

Biotinylated Human TL1A / TNFSF15 Protein, His,Avitag™

Catalog # TLA-H52Q1



BIOSYSTEMS
Acro

Synonym

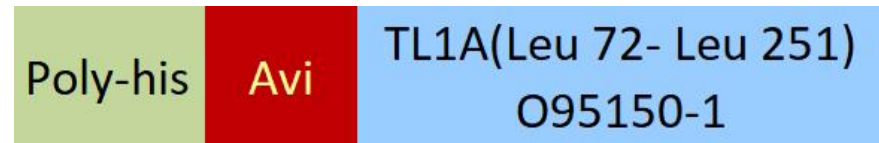
TL1A, VEGI, TNFSF15

Source

Biotinylated Human TL1A Protein, His,Avitag (TLA-H52Q1) is expressed from human 293 cells (HEK293). It contains AA Leu 72- Leu 251 (Accession # [O95150-1](#)).

Predicted N-terminus: His

Molecular Characterization



[Other Tags and Version Biotin & Other Labeled Version](#)

This protein carries a polyhistidine tag at the N-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 24.1 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.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, 0.5 M Arginine, 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.

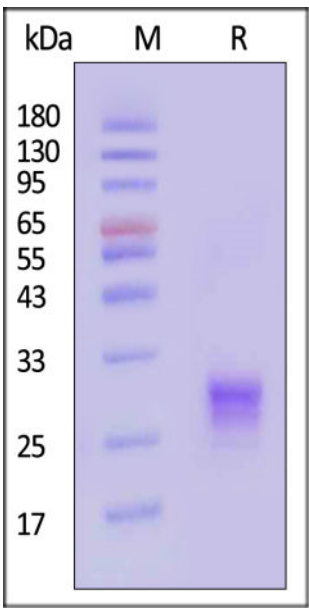
This product is stable after storage at:

- -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

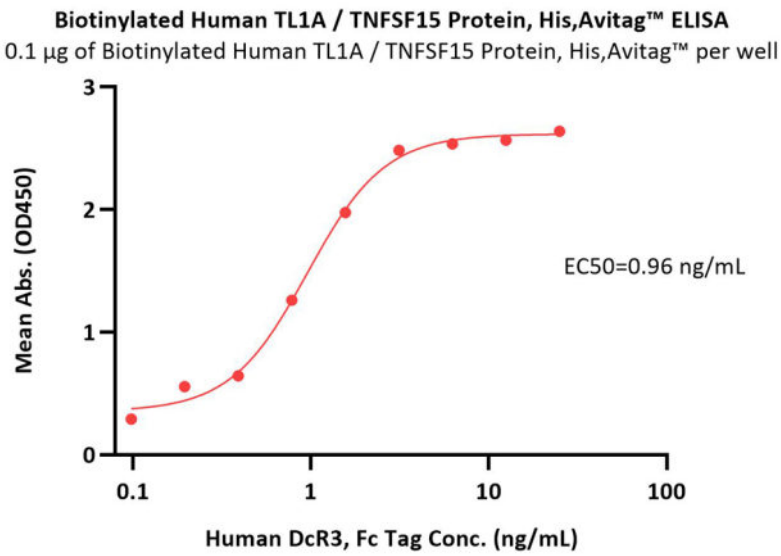
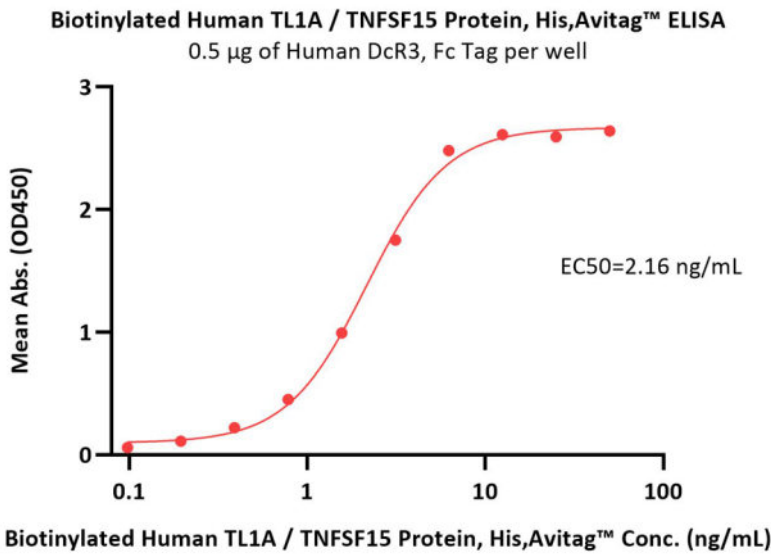
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



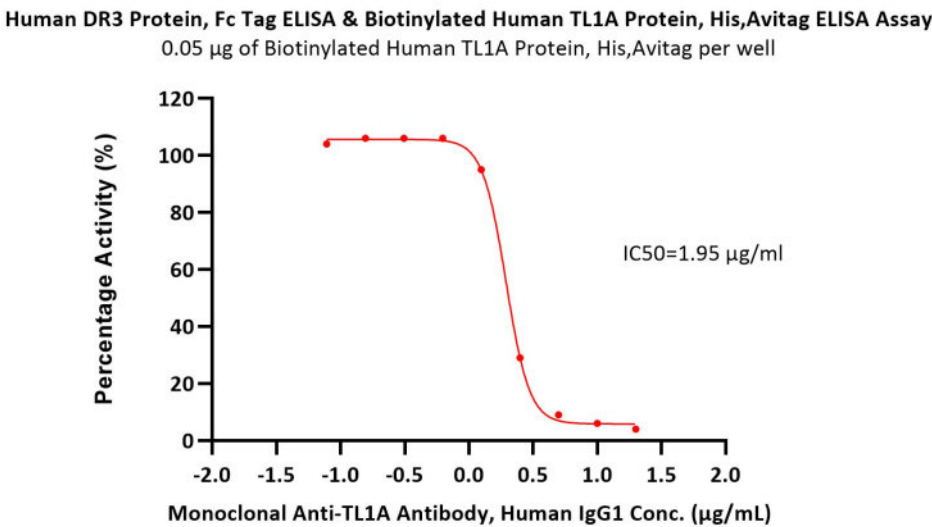
Biotinylated Human TL1A Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA



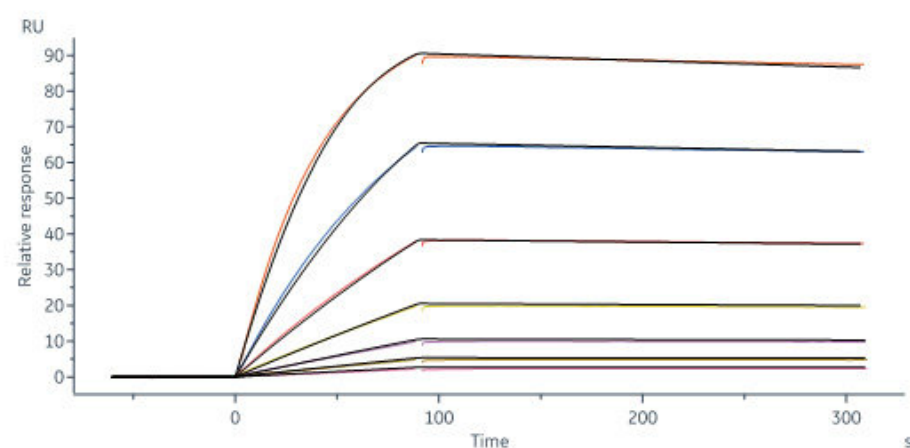
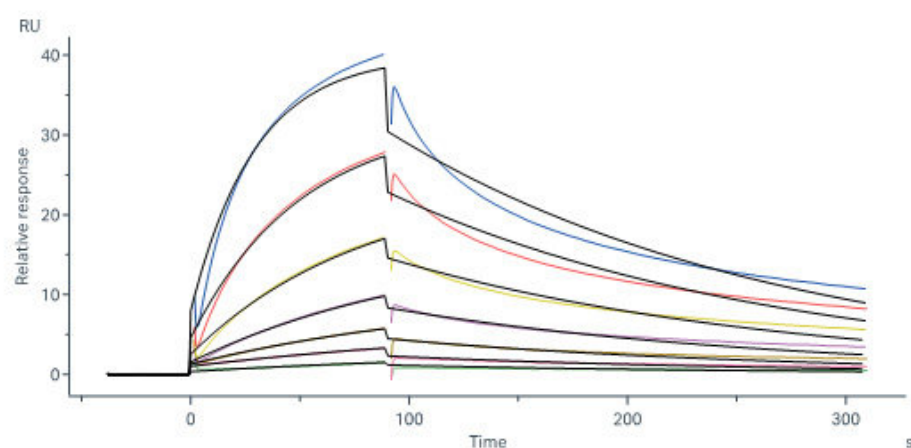
Immobilized Human DcR3, Fc Tag (Cat. No. TNB-H5255) at 5 µg/mL (100 µL/well) can bind Biotinylated Human TL1A Protein, His,Avitag (Cat. No. TLA-H52Q1) with a linear range of 0.2-6 ng/mL (QC tested).

Immobilized Biotinylated Human TL1A Protein, His,Avitag (Cat. No. TLA-H52Q1) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Human DcR3, Fc Tag (Cat. No. TNB-H5255) with a linear range of 0.1-3 ng/mL (Routinely tested).



Immobilized Human DR3, Fc Tag (Cat. No. DR3-H5253) at 5 µg/mL (100 µL/well) can bind pre-mixed increasing concentrations of Anti-TL1A Neutralizing Antibody, Human IgG1 and 1 µg/mL (50µL/well) Biotinylated Human TL1A, His Avitag (Cat.No.TLA-H52Q1) with a half maximal inhibitory concentration (IC50) of 1.95 µg/mL (Routinely tested).

Bioactivity-SPR



Human DR3 Protein, His Tag (Cat. No. TN5-H52H3) immobilized on CM5 Chip can bind Biotinylated Human TL1A Protein, His,Avitag (Cat. No. TLA-H52Q1) with an affinity constant of 97.9 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Anti-TL1A antibody captured on Protein A Chip can bind Biotinylated Human TL1A Protein, His,Avitag (Cat. No. TLA-H52Q1) with an affinity constant of 0.730 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.

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