

PRODUCT INFORMATION



Soluble TNFSF15 (human, recombinant)

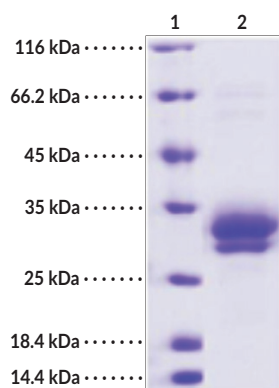
Item No. 40855

Overview and Properties

Synonyms: TL1, TL1A, sTL1A, TNF Ligand-related Molecule 1, Tumor Necrosis Factor Ligand Superfamily Member 15, Vascular Endothelial Cell Growth Inhibitor, VEGI, VEGI192A
Source: Recombinant human N-terminal His-tagged soluble TNFSF15 expressed in HEK293 cells
Amino Acids: 72-251
Uniprot No.: O95150
Molecular Weight: 22.8 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: ≥95% estimated by SDS-PAGE
Supplied in: Lyophilized from sterile PBS, pH 7.4
Endotoxin Testing: < 1.0 EU/μg, determined by the LAL endotoxin assay
Protein
Concentration: *batch specific* mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers

Lane 2: Soluble TNFSF15

SDS-PAGE Analysis of Soluble TNFSF15. This protein has a calculated molecular weight of 22.8 kDa.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Tumor necrosis factor ligand superfamily member 15 (TNFSF15), also known as TNF ligand-related molecule 1 (TL1A), is a type II transmembrane protein and cognate ligand for TNFRSF25, also known as death domain receptor 3 (DR3), with roles in T cell activation and dendritic cell maturation.^{1,2} It is composed of a cytoplasmic, a transmembrane, and an extracellular domain and forms membrane-bound non-covalent homotrimers. TNFSF15 exists primarily in its membrane-bound form, but can be cleaved by matrix metalloproteinases (MMPs) to release the soluble form (sTL1A).^{1,3} Both membrane-bound and soluble TNFSF15 bind to TNFRSF25 on the surface of T cells, inducing various signaling pathways resulting in NF- κ B activation or apoptosis.³ TNFSF15 also binds to TNF receptor 2 (TNFR2) and TNFR6B, also known as soluble decoy receptor 3 (DcR3), on the surface of T cells to induce pro-inflammatory cytokine production and the inhibition of apoptosis. Intestinal levels of TNFSF15 are increased in patients with inflammatory bowel disease (IBD).⁴ TNFSF15 SNPs are associated with an increased susceptibility to developing small cell lung cancer (SCLC).⁵ Cayman's Soluble TNFSF15 (human, recombinant) protein consists of 199 amino acids and has a calculated molecular weight of 22.8 kDa.

References

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2. Lu, H.-J., Chuang, C.-Y., Su, C.-W., et al. Role of TNFSF15 variants in oral cancer development and clinicopathologic characteristics. *J. Cell. Mol. Med.* **26**(21), 5452-5462 (2022).
3. Xu, W.-D., Li, R., and Huang, A.-F. Role of TL1A in inflammatory autoimmune diseases: A comprehensive review. *Front. Immunol.* **13**:891328, (2022).
4. Sun, R., Hedl, M., and Abraham, C. TNFSF15 promotes antimicrobial pathways in human macrophages and these are modulated by TNFSF15 disease-risk variants. *Cell. Mol. Gastroenterol. Hepatol.* **11**(1), 249-272 (2021).
5. Gao, H., Niu, Z., Zhang, Z., et al. TNFSF15 promoter polymorphisms increase the susceptibility to small cell lung cancer: A case-control study. *BMC Med. Genet.* **20**(1), 29 (2019).

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