SANTA CRUZ BIOTECHNOLOGY, INC.

ARMC5 siRNA (m): sc-141257

SANTA CRUZ BIOTECHNOLOGY

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. ARMC5 (armadillo repeat containing 5) is a 935 amino acid protein that contains one BTB (POZ) domain and seven ARM repeats, suggesting a role in signal transduction events throughout the cell. Four isoforms of ARMC5 are expressed due to alternative splicing events. The gene encoding ARMC5 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome.

REFERENCES

1. Huber, A.H., Nelson, W.J. and Weis, W.I. 1997. Three-dimensional structure of the armadillo repeat region of β-catenin. Cell 90: 871-882.
2. Pai, L.M., Orsulic, S., Bejsovec, A. and Peifer, M. 1997. Negative regulation of armadillo, a Wingless effector in *Drosophila*. Development 124: 2255-2266.
3. Loureiro, J. and Peifer, M. 1998. Roles of armadillo, a *Drosophila* catenin, during central nervous system development. Curr. Biol. 8: 622-632.
4. Gilbert, F. 1999. Disease genes and chromosomes: disease maps of the human genome. Chromosome 16. Genet. Test. 3: 243-254.
5. Hatzfeld, M. 1999. The armadillo family of structural proteins. Int. Rev. Cytol. 186: 179-224.
6. Coates, J.C. 2003. Armadillo repeat proteins: beyond the animal kingdom. Trends Cell Biol. 13: 463-471
7. Rakha, E.A., Green, A.R., Powe, D.G., Roylance, R. and Ellis, I.O. 2006. Chromosome 16 tumor-suppressor genes in breast cancer. Genes Chromosomes Cancer 45: 527-535.
8. Breitman, M., Zilberberg, A., Caspi, M. and Rosin-Arbesfeld, R. 2008. The armadillo repeat domain of the APC tumor suppressor protein interacts with Striatin family members. Biochim. Biophys. Acta 1783: 1792-1802.

CHROMOSOMAL LOCATION

Genetic locus: Armc5 (mouse) mapping to 7 F3.

PRODUCT

ARMC5 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 ARMC5 shRNA Plasmid (m): sc-141257-SH and ARMC5 shRNA (m) Lentiviral Particles: sc-141257-V as alternate gene silencing products.

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

ARMC5 siRNA (m) is recommended for the inhibition of ARMC5 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 ARMC5 gene expression knockdown using RT-PCR Primer: ARMC5 (m)-PR: sc-141257-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.