SANTA CRUZ BIOTECHNOLOGY, INC.

CIDE-C siRNA (m): sc-142342

BACKGROUND

CIDE-C (cell death-inducing DFFA-like effector-c), also known as Fsp27 or CIDE-3, is a 238 amino acid protein that localizes to the cytoplasm and contains one CIDE-N domain. Expressed predominately in small intestine, colon, heart and stomach, and is present at lower levels in liver, brain and kidney. CIDE-C exists as three alternatively spliced isoforms, two of which are thought to induce apoptosis. Additionally, CIDE-C is upregulated during adipogenesis in white and brown adipose tissue, and may negatively regulate lipolysis and promote triglyceride accumulation. The gene encoding CIDE-C maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 612120. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Liang, L., et al. 2003. Molecular cloning and characterization of CIDE-3, a novel member of the cell-death-inducing DNA-fragmentation-factor (DFF45)-like effector family. Biochem. J. 370: 195-203.
3. Puri, V., et al. 2007. Fat-specific protein 27, a novel lipid droplet protein that enhances triglyceride storage. J. Biol. Chem. 282: 34213-34218.
4. Laurencikiene, J., et al. 2008. Evidence for an important role of CIDE-A in human cancer cachexia. Cancer Res. 68: 9247-9254.
5. Matsusue, K., et al. 2008. Hepatic steatosis in leptin-deficient mice is promoted by the PPARγ target gene Fsp27. Cell Metab. 7: 302-311.
6. Keller, P., et al. 2008. Fat-specific protein 27 regulates storage of triacylglycerol. J. Biol. Chem. 283: 14355-14365.

CHROMOSOMAL LOCATION

Genetic locus: Cidec (mouse) mapping to 6 E3.

PRODUCT

CIDE-C 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 CIDE-C shRNA Plasmid (m): sc-142342-SH and CIDE-C shRNA (m) Lentiviral Particles: sc-142342-V as alternate gene silencing products.

For independent verification of CIDE-C (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-142342A, sc-142342B and sc-142342C.

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.

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

CIDE-C siRNA (m) is recommended for the inhibition of CIDE-C 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 CIDE-C gene expression knockdown using RT-PCR Primer: CIDE-C (m)-PR: sc-142342-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.