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.

p39 siRNA (h): sc-42156

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cyclin dependent kinases, known as Cdks, regulate transitions in the eukaryotic cell cycle. Cdk 5 is required for proper development of the mammalian central nervous system and is predominantly expressed in neurons. Neuronal Cdk5 can be activated by two accessory proteins designated p35nck5a and p39nck5ai, which is also known as p39. The human p39 gene maps to chromosome 2q35 and encodes a 367-amino acid protein. p35 and p39 both share limited similarity to cyclins and may define a distinct family of cyclin-dependent kinase activating proteins. During embryonic rat brain development, the expression pattern of p39 appears to have an inverse relationship to that of Cdk5 and p35, suggesting that these proteins may have region-specific and developmental stage-specific functions in rat brain. p39 can localize to lamellipodial and fillopodial structures of cells and in growth cones of neurons. In addition, p39 can colocalize with actin, suggesting that p39 plays a role in regulating actin cytoskeletal dynamics in cells. The temporal and spatial expression of p39 in synaptic junctions indicates a possible role of the p39/cdk5 kinase at the synapse.

REFERENCES

1. Tang, D., et al. 1995. An isoform of the neuronal cyclin-dependent kinase 5 (Cdk5) activator. J. Biol. Chem. 270: 26897-26903.
2. Cai, X.H., et al. 1997. Changes in the expression of novel Cdk5 activator messenger RNA (p39nck5ai mRNA) during rat brain development. Neurosci. Res. 28: 355-360.
3. Honjyo, Y., et al. 1999. Immunohistochemical localization of CDK5 activator p39 in the rat brain. Neuroreport 10: 3375-3379.
4. Wu, D.C., et al. 2000. The expression of Cdk5, p35, p39, and Cdk5 kinase activity in developing, adult, and aged rat brains. Neurochem. Res. 25: 923-929.
5. Humbert, S., et al. 2000. Synaptic localization of p39, a neuronal activator of cdk5. Neuroreport 11: 2213-2216.
6. Ko, J., et al. 2001. p35 and p39 are essential for cyclin-dependent kinase 5 function during neurodevelopment. J. Neurosci. 21: 6758-6761.

CHROMOSOMAL LOCATION

Genetic locus: CDK5R2 (human) mapping to 2q35.

PRODUCT

p39 siRNA (h) 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 p39 shRNA Plasmid (h): sc-42156-SH and p39 shRNA (h) Lentiviral Particles: sc-42156-V as alternate gene silencing products.

For independent verification of p39 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-42156A, sc-42156B and sc-42156C.

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

p39 siRNA (h) is recommended for the inhibition of p39 expression in human 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

p39 (F-4): sc-365781 is recommended as a control antibody for monitoring of p39 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 p39 gene expression knockdown using RT-PCR Primer: p39 (h)-PR: sc-42156-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.