

Leiomodin 2 siRNA (h): sc-89902

BACKGROUND

Members of the Leiomodin protein family are closely related to the tropomodulin family of actin filament pointed end-capping proteins. Leiomodins are Actin-binding proteins that act as strong filament nucleators in muscle cells. Leiomodin 1 is highly expressed in a variety of tissues that contain smooth muscle, therefore it is also known as smooth muscle Leiomodin, or SM-Lmod. Also designated C-Lmod, Leiomodin 3 is found in several types of fetal tissue and is involved in tropomyosin binding. Leiomodin 2, also known as C-LMOD or LMOD2, is a 547 amino acid protein that is specifically expressed in heart and skeletal muscles. Leiomodin 2 binds to tropomyosin and may block the elongation and depolymerization of Actin filaments at their pointed end. Leiomodin 2 is encoded by a gene that is located near the hypertrophic cardiomyopathy locus CMH6 on chromosome 7, suggesting that Leiomodin 2 may be involved in that disease process. Leiomodin 2 is expressed as three alternatively spliced variants.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: LMOD2 (human) mapping to 7q31.32.

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.

PRODUCT

Leiomodin 2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Leiomodin 2 shRNA Plasmid (h): sc-89902-SH and Leiomodin 2 shRNA (h) Lentiviral Particles: sc-89902-V as alternate gene silencing products.

For independent verification of Leiomodin 2 (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-89902A, sc-89902B and sc-89902C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Leiomodin 2 siRNA (h) is recommended for the inhibition of Leiomodin 2 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 μ M in 66 μ l. 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 Leiomodin 2 gene expression knockdown using RT-PCR Primer: Leiomodin 2 (h)-PR: sc-89902-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.