SANTA CRUZ BIOTECHNOLOGY, INC.

Seipin siRNA (h): sc-62990

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The Power to Question

BACKGROUND

Seipin, also known as BSCL2 (Bernardinelli-Seip congenital lipodystrophy 2), HMN5, SPG17 or GNG3LG, is a 400 amino acid transmembrane protein that localizes to the endoplasmic reticulum (ER). Highly expressed in testis and brain, Seipin is involved in proper neuronal connections and in maintaining ER stability. Defects in the gene encoding Seipin are the cause of three distinct disorders: Berardinelli-Seip congenital lipodystrophy type 2 (BSCL), Silver spastic paraplegia syndrome (SSPS) and distal hereditary motor neuropathy type V (DSMAV). BSCL is a rare disorder characterized by an absence of adipose tissue and severe Insulin resistance. SSPS and DSMAV are both neurological disorders that cause hereditary spastic paraparesis and the degeneration of motor nerve fibers, respectively. Three isoforms of Seipin exist due to alternative splicing events.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: BSCL2 (human) mapping to 11q12.3.

PRODUCT

Seipin 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 Seipin shRNA Plasmid (h): sc-62990-SH and Seipin shRNA (h) Lentiviral Particles: sc-62990-V as alternate gene silencing products.

For independent verification of Seipin (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-62990A, sc-62990B and sc-62990C.

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

Seipin siRNA (h) is recommended for the inhibition of Seipin 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 Seipin gene expression knockdown using RT-PCR Primer: Seipin (h)-PR: sc-62990-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.