SANTA CRUZ BIOTECHNOLOGY, INC.

Slfn13 siRNA (h): sc-94095

BACKGROUND

Schlafen family members are preferentially expressed in lymphoid tissues and are differentially regulated during thymocyte maturation. Schlafen proteins function as suppressors of cell growth and are thought to play a role in the maintenance of T cell quiescence. All members of the Schlafen family contain a conserved core domain and are substantially diversified at the N terminus. Changes in Schalfen protein expression may contribute to phenotypic differences seen in thymic subsets. Slfn13 (Schlafen family member 13), also known as SLFN10, is an 897 amino acid protein that exists as two alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 17q12.

REFERENCES

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2. Mehr, R., Perelson, A.S., Fridkis-Hareli, M. and Globerson, A. 1997. Regulatory feedback pathways in the thymus. Immunol. Today 18: 581-585.
3. Takeuchi, T., Kuro-o, M., Miyazawa, H., Ohtsuki, Y. and Yamamoto, H. 1997. Transgenic expression of a novel thymic epithelial cell antigen stimulates abberant development of thymocytes. J. Immunol. 159: 726-733.
4. Schwarz, D.A., Katayama, C.D. and Hedrick, S.M. 1998. Schlafen, a new family of growth regulatory genes that affect thymocyte development. Immunity 9: 657-668.
5. Hershberger, P.A., He, H. and McCarthy, S.A. 1998. *In vitro* thymocyte maturation is associated with reduced cellular susceptibility to Fas-mediated apoptosis. Cell Immunol. 185: 134-145.
6. Benoist, C. and Mathis, D. 1999. T-cell development: a new marker of differentiation state. Curr. Biol. 9: R59-61.
7. Neumann, B., Zhao, L., Murphy K., Gonda, T.J. 2008. Subcellular localization of the Schlafen protein family. Biochem. Biophys. Res. Commun. 370: 62-66.

CHROMOSOMAL LOCATION

Genetic locus: SLFN13 (human) mapping to 17q12.

PRODUCT

Slfn13 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 Slfn13 shRNA Plasmid (h): sc-94095-SH and Slfn13 shRNA (h) Lentiviral Particles: sc-94095-V as alternate gene silencing products.

For independent verification of Slfn13 (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-94095A, sc-94095B and sc-94095C.

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

Slfn13 siRNA (h) is recommended for the inhibition of Slfn13 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 Slfn13 gene expression knockdown using RT-PCR Primer: Slfn13 (h)-PR: sc-94095-PR (20 µl, 461 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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