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β1-Syntrophin siRNA (h): sc-43437

BACKGROUND

The Syntrophins are PDZ-domain-containing proteins that facilitate the recruitment of signaling proteins such as NOS1 to the dystrophin-associated protein complex. The Syntrophins are a family of structurally related proteins that contain multiple protein interaction motifs. Syntrophins associate directly with dystrophin, the product of the Duchenne muscular dystrophy locus, and its homologues. α-Syntrophin has an important role in synapse formation and in the organization of utrophin, acetylcholine receptor and acetylcholinesterase at the neuromuscular synapse. Specifically, NOS1 binds to α-Syntrophin at muscle sarcolemma. β2-Syntrophin is a modular adapter and in muscle cells interacts with members of the dystrophin family, which includes utrophin.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SNTB1 (human) mapping to 8q24.12.

PRODUCT

β1-Syntrophin 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 β1-Syntrophin shRNA Plasmid (h): sc-43437-SH and β1-Syntrophin shRNA (h) Lentiviral Particles: sc-43437-V as alternate gene silencing products.

For independent verification of β1-Syntrophin (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-43437A, sc-43437B and sc-43437C.

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 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

β1-Syntrophin siRNA (h) is recommended for the inhibition of β1-Syntrophin 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 β1-Syntrophin gene expression knockdown using RT-PCR Primer: β1-Syntrophin (h)-PR: sc-43437-PR (20 μl). 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.