

Mouse TSLP Recombinant Protein Carrier-Free

Catalog Number: 34-8498

Also Known As: Thymic Stromal-Derived Lymphopoietin

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

Product Information

Contents: Mouse TSLP Recombinant Protein Carrier-Free

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

Source: Insect cell expressed N-terminal His-Tagged amino acids Tyr20-Glu140 of mTSLP (accession #NM_021367).

Molecular Mass: 15-22 kDa on SDS-PAGE due to glycosylation.

Purity: Greater than 99%, as determined by SDS-PAGE.


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

Bioactivity: The ED₅₀ tested in a Nag8/7 cell proliferation assay was 0.15 ng/ml, corresponding to a specific activity of approximately 6x10⁶ Units/mg.

Formulation: Sterile liquid; 20 mM NaH₂PO₄, 0.15M NaCl, pH 7.2. 0.22 µm filtered.

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

 Batch Code: Refer to Vial

 Use By: Refer to Vial

Description

Thymic Stromal Lymphopoietin (TSLP) is a member of the B cell-stimulating factor family. Originally 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. TSLP activity overlaps with that of IL-7, playing a key role in the development of B cells, as well as stimulating the growth of thymocytes and T cells. TSLP stimulates monocytes to produce T cell-attracting chemokines such as TARC (CCL17) and MDC (CCL22). TSLP also activates dendritic cell-primed CD4 T cells to produce Th2 cytokines, including IL-4, IL-5, IL-13, and TNFα. This hematopoietic cytokine binds to a heterodimeric receptor complex consisting of the IL-7R alpha chain (IL-7Rα) and the TSLP-specific chain (TSLPR). Binding induces activation of STAT3 and STAT5 via phosphorylation. Mouse TSLP shares approximately 43% amino acid sequence identity with human TSLP. Recombinant mouse TSLP is a 15.0 kDa protein consisting of 121 amino acid residues.

Applications Reported

Recombinant mouse TSLP is biologically active.

Applications Tested

This recombinant mouse TSLP has been tested in a Nag8/7 cell proliferation assay with an observed ED₅₀ of 0.15 ng/ml, corresponding to a specific activity of approximately 6x10⁶ Units/mg.

References

He R, Oyoshi MK, Garibyan L, Kumar L, Ziegler SF, Geha RS. TSLP acts on infiltrating effector T cells to drive allergic skin inflammation. *Proc Natl Acad Sci U S A*. 2008 Aug 19;105(33):11875-80.

Soumelis V, Reche PA, Kanzler H, Yuan W, Edward G, Homey B, Gilliet M, Ho S, Antonenko S, Lauerma A, Smith K, Gorman D, Zurawski S, Abrams J, Menon S, McClanahan T, de Waal-Malefyt Rd R, Bazan F, Kastelein RA, Liu YJ. Human epithelial cells trigger dendritic cell mediated allergic inflammation by producing TSLP. *Nat Immunol*. 2002 Jul;3(7):673-80.

Sims JE, Williams DE, Morrissey PJ, Garka K, Foxworthe D, Price V, Friend SL, Farr A, Bedell MA, Jenkins NA, Copeland NG, Grabstein K, Paxton RJ. Molecular cloning and biological characterization of a novel murine lymphoid growth factor. *J Exp Med*. 2000 Sep 4;192(5):671-80.

Park LS, Martin U, Garka K, Gliniak B, Di Santo JP, Muller W, Largaespada DA, Copeland NG, Jenkins NA, Farr AG, Ziegler SF, Morrissey PJ, Paxton R, Sims JE. Cloning of the murine thymic stromal lymphopoietin (TSLP) receptor: Formation of a functional heteromeric complex requires interleukin 7 receptor. *J Exp Med*. 2000 Sep 4;192(5):659-70.

Related Products

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