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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
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SANTA CRUZ BIOTECHNOLOGY, INC.

Myosin Ic siRNA (m): sc-44605

BACKGROUND

Actin is a highly conserved protein that is expressed in all eukaryotic cells. Actin filaments can form both stable and labile structures and are crucial components of microvilli and the contractile apparatus of muscle cells. Troponin facilitates interaction between Actin and Myosin by binding to Ca^{2+}. Troponin is made up of at least two subunits, which are divergent in cardiac muscle, fast skeletal muscle and slow skeletal muscle. Myosin is a hexamer of two heavy chains (MHC) and four light chains (MLC) that interacts with Actin to generate the force for diverse cellular movements, including cytokinesis, phagocytosis and muscle contraction. Myosin Ic (Myo1C) is also designated Myosin I β. In vestibular hair cells, Myosin Ic may be important for fast adaptation.

REFERENCES

1. Bose, A., et al. 2004. Unconventional myosin Myo1c promotes membrane fusion in a regulated exocytic pathway. Mol. Cell. Biol. 24: 5447-5458.
2. Batters, C., et al. 2004. Myosin Ic is designed for the adaptation response in the inner ear. EMBO J. 23: 1433-1440.
3. Gillespie, P.G., et al. 2004. Myosin Ic, the hair cell's adaptation motor. Annu. Rev. Physiol. 66: 521-545.
4. Stauffer, E.A., et al. 2005. Fast adaptation in vestibular hair cells requires Myosin Ic activity. Neuron 47: 541-553.
5. Lund, L.M., et al. 2005. Axonal isoforms of Myosin I. Biochem. Biophys. Res. Commun. 330: 857-864.
6. Wagner, M.C., et al. 2005. Expression of the unconventional Myosin Myo1c alters sodium transport in M1 collecting duct cells. Am. J. Physiol., Cell Physiol. 289: C120-C129.

CHROMOSOMAL LOCATION

Genetic locus: Myo1c (mouse) mapping to 11 B5.

PRODUCT

Myosin Ic 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 Ic shRNA Plasmid (m): sc-44605-SH and Myosin Ic shRNA (m) Lentiviral Particles: sc-44605-V as alternate gene silencing products.

For independent verification of Myosin Ic (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-44605A, sc-44605B and sc-44605C.

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.

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 Ic siRNA (m) is recommended for the inhibition of Myosin Ic 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 Ic (13): sc-136544 is recommended as a control antibody for monitoring of Myosin Ic 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 Ic gene expression knockdown using RT-PCR Primer: Myosin Ic (h)-PR: sc-44604-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.