SANTA CRUZ BIOTECHNOLOGY, INC.

Myosin IXa siRNA (h): sc-90199

BACKGROUND

Myosins are highly conserved, ubiquitously expressed proteins that interact with Actin to generate the force for cellular movements. The human genome encodes over 40 different Myosin genes which are divided into distinct classes, the most notable of which are the conventional Myosins (class II) and the unconventional Myosins (classes I and III through XVIII). Myosin IXa, also known as unconventional Myosin-9a or MYR7, is a 2,548 amino acid single-pass membrane protein that may be involved in intracellular movements. Existing as five alternatively spliced isoforms, Myosin IXa is expressed in placenta and testis and is found at lower levels in a variety of other tissues. Myosin IXa contains five IQ domains, two myosin head-like domains, one Ras-associating domain, two phorbol-ester/DAG-type zinc fingers and a single Rho-GAP domain. The gene encoding Myosin IXa maps to human chromosome 15q23.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MYO9A (human) mapping to 15q23.

PROTOCOLS

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

PRODUCT

Myosin IXa 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 Myosin IXa shRNA Plasmid (h): sc-90199-SH and Myosin IXa shRNA (h) Lentiviral Particles: sc-90199-V as alternate gene silencing products.

For independent verification of Myosin IXa (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-90199A, sc-90199B and sc-90199C.

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

Myosin IXa siRNA (h) is recommended for the inhibition of Myosin IXa 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 Myosin IXa gene expression knockdown using RT-PCR Primer: Myosin IXa (h)-PR: sc-90199-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.

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