

## Recombinant Human VEGF-B

<b>CATALOG #:</b>	4642-20	20 µg
	4642-100	100 µg
	4642-1000	1 mg
<b>LOT #:</b>	_____	
<b>SOURCE:</b>	<i>E. coli</i>	
<b>PURITY:</b>	>98% by SDS-PAGE analyses Endotoxin level is <0.1 ng per µg of VEGF-B	
<b>MOL. WEIGHT:</b>	19.63 kDa	
<b>FORM:</b>	Lyophilized without additives	

### RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in 0.1% acetic acid to a concentration of 0.1-1.0 mg/ml. The solution should be stored at -70°C.

### STORAGE CONDITIONS:

The lyophilized VEGF-C is best-stored at -20°C. Reconstituted VEGF-C should be stored in working aliquots at -70°C.

### DESCRIPTION:

VEGF-B, a member of the VEGF family, is a potent growth and angiogenic cytokine. It promotes DNA synthesis in endothelial cells, regulates angiogenesis and vascular permeability, and inhibits apoptosis in certain smooth muscle cells and neurons. VEGF-B is expressed in all tissues except the liver. It forms cell surfaced-associated disulfide linked homodimers and can form heterodimers with VEGF-A. There are two known isoforms, formed by alternative splicing, which have been designated VEGF-B167 and VEGF-B186. Both forms have identical amino-terminal sequences encoding a "cysteine knot" like structural motif, but differ in their carboxyl-terminal domains. Both VEGF-B isoforms signal only through the VEGFR1 receptor. Recombinant human VEGF-B is a 38.0 kDa disulfide-linked homodimeric protein consisting of two 167 amino acid polypeptide chains.

### BIOLOGICAL ACTIVITY:

Per researcher's feedback, the protein is biologically active as determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) in the presence of human VEGF<sub>165</sub>. The expected ED<sub>50</sub> for this effect is 0.5-5.0 µg/ml.

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