

## Overview

<b>Synonyms</b>	Thymic Stromal Lymphopoietin ( TSLP), Human;
<b>Description</b>	TSLP is a hemopoietic protein that is expressed in the heart, liver and prostate. TSLP overlaps biological activities with IL-7 and binds with the heterodimeric receptor complex consisting of the IL-7R alpha chain (IL-7R <sup>α</sup> ) and the TSLP-specific chain (TSLPR). Like IL-7, TSLP induces phosphorylation of STAT3 and STAT5, but uses kinases other than the JAKs for activation. TSLP prohibited apoptosis and stimulated growth of the human acute myeloid leukemia (AML)-derived cell line MUTZ3. It induces the release of T cell-attracting chemokines TARC and MDC from monocytes and activates CD11c(+) dendritic cells (DCs). TSLP activated DCs primed naive T cells to produce the proallergic cytokines (IL-4, IL-5, IL-13, TNF <sup>α</sup> ) while down-regulating IL-10 and IFN- $\gamma$ suggesting a role in initiating allergic inflammation.
<b>Species</b>	Human
<b>Source</b>	<i>E. coli</i>
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using human IL-7R $\pm$ and human TSLP R co-transfected murine BaF3 pro-B cells is less than 0.3 ng/ml, corresponding to a specific activity of > 3.3 × 10 <sup>6</sup> IU/mg.
<b>Sequence</b>	MYDFTNCDFE KIKAAYLSTI SKDLITYMSG TKSTEFNNTV SCSNRPHCLT EIQSLTFNPT AGCASLAKEM FAMKTKAALA IWCPGYSETQ INATQAMKKR RKRKVTTNKC LEQVSQLOGL WRRFNRPLLK QQ

## Properties

<b>Measured Molecular Weight</b>	Approximately 15.1 kDa, a single non-glycosylated polypeptide chain containing 132 amino acids.
<b>Purity</b>	> 98 % by SDS-PAGE and HPLC analyses.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at d -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Endotoxin Level</b>	Less than 1 EU/ $\mu$ g of rHuTSLP as determined by LAL method.
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Usage</b>	This material is for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.
<b>Storage</b>	This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. <b>Avoid repeated freeze/thaw cycles.</b>

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