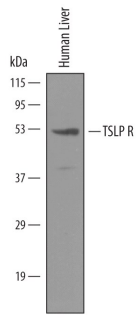
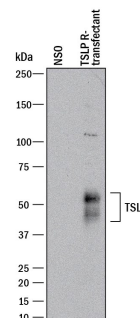
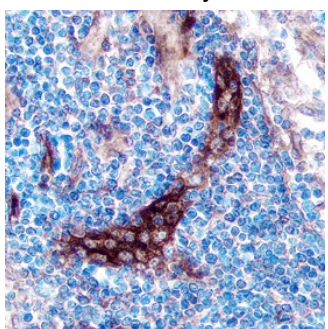
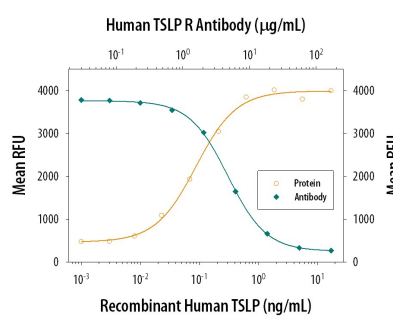


| DESCRIPTION | |
|---------------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human TSLP R in direct ELISAs and Western blots. |
| Source | Polyclonal Goat IgG |
| Purification | Antigen Affinity-purified |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant human TSLP R Val30-Phe232 Accession # Q9HC73 |
| 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 as a 0.2 µm filtered solution in PBS. |

| APPLICATIONS | | |
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| Please Note: Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website. | | |
| | Recommended Concentration | Sample |
| Western Blot | 0.2-1 µg/mL | See Below |
| Immunocytochemistry | 5-15 µg/mL | Immersion fixed human peripheral blood mononuclear cells (PBMCs) |
| Immunohistochemistry | 5-15 µg/mL | See Below |
| Neutralization | Measured by its ability to neutralize TSLP-induced proliferation in the BaF3 mouse pro-B cell line co-transfected with human IL-7 R α and TSLP R. The Neutralization Dose (ND ₅₀) is typically 1-5 µg/mL in the presence of 0.3 ng/mL Recombinant Human TSLP. | |

| DATA | |
|--|---|
| <p>Western Blot</p>  <p>Detection of Human TSLP R by Western Blot. Western blot shows lysates of human liver tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human TSLP R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF981) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for TSLP R at approximately 50 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.</p> | <p>Western Blot</p>  <p>Detection of Human TSLP R by Western Blot. Western blot shows lysates of NS0 mouse myeloma cell line either mock transfected or transfected with human TSLP R. PVDF membrane was probed with 0.2 µg/mL of Goat Anti-Human TSLP R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF981) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). Specific bands were detected for TSLP R at approximately 45-60 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p> |
| <p>Immunohistochemistry</p>  <p>TSLP R in Human Lymph Node. TSLP R was detected in immersion fixed paraffin-embedded sections of human lymph node using Goat Anti-Human TSLP R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF981) at 5 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to the plasma membrane. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p> | <p>Neutralization</p>  <p>Cell Proliferation Induced by TSLP and Neutralization by Human TSLP R Antibody. Recombinant Human TSLP (Catalog # 1398-TS) stimulates proliferation in the BaF3 mouse pro-B cell line co-transfected with human IL-7 Rα and TSLP R in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Human TSLP (0.3 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human TSLP R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF981). The ND₅₀ is typically 1-5 µg/mL.</p> |

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 | <p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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 human TSLP R cDNA encodes a 371 amino acid (aa) residue type 1 membrane protein with a 22 aa residue signal peptide, a 210 aa residue extracellular domain, a 20 aa residue transmembrane domain, and a 119 aa residue cytoplasmic domain (4, 5). The extracellular region contains two fibronectin type III-like domains and a WSXWS-like motif. The cytoplasmic domain contains a membrane-proximal box 1 motif that is known to be important for association with JAKs (4). Human TSLP R displays 39% identity to mouse TSLP R and 24% identity to the common gamma receptor (4). An alternatively spliced mRNA variant encoding a soluble TSLP R has also been reported in mouse (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 (3-6). The TSLP R and IL-7 R α are coexpressed primarily on monocytes and dendritic cells and at lower levels in lymphoid cells. TSLP has been shown to induce the release of T cell-attracting chemokines from monocytes and enhance the maturation of CD11c⁺ dendritic cells (5).

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