SANTA CRUZ BIOTECHNOLOGY, INC.

CTAGE2 siRNA (h): sc-62162

BACKGROUND

Cutaneous T cell lymphomas (CTCL) represent a group of malignancies that originate from CD4-T lymphocytes and manifest on the skin. CTCL is a general term for several neoplasms including mycosis fungoides, T cell leukemia/lymphoma and pagetoid reticulosis, all of which are very difficult to treat in the advanced stages. CTAGE2 (cutaneous T cell lymphoma associated-antigen 2) is a member of the cancer/testis antigen family of proteins (CTAGE) that, under normal conditions, are found primarily in the testis with little or no expression in other parts of the body. CTAGE2 is a 754 amino acid protein that shares similarity with CTAGE1 but, unlike CTAGE1, is not found in tumors. CTAGE2 has two known isoforms and is the longer variant of CTAGE1.

REFERENCES

1. Eichmüller, S., et al. 2001. Serological detection of cutaneous T cell lymphoma-associated antigens. Proc. Natl. Acad. Sci. USA 98: 629-634.
2. Eichmüller, S. 2002. Towards defining specific antigens for cutaneous lymphomas. Onkologie 25: 448-454.
3. Eichmüller, S., et al. 2003. Tumor specific antigens in cutaneous T cell lymphoma: expression and sero reactivity. Int. J. Cancer 104: 482-487.
4. Usener, D., et al. 2003. cTAGE: a cutaneous T cell lymphoma associated antigen family with tumor-specific splicing. J. Invest. Dermatol. 121: 198-206.
5. Atanackovic, D., et al. 2006. Expression of cancer/testis antigens as possible targets for antigen-specific immuno-therapy in head and neck squamous cell carcinoma. Cancer Biol. Ther. 5: 1218-1225.
6. Costa, F.F., et al. 2007. Concise review: cancer/testis antigens, stem cells, and cancer. Stem Cells 25: 707-711.

CHROMOSOMAL LOCATION

Genetic locus: CTAGE1 (human) mapping to 18p11.2.

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-62162-SH and CTAGE2 shRNA (h) Lentiviral Particles: sc-62162-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-62162A, sc-62162B and sc-62162C.

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

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-62162-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.