

# TSLPR (Y-20): sc-83871

## BACKGROUND

Thymic stromal lymphopoietin (TSLP) is a novel member of the hemopoietic cytokine family that promotes the development of B cells and shares overlapping activity with IL-7. The gene encoding murine TSLP maps to chromosome 18. Its human homologue is expressed in several tissues, including heart, liver and prostate. TSLP mediates its function by binding to a receptor complex: first binding with low affinity to a TSLP-specific chain designated TSLPR, (also designated CRLF2, cytokine receptor-like factor 2), then forming a high affinity complex with the IL-7R $\alpha$  subunit, which explains the overlapping biological properties between TSLP and IL-7. Both TSLP and IL-7 induce phosphorylation of the transcription factor Stat5, but unlike IL-7, TSLP-mediated signaling does not activate the JAKs. TSLP prevents apoptosis and stimulates the proliferation of myeloid cells, which is supported by the coexpression of TSLPR and IL-7R $\alpha$  on monocytes and dendritic cells.

## REFERENCES

- Levin, S.D., et al. 1999. Thymic stromal lymphopoietin: a cytokine that promotes the development of IgM<sup>+</sup> B cells *in vitro* and signals via a novel mechanism. *J. Immunol.* 162: 677-683.
- Isaksen, D.E., et al. 1999. Requirement for Stat5 in thymic stromal lymphopoietin-mediated signal transduction. *J. Immunol.* 163: 5971-5977.
- Park, L.S., et al. 2000. Cloning of the murine thymic stromal lymphopoietin (TSLP) receptor: Formation of a functional heteromeric complex requires interleukin-7 receptor. *J. Exp. Med.* 192: 659-670.
- Sims, J.E., et al. 2000. Molecular cloning and biological characterization of a novel murine lymphoid growth factor. *J. Exp. Med.* 192: 671-680.
- Pandey, A., et al. 2000. Cloning of a receptor subunit required for signaling by thymic stromal lymphopoietin. *Nat. Immunol.* 1: 59-64.

## CHROMOSOMAL LOCATION

Genetic locus: CRLF2 (human) mapping to Xp22.33/Yp11.32.

## SOURCE

TSLPR (Y-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an extracellular domain of TSLPR of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83871 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

TSLPR (Y-20) is recommended for detection of TSLPR of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TSLPR siRNA (h): sc-91575, TSLPR shRNA Plasmid (h): sc-91575-SH and TSLPR shRNA (h) Lentiviral Particles: sc-91575-V.

Molecular Weight (predicted) of TSLPR isoforms: 27/42 kDa.

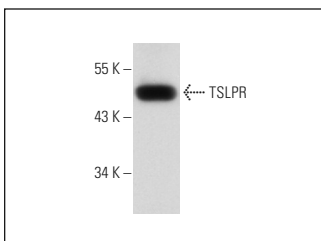
Molecular Weight (observed) of TSLPR isoforms: 40/49 kDa.

Positive Controls: AML-193 whole cell lysate: sc-364182.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



TSLPR (Y-20): sc-83871. Western blot analysis of TSLPR expression in AML-193 whole cell lysate.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Try **TSLPR (4A11): sc-293312**, our highly recommended monoclonal alternative to TSLPR (Y-20).