SANTA CRUZ BIOTECHNOLOGY, INC.

Septin 10 siRNA (m): sc-61529

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The septins are a family of GTPase enzymes, some of which are required for cytokinesis and others of which are associated with exocytosis. Members of the septin family can form heteropolymer complexes and also play a role in the organization of new growth in organisms. The transcriptional regulation of all septins is complex, resulting in alternatively spliced variants. Septin 10, a 517- residue polypeptide which localizes to the cytoplasm and nucleus, shares closest homology to Septin 6 and Septin 8. Septin 10 is expressed ubiquitously, though most abundantly in the placenta, lung, kidney, heart, skeletal muscles, liver and various tumor cell lines. Like other septin family members, Septin 10 displays GTP-binding and GTPase activity. Additionally, Septin 10 is potentially involved in cytokinesis. Upon maturation induced by lipopolysaccharide (LPS), dendritic cells express upregulated amounts of Septin 10.

REFERENCES

1. Cooper, J.A. and Kiehart, D.P. 1996. Septins may form a ubiquitous family of cytoskeletal filaments. J. Cell Biol. 134: 1345-1348.
2. Trimble, W.S. 1999. Septins: a highly conserved family of membrane-associated GTPases with functions in cell division and beyond. J. Membr. Biol. 169: 75-81.
3. Bläser, S., Jersch, K., Hainmann, I., Wunderle, D., Zgaga-Griesz, A., Busse, A. and Zieger, B. 2002. Human Septin-Septin interaction: CDCrel-1 partners with KIAA0202. FEBS Lett. 519: 169-172.
4. Kinoshita, M. and Noda, M. 2002. Roles of septins in the mammalian cytokinesis machinery. Cell Struct. Funct. 26: 667-670.
5. Sui, L., Zhang, W., Liu, Q., Chen, T., Li, N., Wan, T., Yu, M. and Cao, X. 2003. Cloning and functional characterization of human Septin 10, a novel member of Septin family cloned from dendritic cells. Biochem. Biophys. Res. Commun. 304: 393-398.
6. Joo, E., Tsang, C.W. and Trimble, W.S. 2005. Septins: traffic control at the cytokinesis intersection. Traffic 6: 626-634.

CHROMOSOMAL LOCATION

Genetic locus: Sept10 (mouse) mapping to 10 B4.

PRODUCT

Septin 10 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Septin 10 shRNA Plasmid (m): sc-61529-SH and Septin 10 shRNA (m) Lentiviral Particles: sc-61529-V as alternate gene silencing products.

For independent verification of Septin 10 (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-61529A, sc-61529B and sc-61529C.

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 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 10 siRNA (m) is recommended for the inhibition of Septin 10 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 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 10 gene expression knockdown using RT-PCR Primer: Septin 10 (m)-PR: sc-61529-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.