SANTA CRUZ BIOTECHNOLOGY, INC.

R3HDML siRNA (h): sc-76310

BACKGROUND

A conserved sequence motif, the R3H domain has been identified in over 100 proteins and is suggested to be involved in polynucleotide-binding, including DNA, RNA and single-stranded DNA. R3HDML (R3H domain containing-like) is a 253 amino acid cysteine-rich secretory protein belonging to the CRISP family. Considered a putative serine protease inhibitor, R3HDML is encoded by a gene located on human chromosome 20, which contains nearly 63 million bases and encodes over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome. Additionally, chromosome 20 contains a region with numerous genes that are thought to be important for seminal production and may be potential targets for male contraception.

REFERENCES

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6. Elghezal, H., Hannachi, H., Mougou, S., Kammoun, H., Triki, C. and Saad, A. 2007. Ring chromosome 20 syndrome without deletions of the subtelomeric and CHRNA4—KCNQ2 genes loci. Eur. J. Med. Genet. 50: 441-445.

CHROMOSOMAL LOCATION

Genetic locus: R3HDML (human) mapping to 20q13.12.

PRODUCT

R3HDML 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 R3HDML shRNA Plasmid (h): sc-76310-SH and R3HDML shRNA (h) Lentiviral Particles: sc-76310-V as alternate gene silencing products.

For independent verification of R3HDML (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-76310A, sc-76310B and sc-76310C.

RESEARCH USE

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

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

R3HDML siRNA (h) is recommended for the inhibition of R3HDML 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 R3HDML gene expression knockdown using RT-PCR Primer: R3HDML (h)-PR: sc-76310-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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