SANTA CRUZ BIOTECHNOLOGY, INC.

ARMC4 siRNA (h): sc-90406

BACKGROUND

The armadillo (ARM) repeat family of proteins are related to the *Drosophila melanogaster* armadillo protein, a protein essential for wingless signal transduction. ARM proteins are involved in a variety of processes such as cell migration, cell proliferation, tissue maintenance and tumorigenesis, and they also function in signal transduction and the maintenance of overall cell structure. ARMC4 (armadillo repeat-containing protein 4) is a 1044 amino acid protein that contains ten ARM repeats and one HEAT repeat. ARMC4 may possibly function as a regulator of ciliogenesis in airway epithelial cells and testis. The gene encoding ARMC4 maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome.

REFERENCES

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2. Oda, H., et al. 1993. Identification of a *Drosophila* homologue of α-catenin and its association with the armadillo protein. J. Cell Biol. 121: 1133-1140.
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5. Pai, L.M., et al. 1996. *Drosophila* α-catenin and E-cadherin bind to distinct regions of *Drosophila* armadillo. J. Biol. Chem. 271: 32411-32420.
6. Geis, K., et al. 1998. Expression of the armadillo family member p120cas1B in *Xenopus* embryos affects head differentiation but not axis formation. Dev. Genes Evol. 207: 471-481.
7. Kurochkin, I.V., et al. 2001. ALEX1, a novel human armadillo repeat protein that is expressed differentially in normal tissues and carcinomas. Biochem. Biophys. Res. Commun. 280: 340-347.
8. Coates, J.C. 2003. Armadillo repeat proteins: beyond the animal kingdom. Trends Cell Biol. 13: 463-471.
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CHROMOSOMAL LOCATION

Genetic locus: ARMC4 (human) mapping to 10p12.1.

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.

PRODUCT

ARMC4 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 ARMC4 shRNA Plasmid (h): sc-90406-SH and ARMC4 shRNA (h) Lentiviral Particles: sc-90406-V as alternate gene silencing products.

For independent verification of ARMC4 (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-90406A, sc-90406B and sc-90406C.

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

ARMC4 siRNA (h) is recommended for the inhibition of ARMC4 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 ARMC4 gene expression knockdown using RT-PCR Primer: ARMC4 (h)-PR: sc-90406-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.