# Human TSLP Protein (R127A, R130A), His Tag (MALS verified)

Catalog # TSP-H5243



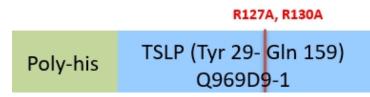
#### Synonym

TSLP

## Source

Human TSLP Protein (R127A, R130A), His Tag(TSP-H5243) is expressed from human 293 cells (HEK293). It contains AA Tyr 29 - Gln 159 (Accession # <u>Q969D9-1</u> (R127A, R130A)). Predicted N-terminus: His

# **Molecular Characterization**



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

The protein has a calculated MW of 16.6 kDa. The protein migrates as 20-30 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method / rFC method.

## Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

#### Formulation

Lyophilized from 0.22  $\mu$ m 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

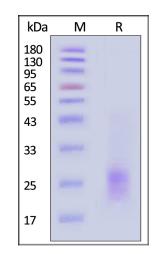
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

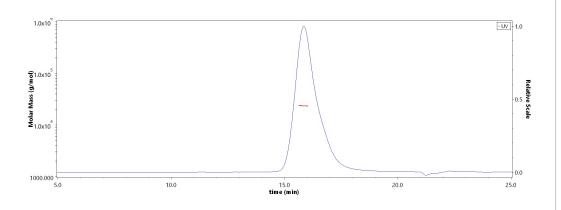
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



Human TSLP Protein (R127A, R130A), 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 <u>Star Ribbon Pre-stained Protein</u>

# SEC-MALS



The purity of Human TSLP Protein (R127A, R130A), His Tag (Cat. No. TSP-H5243) is more than 90% and the molecular weight of this protein is around 19-27 kDa verified by SEC-MALS.

Marker).

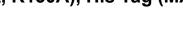


#### **Bioactivity-ELISA**



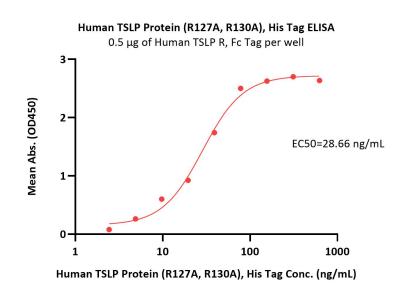
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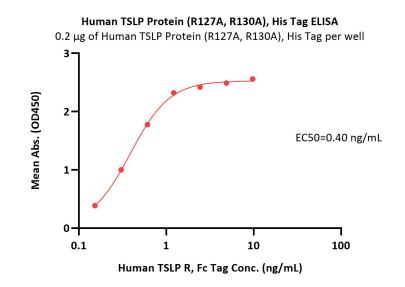
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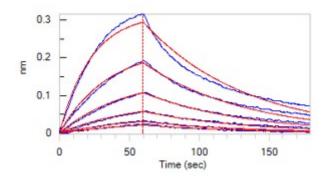




Immobilized Human TSLP R, Fc Tag (Cat. No. TSR-H525a) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human TSLP Protein (R127A, R130A), His Tag (Cat. No. TSP-H5243) with a linear range of 2-78 ng/mL (QC tested).

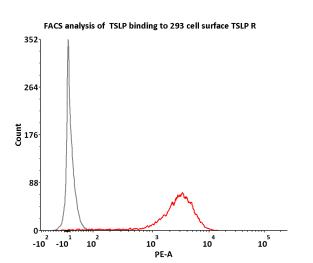
Immobilized Human TSLP Protein (R127A, R130A), His Tag (Cat. No. TSP-H5243) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Human TSLP R, Fc Tag (Cat. No. TSR-H525a) with a linear range of 0.15-0.6 ng/mL (Routinely tested).

## **Bioactivity-BLI**



Loaded Human TSLP R, Fc Tag (Cat. No. TSR-H525a) on Protein A Biosensor, can bind Human TSLP Protein (R127A, R130A), His Tag (Cat. No. TSP-H5243) with an affinity constant of 23 nM as determined in BLI assay (ForteBio Octet R8) (Routinely tested).

## **Bioactivity-FACS**



—Negative Control Protein —Human TSLP Protein (R127A, R130A), His Tag (MALS verified)

2e5 of Human TSLP R (Luc) HEK293 Reporter Cells were stained with 100  $\mu$ L of 1  $\mu$ g/mL of Human TSLP Protein (R127A, R130A), His Tag (Cat. No. TSP-H5243) and negative control protein respectively, washed and then



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followed by PE anti-His Tag Antibody and analyzed with FACS (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.





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