

TudorSN siRNA (h): sc-45514

BACKGROUND

TudorSN functions in the Pim-1 regulation of Myb activity and acts as a transcriptional activator of EBNA-2. TudorSN also interacts with EAV, NSP1, GTF2E1 and GTF2E2, and forms a ternary complex with Stat6 and POLR2A. The staphylococcal nuclease-like (SN)-domains directly interact with amino acids 1099-1758 of CBP. TudorSN plays an important role in the assembly of Stat6 transcriptome and stimulates IL-4-dependent transcription by mediating interaction between Stat6 and CBP.

REFERENCES

1. Levenson, J.D., et al. 1998. Pim-1 kinase and p100 cooperate to enhance c-Myb activity. *Mol. Cell* 2: 417-425.
2. Tijms, M.A., et al. 2003. Equine arteritis virus non-structural protein 1, an essential factor for viral subgenomic mRNA synthesis, interacts with the cellular transcription co-factor p100. *J. Gen. Virol.* 84: 2317-2322.
3. Pauku, K., et al. 2003. Tudor and nuclease-like domains containing protein p100 function as coactivators for signal transducer and activator of transcription 5. *Mol. Endocrinol.* 17: 1805-1814.
4. Broadhurst, M.K., et al. 2005. The p100 EBNA-2 coactivator: a highly conserved protein found in a range of exocrine and endocrine cells and tissues in cattle. *Biochim. Biophys. Acta* 1681: 126-133.
5. Valineva, T., et al. 2005. The transcriptional co-activator protein p100 recruits histone acetyltransferase activity to STAT6 and mediates interaction between the CREB-binding protein and STAT6. *J. Biol. Chem.* 280: 14989-14996.

CHROMOSOMAL LOCATION

Genetic locus: SND1 (human) mapping to 7q32.1.

PRODUCT

TudorSN 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TudorSN shRNA Plasmid (h): sc-45514-SH and TudorSN shRNA (h) Lentiviral Particles: sc-45514-V as alternate gene silencing products.

For independent verification of TudorSN (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-45514A, sc-45514B and sc-45514C.

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

TudorSN siRNA (h) is recommended for the inhibition of TudorSN 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 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.

GENE EXPRESSION MONITORING

TudorSN (F-5): sc-166676 is recommended as a control antibody for monitoring of TudorSN 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 κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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 TudorSN gene expression knockdown using RT-PCR Primer: TudorSN (h)-PR: sc-45514-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.