SANTA CRUZ BIOTECHNOLOGY, INC.

ACN9 siRNA (h): sc-89725

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The Power to Question

BACKGROUND

ACN9 (CN9 homolog *(S. cerevisiae)),* also known as protein ACN9 homolog, mitochondrial, is a 125 amino acid protein belonging to the ACN9 family. ACN9 homologs exist in human, mouse, and nematode. Encoded by a gene that maps to human chromosome 7q21.3, ACN9 participates in gluconeogenesis regulation and ethanol or acetate assimilation into carbohydrate. ACN9 also functions in activities related to the overexpression of oxidative enzymes, such as glyoxylate cycle activity and acetyl-coA metabolism. Localizing to the mitochondrial intermembrane space, ACN9 expression can be slightly repressed by glucose. ACN9 may play a role in predisposition to alcohol dependence and may be linked to early-onset breast cancer.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ACN9 (human) mapping to 7q21.3.

PROTOCOLS

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

PRODUCT

ACN9 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 ACN9 shRNA Plasmid (h): sc-89725-SH and ACN9 shRNA (h) Lentiviral Particles: sc-89725-V as alternate gene silencing products.

For independent verification of ACN9 (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-89725A, sc-89725B and sc-89725C.

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

ACN9 siRNA (h) is recommended for the inhibition of ACN9 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 ACN9 gene expression knockdown using RT-PCR Primer: ACN9 (h)-PR: sc-89725-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.