



CSAP siRNA (m): sc-108455

BACKGROUND

CSAP (centriole, cilia and spindle-associated protein), also known as CCSAP or C1orf96, is a 270 amino acid protein that colocalizes with polyglutamylated tubulin to centrioles, spindle microtubules, and cilia. Localization of CSAP to spindle and cilia microtubules can be prevented by reducing tubulin polyglutamylation. CSAP is required for proper cilia beating, and may play a role in embryonic development. In zebrafish, CSAP is required for normal brain development and correct left-right asymmetry. Existing as four alternatively spliced isoforms, CSAP is encoded by a gene mapping to human chromosome 1q42.13 and mouse chromosome 8 E2. Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. The rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes Lamin A. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Ccsap (mouse) mapping to 8 E2.

PRODUCT

CSAP 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CSAP shRNA Plasmid (m): sc-108455-SH and CSAP shRNA (m) Lentiviral Particles: sc-108455-V as alternate gene silencing products.

For independent verification of CSAP (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-108455A, sc-108455B and sc-108455C.

RESEARCH USE

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

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

CSAP siRNA (m) is recommended for the inhibition of CSAP 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 CSAP gene expression knockdown using RT-PCR Primer: CSAP (m)-PR: sc-108455-PR (20 μ l). 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.