

# Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
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## 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 <u>mail@szabo-scandic.com</u> www.szabo-scandic.com

#### SANTA CRUZ BIOTECHNOLOGY, INC.

## α-internexin siRNA (m): sc-41993



BACKGROUND

 $\alpha$ -internexin is a brain specific type IV intermediate filament protein. This axonal protein is found in most, if not all, neurons of the CNS. The head domain of  $\alpha$ -internexin is essential for self-assembly into a filament network. Expression levels of  $\alpha$ -internexin have been shown to be maximal during late embryogenesis and to decline into adulthood, suggesting that this protein plays a role in regulatory processes during the development of the brain. The  $\alpha$ -internexin promoter has been shown to be activated by Brn-3a or Brn-3c transcription factor binding, while Brn-3b binding to the promoter results in  $\alpha$ -internexin repression.

#### REFERENCES

- 1. Fliegner, K.H., et al. 1990. The predicted amino acid sequence of  $\alpha$ -internexin is that of a novel neuronal intermediate filament protein. EMBO. J. 9: 749-755.
- 2. Fliegner, K.H., et al. 1994. Expression of the gene for the neuronal intermediate filament protein  $\alpha$ -internexin coincides with the onset of neuronal differentiation in the developing rat nervous system. J. Comp. Neurol. 342: 161-173.
- Budhram-Mahadeo, V., et al. 1995. Activation of the α-internexin promoter by the Brn-3a transcription factor is dependent on the N-terminal region of the protein. J. Biol. Chem. 270: 2853-2858.
- 4. Suzuki, T., et al. 1997. Excitable membranes and synaptic transmission: postsynaptic mechanisms. Localization of  $\alpha$ -internexin in the postsynaptic density of the rat brain. Brain Res. 765: 74-80.
- 5. Ching, G.Y., et al. 1998. Roles of head and tail domains in  $\alpha$ -internexin's self-assembly and coassembly with the neurofilament triplet proteins. J. Cell Sci. 111: 321-333.

#### CHROMOSOMAL LOCATION

Genetic locus: Ina (mouse) mapping to 19 C3.

#### PRODUCT

 $\alpha$ -internexin 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see  $\alpha$ -internexin shRNA Plasmid (m): sc-41993-SH and  $\alpha$ -internexin shRNA (m) Lentiviral Particles: sc-41993-V as alternate gene silencing products.

For independent verification of  $\alpha$ -internexin (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-41993A, sc-41993B and sc-41993C.

#### **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  $\mu$ l of the RNAse-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNAse-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

#### **APPLICATIONS**

 $\alpha\text{-internexin}$  siRNA (m) is recommended for the inhibition of  $\alpha\text{-internexin}$  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  $\mu$ M in 66  $\mu$ l. 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**

 $\alpha$ -internexin (G-9): sc-271302 is recommended as a control antibody for monitoring of  $\alpha$ -internexin 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-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

#### **RT-PCR REAGENTS**

Semi-quantitative RT-PCR may be performed to monitor  $\alpha$ -internexin gene expression knockdown using RT-PCR Primer:  $\alpha$ -internexin (m)-PR: sc-41993-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.