SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

Tropomyosin β siRNA (m): sc-43479

BACKGROUND

Tropomyosin β, also known as TPM2 or TMSB, is a 284 amino acid protein that localizes to both the cytoplasm and the cytoskeleton and belongs to the Tropomyosin family of structural proteins. Existing as a heterodimer with a Tropomyosin α protein, Tropomyosin β functions to bind Actin filaments in muscle and non-muscle cells and, via this binding, plays a central role in the regulation of striated muscle contraction and in the stabilization of cytoskeletal Actin filaments. Tropomyosin β is expressed as multiple alternatively spliced isoforms and is present in primary breast cancer tissues, suggesting a role in tumor formation and metastasis. Defects in the gene encoding Tropomyosin β are the cause of nemaline myopathy type 4 (NEM4) and distal arthrogryposis type 1 (DA1), the former of which is a form of congenital myopathy and the latter of which is a form of inherited multiple congenital contractures.

REFERENCES

1. Holtzer, M.E., et al. 1992. β β homodimers exist in native rabbit skeletal muscle tropomyosin and increase after denaturation-renaturation. Protein Sci. 1: 335-341.
2. Hunt, C.C., et al. 1995. Assignment of the human β tropomyosin gene (TPM2) to band 9p13 by fluorescence *in situ* hybridisation. Cytogenet. Cell Genet. 71: 94-95.
3. Donner, K., et al. 2002. Mutations in the β-tropomyosin (TPM2) gene—a rare cause of nemaline myopathy. Neuromuscul. Disord. 12: 151-158.
4. Tajsharghi, H., et al. 2007. Congenital myopathy with nemaline rods and cap structures caused by a mutation in the β-tropomyosin gene (TPM2). Arch. Neurol. 64: 1334-1338.
5. Robinson, P., et al. 2007. Mutations in fast skeletal troponin I, troponin T, and β-tropomyosin that cause distal arthrogryposis all increase contractile function. FASEB J. 21: 896-905.
6. Tajsharghi, H., et al. 2007. Distal arthrogryposis and muscle weakness associated with a β-tropomyosin mutation. Neurology 68: 772-775.
7. Nilsson, J. and Tajsharghi, H. 2008. β-tropomyosin mutations alter tropomyosin isoform composition. Eur. J. Neurol. 15: 573-578.

CHROMOSOMAL LOCATION

Genetic locus: Tpm2 (mouse) mapping to 4 B1.

PRODUCT

Tropomyosin β 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 Tropomyosin β shRNA Plasmid (m): sc-43479-SH and Tropomyosin β shRNA (m) Lentiviral Particles: sc-43479-V as alternate gene silencing products.

For independent verification of Tropomyosin β (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-43479A, sc-43479B and sc-43479C.

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

Tropomyosin β siRNA (m) is recommended for the inhibition of Tropomyosin β 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

Tropomyosin β (3C8): sc-293374 is recommended as a control antibody for monitoring of Tropomyosin β 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 Tropomyosin β gene expression knockdown using RT-PCR Primer: Tropomyosin β (m)-PR: sc-43479-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.

PROTOCOLS

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