.
Endotoxin	Less than 1EU/mg of rmVEGF$_{120}$as determined by LAL method.
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°C. Further dilutions should be made in appropriate buffered solutions.
Storagee	This lyophilized preparation is stable for several weeks at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

GENE INFORMATION

Gene Name	Vegfa
Synonyms	Vpf; Vegf; Vegf-a; Vegfa; Vegf120; Vegf164; Vegf188; vascular endothelial growth factor; vascular endothelial growth factor A; MGC70609; Vascular endothelial growth factor A precursor; Vascular permeability factor
Gene ID	22339
mRNA Refseq	NM_001025250
Protein Refseq	NP_001020421
UniProt ID	A0FKR4; Q00731

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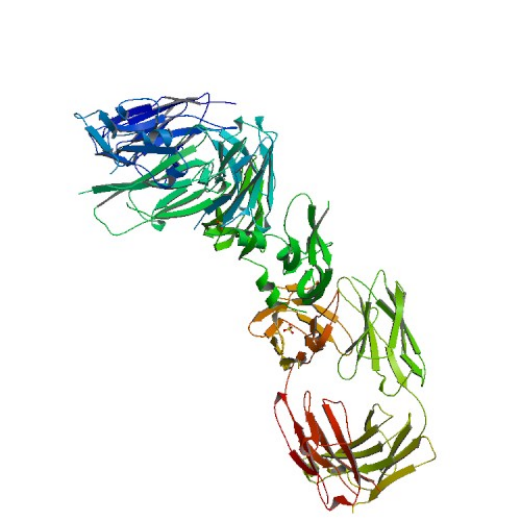
Chromosome Location	17 C; 17 24.2 cM
Pathway	Cytokine-cytokine receptor interaction; Focal adhesion; Pancreatic cancer; Renal cell carcinoma; VEGF signaling pathway; mTOR signaling pathway.
Function	Growth factor activity;heparin binding;protein binding.
PDBrendering based on 1bj1.	

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