

Rat TL1A / TNFSF15 Protein, His Tag (MALS verified)

Catalog # TLA-R5244



Synonyms

TL1A, VEGI, TNFSF15

Source

Rat TL1A Protein, His Tag (TLA-R5244) is expressed from human 293 cells (HEK293). It contains AA Val 76 - Ile 252 (Accession # [Q8K3Y7](#)).

Predicted N-terminus: His

Molecular Characterization

Poly-his

TL1A(Val 76 - Ile 252)
Q8K3Y7

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 21.2 kDa. The protein migrates as 28-32 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a trimer.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, pH8.0 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Shipping and Storage

This product is shipped at ambient temperature.

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

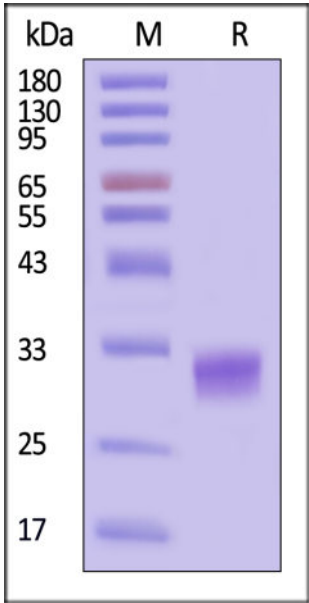
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

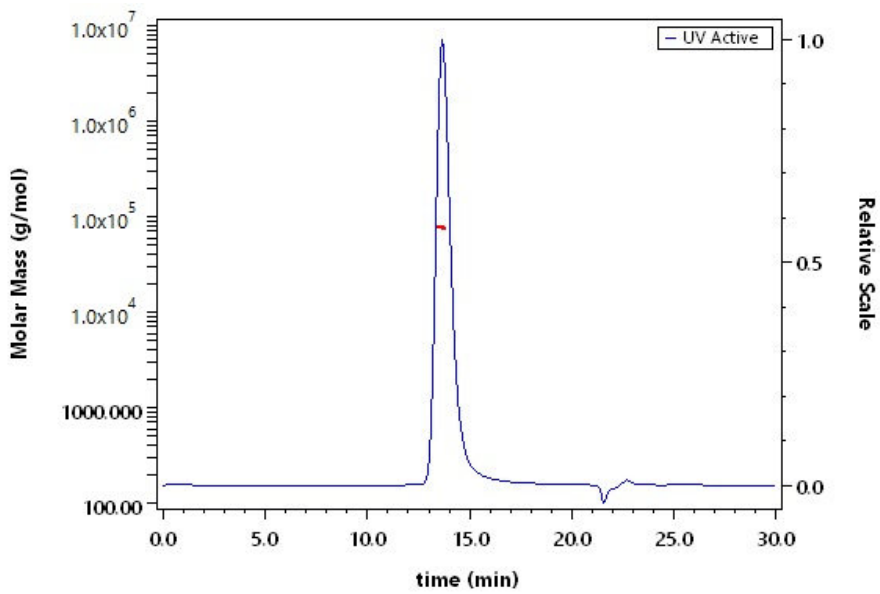
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



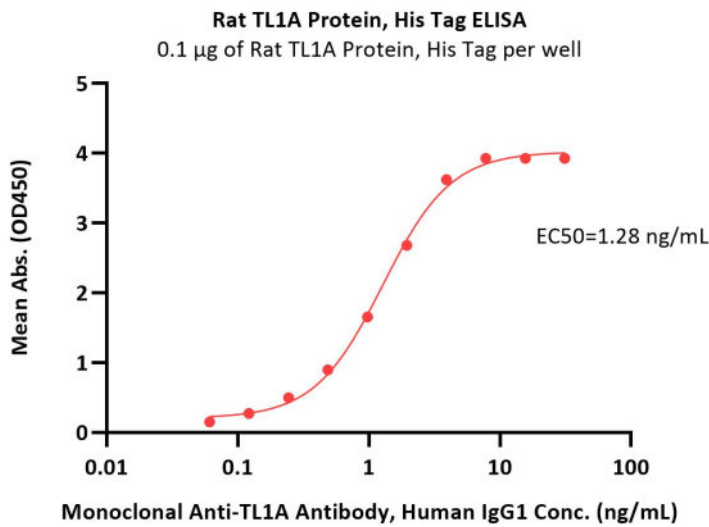
Rat TL1A Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS

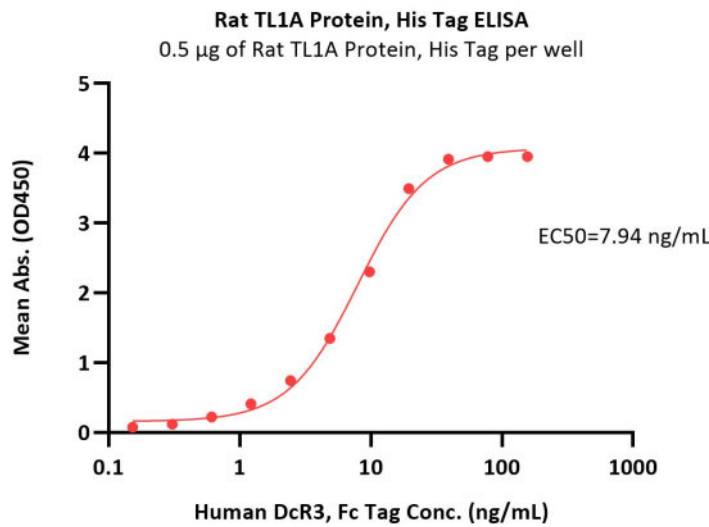


The purity of Rat TL1A Protein, His Tag (Cat. No. TLA-R5244) is more than 95% and the molecular weight of this protein is around 65-90 kDa verified by SEC-MALS.

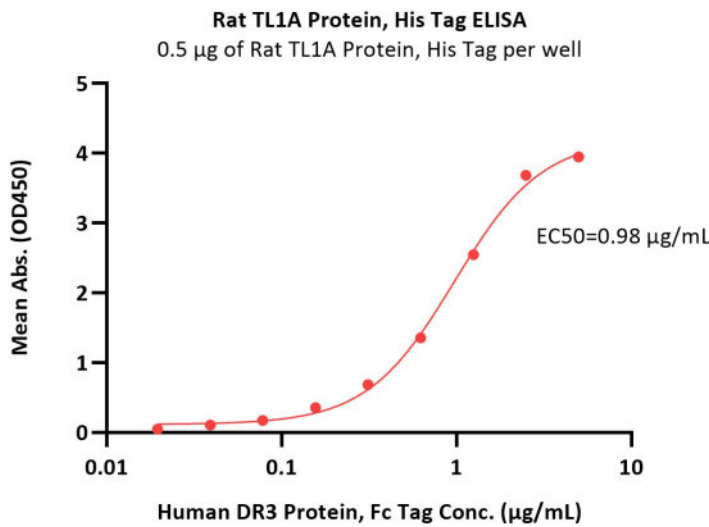
Bioactivity-ELISA



Immobilized Rat TL1A Protein, His Tag (Cat. No. TLA-R5244) at 1 µg/mL (100 µL/well) can bind Monoclonal Anti-TL1A Antibody, Human IgG1 with a linear range of 0.06-4 ng/mL (QC tested).



Immobilized Rat TL1A Protein, His Tag (Cat. No. TLA-R5244) at 5 µg/mL (100 µL/well) can bind Human DcR3, Fc Tag (Cat. No. TNB-H5255) with a linear range of 0.2-20 ng/mL (Routinely tested).



Immobilized Rat TL1A Protein, His Tag (Cat. No. TLA-R5244) at 5 µg/mL (100 µL/well) can bind Human DR3 Protein, Fc Tag (Cat. No. DR3-H5253) with a linear range of 0.02-2.5 µg/mL (Routinely tested).

Background

TL1A, or Tumor Necrosis Factor Superfamily Member 15 (TNFSF15), also known as TL1 or VEGI, is a type II transmembrane protein belonging to the TNF ligand superfamily. It functions as a key regulator of both innate and adaptive immune responses. While expressed primarily in glandular, squamous, and specialized epithelial cells, TL1A is also found in immune cells such as macrophages and dendritic cells. Its C-terminal extracellular domain contains a TNF homology domain (THD), forming a homotrimeric structure. The functional receptor for TL1A is Death Receptor 3 (DR3, TNFRSF25), a type I transmembrane protein. TL1A's

signaling pathway is modulated by decoy receptor 3 (DcR3), which competes with DR3 for ligand binding. Upon binding to DR3, TL1A can activate pro-inflammatory signaling cascades (NF-κB, MAPK, PI3K) or, alternatively, trigger TRADD dissociation and FADD-mediated apoptosis via caspase-8 and caspase-3 activation. This dual signaling capacity makes TL1A a target of interest for the treatment of inflammatory bowel disease (IBD), allergic diseases, and autoimmune conditions.



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