

Active Recombinant Human VEGFA

Cat. No. VEGFA-8699H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human Vascular Endothelial Growth Factor A165 (rhVEGF-A165) produced in <i>Pichia pastoris</i> is a disulfide-linked homodimer containing two polypeptide chains of 165 amino acids each.
Species	Human
Source	<i>P.pastoris</i>
Description	Vascular Endothelial Growth Factor (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, Vascular Endothelial Growth Factor (VEGF) plays a prominent role in normal and pathological angiogenesis. Substantial evidence implicates Vascular Endothelial Growth Factor (VEGF) in the induction of tumor metastasis and intra-ocular neovascular syndromes. Vascular Endothelial Growth Factor (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.
Form	Lyophilized after extensive dialysis against 25 mM HEPES and 150 mM NaCl, pH 7.0.
Bio-activity	ED50 of 1-5ng/ml, measured by the dose-dependent stimulation of the proliferation of HUVEC cells, corresponding to a specific activity of 2x 10 ⁵ -1x 10 ⁶ units/mg.
Molecular Mass	38.2kDa, observed by non-reducing SDS-PAGE

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AA Sequence	Ala27-Arg191.
Endotoxin	<0.5 eu/μg,="" determined="" by="" la="">
Purity	>95% as analyzed by reducing SDS-PAGE.
Storage	Lyophilized recombinant protein remains stable up to 12 months at -80°C from date of receipt. Upon reconstitution, rhVEGF-A165 should be stable up to 4 week at 4°C or up to 6 months at -20°C.
Reconstitution	Reconstituted in ddH ₂ O at 100 μg/ml.

GENE INFORMATION

Gene Name	VEGFA vascular endothelial growth factor A [Homo sapiens]
Official Symbol	VEGFA
Synonyms	VEGFA; vascular endothelial growth factor A; vascular endothelial growth factor , VEGF; VEGF A; VPF; vascular permeability factor; VEGF; MVCD1; MGC70609;
Gene ID	7422
mRNA Refseq	NM_001025366
Protein Refseq	NP_001020537
UniProt ID	P15692
Chromosome Location	6p12

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Pathway

Bladder cancer, organism-specific biosystem; Bladder cancer, conserved biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Endochondral Ossification, organism-specific biosystem; Focal adhesion, organism-specific biosystem; Focal adhesion, conserved biosystem;

Function

cell surface binding; chemoattractant activity; cytokine activity; cytokine activity; extracellular matrix binding; fibronectin binding; growth factor activity; growth factor activity; heparin binding; heparin binding; platelet-derived growth factor receptor binding; protein binding; protein heterodimerization activity; protein homodimerization activity; receptor agonist activity; vascular endothelial growth factor receptor 1 binding; vascular endothelial growth factor receptor 2 binding; vascular endothelial growth factor receptor binding;

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