



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human TNFSF15 Protein
Catalog Number: hRP-1042
Manufacturer: LD Biopharma, Inc.

Introduction

The protein encoded by human tumor necrosis factor ligand superfamily member 15 (TNFSF15) gene 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 protein 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. This cytokine is also found to inhibit endothelial cell proliferation, and thus may function as an angiogenesis inhibitor. Two transcript variants encoding different isoforms have been found for this gene.

Full-length extracellular domain of human TNFSF15 cDNA (57 - 251 aa, Isoform VEGI-251, derived from BC074941) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal and expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: TNFSF15 (VEGI192A; TL1; TL1A; VEGI)
Accession Number: NP_005109.2
Species: Human
Size: 50 µg / Vial
Composition: 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.



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Key References

Deng,W.,et al.,*Down-modulation of TNFSF15 in ovarian cancer by VEGF & MCP-1 is a pre-requisite for tumor neovascularization.* Angiogenesis 15 (1), 71-85 (2012)

Bamias,G., et al., *Upregulation and nuclear localization of TNF-like cytokine 1A (TL1A) and its receptors DR3 and DcR3 in psoriatic skin lesions.* Exp. Dermatol. 20 (9), 725-731 (2011)

Migone,T.S., et al., *TL1A is a TNF-like ligand for DR3 and TR6/DcR3 and functions as a T cell costimulator.* Immunity 16 (3), 479-492 (2002)

Applications

1. May be used for in vitro VEGI-251 mediated DR3 signaling study with this protein as soluble factor.
2. May be used for TNFSF15 protein-protein interaction assay development.
3. May be used as potential therapeutic target for regulating T cell function such as psoriatic skin lesions treatment.
4. As antigen for specific antibody production.

Quality Control

1. Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGFSQLRAQGEACVQFQALKGQEFAPSHQQVYAPLRAD
GDKPRAHLTVVRQTPTQHFKNQFPALHWEHELGLAFTKNRMNYTNKFLLIPESGDYFIYSQVTF
RGMTSECSEIRQAGRPNKPDSTITVVITKVTDSYPEPTQLLMGTKSVCEVGSNWFQPIYLGAMFS
LQEGDKLMVNVSDISLVDTKEDKTFFGAFLL