SANTA CRUZ BIOTECHNOLOGY, INC.

Septin 11 siRNA (m): sc-61535

BACKGROUND

Septins are members of a conserved family of cytoskeletal GTPases, specifically belonging to the large superclass of P loop GTPases. Septin proteins form homo- and hetero-oligomeric polymers that accumulate into higher-order filaments which may function as dynamic protein scaffolds. Septins play an important role in vesicle trafficking, apoptosis, cytoskeleton remodeling, infection, neurodegeneration, neoplasia and cytokinesis. Septin 11 is mainly present in brain tissue. It has been found to dominantly co-localize with microtubules and Actin stress fibers in HMEC cells and REF52 cells, and to partially co-localize with microtubules and stress fibers in HeLa cells. SEPT11 (the gene encoding Septin 11) is confined to the same tissues as those that express SEPT5, suggesting that SEPT11 and SEPT5 are components of a cell-specific septin complex.

REFERENCES

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3. Kim, D.S., et al. 2004. Analysis of mammalian septin expression in human malignant brain tumors. Neoplasia 6: 168-178.
4. Martinez, C., et al. 2004. Mammalian septin function in hemostasis and beyond. Exp. Biol. Med. 229: 1111-1119.
5. Nagata, K., et al. 2004. Biochemical and cell biological analyses of a mammalian septin complex, Sept7/9b/11. J. Biol. Chem. 279: 55895-55904.
6. Hall, P.A., et al. 2005. Expression profiling the human septin gene family. J. Pathol. 206: 269-278.
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8. Cerveira, N., et al. 2006. SEPT2 is a new fusion partner of MLL in acute myeloid leukemia with t(2;11)(q37;q23). Oncogene 25: 6147-6152.
9. Bläser, S., et al. 2006. Human endothelial cell septins: SEPT11 is an interaction partner of SEPT5. J. Pathol. 210: 103-110.

CHROMOSOMAL LOCATION

Genetic locus: Sept11 (mouse) mapping to 5 E2.

PRODUCT

Septin 11 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 11 shRNA Plasmid (m): sc-61535-SH and Septin 11 shRNA (m) Lentiviral Particles: sc-61535-V as alternate gene silencing products.

For independent verification of Septin 11 (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-61535A, sc-61535B and sc-61535C.

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 11 siRNA (m) is recommended for the inhibition of Septin 11 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 11 gene expression knockdown using RT-PCR Primer: Septin 11 (m)-PR: sc-61535-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.

PROTOCOLS

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