SANTA CRUZ BIOTECHNOLOGY, INC.

H2-T3 siRNA (m): sc-145874

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 α and β 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$\alpha\alpha$ (the homotypic form of CD8α), by which TL sequesters and redirects CD8$\alpha\alpha$ 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$\alpha\alpha$ 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-β 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.CD8alphaalpha complex at 2.1 A resoution: 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

CHROMOSOMAL LOCATION

Genetic locus: H2-T3 (mouse) mapping to 17 B1.

PRODUCT

H2-T3 siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see H2-T3 shRNA Plasmid (m): sc-145874-SH and H2-T3 shRNA (m) Lentiviral Particles: sc-145874-V as alternate gene silencing products.

RESEARCH USE

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

PROTOCOLS

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

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

H2-T3 siRNA (m) is recommended for the inhibition of H2-T3 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor H2-T3 gene expression knockdown using RT-PCR Primer: H2-T3 (m)-PR: sc-145874-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.