

TAF II p18 siRNA (m): sc-38493

BACKGROUND

TFIID is a general transcription factor that facilitates the preinitiation complex assembly through direct interactions with the TATA promoter element. TFIID is a multisubunit complex consisting of a small TATA-binding polypeptide and other TBP-associated factors (TAFs). The TAF II family members include p18, p28, p32, p100, p130, p170 and p250, which is the largest subunit of TFIID. TAF II p32 is the human homologue of the *Drosophila* TAFII40 and is upregulated during apoptosis. TAFII p32 interacts with the activation domain of the viral protein 16, TFIIB and the class II transactivator (CIITA) to modulate transcription. The human and murine TAFII p32 proteins are distinct isoforms, designated TAF II p32 α and β , respectively, and they are thought to have individual roles in regulation. TAF II p28 and TAF II p18 interact with one another *in vitro* and intracellularly, and both interact with TBP through distinct domains. TAF II p28 potentiates transactivation of the estrogen and vitamin D₃ receptors (ER and VDR), and is the limiting factor in the RXR α activation pathway.

REFERENCES

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2. Buratowski, S., et al. 1989. Five intermediate complexes in transcription initiation by RNA polymerase II. *Cell* 56: 549-561.
3. Dynlacht, B.D., et al. 1991. Isolation of coactivators associated with the TATA-binding protein that mediate transcriptional activation. *Cell* 66: 563-576.
4. Takada, R., et al. 1992. Identification of human TFIID components and direct interaction between a 250-kDa polypeptide and the TATA box-binding protein (TFIID). *Proc. Natl. Acad. Sci. USA* 89: 11809-11813.
5. Klemm, R.D., et al. 1995. Molecular cloning and expression of the 32-kDa subunit of human TFIID reveals interactions with VP16 and TFIIB that mediate transcriptional activation. *Proc. Natl. Acad. Sci. USA* 92: 5788-5792.
6. Mengus, G., et al. 1995. Cloning and characterization of hTAFII18, hTAFII20 and hTAFII28: three subunits of the human transcription factor TFIID. *EMBO J.* 14: 1520-1531.

CHROMOSOMAL LOCATION

Genetic locus: Taf13 (mouse) mapping to 3 F3.

PRODUCT

TAF II p18 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TAF II p18 shRNA Plasmid (m): sc-38493-SH and TAF II p18 shRNA (m) Lentiviral Particles: sc-38493-V as alternate gene silencing products.

For independent verification of TAF II p18 (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-38493A, sc-38493B and sc-38493C.

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

TAF II p18 siRNA (m) is recommended for the inhibition of TAF II p18 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.

GENE EXPRESSION MONITORING

TAF II p18 (A-5): sc-393319 is recommended as a control antibody for monitoring of TAF II p18 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 MarkerTM 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 TAF II p18 gene expression knockdown using RT-PCR Primer: TAF II p18 (m)-PR: sc-38493-PR (20 μ l, 353 bp). 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.