SANTA CRUZ BIOTECHNOLOGY, INC.

Septin 14 siRNA (h): sc-89694

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The Power to Question

BACKGROUND

Septin 14, also known as SEPT14, is a 432 amino acid protein that belongs to the septin family. The highly conserved septin family of GTP-binding cytoskeletal proteins is implicated in membrane transport, apoptosis, cell polarity, cell cycle regulation, cytokinesis and other cellular functions. Septins polymerize into heterooligomeric protein complexes that form filaments, and can associate with cellular membranes, actin filaments and microtubules. Septin 14 has a GTPase domain followed by a C-terminal coiled-coil domain characteristic of group II septins. Septin 14 interacted with all septins except those that are members of its phylogenetic cluster, including itself. Septin 14 shares highest identity (67%) with Septin 10. Expressed in testis and more weakly in fetal liver, tonsil and thymus, the Septin 14 protein is not detected in testicular cancer or other normal or cancer cell lines. The Septin 14 gene is conserved in chimpanzee, cinine, bovine, mouse and rat, and maps to human chromosome 7p11.2.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SEPT14 (human) mapping to 7p11.2.

PROTOCOLS

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

PRODUCT

Septin 14 siRNA (h) 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 Septin 14 shRNA Plasmid (h): sc-89694-SH and Septin 14 shRNA (h) Lentiviral Particles: sc-89694-V as alternate gene silencing products.

For independent verification of Septin 14 (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-89694A, sc-89694B and sc-89694C.

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

Septin 14 siRNA (h) is recommended for the inhibition of Septin 14 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 Septin 14 gene expression knockdown using RT-PCR Primer: Septin 14 (h)-PR: sc-89694-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.