SANTA CRUZ BIOTECHNOLOGY, INC.

ANKRD49 siRNA (m): sc-141107

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. ANKRD49 (ankyrin repeat domain 49), also known as FGIF (fetal globin-inducing factor), is a 239 amino acid phosphoprotein that contains four ANK repeats and is expressed in fetus, with high levels in fetal liver, brain and lung. Encoded by a gene that maps to human chromosome 11q21, ANKRD49 is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly, mosquito and *Caenorhabditis elegans*. ANKRD49 participates in transcription activator functions and may play a role in Notch signaling, an important pathway in tumorigenic processes. An invasion-associated four-gene signature, which includes ANKRD49, derived from lung cancer cell lines exhibits survival prediction potential for non-small cell lung cancer patients.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Ankrd49 (mouse) mapping to 9 A2.

PROTOCOLS

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

PRODUCT

ANKRD49 siRNA (m) 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 ANKRD49 shRNA Plasmid (m): sc-141107-SH and ANKRD49 shRNA (m) Lentiviral Particles: sc-141107-V as alternate gene silencing products.

For independent verification of ANKRD49 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-141107A, sc-141107B and sc-141107C.

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

ANKRD49 siRNA (m) is recommended for the inhibition of ANKRD49 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 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 ANKRD49 gene expression knockdown using RT-PCR Primer: ANKRD49 (m)-PR: sc-141107-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.