

17 β -HSD6 siRNA (h): sc-95705

BACKGROUND

17 β -HSD6 (17 β hydroxysteroid dehydrogenase type 6), also known as RODH (retinol dehydrogenase), oxidative 3- α -hydroxysteroid dehydrogenase or HSE (3- α -hydroxysteroid epimerase), belongs to the 17 β -HSD family of proteins that regulate the availability of steroids within various tissues throughout the body. 17 β -HSD6 is an NAD-dependent enzyme that is expressed in prostate and liver tissues. Localizing to the luminal side of the microsome, 17 β -HSD6 plays an important role in androgen and estrogen catabolism. 17 β -HSD6 exhibits oxidoreductase activity, converting 3 α -adiol to dihydrotestosterone, and epimerase activity, converting androsterone to epi-androsterone. Via its ability to inactivate androgens and estrogens, 17 β -HSD6 negatively regulates the signaling activity that is mediated by these steroid hormones.

REFERENCES

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6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606623. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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CHROMOSOMAL LOCATION

Genetic locus: HSD17B6 (human) mapping to 12q13.3.

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

17 β -HSD6 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see 17 β -HSD6 shRNA Plasmid (h): sc-95705-SH and 17 β -HSD6 shRNA (h) Lentiviral Particles: sc-95705-V as alternate gene silencing products.

For independent verification of 17 β -HSD6 (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-95705A, sc-95705B and sc-95705C.

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

17 β -HSD6 siRNA (h) is recommended for the inhibition of 17 β -HSD6 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 μ M in 66 μ l. 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 17 β -HSD6 gene expression knockdown using RT-PCR Primer: 17 β -HSD6 (h)-PR: sc-95705-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.