SANTA CRUZ BIOTECHNOLOGY, INC.

TAF9B siRNA (h): sc-91025

BACKGROUND

In eukaryotic systems, the process of initiating transcription from protein-coding genes requires the presence of RNA polymerase II and a broad family of auxiliary transcription factors. Such factors can be divided into two major functional classes: the basal factors that mediate the transcription of all Pol II genes, including TFIIA, TFIIB, TFIID, TFIIE, TFIIF and TFIIH, and sequence-specific factors that regulate gene expression. TFIID, one of the basal transcription factors, facilitates the preinitiation complex assembly through direct interactions with the TATA promoter element. TAF9B (transcription initiation factor TFIID subunit 9B), also known as TAF9L, is similar to TAF9 and is a component of the TFIID complex. Essential for cell viability, TAF9B is involved in transcriptional activation through its N-terminal association with TP53/p53, a protein essential for transcription. TAF9B is ubiquitously expressed and is localized to the nucleus.

REFERENCES

1. Matsui, T., et al. 1980. Multiple factors required for accurate initiation of transcription by purified RNA polymerase II. J. Biol. Chem. 255: 11992-11996.
2. Buratowski, S., et al. 1989. Five intermediate complexes in transcription initiation by RNA polymerase II. Cell 56: 549-561.
3. Takada, R., et al. 1990. Identification of human TFIID components and direct interaction between a 250-kDa polypeptide and the TATA box-binding protein (TFIIDt). Proc. Natl. Acad. Sci. USA 89: 11809-11813.
4. Chen, Z. and Manley, J.L. 2003. *In vivo* functional analysis of the histone 3-like TAF9 and a TAF9-related factor, TAF9L. J. Biol. Chem. 278: 35172-35183.
5. Frontini, M., et al. 2005. TAF9B (formerly TAF9L) is a bona fide TAF that has unique and overlapping roles with TAF9. Mol. Cell. Biol. 25: 4638-4649.

CHROMOSOMAL LOCATION

Genetic locus: TAF9B (human) mapping to Xq21.1.

PRODUCT

TAF9B siRNA (h) 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 TAF9B shRNA Plasmid (h): sc-91025-SH and TAF9B shRNA (h) Lentiviral Particles: sc-91025-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 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

TAF9B siRNA (h) is recommended for the inhibition of TAF9B 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

TAF9B (3365C4a): sc-81125 is recommended as a control antibody for monitoring of TAF9B 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).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TAF9B gene expression knockdown using RT-PCR Primer: TAF9B (h)-PR: sc-91025-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.