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.

NALCN siRNA (m): sc-149810

BACKGROUND

NALCN (sodium leak channel non-selective protein), also known as Canlon or VGCNL1 (voltage gated channel-like protein 1), is a 1738 amino acid multi-pass membrane protein that belongs to the cation-nonselective channel family. NALCN is highly conserved in mammals and is widely expressed in the central nervous system. Activated by NK-1R, NALCN is a voltage-independent, non-selective cation channel which is permeable to sodium, potassium and calcium ions. NALCN is responsible for background sodium ion leak conductance in neurons and regulates basal excitability of the nervous systems. Defects of NALCN in mice causes disruption in respiratory rhythm and death occurs within 24 hours of birth. Three isoforms of NALCN exists due to alternative splicing events.

REFERENCES

1. Lee, J.H., et al. 1999. Cloning of a novel four repeat protein related to voltage-gated sodium and calcium channels. FEBS Lett. 445: 231-236.
2. Lu, B., et al. 2007. The neuronal channel NALCN contributes resting sodium permeability and is required for normal respiratory rhythm. Cell 129: 371-383.
3. Jospin, M., et al. 2007. UNC-80 and the NCA ion channels contribute to endocytosis defects in synaptojanin mutants. Curr. Biol. 17: 1595-1600.
4. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611549. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Gaultier, C., et al. 2008. Neural control of breathing: insights from genetic mouse models. J. Appl. Physiol. 104: 1522-1530.
6. Yeh, E., et al. 2008. A putative cation channel, NCA-1, and a novel protein, UNC-80, transmit neuronal activity in *C. elegans*. PLoS Biol. 6: e55.
7. Lu, B., et al. 2009. Peptide neurotransmitters activate a cation channel complex of NALCN and UNC-80. Nature 457: 741-744.

CHROMOSOMAL LOCATION

Genetic locus: Nalcn (mouse) mapping to 14 E5.

PRODUCT

NALCN siRNA (m) is a pool of 2 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 NALCN shRNA Plasmid (m): sc-149810-SH and NALCN shRNA (m) Lentiviral Particles: sc-149810-V as alternate gene silencing products.

For independent verification of NALCN (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-149810A and sc-149810B.

PROTOCOLS

See our web site at www.scbt.com or our catalog 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

NALCN siRNA (m) is recommended for the inhibition of NALCN 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 NALCN gene expression knockdown using RT-PCR Primer: NALCN (m)-PR: sc-149810-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.