# Data Sheet (Cat.No.TMPY-06505)

TargetMol

## TSLP Protein, Human, Recombinant (hFc)

### General Information

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| Synonyms: | thymic stromal lymphopoietin |
| Protein Construction: | A DNA sequence encoding the Human TSLP (NP_149024.1) (R127A, R130S, Met1-Gln159) was expressed with the fused Fc region of human IgG1 at the C-terminus. Predicted N terminal: Tyr 29 |
| Species: | Human |
| Expression Host: | HEK293 Cells |
| Accession: | NP_149024.1 |
| Molecular Weight: | 41.50 kDa (predicted); 46.22 kDa (reducing conditions) |

### QC Testing

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| Biological Activity: | Immobilized Recombinant Human CRLF2 Protein (His Tag) at 2 μg/mL (100 μL/well) can bind Recombinant Human TSLP Protein (R127A, R130S, Fc Tag), the EC50 is 1.5-4.0 ng/mL. |
| Purity: | > 95 % as determined by SDS-PAGE. |
| Endotoxin: | < 1.0 EU/μg of the protein as determined by the LAL method. |
| Formulation: | Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization. |

### Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

### Protein Background

Thymic stromal lymphopoietin (TSLP) is an interleukin 7 (IL-7)-like cytokine originally characterized by its ability to promote the activation of B cells and dendritic cells (DCs). Thymic stromal lymphopoietin (TSLP) is a cytokine expressed by epithelial cells, including keratinocytes, and is important in allergic inflammation. Subsequent studies have shown that TSLP promotes T helper type 2 (TH2) cell responses associated with immunity to some

helminth parasites and the pathogenesis of many inflammatory diseases, including atopic dermatitis and asthma. TSLP can promote TH2 cytokine-associated inflammation by directly promoting the effector functions of CD4+TH2 cells, basophils and other granulocyte populations while simultaneously limiting the expression of DC-derived proinflammatory cytokines and promoting regulatory T cell responses in peripheral tissues.

Reference

Comeau MR, et al. (2010) The influence of TSLP on the allergic response. Mucosal Immunol. 3 (2): 138-47.
Liu YJ, et al. (2007) TSLP: An Epithelial Cell Cytokine that Regulates T Cell Differentiation by Conditioning Dendritic Cell Maturation. Annual Review of Immunology. 25: 193-219.
Ziegler SF. (2010) The role of thymic stromal lymphopoietin (TSLP) in allergic disorders. Curr Opin Immunol. 22 (6): 795-9.
He R, et al. (2008) TSLP acts on infiltrating effector T cells to drive allergic skin inflammation.PNAS. 105 (33): 11875-80.



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