SANTA CRUZ BIOTECHNOLOGY, INC.

SULT1C3 siRNA (h): sc-94596

BACKGROUND

SULT1C3 (sulfotransferase family, cytosolic, 1C, member 3), also known as ST1C3 (sulfotransferase 1C3), is a 304 amino acid cytoplasmic protein that belongs to the sulfotransferase 1 family and exists as two alternatively spliced isoforms. *In vitro,* SULT1C3 has low sulphotransferase activity towards various substrates with alcohol groups but may catalyze the sulfate conjugation of xenobiotic compounds and endogenous substrates. The gene that encodes SULT1C3 contains just over 18 kb and maps to human chromosome 2q12.3. Consisting of 237 million bases, Chromosome 2 encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome, is due to mutations in the ALMS1 gene.

REFERENCES

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7. Horvath, J.E., et al. 2005. Punctuated duplication seeding events during the evolution of human chromosome 2p11. Genome Res. 15: 914-927.
8. Allali-Hassani, A., et al. 2007. Structural and chemical profiling of the human cytosolic sulfotransferases. PLoS Biol. 5: e97.
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CHROMOSOMAL LOCATION

Genetic locus: SULT1C3 (human) mapping to 2q12.3.

PROTOCOLS

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

PRODUCT

SULT1C3 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 SULT1C3 shRNA Plasmid (h): sc-94596-SH and SULT1C3 shRNA (h) Lentiviral Particles: sc-94596-V as alternate gene silencing products.

For independent verification of SULT1C3 (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-94596A, sc-94596B and sc-94596C.

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

SULT1C3 siRNA (h) is recommended for the inhibition of SULT1C3 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 SULT1C3 gene expression knockdown using RT-PCR Primer: SULT1C3 (h)-PR: sc-94596-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.