

# Growth Factor Data Sheet

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Thymic stromal lymphopoietin (TSLP) is a hemopoietic protein belonging to the cytokine family and is known to play an important role in the maturation of T cell populations through activation of antigen presenting cells. It is mainly expressed in tissues, including heart, liver and prostate. TSLP signals through a heterodimeric receptor complex composed of the thymic stromal lymphopoietin receptor and the IL7R alpha chain. Like IL7, TSLP induces phosphorylation of STAT3 and STAT5, but uses kinases other than the JAKs for activation. After binding STAT5, phosphorylation is induced which results in the expression of downstream transcription factors. TSLP enhances the maturation of CD11c+ dendritic cells and induces allergic inflammation by directly activating mast cells. TSLP's expression is linked to many disease states including asthma, inflammatory arthritis, atopic dermatitis, and eczema and other allergic states but the factors which induce the activation of TSLP release are not clearly defined. Human TSLP shares approximately 43 % amino acid sequence identity with mouse TSLP.

<b>Catalog Number</b>	<b>1120-07</b>
<b>Product Name</b>	<b>TSLP, Human</b> Recombinant Human Thymic Stromal Lymphopoietin TSLP
<b>Source</b>	<i>Escherichia coli</i>
<b>MW</b>	~15.1 kDa (132 amino acids)
<b>Sequence</b>	MYDFTNCDFE KIKAAYLSTI SKDLITYMSG TKSTEFNNTV SCSNRPHCLT EIQLSTFNPT AGCASLAKEM FAMKTKAALA IWCPGYSETQ INATQAMKKR RKRKVTTNKC LEQVSQLQGL WRRFNRPLLK QQ
<b>Accession Number</b>	<a href="#">Q969D9</a>
<b>Purity</b>	>98% by SDS-PAGE and HPLC analyses
<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 $\alpha$ 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 $\times 10^6$ IU/mg.
<b>Formulation</b>	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
<b>Storage/Handling</b>	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
<b>Reconstitution</b>	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.