

TAF II p105 siRNA (h): sc-76625

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). TAF II p105, also called TAF4B, is a cell-type specific transcriptional coactivator that is a component of the TFIID complex. Expressed primarily in B cells and ovarian granulosa cells, TAF II p105 can interact with OCBA/POU2AF1 to activate B cell-specific octamer-dependent transcription. Additionally, TAF II p105 plays an important role in coactivating the transcription factor NFκB and is essential for activation of anti-apoptotic genes such as TNFAIP3. Through its C-terminal histone-fold domain, TAF II p105 can form a heterodimer with TAF12/TAF II p20 that can then form a transcriptional activating octamer with several other TAFs. This protein is localized to the nucleus with cytoplasmic export mediated by a CRM1-independent export pathway. There are two isoforms expressed by alternative splicing.

REFERENCES

1. Dikstein, R., et al. 1996. Human TAFII 105 is a cell type-specific TFIID subunit related to hTAFII130. *Cell* 87: 137-146.
2. Freiman, R.N., et al. 2001. Requirement of tissue-selective TBP-associated factor TAFII105 in ovarian development. *Science* 293: 2084-2087.
3. Rashevsky-Finkel, A., et al. 2001. A composite nuclear export signal in the TBP-associated factor TAFII105. *J. Biol. Chem.* 276: 44963-44969.
4. Freiman, R.N., et al. 2002. Redundant role of tissue-selective TAF(II)105 in B lymphocytes. *Mol. Cell. Biol.* 22: 6564-6572.
5. Falender, A.E., et al. 2005. Maintenance of spermatogenesis requires TAF4b, a gonad-specific subunit of TFIID. *Genes Dev.* 19: 794-803.
6. Falender, A.E., et al. 2005. TAF4b, a TBP associated factor, is required for oocyte development and function. *Dev. Biol.* 288: 405-419.

CHROMOSOMAL LOCATION

Genetic locus: TAF4B (human) mapping to 18q11.2.

PRODUCT

TAF II p105 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 μM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TAF II p105 shRNA Plasmid (h): sc-76625-SH and TAF II p105 shRNA (h) Lentiviral Particles: sc-76625-V as alternate gene silencing products.

For independent verification of TAF II p105 (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-76625A, sc-76625B and sc-76625C.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support 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

TAF II p105 siRNA (h) is recommended for the inhibition of TAF II p105 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

TAF II p105 (TAFAD26A): sc-81122 is recommended as a control antibody for monitoring of TAF II p105 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 TAF II p105 gene expression knockdown using RT-PCR Primer: TAF II p105 (h)-PR: sc-76625-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.