Vegfa
Recombinant Mouse Vascular Endothelial Growth Factor 164

Catalog No.	CRV014A	**Quantity:**	2 µg
	CRV014B		10 µg
	CRV014C		1.0 mg

Alternate Names: GD-VEGF, VAS, Vasculotropin, VEGF-A, VPF

Gene ID: 22339

Description: Recombinant Mouse VEGF164 consists of two 165 amino acid polypeptide chains, two 164 aa sequences plus an N-terminal Met.

Background: Vascular Endothelial Growth Factor (VEGF) was initially purified from media conditioned by normal bovine pituitary folliculostellate 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.

Source: *E. coli*

Molecular Weight: ~38.8 kDa disulfide-linked homodimeric protein

Formulation: Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4

Purity: >95.0% by HPLC and SDS-PAGE

Endotoxin Level: <1 EU/µg of recombinant mouse VEGF164 as determined by LAL method.

Biological Activity: Fully biologically active when compared to standard. The ED_{50} determined by a cell proliferation assay using human umbilical vein endothelial cells(HUVEC) is less than 5 ng/ml.

Specific Activity: $> 2.5 \times 10^5$ IU/mg

Amino Acid Sequence: MAPTTEGEQK SHEVIKFMDV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNITMQI MRIKPHQSQH IGEMSFLQHS RCECRPKKDR TKPEKHCEPC SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC DKPRR

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/ml. Further dilutions should be made in appropriate buffered solutions.

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Storage & Stability: This lyophilized preparation is stable at 2-8°C. Upon receipt, store desiccated at -20°C. After 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 -80°C. For long term storage of reconstituted protein, it is recommended that a carrier protein such as 0.1% BSA or HSA be added. This depends on the particular application. **Avoid repeated freeze/thaw cycles.**

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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