

Human TSLP Recombinant Protein Carrier-Free

Catalog Number: 34-8497

Also Known As: Thymic Stromal-Derived Lymphopoietin

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: Human TSLP Recombinant Protein Carrier-Free

REF **Catalog Number:** 34-8497

Concentration: 0.5 mg/mL

Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in sterile environment.

Source: Insect cell expressed amino acids Y29-Q159 of hTSLP accession #NM_033035

Molecular Mass: 15 kDa on SDS-PAGE

Purity: > 95%, as determined by SDS-PAGE

Endotoxin Level: Less than 0.01 ng/ug cytokine as determined by the LAL assay.

Bioactivity: Measured by TARC induction assay by human PBMCs with an observed ED₅₀ of 10 ng/mL, which corresponds to a specific activity of approximately 1 x 10⁵ Units/mg.

Formulation: Sterile liquid; PBS, pH 7.2. 0.22 um filtered.

 **Temperature Limitation:** Store at less than or equal to -70°C.

 **Batch Code:** Refer to Vial

 **Use By:** Refer to Vial

 **Caution, contains Azide**

Description

Thymic Stromal Lymphopoietin (TSLP) is a member of the B cell-stimulating factor family. This hemopoietic cytokine was identified from the conditioned medium of a mouse thymic stromal cell line that promoted B-cell development. TSLP is expressed in thymus, spleen, kidney, lung and bone marrow. The bioactivity of TSLP overlaps with that of IL-7, playing a key role in B cell development, as well as stimulating the growth of thymocytes and T cells. Whereas IL-7 facilitates the development of B220+/IgM- pre-B cells, TSLP promotes the development B220+/IgM+ B cells in the mouse. In addition, TSLP stimulates monocytes to produce the T cell-attracting chemokines TARC (CCL17) and MDC (CCL22). TSLP also activates dendritic cell-primed CD4 T cells to produce Th2 cytokines (e.g. IL-4, IL-5, IL-13, and TNF alpha). TSLP binds to a heterodimeric receptor complex consisting of the IL-7R alpha chain (CD127) and the TSLP-specific chain (TSLPR) to induce STAT3 and STAT5 phosphorylation. Mouse TSLP shares approximately 43% amino acid sequence identity with human TSLP. Recombinant human TSLP is a 15.0 kDa protein consisting of 121 amino acid residues.

Applications Reported

Recombinant human TSLP is biologically active.

Applications Tested

This recombinant human TSLP has been tested for TARC induction by normal human peripheral blood cells with an observed ED₅₀ of 10 ng/mL, which corresponds to a specific activity of approximately 1x10⁵ Units/mg.

References

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14-8497 Human TSLP Recombinant Protein

88-7497 Human TSLP ELISA Ready-SET-Go!® Set

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