

# Thymic Stromal Lymphopoietin

Human, Recombinant (rHuTSLP)

Expressed in *E. coli*

Cat. No. CRP08105

Lot. No. (See product label)

## PRODUCT INFORMATION

**Description:** 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 $\alpha$ ) 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 naïve T cells to produce the proallergic cytokines (IL-4, IL-5, IL-13, TNF $\alpha$ ) while down-regulating IL-10 and IFN- $\gamma$  suggesting a role in initiating allergic inflammation.

**Amino-Acid Sequence:** 132 aa , non-glycosylated

**M. W. :** 15.0 KDa

**Recombinant:** Expressed in *E. coli*

**Purity:** >98% by SDS-PAGE and HPLC analyses.

**Formulation:** Lyophilized from a 0.2mm filtered concentrated (1.0mg/ml) solution in 20mM PB, pH 7.4, 150mM NaCl.

**Specific Activity:** Fully biologically active when compared to standard. The ED50 as measured by its ability to induce proliferation of human IL-7R $\alpha$  and human TSLP R co-transfected mouse BaF3 cells is less than 0.3 ng/ml.

**Endotoxin:** Less than 1EU/mg of rHuTSLP as determined by LAL method.

**Reconstitution:** 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  $\leq -20^{\circ}\text{C}$ . Further dilutions should be made in appropriate buffered solutions.

**Storage:** This lyophilized preparation is stable for several weeks at  $2-8^{\circ}\text{C}$ , but should be kept at  $-20^{\circ}\text{C}$  for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at  $2-8^{\circ}\text{C}$ . For maximal stability, apportion the reconstituted preparation into working aliquots and store at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$ . Avoid repeated freeze/thaw cycles.

## GENE INFORMATION

**Gene Name:** [TSLP](#)

**Synonyms:** Thymic Stromal Lymphopoietin; Thymic stromal lymphopoietin Precursor

**mRNA Refseq:** [NM\\_033035](#)

**Protein Refseq:** [NP\\_149024](#)

**MIM:** [607003](#)

**GeneID:** [85480](#)

**UniProt ID:** Q969D9

**Chromosome Location:** 5q22.1

**Pathway:** Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway.

**Function:** cytokine activity.

## REFERENCES

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