SANTA CRUZ BIOTECHNOLOGY, INC.

CCDC102B siRNA (h): sc-72819

BACKGROUND

CCDC102B (coiled-coil domain containing 102B), also known as AN, ACY1L or HsT1731, is a 513 amino acid protein that exists as three alternatively spliced isoforms. Widely expressed and found in multiple CNV (copy-number variant) regions, CCDC102B contains the deletion breakpoint of a maternally inherited deletion, which is 2.7 Mb in size, and maps to human chromosome 18q22.1. CCDC102B may play a role in the pathogenesis of diaphragmatic hernia, microphthalmia, colorectal carcinoma and schizophrenia. Encoding over 300 genes, chromosome 18 contains about 76 million bases. Translocation between chromosomes 18 and 14 is the most common translocation in cancers and occurs in follicular lymphomas. Niemann-Pick disease, hereditary hemorrhagic telangiectasia and erythropoietic protoporphyria are associated with chromosome 18.

REFERENCES

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3. Shovlin, C.L., et al. 2007. Elevated factor VIII in hereditary haemorrhagic telangiectasia (HHT): association with venous thromboembolism. Thromb. Haemost. 98: 1031-1039.
4. Kurashina, K., et al. 2008. Chromosome copy number analysis in screening for prognosis-related genomic regions in colorectal carcinoma. Cancer Sci. 99: 1835-1840.
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7. Huang, J., et al. 2010. Cross-disorder genomewide analysis of schizophrenia, bipolar disorder, and depression. Am. J. Psychiatry 167: 1254-1263.
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CHROMOSOMAL LOCATION

Genetic locus: CCDC102B (human) mapping to 18q22.1.

PRODUCT

CCDC102B 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 CCDC102B shRNA Plasmid (h): sc-72819-SH and CCDC102B shRNA (h) Lentiviral Particles: sc-72819-V as alternate gene silencing products.

For independent verification of CCDC102B (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-72819A, sc-72819B and sc-72819C.

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

CCDC102B siRNA (h) is recommended for the inhibition of CCDC102B 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 CCDC102B gene expression knockdown using RT-PCR Primer: CCDC102B (h)-PR: sc-72819-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.

PROTOCOLS

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