Recombinant Human Vascular Endothelial Growth Factor 165

Cat. No. VEGFA-365H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Vascular Endothelial Growth Factor (rh-VEGF165) produced in Yeast (Pichia pastoris) is purified via sequential chromatography, 42kDa (165 aa).
Species	Human
Source	P.pastoris
Description	VEGFs are a group of polypeptide growth factors, and they are classified as a member of the platelet-derived growth factor family. They are very potent vascular permeability factors and specific mitogens for vascular endothelial cells, and possess strong angiogenesis in vivo. Among them, VEGF165 is the best potent chemoattractant molecule for monocytes and endothelial cells. It is apparently a homodimer according to reduced and non-reduced SDS-PAGE gels, but preparations of VEGF165 show some heterogeneity, depending on the constitution of different glycosylation patterns. All forms possess similar biological activities.
Specific Activity	1.0 × 105 U/mg.
Purification	Affinity chromatography using Heparin-Sepharose FF as matrix.
Sterility	Filtered through a 0.22μm sterile filter.
Purity	> 90 %, by SDS-PAGE and visualized by silver stain.
Endotoxin Level	<1.0EU /mg of rh-VEGF165.

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Buffer	20mM PB, pH7.4.
Biological Activity	ED50=1~6 ng/ml, determined by the dose dependent proliferation of human umbilical vein cells. Optimal concentration for individual application should be determined by a dose response assay.
Stability	Liquid rh-VEGF165, although stable at room temperature for no less than 2 weeks, should be stored it below -18℃. For long term storage it is recommended to add a stabilizer PEG4000 (0.1%). Please avoid freeze-thaw cycles.

GENE INFORMATION

Gene Name	VEGFA vascular endothelial growth factor A [Homo sapiens]
Synonyms	VEGFA; vascular endothelial growth factor A; VPF; VEGF; MVCD1; VEGF-A; MGC70609; vascular permeability factor; vascular endothelial growth factor isoform; VEGF165; vascular endothelial growth factor
Gene ID	7422
mRNA Refseq	NM_001025366
Protein Refseq	NP_001020537
MIM	192240
UniProt ID	P15692
Pathway	Bladder cancer; mTOR signaling pathway; Cytokine-cytokine receptor interaction; Focal adhesion; Pancreatic cancer; Pathways in cancer; Renal cell carcinoma; VEGF signaling pathway; Hemostasis; Signaling by VEGF

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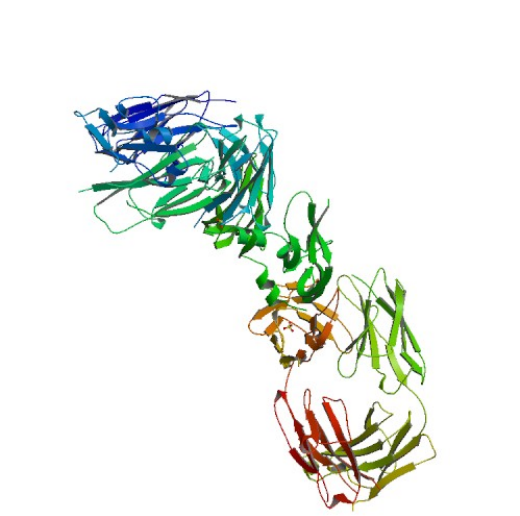
Function	cell surface binding; cytokine activity; extracellular matrix binding; fibronectin binding; growth factor activity; heparin binding; platelet-derived growth factor receptor; binding; protein homodimerization activity; vascular endothelial growth factor receptor 1 binding; vascular endothelial growth factor receptor 2 binding
PDB rendering based on 1bj1.	

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