SANTA CRUZ BIOTECHNOLOGY, INC.

SPATA24 siRNA (h): sc-91998

BACKGROUND

SPATA24 (spermatogenesis-associated protein 24), also known as testis protein T6441 homolog, is a 205 amino acid cytoplasmic and nuclear protein that belongs to the SPATA24 family and is associated with chromatin. While it binds DNA with high affinity, SPATA24 does not bind to TATA boxes. Existing as a homodimer, SPATA24 may play a role in cytoplasm movement and removal during spermiogenesis. The gene that encodes SPATA24 consists of approximately 7,526 bases and maps to human chromosome 5q31.2. With 181 million base pairs encoding around 1,000 genes, chromosome 5 makes up about 6% of the human genome. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome and deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SPATA24 (human) mapping to 5q31.2.

PROTOCOLS

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

PRODUCT

SPATA24 siRNA (h) is a pool of 2 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 SPATA24 shRNA Plasmid (h): sc-91998-SH and SPATA24 shRNA (h) Lentiviral Particles: sc-91998-V as alternate gene silencing products.

For independent verification of SPATA24 (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-91998A and sc-91998B.

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

SPATA24 siRNA (h) is recommended for the inhibition of SPATA24 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 SPATA24 gene expression knockdown using RT-PCR Primer: SPATA24 (h)-PR: sc-91998-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.