SANTA CRUZ BIOTECHNOLOGY, INC.

ANKRD35 siRNA (h): sc-88418

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. ANKRD35 (ankyrin repeat domain 35) is a 1,001 amino acid protein containing six ANK repeats. ANKRD35 is encoded by a gene located on human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Davis, J.Q. and Bennett, V. 1984. Brain ankyrin. A membrane-associated protein with binding sites for spectrin, tubulin, and the cytoplasmic domain of the erythrocyte anion channel. J. Biol. Chem. 259: 13550-13559.
2. Bennett, V., Baines, A.J. and Davis, J.Q. 1985. Ankyrin and synapsin: spectrin-binding proteins associated with brain membranes. J. Cell. Biochem. 29: 157-169.
3. Davis, J., Davis, L. and Bennett, V. 1989. Diversity in membrane binding sites of ankyrins. Brain ankyrin, erythrocyte ankyrin, and processed erythrocyte ankyrin associate with distinct sites in kidney microsomes. J. Biol. Chem. 264: 6417-6426.
4. Hryniewicz-Jankowska, A., Czogalla, A., Bok, E. and Sikorsk, A.F. 2002. Ankyrins, multifunctional proteins involved in many cellular pathways. Folia Histochem. Cytobiol. 40: 239-249.

CHROMOSOMAL LOCATION

Genetic locus: ANKRD35 (human) mapping to 1q21.1.

PRODUCT

ANKRD35 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 ANKRD35 shRNA Plasmid (h): sc-88418-SH and ANKRD35 shRNA (h) Lentiviral Particles: sc-88418-V as alternate gene silencing products.

For independent verification of ANKRD35 (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-88418A, sc-88418B and sc-88418C.

RESEARCH USE

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

PROTOCOLS

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

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

ANKRD35 siRNA (h) is recommended for the inhibition of ANKRD35 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 ANKRD35 gene expression knockdown using RT-PCR Primer: ANKRD35 (h)-PR: sc-88418-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.