SANTA CRUZ BIOTECHNOLOGY, INC.

FucT-I siRNA (m): sc-40592

BACKGROUND

All human blood, with rare exception, carries the red cell H antigen. The H blood group locus determines expression of the H antigen in the erythroid lineage, whereas a unique locus (the SE (secretion) locus) controls H expression in a variety of secretory epithelia and in saliva. Individuals of the Bombay phenotype lack H antigen, whereas individuals of the para-Bombay phenotype synthesize H determinants (essential precursors to A and B antigens) in their secretory epithelia but not in the erythroid lineage. The H and SE loci, which may have arisen by gene duplication from a common ancestral gene, are known as FucT-I and FUT2, respectively, and are tightly linked on chromosome 19q13.3. Studies of mice deficient in FucT-I indicate that α 1,2-fucosylated glycans play nonessential roles in blastocyst implantation or sperm function in mice.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Fut1 (mouse) mapping to 7 B4.

PROTOCOLS

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

PRODUCT

FucT-I siRNA (m) 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 FucT-I shRNA Plasmid (m): sc-40592-SH and FucT-I shRNA (m) Lentiviral Particles: sc-40592-V as alternate gene silencing products.

For independent verification of FucT-I (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-40592A, sc-40592B and sc-40592C.

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

FucT-I siRNA (m) is recommended for the inhibition of FucT-I 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 FucT-I gene expression knockdown using RT-PCR Primer: FucT-I (m)-PR: sc-40592-PR (20 µl). 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.