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

Catalog # TLA-H5244

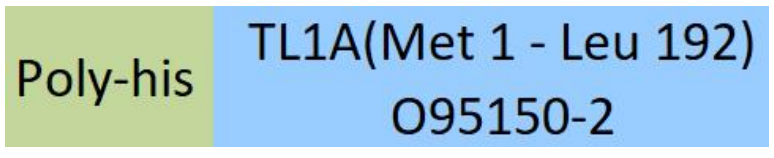
Synonym

TL1A, VEGI, TNFSF15

Source

Human TL1A Protein, His Tag (TLA-H5244) is expressed from human 293 cells (HEK293). It contains AA Met 1 - Leu 192 (Accession # O95150-2).
Predicted N-terminus: His

Molecular Characterization



Other Tags and Version Biotin & Other Labeled Version

This protein carries a polyhistidine tag at the N-terminus. The protein has a calculated MW of 23.7 kDa. The protein migrates as 30 kDa and 31-35 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 PBS, pH7.4 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.

Storage

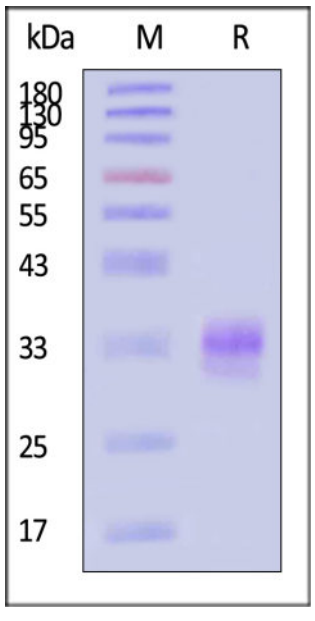
For long term storage, the product should be stored at lyophilized state at -20°C or lower.
Please avoid repeated freeze-thaw cycles.
This product is stable after storage at:

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

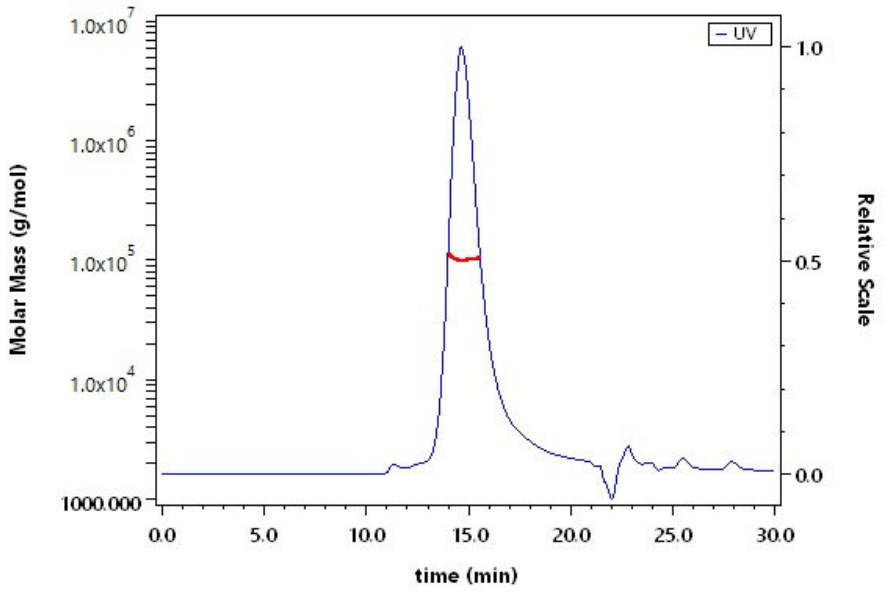
ACRO Quality Management System

- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



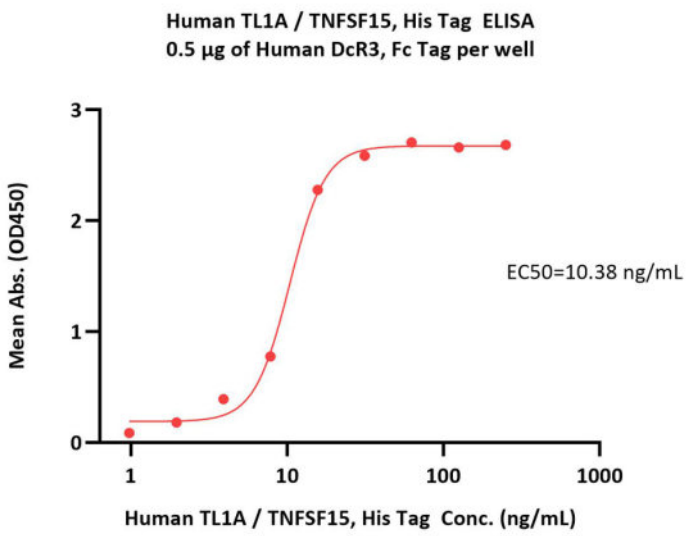
SEC-MALS



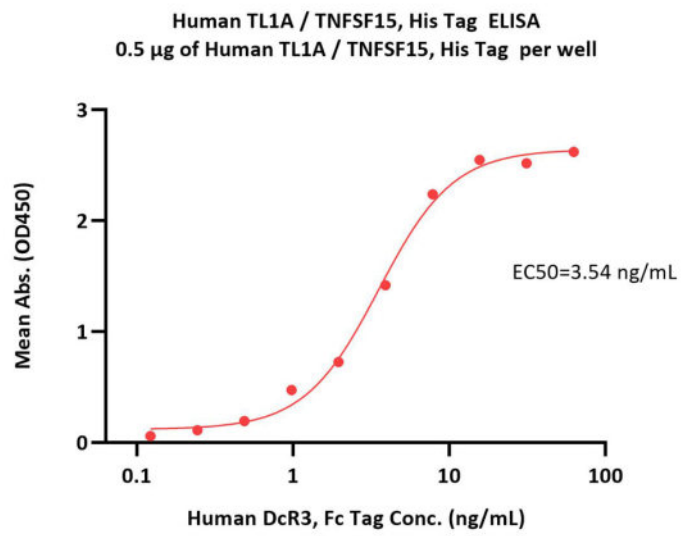
Human TL1A Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

The purity of Human TL1A Protein, His Tag (Cat. No. TLA-H5244) is more than 95% and the molecular weight of this protein is around 95-115 kDa verified by SEC-MALS.

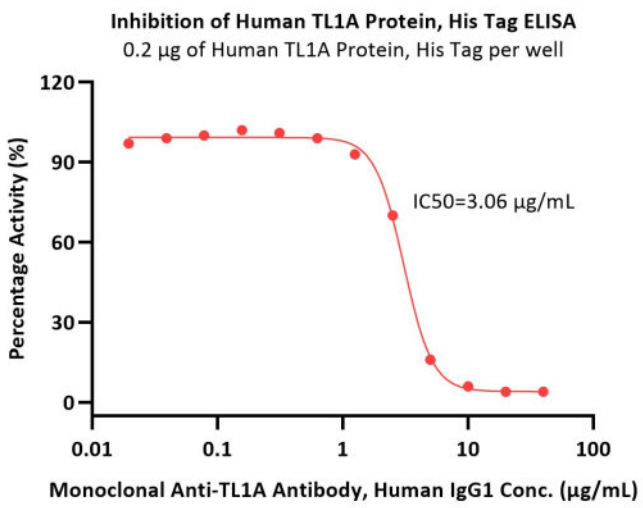
Bioactivity-ELISA



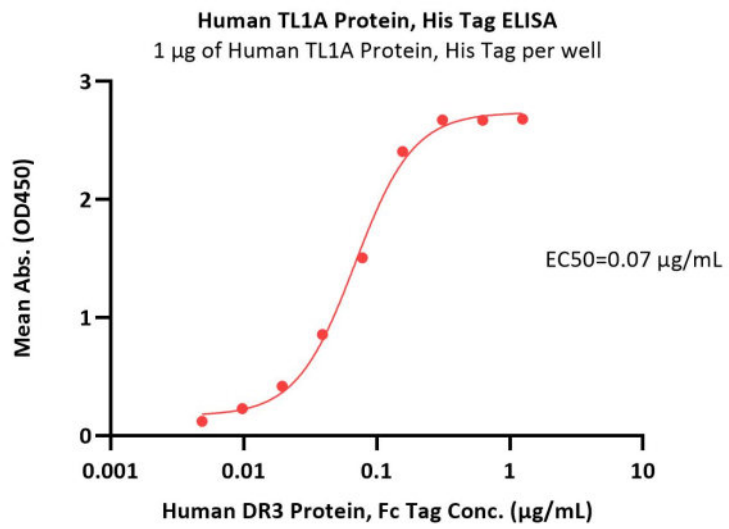
Immobilized Human DcR3, Fc Tag (Cat. No. TNB-H5255) at 5 μg/mL (100 μL/well) can bind Human TL1A, His Tag (Cat. No. TLA-H5244) with a linear range of 0.5-15 ng/mL (QC tested).



Immobilized Human TL1A, His Tag (Cat. No. TLA-H5244) at 5 μg/mL (100 μL/well) can bind Human DcR3, Fc Tag (Cat. No. TNB-H5255) with a linear range of 0.1-8 ng/mL (Routinely tested).

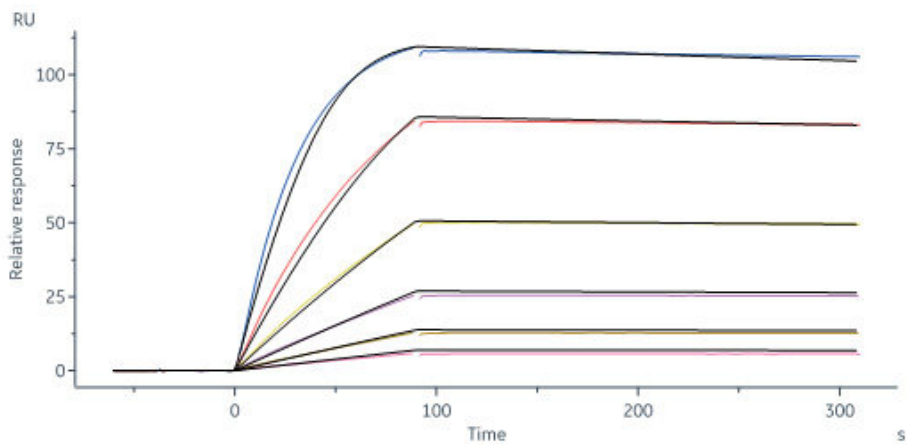


Immobilized Human TL1A Protein, His Tag (Cat. No. TLA-H5244) at 2 μg/mL (100 μL/well) can bind pre-mixed increasing concentrations of Monoclonal Anti-TL1A Antibody, Human IgG1 and 4 μg/mL (50 μL/well) Biotinylated Human DR3 Protein, Fc,Avitag (Cat. No. DR3-H82F3) with a half maximal inhibitory concentration (lC50) of 3.06 μg/mL (Routinely tested).



Immobilized Human TL1A Protein, His Tag (Cat. No. TLA-H5244) at 10 μg/mL (100 μL/well) can bind Human DR3 Protein, Fc Tag (Cat. No. DR3-H5253) with a linear range of 0.005-0.156 μg/mL (Routinely tested).

Bioactivity-SPR



Anti-TL1A antibody captured on Protein A Chip can bind Human TL1A Protein, His Tag (Cat. No. TLA-H5244) with an affinity constant of 0.218 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

TNF-like cytokine 1A (TL1A) and its receptors, death receptor 3 (DR3) and decoy receptor 3 (DcR3) are members of the TNF and TNF receptor superfamilies of proteins, respectively. Binding of APC-derived TL1A to lymphocytic DR3 provides co-stimulatory signals for activated lymphocytes. DR3 signaling affects not only the proliferative activity of and cytokine production by effector lymphocytes, but also critically influences the development and suppressive function of regulatory T-cells. Whereas, DcR3 restricts the function of the TL1A/DR3 complex: attenuating T-cell activation and downregulating the secretion of pro-inflammatory cytokines. Together with DR3 and DcR3, TL1A constitutes a cytokine system that actively interferes with the regulation of immune responses.