

# TAF II p100 siRNA (m): sc-154044

## BACKGROUND

TFIID is a general transcription factor which initiates preinitiation complex assembly through direct interaction with the TATA promoter element. It is a multisubunit complex consisting of a small TATA-binding polypeptide and other TATA-binding protein (TBP)-associated factors (TAFs). Although native TFIID can mediate both activator-independent (basal) and activator-dependent transcription in reconstituted systems, TBP can mediate only basal transcription. TAF II p100 (TBP-associated factor II100), also known as TAF5 or TAFII100, is the third largest subunit of human TFIID. It contains six WD40 repeats at the C-terminus and has an N-terminus capable of forming a flexible dimer. TAF II p100 plays an important role in forming the scaffold that is crucial for the assembly of the TFIID complex. TAF II p100 may also be involved in the stabilization of TAF interactions.

## 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. 1992. 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. Bellorini, M., et al. 1997. CCAAT binding NF-Y-TBP interactions: NF-YB and NF-YC require short domains adjacent to their histone fold motifs for association with TBP basic residues. *Nucleic Acids Res.* 25: 2174-2181.
5. Tao, Y., et al. 1997. Specific interactions and potential functions of human TAF II p100. *J. Biol. Chem.* 272: 6714-6721.
6. Walker, A.K. and Blackwell, T.K. 2003. A broad but restricted requirement for TAF-5 (human TAFII100) for embryonic transcription in *Caenorhabditis elegans*. *J. Biol. Chem.* 278: 6181-6186.
7. Boyer-Guittaut, M., et al. 2005. SUMO-1 modification of human transcription factor (TF) IID complex subunits: inhibition of TFIID promoter-binding activity through SUMO-1 modification of hTAF5. *J. Biol. Chem.* 280: 9937-9945.

## CHROMOSOMAL LOCATION

Genetic locus: Taf5 (mouse) mapping to 19 C3.

## PRODUCT

TAF II p100 siRNA (m) 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 TAF II p100 shRNA Plasmid (m): sc-154044-SH and TAF II p100 shRNA (m) Lentiviral Particles: sc-154044-V as alternate gene silencing products.

For independent verification of TAF II p100 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-154044A, sc-154044B and sc-154044C.

## 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

TAF II p100 siRNA (m) is recommended for the inhibition of TAF II p100 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  $\mu$ 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

TAF II p100 (E-9): sc-376932 is recommended as a control antibody for monitoring of TAF II p100 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™ Molecular Weight Standards: sc-2035, UltraCruz® 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® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TAF II p100 gene expression knockdown using RT-PCR Primer: TAF II p100 (m)-PR: sc-154044-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.