SANTA CRUZ BIOTECHNOLOGY, INC.

ARMC9 siRNA (m): sc-141261

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. ARMC9 (armadillo repeat containing 9), also known as ARM, KU-MEL-1 or LisH domain-containing protein ARMC9, is an 817 amino acid protein belonging to the armadillo repeat family of proteins. ARMC9 is strongly expressed in most melanomas and melanocytes and weakly expressed in the testis. Containing a LisH domain, ARMC9 exists as two alternatively spliced isoforms and is encoded by a gene on human chromosome 2q37.1, which houses over 1,400 genes and comprises nearly 8% of the human genome.

REFERENCES

1. Ijdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. Proc. Natl. Acad. Sci. USA 88: 9051-9055.
2. Loureiro, J., et al. 1998. Roles of armadillo, a *Drosophila* catenin, during central nervous system development. Curr. Biol. 8: 622-632.
3. Hatzfeld, M. 1999. The armadillo family of structural proteins. Int. Rev. Cytol. 186: 179-224.
4. Klymkowsky, M.W. 1999. Plakophilin, armadillo repeats, and nuclear localization. Microsc. Res. Tech. 45: 43-54.
5. Coates, J.C., et al. 2006. Armadillo-related proteins promote lateral root development in *Arabidopsis*. Proc. Natl. Acad. Sci. USA 103: 1621-1626.
6. Sakai, T., et al. 2008. Armadillo repeat-containing kinesins and a NIMA-related kinase are required for epidermal-cell morphogenesis in *Arabidopsis*. Plant J. 53: 157-171.
7. Mou, Z., et al. 2009. The armadillo repeat-containing protein, ARMCX3, physically and functionally interacts with the developmental regulatory factor Sox10. J. Biol. Chem. 284: 13629-13640.

CHROMOSOMAL LOCATION

Genetic locus: Armc9 (mouse) mapping to 1 C5.

PRODUCT

ARMC9 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 ARMC9 shRNA Plasmid (m): sc-141261-SH and ARMC9 shRNA (m) Lentiviral Particles: sc-141261-V as alternate gene silencing products.

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.

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

ARMC9 siRNA (m) is recommended for the inhibition of ARMC9 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 ARMC9 gene expression knockdown using RT-PCR Primer: ARMC9 (m)-PR: sc-141261-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.