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.

OTP siRNA (m): sc-151348

BACKGROUND

Homeodomain (HD) genes are helix-turn-helix transcription factors that play key roles in the specification of cell fates. OTP (orthopedia homeobox) is a 325 amino acid nuclear protein belonging to the paired homeobox family and Bicoid subfamily. OTP is expressed in neurons, which give rise to the paraventricular (PVN), supraoptic (SON), anterior periventricular (aPV) and arcuate (ARN) nuclei. Containing a homeobox DNA-binding domain and a OAR domain, OTP is suggested to be involved in the differentiation of hypothalamic neuroendocrine cells. At early embryonic stages in mice, the expression of SIM2 is downregulated in the absence of OTP, indicating a potential role for OTP as an upstream regulator of SIM2. OTP is highly conserved in evolution and is encoded by a gene located on human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome.

REFERENCES

1. Simeone, A., et al. 1994. Orthopedia, a novel homeobox-containing gene expressed in the developing CNS of both mouse and *Drosophila*. Neuron 13: 83-101.
2. Swaab, D.F. 1995. Development of the human hypothalamus. Neurochem. Res. 20: 509-519.
3. Umesono, Y., et al. 1997. A planarian orthopedia homolog is specifically expressed in the branch region of both the mature and regenerating brain. Dev. Growth Differ. 39: 723-727.
4. Acampora, D., et al. 1999. Progressive impairment of developing neuroendocrine cell lineages in the hypothalamus of mice lacking the Orthopedia gene. Genes Dev. 13: 2787-2800.
5. Lin, X., et al. 1999. Identification, chromosomal assignment, and expression analysis of the human homeodomain-containing gene Orthopedia (OTP). Genomics 60: 96-104.
6. Wang, W., et al. 2000. The murine OTP homeobox gene plays an essential role in the specification of neuronal cell lineages in the developing hypothalamus. Dev. Biol. 227: 432-449.

CHROMOSOMAL LOCATION

Genetic locus: Otp (mouse) mapping to 13 D1.

PRODUCT

OTP siRNA (m) is a target-specific 19-25 nt siRNA 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 OTP shRNA Plasmid (m): sc-151348-SH and OTP shRNA (m) Lentiviral Particles: sc-151348-V as alternate gene silencing products.

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 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

OTP siRNA (m) is recommended for the inhibition of OTP 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 OTP gene expression knockdown using RT-PCR Primer: OTP (m)-PR: sc-151348-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.