SANTA CRUZ BIOTECHNOLOGY, INC.

Syncoilin siRNA (h): sc-78581

BACKGROUND

Syncoilin (SYNC) is a 483 amino acid member of the intermediate filament family. Localized to the perinuclear region of cytoplasm, Syncoilin interacts with α-Dystrobrevin and Desmin. Syncoilin links the dystrophin associated protein complex (DAPC) to desmin filaments in muscle, and is therefore found at high levels in cardiac and skeletal muscle. Syncoilin is upregulated at the sarcolemma in individuals with various forms of neuromuscular disease. The gene that encodes Syncoilin maps to human chromosome 1, which is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1.

REFERENCES

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3. Poon, E., Howman, E.V., Newey and S.E., Davies, K.E. 2002. Association of syncoilin and desmin: linking intermediate filament proteins to the dystrophin-associated protein complex. J. Biol. Chem. 277: 3433-3439.
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CHROMOSOMAL LOCATION

Genetic locus: SYNC (human) mapping to 1p35.1.

PRODUCT

Syncoilin 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 Syncoilin shRNA Plasmid (h): sc-78581-SH and Syncoilin shRNA (h) Lentiviral Particles: sc-78581-V as alternate gene silencing products.

For independent verification of Syncoilin (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-78581A, sc-78581B and sc-78581C.

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

Syncoilin siRNA (h) is recommended for the inhibition of Syncoilin 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.

GENE EXPRESSION MONITORING

Syncoilin (C-3): sc-515474 is recommended as a control antibody for monitoring of Syncoilin 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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 Syncoilin gene expression knockdown using RT-PCR Primer: Syncoilin (h)-PR: sc-78581-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.