

CENP-V siRNA (m): sc-152513

BACKGROUND

During mitosis, the transient assembly of the kinetochore occurs on a platform known as the centromere, a specialized chromatin structure that is comprised of various centromere proteins (CENPs). There are two multi-protein centromere complexes, known as CENPA-NAC (nucleosome-associated) and CENPA-CAD (nucleosome distal), which interact with one another to facilitate both the assembly and the activity of the centromere. CENP-V (centromere protein V), also known as PRR6 or nuclear protein p30, is a 275 amino acid protein that belongs to the gfa family. Existing as three alternatively spliced isoforms, CENP-V plays an essential role in cytokinesis, chromosome alignment, and the distribution of pericentromeric heterochromatin in interphase nuclei. The gene encoding CENP-V maps to human chromosome 17p11.2 and mouse chromosome 11 B2.

REFERENCES

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5. Tadeu, A.M., Ribeiro, S., Johnston, J., Goldberg, I., Gerloff, D. and Earnshaw, W.C. 2008. CENP-V is required for centromere organization, chromosome alignment and cytokinesis. *EMBO J.* 27: 2510-2522.
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CHROMOSOMAL LOCATION

Genetic locus: Cenpv (mouse) mapping to 11 B2.

PRODUCT

CENP-V siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CENP-V shRNA Plasmid (m): sc-152513-SH and CENP-V shRNA (m) Lentiviral Particles: sc-152513-V as alternate gene silencing products.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support 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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

CENP-V siRNA (m) is recommended for the inhibition of CENP-V 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 μ M in 66 μ l. 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-V gene expression knockdown using RT-PCR Primer: CENP-V (m)-PR: sc-152513-PR (20 μ l). 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.