SANTA CRUZ BIOTECHNOLOGY, INC.

# ARMC4 siRNA (m): sc-141256

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*The Power to Question*

## 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


1. Peifer, M., et al. 1992. The vertebrate adhesive junction proteins β-catenin and plakoglobin and the *Drosophila* segment polarity gene armadillo form a multigene family with similar properties. J. Cell Biol. 118: 681-691.
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4. Aberle, H., et al. 1996. Single amino acid substitutions in proteins of the armadillo gene family abolish their binding to α-catenin. J. Biol. Chem. 271: 1520-1526.
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 (mouse) mapping to 18 A1.

## 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 (m) is a target-specific 19-25 nt siRNA 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 (m): sc-141256-SH and ARMC4 shRNA (m) Lentiviral Particles: sc-141256-V as alternate gene silencing products.

## 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 (m) is recommended for the inhibition of ARMC4 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 ARMC4 gene expression knockdown using RT-PCR Primer: ARMC4 (m)-PR: sc-141256-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.