

ANKRD33B siRNA (h): sc-91617

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. ANKRD33B (ankyrin repeat domain 33B) is a 494 amino acid coiled-coil protein that contains five ANK repeats. Conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, ANKRD33B is encoded by a gene that maps to human chromosome 5p15.2. Chromosome 5 makes up approximately 6% of the human genome and contains 181 million base pairs, which encode 1,000 genes. Chromosome 5 is associated with Cockayne syndrome, familial adenomatous polyposis and Treacher Collins syndrome. Deletion of 5q, or chromosome 5 altogether, is common in acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ANKRD33B (human) mapping to 5p15.2.

PROTOCOLS

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

PRODUCT

ANKRD33B siRNA (h) is a pool of 2 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 ANKRD33B shRNA Plasmid (h): sc-91617-SH and ANKRD33B shRNA (h) Lentiviral Particles: sc-91617-V as alternate gene silencing products.

For independent verification of ANKRD33B (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-91617A and sc-91617B.

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

ANKRD33B siRNA (h) is recommended for the inhibition of ANKRD33B 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 ANKRD33B gene expression knockdown using RT-PCR Primer: ANKRD33B (h)-PR: sc-91617-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.