

Active Recombinant Mouse Thymic Stromal Lymphopoietin, His-tagged

Cat. No. Tslp-202M **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant mouse TSLP produced in *insect cells* is a 15.0 kDa protein consisting of 121 amino acid residues. It was expressed N-terminal His-Tagged amino acids Tyr20-Glu140 of mTSLP.

Species

Mouse

Source

Insect Cells

Description

Thymic Stromal Lymphopoietin (TSLP) is a member of the B cell-stimulating factor family. Originally identified from the conditioned medium of a mouse thymic stromal cell line that promoted B-cell development, TSLP is expressed in thymus, spleen, kidney, lung, and bone marrow. TSLP activity overlaps with that of IL-7, playing a key role in the development of B cells, as well as stimulating the growth of thymocytes and T cells. TSLP stimulates monocytes to produce T cell-attracting chemokines such as TARC (CCL17) and MDC (CCL22). TSLP also activates dendritic cell-primed CD4 T cells to produce Th2 cytokines, including IL-4, IL-5, IL-13, and TNFα. This hematopoietic cytokine binds to a heterodimeric receptor complex consisting of the IL-7R alpha chain (IL-7Rα) and the TSLP-specific chain (TSLPR). Binding induces activation of STAT3 and STAT5 via phosphorylation. Mouse TSLP shares approximately 43% amino acid sequence identity with human TSLP.

Molecular Mass

15-22 kDa on SDS-PAGE due to glycosylation.

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Purity	Greater than 99%, as determined by SDS-PAGE.
Form	Sterile liquid; 20 mM NaH ₂ PO ₄ , 0.15M NaCl, pH 7.2 with 1.0% BSA. 0.22 µm filtered.
Endotoxin Level	Less than 0.1 ng/ug cytokine as determined by the LAL assay.
Bioactivity	The ED ₅₀ tested in a Nag8/7 cell proliferation assay was 0.15 ng/ml, corresponding to a specific activity of approximately 6x10 ⁶ Units/mg.
Applications Tested	This recombinant mouse TSLP has been tested in a Nag8/7 cell proliferation assay with an observed ED ₅₀ of 0.15 ng/ml, corresponding to a specific activity of approximately 6x10 ⁶ Units/mg.
Temperature Limitation	Store at less than or equal to -70°C.
Handling Conditions	For best recovery, quick-spin vial prior to opening. Use in a sterile environment.

GENE INFORMATION

Gene Name	Tslp thymic stromal lymphopoietin [<i>Mus musculus</i>]
Synonyms	Tslp; thymic stromal lymphopoietin; thymic stroma-derived lymphopoietin
Gene ID	53603
mRNA Refseq	NM_021367
Protein Refseq	NP_067342
UniProt ID	Q9JIE6

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Chromosome Location	18 B1; 18 11.0 cM
Pathway	Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway
Function	cytokine activity

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