

Anti-Thymic stromal lymphopoietin TSLP Antibody

Catalog Number: A01096-3

About TSLP

Thymic stromal lymphopoietin (TSLP) has recently been identified as an important factor capable of driving dendritic cell maturation and activation. TSLP is a four-helix-bundle cytokine that is expressed mainly by barrier epithelial cells and is a potent activator of several cell types such as myeloid dendritic cells. TSLP is involved in the positive selection of regulatory T cells, maintenance of peripheral CD4+ T cell homeostasis and the induction of CD4+ T cell-mediated allergic reaction. TSLP is also capable of supporting the growth of fetal liver and adult B cell progenitors and their differentiation to the IgM-positive stage of B cell development. Amino acid sequence analysis has shown poor homology between human and mouse TSLP although they exhibit similar biological functions and are expressed in similar tissues. At least two differentially spliced isoforms of TSLP are known to exist.

Overview

Product Name	Anti-Thymic stromal lymphopoietin TSLP Antibody
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Thymic stromal lymphopoietin TSLP Antibody (Catalog # A01096-3). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse.
Application	ELISA, IF, IHC-P, WB
Clonality	Polyclonal
Formulation	TSLP Antibody is supplied in PBS containing 0.02% sodium azide.
Storage Instructions	TSLP antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.
Host	Rabbit
Uniprot ID	Q969D9

Technical Details

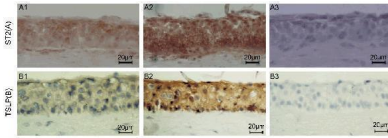
Immunogen	Anti-TSLP antibody was raised against a peptide corresponding to 19 amino acids near the center of human TSLP. The immunogen is located within the amino acids 40-90 of TSLP.
Predicted Reactive Species	Bovine, Pig
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL
Purification	TSLP Antibody is affinity chromatography purified via peptide column.

Suggested Dilutions

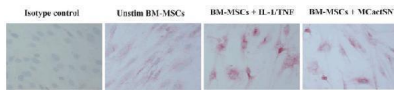
WB: 0.25 - 4 ug/mL; IHC-P: 1-2.5 ug/mL.

Antibody validated: Western Blot in human and mouse samples; Immunohistochemistry in human and mouse samples. All other applications and species not yet tested.

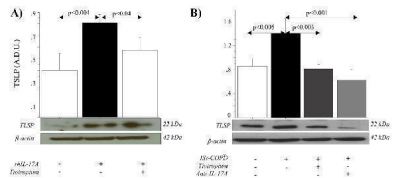
Anti-Thymic stromal lymphopoietin TSLP Antibody (A01096-3) Images



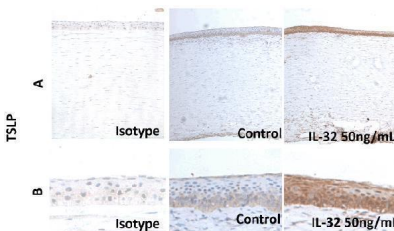
Induced Expression Validation of TSLP in Human Corneal Tissues (Lin et al., 2013) Immunohistochemical images showing TSLP protein detected by anti-TSLP antibodies in ex vivo donor human corneal tissues without (B1) or with exposure to IL-33 (10ng/mL) (B2). An isotype IgG antibody (B3) was used as a negative control. Magnification 400X. The staining confirms the increased level of TSLP after IL-33 treatment.



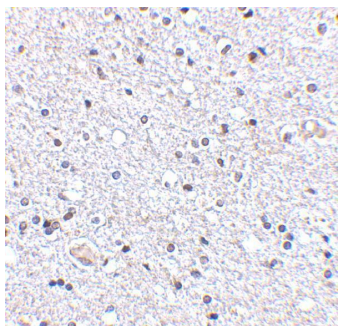
Induced Expression Validation of TSLP in Mesenchymal Stromal Cells (MSCs). (Allahverdi et al., 2013) Immunocytochemical images showing TSLP protein detected by anti-TSLP antibodies in BM-MSCs unstimulated (control) or stimulated with IL-1/TNF or supernatants of activated MCs (MCactSNT). Isotype is used as a negative control. The production of TSLP increased with the stimulated conditions.



Regulated Expression Validation of TSLP in COPD Patients. (Anzalone et al., 2018) (A) shows NHBE cells, in the absence (Lane 2) or presence (Lane 3) of Tiotropium (100 nM), were stimulated with rhIL-17A (20 ng/ml) (n = 3). (B) shows NHBE cells, with ISs from COPD patients untreated (Lane 2 and Lane 3) or treated (Lane 4) with anti-IL-17A antibody (n = 3). (A) and (B) show TSLP expression decreases with the treatment of anti-cholinergic drugs.

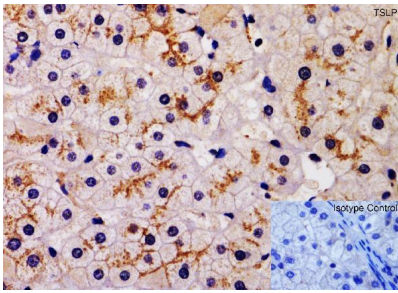


Induced Expression Validation of TSLP in Human Corneal Epithelium (Lin et al., 2018) Immunohistochemical images showing the TSLP protein detected by anti-TSLP antibodies in donor corneal tissues without (Control) or after exposure to IL-32 (50 ng/ml) ex vivo; an isotype IgG antibody was used as a negative control. The production of TSLP was increased after IL-32 treatment.

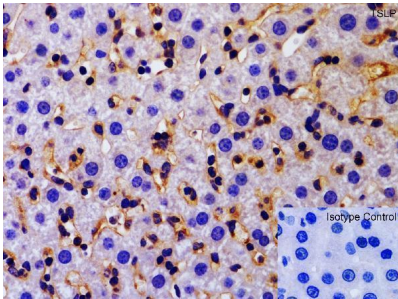


Immunohistochemistry Validation of TSLP in Human Brain Tissue Immunohistochemical analysis of paraffin-embedded Human Brain Tissue using anti-TSLP antibody (A01096-3) at 2.5 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.

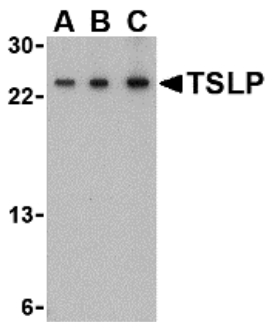
Immunohistochemistry Validation of TSLP in Human Liver Tissue Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-TSLP antibody (A01096-3) at 2 ug/ml. Tissue was fixed with formaldehyde and blocked with



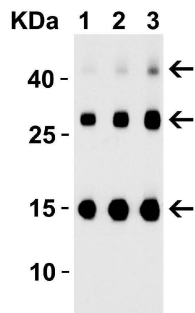
10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



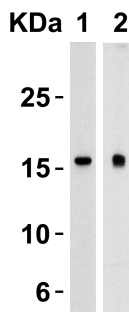
Immunohistochemistry Validation of TSLP in Mouse Liver Tissue
Tissue immunohistochemical analysis of paraffin-embedded mouse liver tissue using anti-TSLP antibody (A01096-3) at 2 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Western Blot Validation in Mouse A-20 Cell Line
Loading: 15 ug of lysates per lane. Antibodies: TSLP A01096-3 (A: 0.5 ug/mL, B: 1 ug/mL, C: 2 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot Validation of TSLP with Human Recombinant protein
Loading: 30ng of TSLP partial human recombinant protein per lane. Antibodies: TSLP A01096-3 (Lane 1: 0.25 ug/mL, Lane 2: 0.5 ug/mL, Lane 3: 1 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. TSLP partial human recombinant protein: 15kD, the observed bands at 30kD and 45kD are the dimer and trimer, respectively.



Western Blot Validation in Human Heart (Lane 1) and Human Prostate (Lane 2)
Loading: 15 ug of lysates per lane. Antibodies: TSLP A01096-3 (4 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.

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