

AHNAK2 siRNA (m): sc-147570

BACKGROUND

AHNAK2 (AHNAK nucleoprotein 2) is a 5,795 amino acid protein that functions in protein binding activities. Encoded by a gene that maps to human chromosome 14q32.33, AHNAK2 localizes to the nucleus and exists as three alternatively spliced isoforms. Composed of a large number of highly conserved repeat segments, AHNAK2 contains one PDZ (DHR) domain and at least seven exons, with the first six being relatively small and the seventh almost 18 kb in size. AHNAK2 likely contains its PDZ (DHR) domain within its nonrepeating N-terminus, suggesting AHNAK2 is involved in calcium channel functions and the regulation of excitation/contraction coupling of cardiomyocytes. AHNAK2 may be associated with degenerative muscle disorders.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Ahnak2 (mouse) mapping to 12 F1.

PRODUCT

AHNAK2 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 μM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see AHNAK2 shRNA Plasmid (m): sc-147570-SH and AHNAK2 shRNA (m) Lentiviral Particles: sc-147570-V as alternate gene silencing 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

AHNAK2 siRNA (m) is recommended for the inhibition of AHNAK2 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 AHNAK2 gene expression knockdown using RT-PCR Primer: AHNAK2 (m)-PR: sc-147570-PR (20 μl). Annealing temperature for the primers should be $55-60^{\circ}\text{C}$ and the extension temperature should be $68-72^{\circ}\text{C}$.

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.