

# TAF1L siRNA (h): sc-106597

## BACKGROUND

TAF1L (transcription initiation factor TFIID 210 kDa subunit) is a 1,826 amino acid protein that serves as a functional substitute for TAF II p250 in spermatogenic cells. In somatic cells, TAF II p250, which is located on the X chromosome, is a general transcription factor which initiates preinitiation complex assembly through direct interaction with the TATA promoter element. However, during male meiosis, sex chromosomes are transcriptionally silenced, therefore inactivating the transcriptional activity of TAF II p250. With an autosomal location, TAF1L functionally replaces TAF II p250 in testis. It is documented that the gene encoding human TAF1L arose by retroposition of TAF II p250 mRNA during primate evolution after species divergence.

## REFERENCES

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2. Hayashida, T., Sekiguchi, T., Noguchi, E., Sunamoto, H., Ohba, T. and Nishimoto, T. 1994. The CCG1/TAII250 gene is mutated in thermosensitive G<sub>1</sub> mutants of the BHK21 cell line derived from golden hamster. *Gene* 141: 267-270.
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## CHROMOSOMAL LOCATION

Genetic locus: TAF1L (human) mapping to 9p21.1.

## PRODUCT

TAF1L 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TAF1L shRNA Plasmid (h): sc-106597-SH and TAF1L shRNA (h) Lentiviral Particles: sc-106597-V as alternate gene silencing products.

For independent verification of TAF1L (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-106597A, sc-106597B and sc-106597C.

## 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

TAF1L siRNA (h) is recommended for the inhibition of TAF1L 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  $\mu$ M in 66  $\mu$ 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

TAF1L (N3T): sc-130485 is recommended as a control antibody for monitoring of TAF1L 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 $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TAF1L gene expression knockdown using RT-PCR Primer: TAF1L (h)-PR: sc-106597-PR (20  $\mu$ 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](http://www.scbt.com) for detailed protocols and support products.