SANTA CRUZ BIOTECHNOLOGY, INC.

ARMC3 siRNA (h): sc-90830

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. They are intracellular proteins that function in signal transduction and cell structure. ARMC3 (armadillo repeat-containing protein 3), also known as β-catenin-like protein, KU-CT-1 or cancer/testis antigen 81 (CT81), is a 872 amino acid protein that contains 12 ARM domains. Expressed in a wide variety of tissues, such as lung, brain, kidney, skeletal muscle, prostate, testis, spleen and thymus, ARMC3 has been identified in many cancer tissues and is thought to play a role in tumor initiation. Five named isoforms of ARMC3 exist as a result of alternative splicing events.

REFERENCES

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2. 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.
3. Coates, J.C. 2003. Armadillo repeat proteins: beyond the animal kingdom. Trends Cell Biol. 13: 463-471.
4. Smith, C.A., et al. 2005. Temporal and spatial expression profile of the novel armadillo-related gene, Alex2, during testicular differentiation in the mouse embryo. Dev. Dyn. 233: 188-193.
5. Li, X., et al. 2006. Cloning and expression of ARMC3_v2, a novel splicing variant of the human ARMC3 gene. Genetika 42: 999-1003.
6. Park, J.H., et al. 2006. PDZ-binding kinase/T-LAK cell-originated protein kinase, a putative cancer/testis antigen with an oncogenic activity in breast cancer. Cancer Res. 66: 9186-9195.
7. Okada, T., et al. 2006. A novel cancer testis antigen that is frequently expressed in pancreatic, lung, and endometrial cancers. Clin. Cancer Res. 12: 191-197.

CHROMOSOMAL LOCATION

Genetic locus: ARMC3 (human) mapping to 10p12.2.

PRODUCT

ARMC3 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 ARMC3 shRNA Plasmid (h): sc-90830-SH and ARMC3 shRNA (h) Lentiviral Particles: sc-90830-V as alternate gene silencing products.

For independent verification of ARMC3 (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-90830A, sc-90830B and sc-90830C.

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

ARMC3 siRNA (h) is recommended for the inhibition of ARMC3 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 ARMC3 gene expression knockdown using RT-PCR Primer: ARMC3 (h)-PR: sc-90830-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.

PROTOCOLS

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