

CENP-I siRNA (h): sc-91123

BACKGROUND

A replicated chromosome includes two kinetochores that control chromosome segregation during mitosis. The CENPA-CAD complex is recruited to centromeres where it is involved in assembly of kinetochore proteins, chromosome segregation and mitotic progression. As a component of the CENPA-CAD complex, CENP-I (Centromere protein I), also known as ICEN19 (Interphase centromere complex protein 19), FSHPRH1 (Follicle-stimulating hormone primary response protein) and LRPR1 (Leucine-rich primary response protein 1), is a 756 amino acid protein that is involved in the incorporation of newly synthesized CENP-A into centrosomes. CENP-I is also required for localization of MAD2, MAD1L1 and CENP-F to kinetochores, an essential event for mitosis. Transcription of the CENP-I gene is rapidly activated in response to follicle-stimulating hormone (FSH) and may therefore play a role in gonadal development. There are two isoforms of CENP-I that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CENPI (human) mapping to Xq22.1.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

CENP-I 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CENP-I shRNA Plasmid (h): sc-91123-SH and CENP-I shRNA (h) Lentiviral Particles: sc-91123-V as alternate gene silencing products.

For independent verification of CENP-I (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-91123A, sc-91123B and sc-91123C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

CENP-I siRNA (h) is recommended for the inhibition of CENP-I 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 μ M in 66 μ l. 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 CENP-I gene expression knockdown using RT-PCR Primer: CENP-I (h)-PR: sc-91123-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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