# Biotinylated Human TSLP Protein, His,Avitag™ (MALS verified)

Catalog # TSP-H82Eb

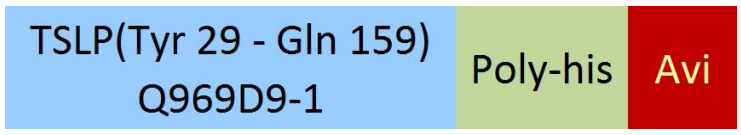
## Synonym

TSLP

## Source

Biotinylated Human TSLP, His,Avitag(TSP-H82Eb) is expressed from human 293 cells (HEK293). It contains AA Tyr 29 - Gln 159 (Accession # Q969D9-1). Predicted N-terminus: Tyr 29

## Molecular Characterization




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

The protein has a calculated MW of 18.6 kDa. The protein migrates as 22-28 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under non-reducing (NR) 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.

## Endotoxin

Less than 1.0 EU per μg by the LAL method.

## Purity

>85% as determined by SDS-PAGE.

## 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

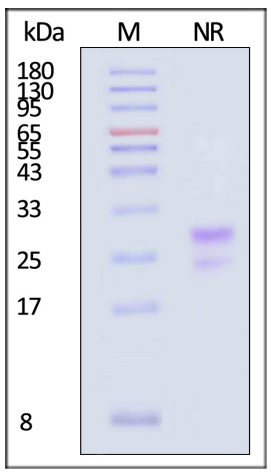
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

***Please avoid repeated freeze-thaw cycles.***

This product is stable after storage at:

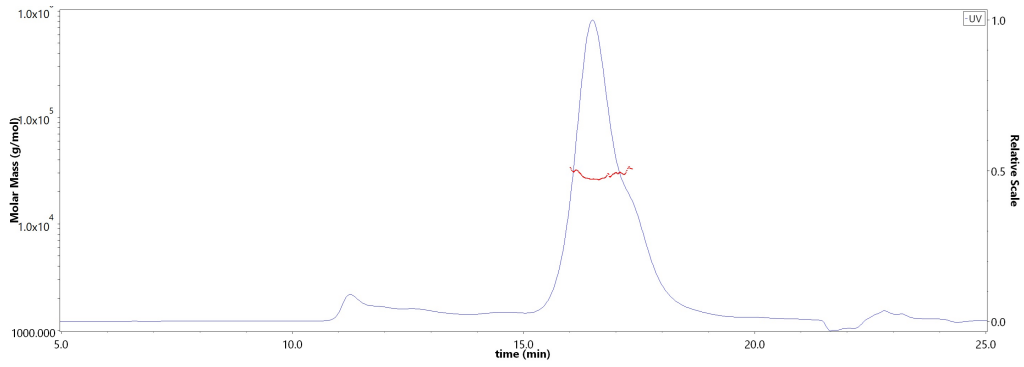
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



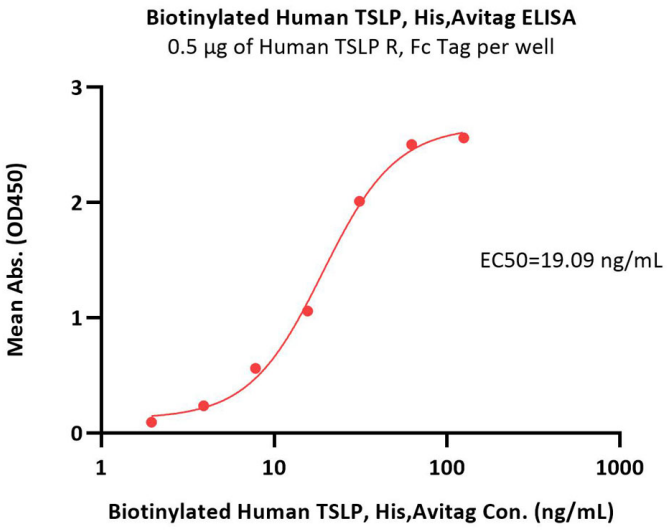

Biotinylated Human TSLP, His,Avitag on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85% (With Star Ribbon Pre-stained Protein Marker).

## SEC-MALS

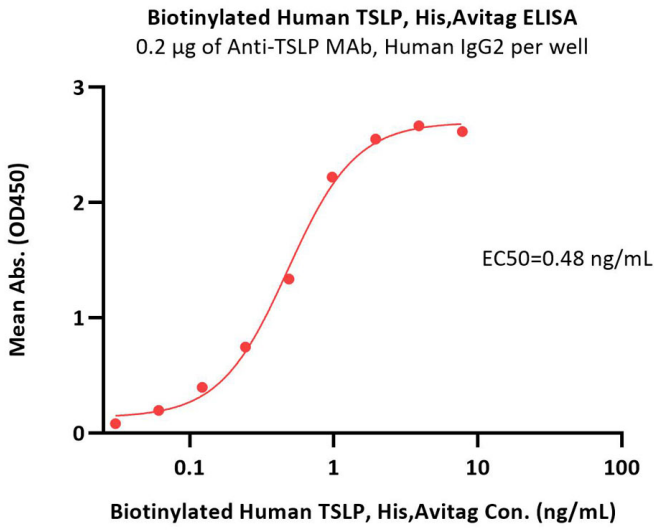



The purity of Biotinylated Human TSLP, His,Avitag (Cat. No. TSP-H82Eb) is more than 85% and the molecular weight of this protein is around 23-33 kDa verified by SEC-MALS.
Report

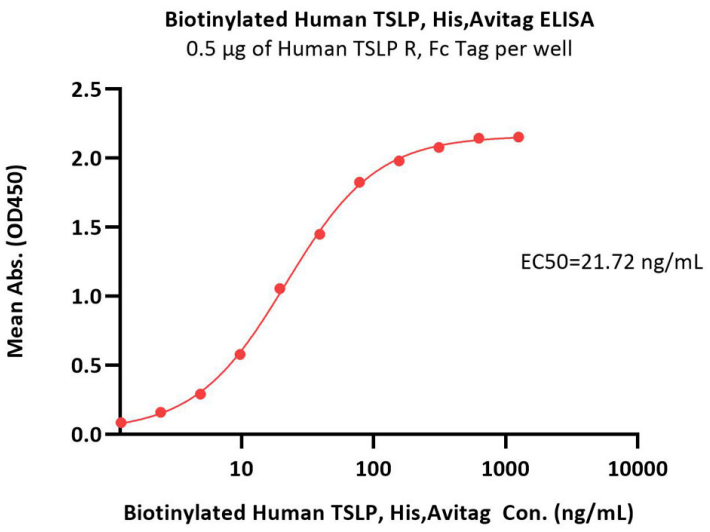
## Bioactivity-ELISA




Immobilized Human TSLP R, Fc Tag (Cat. No. TSR-H525a) at 5 μg/mL (100 μL/well) can bind Biotinylated Human TSLP, His,Avitag (Cat. No. TSP-H82Eb) with a linear range of 4-31 ng/mL (QC tested).

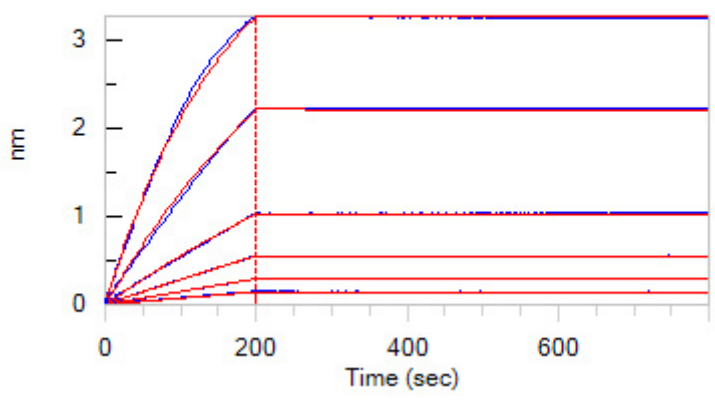



Immobilized Anti-TSLP MAb, Human IgG2 at 2 μg/mL (100 μL/well) can bind Biotinylated Human TSLP, His,Avitag (Cat. No. TSP-H82Eb) with a linear range of 0.1-2 ng/mL (Routinely tested).




Immobilized Biotinylated Human TSLP, His,Avitag (Cat. No. TSP-H82Eb) at 2 μg/mL (100 μL/well) via precoated 5 μg/mL (100 μL/well) of Human TSLP R, Fc Tag (Cat. No. TSR-H525a), can bind Human IL-7 R alpha, Mouse IgG2a Fc Tag (Cat. No. IL7-H5258) with a linear range of 1-20 ng/mL (Routinely tested).

## Bioactivity-BLI




Loaded Biotinylated Human TSLP, His,Avitag (Cat. No. TSP-H82Eb) on SA Biosensor, can bind Monoclonal Anti-Human TSLP Antibody, Human IgG2 with an affinity constant of 15.2 pM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

## Background

Thymic stromal lymphopoietin (TSLP) is an epithelial cell-derived cytokine involved in the pathology of inflammatory skin diseases, and is widely expressed by epithelial cells. Human TSLP cDNA encodes a 159 amino acid (aa) residue precursor protein with a 28 aa signal sequence (4, 5). Human TSLP has been shown to developing nondeletional central tolerance, amplifying epithelium-induced class switching, inducing atopic diseases and maintaining intestinal noninflammatory environment. Among diverse cells responding to Human TSLP, CD11c+ dendritic cells are the most obviously characterized target cells.

## Clinical and Translational Updates