



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 Handels GmbH

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](https://www.linkedin.com/company/szaboscandic) 

CTDSP1 siRNA (m): sc-142614

BACKGROUND

The repetitive C-terminal domain (CTD) of the largest RNA polymerase II (RNAP) subunit plays a critical role in the regulation of gene expression. Each cycle of transcription is suggested to be associated with the reversible phosphorylation of the repetitive CTD of the largest RNAP II subunit. Therefore, the dephosphorylation of RNAP II by CTD phosphatase is critical in the transcription cycle. CTDSP1 (carboxy-terminal domain RNA polymerase II polypeptide A small phosphatase 1), also known as SCP1 or NLIIF (nuclear LIM interactor-interacting factor 3), is a 261 amino acid nuclear protein that is ubiquitously expressed, with highest expression in spleen, lung and placenta. CTDSP1 contains a FCP1 homology domain and interacts with CLIM-2 (carboxy terminal LIM domain protein 2).

REFERENCES

1. Chambers, R.S., et al. 1995. The activity of COOH-terminal domain phosphatase is regulated by a docking site on RNA polymerase II and by the general transcription factors IIF and IIB. *J. Biol. Chem.* 270: 14962-14969.
2. Majello, B., et al. 2001. Control of RNA polymerase II activity by dedicated CTD kinases and phosphatases. *Front. Biosci.* 6: D1358-D1368.
3. Kobor, M.S., et al. 2002. Regulation of transcription elongation by phosphorylation. *Biochim. Biophys. Acta* 1577: 261-275.
4. Lin, P.S., et al. 2002. CTD phosphatase: role in RNA polymerase II cycling and the regulation of transcript elongation. *Prog. Nucleic Acid Res. Mol. Biol.* 72: 333-365.
5. Palancade, B., et al. 2004. Dephosphorylation of RNA polymerase II by CTD-phosphatase FCP1 is inhibited by phospho-CTD associating proteins. *J. Mol. Biol.* 335: 415-424.
6. Fernandes, A.O., et al. 2004. Identification of a protein that interacts with the Golli-myelin basic protein and with nuclear LIM interactor in the nervous system. *J. Neurosci. Res.* 75: 461-471.
7. Kamenski, T., et al. 2004. Structure and mechanism of RNA polymerase II CTD phosphatases. *Mol. Cell* 15: 399-407.
8. Yeo, M., et al. 2005. Small CTD phosphatases function in silencing neuronal gene expression. *Science* 307: 596-600.
9. Ghosh, A., et al. 2008. The structure of Fcp1, an essential RNA polymerase II CTD phosphatase. *Mol. Cell* 32: 478-490.

CHROMOSOMAL LOCATION

Genetic locus: Ctdsp1 (mouse) mapping to 1 C3.

PRODUCT

CTDSP1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CTDSP1 shRNA Plasmid (m): sc-142614-SH and CTDSP1 shRNA (m) Lentiviral Particles: sc-142614-V as alternate gene silencing 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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

CTDSP1 siRNA (m) is recommended for the inhibition of CTDSP1 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 μ M in 66 μ 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor CTDSP1 gene expression knockdown using RT-PCR Primer: CTDSP1 (m)-PR: sc-142614-PR (20 μ l). 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.