SANTA CRUZ BIOTECHNOLOGY, INC.

CENP-S siRNA (h): sc-105197

BACKGROUND

Centromere protein S (CENP-S), also known as apoptosis-inducing TAF9-like domain-containing protein 1 (APITD1), is a 138 amino acid protein belonging to the TAF9 family. Localized exclusively to centromeres, CENP-S is a component of the CENP-CAD (nucleosome distal) complex. This complex interacts with the CENP-NAC complex in centromeres and is involved in assembly of kinetochore proteins, mitotic progression and chromosome segregation. CENP-S was found to be expressed at low levels in neuroblastoma cells, indicating a possible role in a cell death pathway. Ubiquitously expressed, CENP-S exists as three isoforms produced by alternative splicing.

REFERENCES

1. Krona, C., et al. 2004. A novel 1p36.2 located gene, APITD1, with tumour-suppressive properties and a putative p53-binding domain, shows low expression in neuroblastoma tumours. Br. J. Cancer 91: 1119-1130.
2. Okada, M., et al. 2006. The CENP-H-I complex is required for the efficient incorporation of newly synthesized CENP-A into centromeres. Nat. Cell Biol. 8: 446-457.
3. Foltz, D.R., et al. 2006. The human CENP-A centromeric nucleosome-associated complex. Nat. Cell Biol. 8: 458-469.
4. Van Gils, W., et al. 2007. Expression of APITD1 is not related to copy number changes of chromosomal region 1p36 or the prognosis of uveal melanoma. Invest. Ophthalmol. Vis. Sci. 48: 4919-4923.
5. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 609130. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: APITD1 (human) mapping to 1p36.22.

PRODUCT

CENP-S siRNA (h) is a target-specific 19-25 nt siRNA 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 CENP-S shRNA Plasmid (h): sc-105197-SH and CENP-S shRNA (h) Lentiviral Particles: sc-105197-V as alternate gene silencing products.

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.

RESEARCH USE

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

APPLICATIONS

CENP-S siRNA (h) is recommended for the inhibition of CENP-S 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 CENP-S gene expression knockdown using RT-PCR Primer: CENP-S (h)-PR: sc-105197-PR (20 µl). 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.