SANTA CRUZ BIOTECHNOLOGY, INC.

ANKDD1A siRNA (h): sc-90202

BACKGROUND

ANKDD1A (ankyrin repeat and death domain containing 1A) is a 522 amino acid protein that contains 11 ANK repeats and one death domain. Encoded by a gene that maps to human chromosome 15q22.2, ANKDD1A is conserved in chimpanzee, canine, mouse, rat, chicken and zebrafish, and exists as five alternatively spliced isoforms. Chromosome 15 makes up approximately 3% of the human genome and contains 106 million base pairs encoding more than 700 genes. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes on chromosome 15q. In the case of Angelman syndrome, this loss is due to inactivity of the maternal encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In cases of Prader-Willi syndrome, a partial or complete deletion from the paternal copy of chromosome 15 occurs. Tay-Sachs disease, a lethal disorder associated with mutations of the HEXA gene, and Marfan syndrome are also associated with chromosome 15.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: ANKDD1A (human) mapping to 15q22.31.

PRODUCT

ANKDD1A 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 ANKDD1A shRNA Plasmid (h): sc-90202-SH and ANKDD1A shRNA (h) Lentiviral Particles: sc-90202-V as alternate gene silencing products.

For independent verification of ANKDD1A (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-90202A, sc-90202B and sc-90202C.

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

ANKDD1A siRNA (h) is recommended for the inhibition of ANKDD1A 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 ANKDD1A gene expression knockdown using RT-PCR Primer: ANKDD1A (h)-PR: sc-90202-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.