SANTA CRUZ BIOTECHNOLOGY, INC.

HSDL1 siRNA (h): sc-93539

BACKGROUND

HSDL1 (hydroxysteroid dehydrogenase-like protein 1) is a 330 amino acid protein that belongs to the short-chain dehydrogenases/reductases (SDR) family and 17-β-HSD 3 subfamily. Localizing to the mitochondrion, HSDL1 is highly expressed in testis and ovary, with lower levels of expression found in thyroid, spinal cord, adrenal gland, heart, placenta, skeletal muscle, small intestine, colon, spleen, prostate and pancreas. HSDL1 interacts with DUSP24 and is encoded by a gene that maps to human chromosome 16q23.3 and mouse chromosome 8 E1. Chromosome 16 encodes over 900 genes in approximately 90 million base pairs, makes up nearly 3% of human cellular DNA, and is associated with a variety of genetic disorders. The rare disorder Rubinstein-Taybi syndrome is associated with chromosome 16 through the CREBBP gene, which encodes a critical CREB binding protein. Crohn's disease is a gastrointestinal inflammatory condition associated with chromosome 16 through the NOD2 gene.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HSDL1 (human) mapping to 16q23.3.

PRODUCT

HSDL1 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 HSDL1 shRNA Plasmid (h): sc-93539-SH and HSDL1 shRNA (h) Lentiviral Particles: sc-93539-V as alternate gene silencing products.

For independent verification of HSDL1 (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-93539A, sc-93539B and sc-93539C.

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

HSDL1 siRNA (h) is recommended for the inhibition of HSDL1 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 HSDL1 gene expression knockdown using RT-PCR Primer: HSDL1 (h)-PR: sc-93539-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.

PROTOCOLS

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