SANTA CRUZ BIOTECHNOLOGY, INC.

ANKRD43 siRNA (h): sc-91782

BACKGROUND

Ankyrins are membrane adaptor molecules that play important roles in coupling integral membrane proteins to the spectrin-based cytoskeleton network. Mutations of ankyrin genes lead to severe genetic diseases, such as fatal cardiac arrhythmias and hereditary spherocytosis. ANKRD43 (ankyrin repeat domain 43) is a 549 amino acid protein that contains two ANK repeats and participates in DNA binding and transcription regulation. Encoded by a gene that maps to human chromosome 5q31.1, ANKRD43 is conserved in bovine, mouse, rat and chicken. ANKRD43 exhibits nuclear localization and is largely expressed in lateral ganglionic eminences (LGE) mantle, where differentiating neurons are located. ANKRD43 is also expressed in the dorsal aspect of the LGE ventricular zone/subventricular zone (SVZ) and in adult striatal projection neurons. ANKRD43 is up-regulated by microRNA-200c, thereby playing a role in the development of mesodermal and neural tissues and tumor progression.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SOWAHA (human) mapping to 5q31.1.

PROTOCOLS

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

PRODUCT

ANKRD43 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 ANKRD43 shRNA Plasmid (h): sc-91782-SH and ANKRD43 shRNA (h) Lentiviral Particles: sc-91782-V as alternate gene silencing products.

For independent verification of ANKRD43 (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-91782A, sc-91782B and sc-91782C.

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

ANKRD43 siRNA (h) is recommended for the inhibition of ANKRD43 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 ANKRD43 gene expression knockdown using RT-PCR Primer: ANKRD43 (h)-PR: sc-91782-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.