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

Catalog # TLA-H5263

Synonym

TL1A, VEGI, TNFSF15

Source

Human TL1A Protein, Fc Tag(TLA-H5263) is expressed from human 293 cells (HEK293). It contains AA Val 84 - Leu 251 (Accession # O95150-1).
Predicted N-terminus: Pro

Molecular Characterization

This protein carries a human IgG1 Fc tag at the N-terminus.

The protein has a calculated MW of 85.1 kDa. The protein migrates as 95-110 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

>90% 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

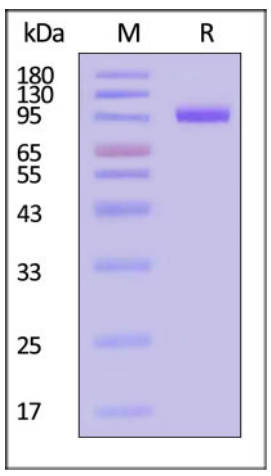
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

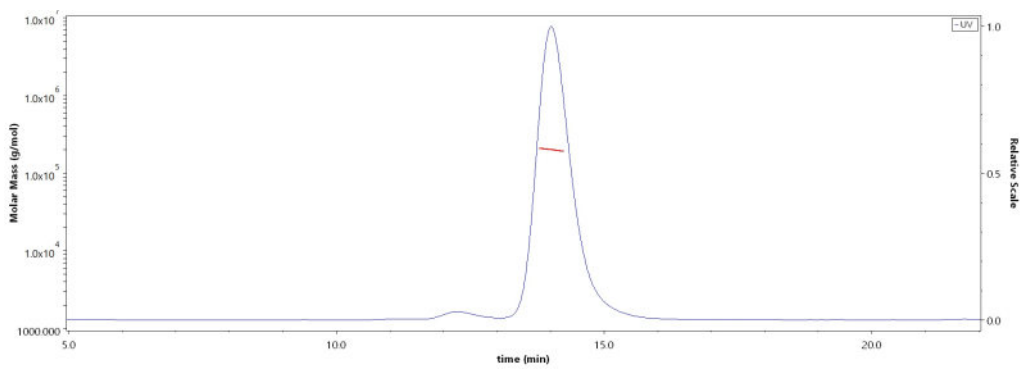
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



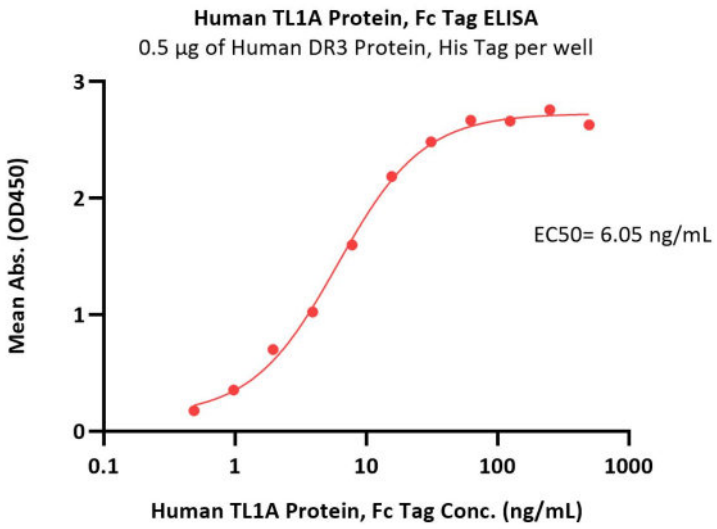
Human TL1A Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

SEC-MALS

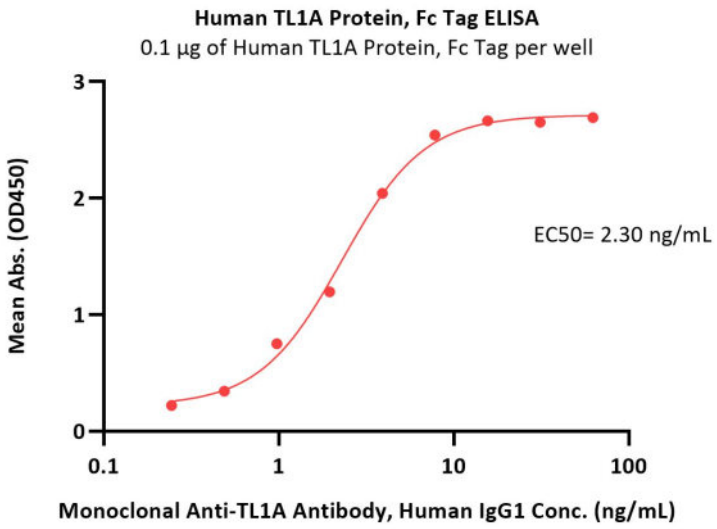


The purity of Human TL1A Protein, Fc Tag (Cat. No. TLA-H5263) is more than 90% and the molecular weight of this protein is around 180-210 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

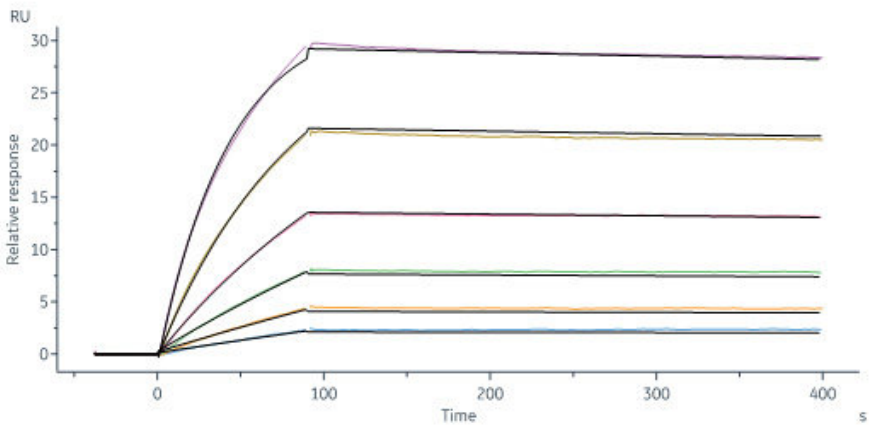


Immobilized Human DR3 Protein, His Tag (Cat. No. TN5-H52H3) at 5 μg/mL (100 μL/well) can bind Human TL1A Protein, Fc Tag (Cat. No. TLA-H5263) with a linear range of 0.5-16 ng/mL (QC tested).

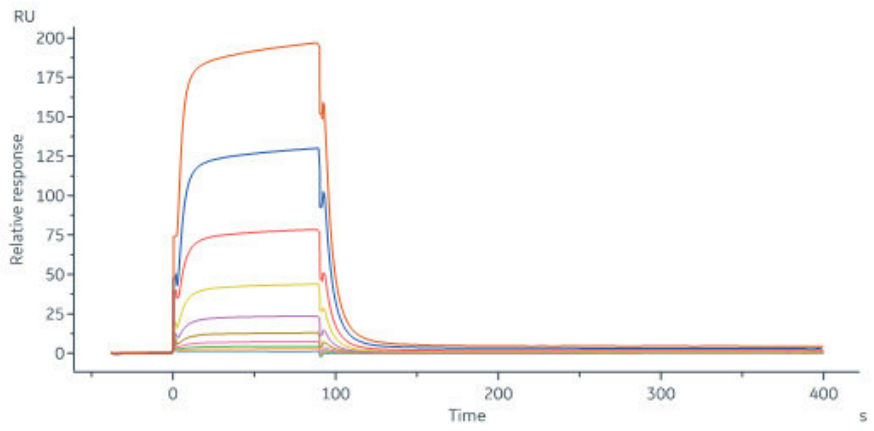


Immobilized Human TL1A Protein, Fc Tag (Cat. No. TLA-H5263) at 1 μg/mL (100 μL/well) can bind Monoclonal Anti-TL1A Antibody, Human IgG1 with a linear range of 0.2-8 ng/mL (Routinely tested).

Bioactivity-SPR



Human TL1A Protein, Fc Tag (Cat. No. TLA-H5263) immobilized on CM5 Chip can bind Human DcR3, Fc Tag (Cat. No. TNB-H5255) with an affinity constant of 0.621 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Human TL1A Protein, Fc Tag (Cat. No. TLA-H5263) immobilized on CM5 Chip can bind Human DR3 Protein, His Tag (Cat. No. TN5-H52H3) with an affinity constant of 1.05 μM 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.

Clinical and Translational Updates