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.

nyctalopin siRNA (m): sc-150135

BACKGROUND

Proteins belonging to the leucine-rich repeat (LRR) superfamily participate in a number of cellular processes including signal transduction, cellular trafficking, cell adhesion, cytoskeletal dynamics, axon guidance and tissue organization through molecular recognition mediated by LRR interaction. A member of a family of LRR proteins that are also known as SLRPs (small leucine-rich proteoglycans), Nyctalopin (NYX) is a 481 amino acid protein containing an N-terminal signal sequence followed by eleven central LRRs. Nyctalopin is expressed in kidney and retina and also at low levels in brain, testis and muscle. Nyctalopin is believed to be attached to the cell membrane in humans via a glycosylphosphatidylinositol (GPI) anchor and through a transmembrane domain in mouse. Mutations in the Nyctalopin gene cause congenital stationary night blindness type 1 (CSNB1), also called X-linked congenital stationary night blindness (XLCSNB). CSNB1 is a hereditary, non-progressive retinal disorder characterized by impaired night vision, impaired scoptopic vision, myopia, hyperopia, nystagmus and reduced visual activity.

REFERENCES

1. Bech-Hansen, N.T., et al. 2000. Mutations in NYX, encoding the leucine-rich proteoglycan nyctalopin, cause X-linked complete congenital stationary night blindness. Nat. Genet. 26: 319-323.
2. Pusch, C.M., et al. 2000. The complete form of X-linked congenital stationary night blindness is caused by mutations in a gene encoding a leucine-rich repeat protein. Nat. Genet. 26: 324-327.
3. Pesch, K., et al. 2003. Isolation of the mouse nyctalopin gene nyx and expression studies in mouse and rat retina. Invest. Ophthalmol. Vis. Sci. 44: 2260-2266.
4. Zeitz, C., et al. 2003. NYX (nyctalopin on chromosome X), the gene mutated in congenital stationary night blindness, encodes a cell surface protein. Invest. Ophthalmol. Vis. Sci. 44: 4184-4191.
5. Poopalasundaram, S., et al. 2005. Focus on molecules: nyctalopin. Exp. Eye Res. 81: 627-628.
6. O'Connor, E., et al. 2005. Species specific membrane anchoring of nyctalopin, a small leucine-rich repeat protein. Hum. Mol. Genet. 14: 1877-1887.
7. Morgans, C.W., et al. 2006. Localization of nyctalopin in the mammalian retina. Eur. J. Neurosci. 23: 1163-1171.
8. Gregg, R.G., et al. 2007. Nyctalopin expression in retinal bipolar cells restores visual function in a mouse model of complete X-linked congenital stationary night blindness. J. Neurophysiol. 98: 3023-3033.
9. Zhang, Q., et al. 2007. Mutations in NYX of individuals with high myopia, but without night blindness. Mol. Vis. 13: 330-336.

CHROMOSOMAL LOCATION

Genetic locus: Nyx (mouse) mapping to X A1.1.

PROTOCOLS

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

PRODUCT

nyctalopin 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 nyctalopin shRNA Plasmid (m): sc-150135-SH and nyctalopin shRNA (m) Lentiviral Particles: sc-150135-V as alternate gene silencing products.

For independent verification of nyctalopin (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-150135A, sc-150135B and sc-150135C.

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

nyctalopin siRNA (m) is recommended for the inhibition of nyctalopin 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 nyctalopin gene expression knockdown using RT-PCR Primer: nyctalopin (m)-PR: sc-150135-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.