

TL (N-20): sc-28123

BACKGROUND

TL (thymus leukemia antigen) is a nonclassical MHC class I molecule involved in the presentation of foreign antigens to the immune system. TL exists as a dimerized alpha and beta chain and is expressed on thymocytes, activated T-lymphocytes and in some thymic leukemias. TL modulates T-cell activation through a relatively high-affinity interaction with CD8 alphaalpha (the homotypic form of CD8 alpha), by which TL sequesters and redirects CD8 alphaalpha away from the T-cell receptor. TL is found in large numbers on intestinal epithelial cells.

REFERENCES

1. Tsuji, K., et al. 1997. Requirement of CD4 T cells for skin graft rejection against thymus leukemia (TL) antigen and multiple epitopes on the TL molecule recognized by CD4 T cells. *J. Immunol.* 159: 159-166.
2. Leishman, A., et al. 2001. T cell responses modulated through interaction between CD8 alphaalpha and the nonclassical MHC class I molecule, TL. *Science* 294: 1936-1939.
3. Tsujimura, K., et al. 2001. The binding of thymus leukemia (TL) antigen tetramers to normal intestinal intraepithelial lymphocytes and thymocytes. *J. Immunol.* 167: 759-764.
4. Davis, B.K., et al. 2002. Hyperconservation of the putative antigen recognition site of the MHC class I-b molecule TL in the subfamily Murinae: evidence that thymus leukemia antigen is an ancient mammalian gene. *J. Immunol.* 169: 6890-6899.
5. Liu, Y., et al. 2003. The crystal structure of a TL.CD8 alphaalpha complex at 2.1 Å resolution: implications for modulation of T cell activation and memory. *Immunity* 18: 205-215.
6. Tsujimura, K., et al. 2004. Thymus-leukemia antigen (TL) as a major histocompatibility complex (MHC) class Ib molecule and tumor-specific antigen. *Cancer Sci.* 95: 469-474.
7. SWISS-PROT/Trembl (P14432). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

SOURCE

TL (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TL of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-28123 P, (100 µg 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.

RESEARCH USE

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

APPLICATIONS

TL (N-20) is recommended for detection of Thymus leukemia antigen of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.