CTAGE2 siRNA (h): sc-72011



The Power to Question

BACKGROUND

Cutaneous T-cell lymphomas (CTCL) represent a group of skin neoplasms that originate from T lymphocytes and are difficult to treat in advanced stages. Cutaneous T-cell lymphoma-associated antigen 1 (CTAGE1) is normally expressed only in testis tissue, and is found in 35% of CTCL tissues, but not in any leukemia or melanoma cell lines. The gene encoding for CTAGE1 maps to chromosome 18p11.2. CTAGE2 is a longer variant of CTAGE1 and is translated from a different open reading frame. Three other splice variants related to the major CTAGE1 and CTAGE2 variants exist, some of which are expressed only in testis, while others are expressed in a wide range of adult and fetal tissues. CTAGE1 may be an important factor in the specific immunotherapy of cutaneous T-cell lymphoma and other malignancies.

REFERENCES

- Duijvestijn, A.M., Horst, E., Pals, S.T., Rouse, B.N., Steere, A.C., Picker, L.J., Meijer, C.J. and Butcher, E.C. 1988. High endothelial differentiation in human lymphoid and inflammatory tissues defined by monoclonal antibody HECA-452. Am. J. Pathol. 130: 147-155.
- 2. Picker, L.J., Kishimoto, T.K., Smith, C.W., Warnock, R.A. and Butcher, E.C. 1991. ELAM-1 is an adhesion molecule for skin-homing T cells. Nature 349: 796-799.
- Berg, E.L., Yoshino, T., Rott, L.S., Robinson, M.K., Warnock, R.A., Kishimoto, T.K., Picker, L.J. and Butcher, E.C. 1992. The cutaneous lymphocyte antigen is a skin lymphocyte homing receptor for the vascular lectin endothelial cell-leukocyte adhesion molecule 1. J. Exp. Med. 174: 1461-1466.
- Borges, E., Pendl, G., Eytner, R., Steegmaier, M., Zöllner, O. and Vestweber, D. 1997. The binding of T cell-expressed P-selectin glycoprotein ligand-1 to E- and P-selectin is differentially regulated. J. Biol. Chem. 272: 28786-28792.
- Eichmuller, S., Usener, D., Dummer, R., Stein, A., Thiel, D. and Schadendorf, D. 2001. Serological detection of cutaneous T-cell lymphoma-associated antigens. Proc. Natl. Acad. Sci. USA 98: 629-634.
- 6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608856. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 7. Usener, D., Schadendorf, D., Koch, J., Dübel, S. and Eichmüller, S. 2003. cTAGE: a cutaneous T cell lymphoma associated antigen family with tumor-specific splicing. J. Invest. Dermatol. 121: 198-206.

CHROMOSOMAL LOCATION

Genetic locus: CTAGE1 (human) mapping to 18q11.2.

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.

PRODUCT

CTAGE2 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs 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 CTAGE2 shRNA Plasmid (h): sc-72011-SH and CTAGE2 shRNA (h) Lentiviral Particles: sc-72011-V as alternate gene silencing products.

For independent verification of CTAGE2 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-72011A, sc-72011B and sc-72011C.

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

APPLICATIONS

CTAGE2 siRNA (h) is recommended for the inhibition of CTAGE2 expression in human 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 CTAGE2 gene expression knockdown using RT-PCR Primer: CTAGE2 (h)-PR: sc-72011-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

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