SANTA CRUZ BIOTECHNOLOGY, INC.

ANKMY2 siRNA (h): sc-89542

BACKGROUND

ANKMY2 (ankyrin repeat and MYND domain containing 2) is a 441 amino acid protein that contains three ANK repeats and one MYND-type zinc finger. Encoded by a gene that maps to human chromosome 7p21.1, ANKMY2 is conserved in chimpanzee, canine, bobine, mouse, chicken, zebrafish, fruit fly, mosquito and *Caenorhabditis elegans*. Downregulation of ANKMY2, associated with frequent deletions of human chromosome 7p22.1, indicate that ANKMY2 may role a role in the pathogenesis of natural killer (NK)-cell malignancies. ANKMY2 is also upregulated by enforced expression of Hox11, which functions broadly to hinder hemopoiesis, diverts differentiation to an alternative fate and promotes pre-leukaemic states. ANKMY2 may also participate in zinc ion binding, cell adhesion, cellular morphogenesis, neurite outgrowth and human cortical functions.

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: ANKMY2 (human) mapping to 7p21.1.

PRODUCT

ANKMY2 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 ANKMY2 shRNA Plasmid (h): sc-89542-SH and ANKMY2 shRNA (h) Lentiviral Particles: sc-89542-V as alternate gene silencing products.

For independent verification of ANKMY2 (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-89542A, sc-89542B and sc-89542C.

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

ANKMY2 siRNA (h) is recommended for the inhibition of ANKMY2 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 ANKMY2 gene expression knockdown using RT-PCR Primer: ANKMY2 (h)-PR: sc-89542-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.