SANTA CRUZ BIOTECHNOLOGY, INC.

CdcA7 siRNA (h): sc-94355

BACKGROUND

Cell cycle events are regulated by the sequential activation and deactivation of cyclin dependent kinases (Cdks) and by the proteolysis of cyclins. The cell division control (Cdc) genes are required at various points in the cell cycle. CdcA7 (cell division cycle associated 7), also known as JPO1, is a 371 amino acid nuclear protein that may function as a transcriptional regulator. Although ubiquitously expressed in normal tissue with higher expression in thymus and small intestine, CdcA7 is suggested to be overexpressed in a large number of tumors, in blood from patients with acute myelogenous leukemia (AML) and in chronic myelogenous leukemia (CML) blast crisis. CdcA7 is thought to participate in c-Myc-mediated cell transformation and is therefore considered a novel c-Myc-responsive gene. CdcA7 exists as four alternatively spliced isoforms and is encoded by a gene located on human chromosome 2q31.1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CDCA7 (human) mapping to 2q31.1.

PROTOCOLS

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

PRODUCT

CdcA7 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 CdcA7 shRNA Plasmid (h): sc-94355-SH and CdcA7 shRNA (h) Lentiviral Particles: sc-94355-V as alternate gene silencing products.

For independent verification of CdcA7 (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-94355A, sc-94355B and sc-94355C.

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

CdcA7 siRNA (h) is recommended for the inhibition of CdcA7 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 CdcA7 gene expression knockdown using RT-PCR Primer: CdcA7 (h)-PR: sc-94355-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.