

TSLP Protein, Mouse, Recombinant (His)

General Information

Synonyms:	thymic stromal lymphopoietin;TSLP
Protein Construction:	A DNA sequence encoding the mouse TSLP (Q9JIE6) (Met 1-Glu 140) was expressed, with a C-terminal polyhistidine tag. Predicted N terminal: Tyr 20
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q9JIE6
Molecular Weight:	15.4 kDa (predicted); 22-27 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % 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:	Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.
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. <small>Actual storage temperature shall be subject to the COA.</small>

Shipping:	In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.
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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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