

# Recombinant Human Vascular Endothelial Growth Inhibitor

Human, Recombinant (TNFSF15)

Expressed in *E. coli*

Cat. No. CRP0807

Lot. No. (See product label)

## PRODUCT INFORMATION

**Description:** Vascular endothelial growth inhibitor (VEGI; TNFSF-15) is a new member of the tumor necrosis factor family. VEGI is predominantly an endothelial cell-specific gene, and recombinant VEGI is a potent inhibitor of endothelial cell proliferation, angiogenesis and tumor growth. VEGI exerts two activities on endothelial cells: early G1 arrest of G0/G1-cells responding to growth stimuli, and programmed death of proliferating cells. These activities are highly specific to endothelial cells. VEGI is also able to regulate the expression of several important genes involved in angiogenesis. These findings are consistent with the view that VEGI functions as an autocrine cytokine to inhibit angiogenesis and stabilize the vasculature.

**Amino-Acid Sequence:** 192 aa(The sequence of the first five N-terminal amino acids was determined and was found to be Met-Gln-Leu-Thr-Lys.), non-glycosylated

**M. W. :** 21,858Da

**Recombinant:** Expressed in *E. coli*

**Purity:** >95% as determined by SDS-PAGE and RP-HPLC.

**Formulation:** Lyophilized after extensive dialysis against 0.5M NaCl, 50mM Tris-HCl buffer, pH 7.5.

**Specific Activity:** The ED50 as determined by the dose-dependant inhibition of the proliferation of HUVEC (Human Umbilical Vein Endothelial Cells) is less than 5µg/ml.

**Endotoxin:** Less than 0.1 ng/µg (1 IEU/µg) of rHuVEGI

**Reconstitution:** It is recommended to reconstitute the lyophilized VEGI-192 in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

**Storage:** Lyophilized VEGI-192 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution VEGI-192 should be stored at 4°C between 2-7 days and for future use below -18°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Aliquot to avoid repeated freeze-thaw cycles.

## GENE INFORMATION

**Gene Name:** [TNFSF15](#)

**Synonyms:** MGC129934; MGC129935; TL1; TL1A; VEGI; VEGI192A; Tumor necrosis factor ligand superfamily member 15; Vascular endothelial cell growth inhibitor; TNF ligand-related molecule 1; TNF15; TNFSF15; TL-1; VEGI-192; tumor necrosis factor (ligand) superfamily, member 15

**mRNA Refseq:** [NM\\_005118.2](#)

**Protein Refseq:** [NP\\_005109.2](#)

**MIM:** [604052](#)

**GenID:** [9966](#)

**UniProt ID:** O95150

**Chromosome Location:** 9q32

**Pathway:** Cytokine-cytokine receptor interaction

**Function:** cytokine activity, tumor necrosis factor receptor binding

## REFERENCES

- 1.Hou W, et al. VEGI-192, a new isoform of TNFSF15, specifically eliminates tumor vascular endothelial cells and suppresses tumor growth. *Clinical cancer research*. 2005,11 (15):5595-5602
- 2.Chew LJ, et al. A novel secreted splice variant of vascular endothelial cell growth inhibitor. *J.FASEB*. 2002, 16:742-744
- 3.Tian F, et al. The Endothelial Cell-Produced Antiangiogenic Cytokine Vascular Endothelial Growth Inhibitor Induces Dendritic Cell Maturation. *J. Immunology*. 2007, 179: 3742-3751

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