
Product Data Sheet

Product Name: TSLP Human
 Cat. No.: GP21018
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Thymic Stromal Lymphopoietin; TSLP.		
Amino Acid Sequence	MYDFTNCDFE KIKAAAYLSTI SKDLITYMSG TKSTEFNNTV SCSNRPHCLT EIQSLTFNPT AGCASLAKEM FAMKTKAALA IWCPGYSETQ INATQAMKKR RKRKVTTNKC LEQVSQLQGL WRRFNRPLLK QQ.		
Solubility	It is recommended to reconstitute the lyophilized TSLP in sterile 18MΩ-cm H ₂ O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Lyophilized from a concentrated solution (1mg/ml) contains 130mM NaCl, and 20mM sodium phosphate, pH 7.4.		

Introduction

TSLP protein is a hemopoietic cytokine which signals throughout a heterodimeric receptor complex composed of the thymic stromal lymphopoietin receptor & the Interleukin-7 receptor alpha chain. TSLP impacts myeloid cells thus induces the discharge of T cell-attracting chemokines from monocytes & increases the growth of CD11c(+) dendritic cells. TSLP is mainly expressed in the heart, liver and prostate. TSLP is related in its biological activities with IL-7 and binds with the heterodimeric receptor complex consisting of the Interleukin-7 receptor alpha chain & the TSLPR. Similar to IL-7, TSLP enhances phosphorylation of STAT3 and STAT5, though uses kinases excluding JAKs for its activation. TSLP induces the release of T cell-attracting chemokines such as TARC & MDC from monocytes & triggers CD11c(+) dendritic cells. TSLP activated dendritic cells primes naive T cells to manufacture pro-allergic cytokines such as Interleukin-4, Interleukin-5, Interleukin-13 and TNF-alpha whereas down-regulating Interleukin-10 and IFN-gamma play a role in the initiation of allergic inflammation.

Caution: Product has not been fully validated for medical applications. For research use only.

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Biological Activity

The ED50 is determined by the ability to induce proliferation of human Interleukin-7 receptor alpha & human TSLP Receptor co-transfected with mouse BaF3 cells which was found to be less than 0.3ng/ml.

Stability

Lyophilized TSLP although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution TSLP should be stored at 4°C between 2-7 days and for future use below -18°C .For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.

Background

TSLP Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 132 amino acids and having a molecular mass of 15 kDa.The TSLP is purified by proprietary chromatographic techniques.

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