

## 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<sub>50</sub> 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°C to 8°C in lyophilized state.  
 6 months at -20°C under sterile conditions after reconstitution.  
 12 months at -80°C 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.

## Product Use

For research and manufacturing use