

## TSLP, Human

**Cat. No.:** Z02721-10

**Size:** 10.0 ug

**Synonyms:** Thymic Stromal Lymphopoietin ( TSLP), Human;

### 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<sup>a</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>a</sup>) while down-regulating IL-10 and IFN- $\gamma$  suggesting a role in initiating allergic inflammation.

### Amino Acid Sequence:

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00001 MYDFTNCDPE KIKAAYLSTI SKDLITYMSG TKSTEFNNTV
00041 SCSNRPHCLT EIQLTFNPT AGCASLAKEM FAMKTKAALA
00081 IWCPGYSETQ INATQAMKKR RKRKVTTNKC LEQVSQLQGL
00121 WRRFNRPLLK QQ
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**Source:** *E. coli*

**Species:** Human

**Biological Activity:** 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<sup>6</sup> IU/mg.

**Molecular Weight:** Approximately 15.1 kDa, a single non-glycosylated polypeptide chain containing 132 amino acids.

**Formulation:** Lyophilized from a 0.2  $\mu$ m filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl.

**Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

**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 °C. Further dilutions should be made in appropriate buffered solutions.

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

**Endotoxin Level:** Less than 1 EU/ $\mu$ g of rHuTSLP as determined by LAL method.

**Storage:** 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. Avoid repeated freeze/thaw cycles.