

## Recombinant Human Vascular Endothelial Growth Factor Inhibitor (rh VEGI / TNFSF15)

**Synonyms:** Tumor necrosis factor ligand superfamily member 15, TNF ligand-related molecule 1

**Introduction:** VEGI is a cytokine that belongs to the tumor necrosis factor (TNF) ligand family. This protein is abundantly expressed in endothelial cells, but is not expressed in either B or T cells. The expression of TNFSF15 is inducible by TNF and IL-1 alpha. This cytokine is a ligand for receptor TNFRSF25 and decoy receptor TNFRSF21/DR6. It can activate NF-kappaB and MAP kinases, and acts as an autocrine factor to induce apoptosis in endothelial cells. TNFSF15 is also found to inhibit endothelial cell proliferation, and thus may function as an angiogenesis inhibitor. An additional isoform encoded by an alternatively spliced transcript variant has been reported but the sequence of this transcript has not been determined.

**Description:** Recombinant human soluble VEGI in E.Coli is a double, non-glycosylated, polypeptide chain containing 192 amino acids and having a molecular mass of 21.8 kDa. The TNFSF15 is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized from a concentrated solution containing 0.5M NaCl and 50mM Tris-HCL, pH 7.5. The aliquots of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rh VEGI in sterile water or aqueous buffers not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rh VEGI although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh VEGI 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). Please prevent freeze-thaw cycles.

**Purity:** greater than 95.0% as determined by RP-HPLC and by SDS-PAGE.

### Amino Acid Sequence:

MQLTKGRLHFSHPLSHTKHISPFVTDAPLRADGDKPRAHL  
TVVRQTPTQHFKNQFPALHWEHELGLAFTKNRMNYTNKF  
LLIPESGDYFIYSQVTFRGMTSECSEIRQAGRPNKPDST  
VVITKVTDSYPEPTQLLMGTKSVCEVGSNWFQPIYLGAM  
FSLQEGDKLMNVSDISLVDYTKEDKTFFGAFL.

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

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<i>small</i>	2 µg	Cat.N°	11344742
<i>medium</i>	10 µg	Cat.N°	11344743

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