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SANTA CRUZ BIOTECHNOLOGY, INC.

Myosin Vb siRNA (m): sc-149761

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Class V unconventional myosins, which include Myosin Va and Myosin Vb, are nonfilamentous, Actin-binding enzymes that appear to be expressed ubiquitously. Myosin V proteins are regulated by their heavy chain phosphorylation, which occurs at the C-terminal tail domain. Myosin Vb, also known as MYO5B, is a 1,849 amino acid protein that may be involved in intracellular trafficking. Considered a Rab 8A interacting protein, Myosin Vb regulates intracellular trafficking of GluR from recycling endosomes (REs) to synaptic sites during long-term potentiation. Association with REs triggers rapid spine recruitment of endosomes and local exocytosis in spines. It is suggested that Myosin Vb is required for Insulin-induced Glut4 translocation in muscle cells.

REFERENCES

1. Hales, C.M., et al. 2002. Rab 11 family interacting protein 2 associates with Myosin Vb and regulates plasma membrane recycling. J. Biol. Chem. 277: 50415-50421.
2. Watanabe, S., et al. 2006. Mechanoenzymatic characterization of human Myosin Vb. Biochemistry 45: 2729-2738.
3. Roland, J.T., et al. 2007. Myosin Vb interacts with Rab 8A on a tubular network containing EHD1 and EHD3. Mol. Biol. Cell 18: 2828-2837.
4. Ishikura, S. and Klip, A. 2008. Muscle cells engage Rab 8A and Myosin Vb in Insulin-dependent GLUT4 translocation. Am. J. Physiol., Cell Physiol. 295: C1016-C1025.
5. Perlson, E. and Holzbaur, E.L. 2008. Myosin learns to recruit AMPA receptors. Cell 135: 414-415.
6. Wang, Z., et al. 2008. Myosin Vb mobilizes recycling endosomes and AMPA receptors for postsynaptic plasticity. Cell 135: 535-548.
7. Müller, T., et al. 2008. MYO5B mutations cause microvillus inclusion disease and disrupt epithelial cell polarity. Nat. Genet. 40: 1163-1165.
8. Millman, E.E., et al. 2008. Rapid recycling of β-adrenergic receptors is dependent on the Actin cytoskeleton and Myosin Vb. Traffic 9: 1958-1971.
9. Roland, J.T., et al. 2009. Alternative splicing in class V myosins determines association with Rab 10. J. Biol. Chem. 284: 1213-1223.

CHROMOSOMAL LOCATION

Genetic locus: Myo5b (mouse) mapping to 18 E2.

PRODUCT

Myosin Vb 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 Vb shRNA Plasmid (m): sc-149761-SH and Myosin Vb shRNA (m) Lentiviral Particles: sc-149761-V as alternate gene silencing products.

For independent verification of Myosin Vb (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-149761A, sc-149761B and sc-149761C.

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 Vb siRNA (m) is recommended for the inhibition of Myosin Vb 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.

GENE EXPRESSION MONITORING

Myosin Vb (18): sc-135995 is recommended as a control antibody for monitoring of Myosin Vb 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 Myosin Vb gene expression knockdown using RT-PCR Primer: Myosin Vb (m)-PR: sc-149761-PR (20 µl, 589 bp). 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.

PROTOCOLS

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