

Mouse TSLP Protein (His Tag)

Catalog Number: 51005-M08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

TSLP

Protein Construction:

A DNA sequence encoding the mouse TSLP (Q9JIE6) (Met 1-Glu 140) was expressed, with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio-Activity

Measured by its ability to bind human IL7RA-his in functional ELISA.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Tyr 20

Molecular Mass:

The secreted recombinant mouse TSLP comprises 132 amino acids and has a calculated molecular mass of 15.4 kDa. As a result of glycosylation, the apparent molecular mass of the recombinant protein is approximately 22-27 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

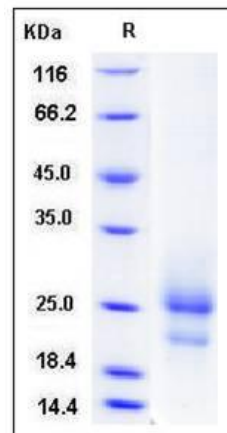
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Thymic stromal lymphopoietin (TSLP) is a cytokine expressed by epithelial cells, including keratinocytes, and is important in allergic inflammation. TSLP regulates TH2 cytokine responses after helminth infection and exposure to allergens. After exposure to helminth parasites, infection and/or disruption of colonic epithelium elicits responses to Toll-like receptor (TLR) and Nod-like receptor agonists that are able to induce IL-12p40 expression and subsequent TH1 cytokine responses. TSLP, which is also induced during infection, acts to suppress p40 expression by DCs, which inhibits the development of TH1 responses, while also inducing OX40L to promote TH2 responses. TSLP may also act to recruit IL-4-producing basophils to draining lymph nodes (LN) that act cooperatively with DCs to prime TH2 cytokine responses. After allergen exposure, proteases present in the allergen complex activate PAR-2, which in turn induces TSLP expression. TSLP induces resident DCs to upregulate OX40L and to produce chemokines (CCL17 and CCL22) to promote TH2 responses. TSLP acts on resident mast cells and natural killer T cells to increase cytokine production, which further promotes the TH2 inflammatory cascade. MHCII, major histocompatibility complex class II.

References

1. Ziegler SF, et al. (2010) Nat Immunol. 11 (4): 289-93.
2. Liu YJ, et al. (2007) Annual Review of Immunology. 25: 193-219.
3. He R, et al. (2008) PNAS. 105 (33): 11875-80.

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Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>