SANTA CRUZ BIOTECHNOLOGY, INC.

SPDL-1 siRNA (m): sc-142164

BACKGROUND

SPDL-1 (spindle apparatus coiled-coil protein 1), also known as hSpindly (protein sSpindly) or CCDC99 (coiled-coil domain-containing protein 99) is a 605 amino acid protein that belongs to the Spindly family. SPDL-1 localizes to the nucleus during interphase and the kinetochore during early prometaphase. SPDL-1 is required for the localization of dynein and dynactin to the kinetochore. Dyneins are multisubunit, high molecular weight ATPases that interact with microtubules to generate force by converting the chemical energy of ATP into the mechanical energy of movement, and are required for correct spindle orientation. SPDL-1 relocalizes to the mitotic spindle pole before metaphase and is removed from the spindle poles after chromosome congression is completed. Existing as two alternatively spliced isoforms, SPDL-1 is encoded by a gene that maps to human chromosome 5q35.1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Ccdc99 (mouse) mapping to 11 A4.

PRODUCT

SPDL-1 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 SPDL-1 shRNA Plasmid (m): sc-142164-SH and SPDL-1 shRNA (m) Lentiviral Particles: sc-142164-V as alternate gene silencing products.

For independent verification of SPDL-1 (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-142164A, sc-142164B and sc-142164C.

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

SPDL-1 siRNA (m) is recommended for the inhibition of SPDL-1 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 SPDL-1 gene expression knockdown using RT-PCR Primer: SPDL-1 (m)-PR: sc-142164-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.