**Vascular Endothelial Growth Factor 165**

Human, Recombinant (rHuVEGF\textsubscript{165})

Expressed in *E. coli*

Cat. No. CRP08101

Lot. No. (See product label)

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**PRODUCT INFORMATION**

**Description:** VEGF is a potent growth and angiogenic cytokine. It stimulates proliferation and survival of endothelial cells, and promotes angiogenesis and vascular permeability. Expressed in vascularized tissues, VEGF plays a prominent role in normal and pathological angiogenesis. Substantial evidence implicates VEGF in the induction of tumor metastasis and intra-ocular neovascular syndromes. VEGF signals through the three receptors; fms-like tyrosine kinase (flt-1), KDR gene product (the murine homolog of KDR is the flk-1 gene product) and the flt4 gene product.

**Amino-Acid Sequence:** Recombinant human VEGF\textsubscript{165} is a disulfide-linked homodimeric protein consisting of two 165 amino acid polypeptide chains.

**M. W.:** 38.2 kDa

**Recombinant:** Expressed in *E. coli*

**Purity:** >95% by SDS-PAGE and HPLC analyses

**Formulation:** Sterile Filtered White lyophilized (freeze-dried) powder, Lyophilized from a 0.2mm filtered concentrated solution in PBS, pH 7.4.

**Specific Activity:** Fully biologically active when compared to standard. Determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 1.0-8.0 ng/ml.

**Endotoxin:** Less than 1EU/mg of rHuVEGF\textsubscript{165} 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 <\(-20^\circ\)C. Further dilutions should be made in appropriate buffered solutions.

**Storage:** This lyophilized preparation is stable at 2-8\(^\circ\)C, but should be kept at <\(-20^\circ\)C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8\(^\circ\)C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at <\(-20^\circ\)C to <\(-70^\circ\)C. Avoid repeated freeze/thaw cycles.

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**GENE INFORMATION**

**Gene Name:** VEGFA

**Synonym:** VPF; VEGF; VEGF-A; VEGFA; MGC70609; VEGFA_HUMAN; Vascular permeability factor; vascular endothelial growth factor A; MGC70609; Vascular endothelial growth factor A precursor; Vascular permeability factor

**mRNA Refseq:** NM_001025366

**Protein Refseq:** NP_001020537

**MIM:** 192240

**GeneID:** 7422

**Chromosome Location:** 6p12

**Pathway:** Cytokine-cytokine receptor interaction; Focal adhesion; Pancreatic cancer; Renal cell carcinoma; VEGF signaling pathway; mTOR signaling pathway; Hemostasis; Signaling by VEGF.

**Function:** cell surface binding; extracellular matrix binding; growth factor activity; growth factor activity; heparin binding; platelet-derived growth factor receptor binding; protein binding; protein homodimerization activity; vascular endothelial growth factor receptor binding.

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**REFERENCES**

