SANTA CRUZ BIOTECHNOLOGY, INC.

# HEI-C siRNA (m): sc-145932

## BACKGROUND

Mitosis is an important process regulated by many proteins. In the event that cellular division is not controlled, cancer, tumors and cellular death become prevalent. HEI-C (enhancer of invasion-cluster) is also known as CCDC5 (coiled-coil domain containing 5 (spindle associated)) and is a 278 amino acid protein expressed as two isoforms. HEI-C is expressed in a variety of tissues including pancreas, kidney, skeletal muscle, liver and heart, where it is localized to the cytoplasm during phases of the cell cycle, excluding mitosis. HEI-C is localized to asters, and is spotted on the microtubule array during metaphase. During the later stages of mitosis, HEI-C remains only on the spindle, then associates with microtubule bundles central to the midbody of the cell. During the metaphase-anaphase transition of mitosis, HEI-C regulates the function and stability of the mitotic spindle. Depletion of HEI-C results in cell death or mitotic delay between metaphase and anaphase, suggesting the importance of functional HEI-C proteins.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: Haus1 (mouse) mapping to 18 E3.

## 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.

## PRODUCT

HEI-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 HEI-C shRNA Plasmid (m): sc-145932-SH and HEI-C shRNA (m) Lentiviral Particles: sc-145932-V as alternate gene silencing products.

For independent verification of HEI-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-145932A, sc-145932B and sc-145932C.

## 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

HEI-C siRNA (m) is recommended for the inhibition of HEI-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 HEI-C gene expression knockdown using RT-PCR Primer: HEI-C (m)-PR: sc-145932-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.