

ARMC1 siRNA (h): sc-77435

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. ARMC1 (armadillo repeat-containing protein 1), also known as ARCP, is a 282 amino acid protein that contains one ARM repeat, suggesting a role in signal transduction pathways throughout the cell. The gene encoding ARMC1 maps to human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that maps to chromosome 8.

REFERENCES

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3. Selicorni, A., et al. 2002. Cytogenetic mapping of a novel locus for type II Waardenburg syndrome. Hum. Genet. 110: 64-67.
4. McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. Am. J. Hum. Genet. 77: 582-595.
5. Agrelo, R., et al. 2006. Epigenetic inactivation of the premature aging Werner syndrome gene in human cancer. Proc. Natl. Acad. Sci. USA 103: 8822-8827.
6. Mossafa, H., et al. 2006. Non-Hodgkin's lymphomas with Burkitt-like cells are associated with c-Myc amplification and poor prognosis. Leuk. Lymphoma 47: 1885-1893.
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CHROMOSOMAL LOCATION

Genetic locus: ARMC1 (human) mapping to 8q13.1.

PRODUCT

ARMC1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ARMC1 shRNA Plasmid (h): sc-77435-SH and ARMC1 shRNA (h) Lentiviral Particles: sc-77435-V as alternate gene silencing products.

For independent verification of ARMC1 (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-77435A, sc-77435B and sc-77435C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

ARMC1 siRNA (h) is recommended for the inhibition of ARMC1 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 μ M in 66 μ l. 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 ARMC1 gene expression knockdown using RT-PCR Primer: ARMC1 (h)-PR: sc-77435-PR (20 μ l). 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.

PROTOCOLS

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