SANTA CRUZ BIOTECHNOLOGY, INC.

ARPC5L siRNA (h): sc-92952

BACKGROUND

ARPC5L (Actin related protein 2/3 complex, subunit 5-like), also known as ARC16-2 (Arp2/3 complex 16 kDa subunit 2), is a 153 amino acid protein belonging to the ARPC5 family. Encoded by a gene that maps to human chromosome 9q33.3, ARPC5L is conserved in chimpanzee, canine, bovine, mouse, rat and zebrafish. ARPC5L localizes to cytoplasm and cytoskeleton, and participates in Actin and protein binding, Actin cytoskeleton organization and biogenesis and regulation of Actin filament polymerization. Possibly replacing p16-ARC, ARPC5L likely operates as an element of the Arp2/3 complex, which assists with regulation of Actin polymerization and, when partnered with an activating nucleation-promoting factor (NPF), mediates branched Actin network formation. ARPC5L is a putative target of miR-335, which may play a role in plasma cell homing and bone marrow microenvironment interactions.

REFERENCES

1. Ronchetti, D., Lionetti, M., Mosca, L., Agnelli, L., Andronache, A., Fabris, S., Deliliers, G.L. and Neri, A. 2008. An integrative genomic approach reveals coordinated expression of intronic miR-335, miR-342, and miR-561 with deregulated host genes in multiple myeloma. BMC Med. Genomics 1: 37.
2. Cauwe, B., Martens, E., Proost, P. and Opdenakker, G. 2009. Multidimensional degradomics identifies systemic autoantigens and intracellular matrix proteins as novel gelatinase B/MMP-9 substrates. Integr. Biol. 1: 404-426.
3. Park, K., Dirisala, V.R., Oh, Y., Choi, H., Lee, K.T., Kim, J.H., Lee, H.T., Seo, K.H. and Park, C. 2009. Reporting 678 putative cSNPs from full-length enriched cDNA sequences of the Korean native pig. J. Anim. Breed. Genet. 126: 127-133.
4. Mori, R., Xiong, S., Wang, Q., Tarabolous, C., Shimada, H., Panteris, E., Danenberg, K.D., Danenberg, P.V. and Pinski, J.K. 2009. Gene profiling and pathway analysis of neuroendocrine transdifferentiated prostate cancer cells. Prostate 69: 12-23.
5. Rolando, M., Stefani, C., Flatau, G., Auberger, P., Mettouchi, A., Mhlanga, M., Rapp, U., Galmiche, A. and Lemichez, E. 2010. Transcriptome dysregulation by anthrax lethal toxin plays a key role in induction of human endothelial cell cytotoxicity. Cell. Microbiol. 12: 891-905.
6. Balasinor, N.H., D'Souza, R., Nanaware, P., Idicula-Thomas, S., Kedia-Mokashi, N., He, Z. and Dym, M. 2010. Effect of high intratesticular estrogen on global gene expression and testicular cell number in rats. Reprod. Biol. Endocrinol. 8: 72.
7. Alkhalil, A., Hammamieh, R., Hardick, J., Ichou, M.A., Jett, M. and Ibrahim, S. 2010. Gene expression profiling of monkeypox virus-infected cells reveals novel interfaces for host-virus interactions. Virol. J. 7: 173.

CHROMOSOMAL LOCATION

Genetic locus: ARPC5L (human) mapping to 9q33.3.

PROTOCOLS

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

PRODUCT

ARPC5L 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 ARPC5L shRNA Plasmid (h): sc-92952-SH and ARPC5L shRNA (h) Lentiviral Particles: sc-92952-V as alternate gene silencing products.

For independent verification of ARPC5L (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-92952A, sc-92952B and sc-92952C.

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

ARPC5L siRNA (h) is recommended for the inhibition of ARPC5L 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 ARPC5L gene expression knockdown using RT-PCR Primer: ARPC5L (h)-PR: sc-92952-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.