

ANKRD32 siRNA (m): sc-141090

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. ANKRD32 (ankyrin repeat domain 32), also known as BRCTD1 (BRCT domain containing 1), is a 1,058 amino acid protein that contains three ANK repeats and two BRCT domains. Conserved in chimpanzee, canine, bovine, mouse, rat and chicken, ANKRD32 is encoded by a gene that maps to human chromosome 5q15. Deletion of human chromosome 5q14.3-q15, which includes ANKRD32, is linked to periventricular heterotopia, mental retardation, and epilepsy. Chromosome 5 makes up approximately 6% of the human genome and contains 181 million base pairs, which encode 1,000 genes.

REFERENCES

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3. Bertucci, F., et al. 2008. Lobular and ductal carcinomas of the breast have distinct genomic and expression profiles. *Oncogene* 27: 5359-5372.
4. Chapman, E.J., et al. 2009. Integrated genomic and transcriptional analysis of the *in vitro* evolution of telomerase-immortalized urothelial cells (TERT-NHUC). *Genes Chromosomes Cancer* 48: 694-710.
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8. SWISS-PROT/TrEMBL (Q9BQI6). World Wide Web URL: <http://www.uniprot.org/uniprot/Q9BQI6>

CHROMOSOMAL LOCATION

Genetic locus: Ankrd32 (mouse) mapping to 13 C1.

PRODUCT

ANKRD32 siRNA (m) is a target-specific 19-25 nt siRNA 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 ANKRD32 shRNA Plasmid (m): sc-141090-SH and ANKRD32 shRNA (m) Lentiviral Particles: sc-141090-V as alternate gene silencing products.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

ANKRD32 siRNA (m) is recommended for the inhibition of ANKRD32 expression in mouse 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.

GENE EXPRESSION MONITORING

ANKRD32 (G-1): sc-514264 is recommended as a control antibody for monitoring of ANKRD32 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ANKRD32 gene expression knockdown using RT-PCR Primer: ANKRD32 (m)-PR: sc-141090-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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