Recombinant Human VEGF165 Protein

Size / Cat.No.: 50μg / GMP-TL612-0050
100μg / GMP-TL612-0100

Product Name	
Generic Name	Recombinant Human VEGF165 Protein
Synonym	MVCD1, VEGF, VEGF16, VPF

Product Information	
Protein sequence	A DNA sequence encoding the human VEGF165 (NP_001165097.1) was expressed with a polyhistidine tag at the C-terminus.
Expression Host	HEK293 Cells
QC Testing Purity	> 90 % as determined by SDS-PAGE.
Activity	Determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC). The expected ED_{50} for this effect is ≤20 ng/mL.
Endotoxin	< 0.1EU per μg of the protein as determined by the LAL method.
Molecular Mass	The Recombinant Human VEGF165 consists of 193 amino acids and predicts a molecular mass of 22.3 kDa.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 6% mannitol are added as protectants before lyophilization.
Stability & Storage	24 months at 2℃ to 8℃ in lyophilized state. 6 months at -20℃ under sterile conditions after reconstitution. 12 months at -80℃ under sterile conditions after reconstitution. Recommend to aliquot the protein into smaller quantities after reconstituting with water for injection, normal saline or PBS, and keep the diluted concentration above 100μg/mL. Avoid repeated freeze-thaw cycles.

Background

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.

References

1. Woolard J. et al. (2004) VEGF165b, an inhibitory vascular endothelial growth factor splice variant: mechanism of action, in vivo effect on angiogenesis and endogenous protein expression. Cancer Res. 64(21): 7822-7835.

2. Jia SF, et al. (2008) VEGF165 is necessary to the metastatic potential of Fas(-) osteosarcoma cells but will not rescue the Fas(+) cells. J Exp Ther Oncol. 7(2): 89-97.

3. Cimpean AM, et al. (2008) Vascular endothelial growth factor A (VEGF A) as individual prognostic factor in invasive breast carcinoma. Rom J Morphol Embryol. 49(3): 303-8.