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SANTA CRUZ BIOTECHNOLOGY, INC.

Myosin VIIB siRNA (m): sc-149763

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 that 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 XV). Myosin VIIB, also known as MYO7B, is a 2,116 amino acid protein that localizes to the apical cell membrane and contains six IQ domain, one myosin head-like domains, two FERM domains, three MyTH4 domains and two SH3 domains. Existing as an unconventional myosin, Myosin VIIB is thought to play a role in the apical membranes of transporting epithelia. Myosin VIIB is expressed in intestine, colon, and kidney, with strongest expression in small intestine, and exists as two alternatively spliced isoforms. Myosin VIIB is encoded by a gene located on human chromosome 2q14.3 and mouse chromosome 18 B1.

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CHROMOSOMAL LOCATION

Genetic locus: Myo7b (mouse) mapping to 18 B1.

PRODUCT

Myosin VIIB siRNA (m) 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 VIIB shRNA Plasmid (m): sc-149763-SH and Myosin VIIB shRNA (m) Lentiviral Particles: sc-149763-V as alternate gene silencing products.

For independent verification of Myosin VIIB (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-149763A, sc-149763B and sc-149763C.

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 VIIB siRNA (m) is recommended for the inhibition of Myosin VIIB expression in mouse 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 VIIB gene expression knockdown using RT-PCR Primer: Myosin VIIB (m)-PR: sc-149763-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.