

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse TSLP R in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse TSLP R Ala20-Leu233 Accession # BAA92159
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse TSLP R Fc Chimera (Catalog # 546-TR)
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
CytoF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Neutralization	Measured by its ability to neutralize TSLP-induced proliferation in the BaF3 mouse pro-B cell line transfected with mouse IL-7 Rα/CD127. Park, L.S. <i>et al.</i> (2000) <i>J. Exp. Med.</i> 192 :659. The Neutralization Dose (ND ₅₀) is typically 0.2-0.6 µg/mL in the presence of 7.5 ng/mL Recombinant Mouse TSLP.	

DATA

Flow Cytometry

Detection of TSLP R in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Goat Anti-Mouse TSLP R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF546, filled histogram) or control antibody (Catalog # AB-108-C, open histogram), followed by Allophycocyanin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0108).

Neutralization

Cell Proliferation Induced by TSLP and Neutralization by Mouse TSLP R Antibody. Recombinant Mouse TSLP (Catalog # 555-TS) stimulates proliferation in the BaF3 mouse pro-B cell line transfected with mouse IL-7 Rα/CD127 in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Mouse TSLP (7.5 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Mouse TSLP R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF546). The ND₅₀ is typically 0.2-0.6 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

TSLP R, also named Delta (1) and CRLM-2 (2) (cytokine receptor-like module-2), was originally cloned as a novel type 1 cytokine receptor with similarity to the common gamma chain. It was subsequently identified to be a subunit of the cellular receptor for the IL-7-like cytokine TSLP and termed TSLP R (3). The TSLP R cDNA encodes a 359 amino acid (aa) residue type 1 membrane protein with a 24 aa residue signal peptide, a 206 aa residue extracellular domain that showed 24% sequence identity with the mouse common γ receptor, a 23 aa residue transmembrane domain, and a 106 aa residue cytoplasmic domain. The cytoplasmic domain of TSLP R contains a membrane-proximal box1 motif which is known to be important for association with JAKs. An alternatively spliced mRNA variant encoding a soluble TSLP R has also been reported (2). TSLP R expression is ubiquitous in the immune and hematopoietic cells, but is up-regulated in Th2-skewed cells. Cells expressing TSLP R alone bind TSLP with low affinity. Co-expression of TSLP R and IL-7 R α is required for high-affinity TSLP binding and signal transduction (3, 4).

References:

1. Fujio, K. *et al.* (2000) *Blood* **95**:2204.
2. Hiroyama, T. *et al.* (2000) *Biochem. Biophys. Res. Commun.* **272**:224.
3. Park, L.S. *et al.* (2000) *J. Exp. Med.* **192**:659.
4. Pandey, A. *et al.* (2000) *Nat. Immunol.* **1**:59.