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SANTA CRUZ BIOTECHNOLOGY, INC.

CCDC116 siRNA (m): sc-142061

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CCDC116 (coiled-coil domain containing 116) is a 515 amino acid protein that exists as two alternatively spliced isoforms. Encoded by a gene that maps to human chromosome 22q11.21, CCDC116 is induced by curcumin (diferulolylmethane), although its role is unclear. CCDC116 is significantly affected by dietary curcumin, which may have a protective role in inflammatory bowel disease (IBD) and may reduce the relapse rate in human ulcerative colitis (UC). As the second smallest human chromosome, chromosome 22 contains over 500 genes and about 49 million bases. Phelan-McDermid syndrome, Neurofibromatosis type 2 and autism are associated with chromosome 22. A schizophrenia susceptibility locus has been identified on chromosome 22 and studies show that 22q11 deletion symptoms include a high incidence of schizophrenia. Translocation between chromosomes 9 and 22 may lead to the formation of Philadelphia Chromosome and subsequent production of a novel fusion protein known as Bcr-Abl, a potent cell proliferation activator found in several types of leukemia.

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CHROMOSOMAL LOCATION

Genetic locus: Ccdc116 (mouse) mapping to 16 A3.

PRODUCT

CCDC116 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 CCDC116 shRNA Plasmid (m): sc-142061-SH and CCDC116 shRNA (m) Lentiviral Particles: sc-142061-V as alternate gene silencing products.

For independent verification of CCDC116 (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-142061A, sc-142061B and sc-142061C.

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

CCDC116 siRNA (m) is recommended for the inhibition of CCDC116 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 CCDC116 gene expression knockdown using RT-PCR Primer: CCDC116 (m)-PR: sc-142061-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.