SANTA CRUZ BIOTECHNOLOGY, INC.

CCDC3 siRNA (m): sc-142101

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The Power to Question

BACKGROUND

CCDC3 (coiled-coil domain containing 23), also known as Favine (fat/vessel-derived secretory protein), is a 270 amino acid secreted protein that forms a dimer complex and likely functions in fat metabolism. Expression of CCDC3 is upregulated by Insulin and the PPARγ agonist, pioglitazone, and is supressed by isoproterenol, norepinephrine and TNF-alpha. Enhancing the evidence that expression is linked to hormonal-nutritional alterations is the fact that CCDC3 mRNA levels are increased in adipose tissues of obese mice. The gene encoding CCDC3 maps to human chromosome 10, which spans nearly 135 million base pairs and makes up approximately 4.5% of the total DNA in cells. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie-Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromatic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

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6. Kobayashi, S., Fukuhara, A., Taguchi, T., Matsuda, M., Tochino, Y., Otsuki, M. and Shimomura, I. 2010. Identification of a new secretory factor, CCDC3/Favine, in adipocytes and endothelial cells. Biochem. Biophys. Res. Commun. 392: 29-35.
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CHROMOSOMAL LOCATION

Genetic locus: Ccdc3 (mouse) mapping to 2 A1.

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

CCDC3 siRNA (m) 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 CCDC3 shRNA Plasmid (m): sc-142101-SH and CCDC3 shRNA (m) Lentiviral Particles: sc-142101-V as alternate gene silencing products.

For independent verification of CCDC3 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-142101A, sc-142101B and sc-142101C.

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

CCDC3 siRNA (m) is recommended for the inhibition of CCDC3 expression in mouse 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 CCDC3 gene expression knockdown using RT-PCR Primer: CCDC3 (m)-PR: sc-142101-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.