SANTA CRUZ BIOTECHNOLOGY, INC.

Spc24 siRNA (m): sc-76553

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The Power to Question

BACKGROUND

The NDC80 complex is a multi-protein structure that exists as the center of the kinetochore and is important for spindle checkpoint signaling and chromosome congression. Spc24, also known as SPBC24, is a 197 amino acid protein that localizes to the nucleus, with specific localization to the kinetochore from late prophase to anaphase. Functioning as a component of the NDC80 complex, Spc24 plays a role in kinetochore integrity, as well as in the organization of stable microtubule binding sites in the outer plate of the kinetochore. The gene encoding Spc24 maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Spc24 (mouse) mapping to 9 A3.

PROTOCOLS

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

PRODUCT

Spc24 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 Spc24 shRNA Plasmid (m): sc-76553-SH and Spc24 shRNA (m) Lentiviral Particles: sc-76553-V as alternate gene silencing products.

For independent verification of Spc24 (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-76553A, sc-76553B and sc-76553C.

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

Spc24 siRNA (m) is recommended for the inhibition of Spc24 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 Spc24 gene expression knockdown using RT-PCR Primer: Spc24 (m)-PR: sc-76553-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.