



Vascular Endothelial Growth Inhibitor, human recombinant (rHuVEGFI)

Catalog No: 95049
Lot No: XXXXX
Source: *E. coli*
Synonyms: Tumor necrosis factor ligand superfamily member 15, TNFSF-15, TNFSF15, TNF ligand-related molecule 1, VEGI, TL-1, TL1, TL1A, VEGI192A, VEGI-192, MGC129934, MGC129935

Background

TNFSF15 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

TNFSF15 human recombinant produced in *E. coli* is a double, non-glycosylated, polypeptide chain containing 192 amino acids and having a molecular mass of 21.8 kDa. TNFSF15 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

TNFSF15 was lyophilized from a concentrated (1 mg/ml) solution containing 0.5 M NaCl and 50 mM Tris-HCl pH 7.5.

Solubility

It is recommended to reconstitute the lyophilized TNFSF15 in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

TNFSF15, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution 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 (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

MQLTKGRLLHF SHPLSHTKHI SPFVTDAPLR ADGDKPRAHL TVVRQTPTQH FKNQFPALHW EHELGLAFTK NRMNYTNKFL
LIPESGDYFI YSQVTFRGM T SECSEIRQAG RPNKPDSITV VITKVTDSYP EPTQLLMGTK SVCEVGSNWF QPIYLGAMF S
LQEGDKLMVN VSDISLVDYT KEDKTFFGAF LL

Activity

The ED₅₀ as determined by the dose-dependant inhibition of the proliferation of HUVEC (Human Umbilical Vein Endothelial Cells) is less than 5000 ng/ml, corresponding to a specific activity of 200 units/mg.

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