SANTA CRUZ BIOTECHNOLOGY, INC.

TAF5L siRNA (h): sc-88360

BACKGROUND

TFIID is a general transcription factor that initiates preinitiation complex assembly through direct interaction with the TATA promoter element. Functioning as a multisubunit complex consisting of a small TATA-binding polypeptide and other TBP-associated factors (TAFs), TFIID mediates promoter responses to various transcriptional activators and repressors. TAF5L (TAF5-like RNA polymerase II p300/CBP-associated factor-associated factor 65 kDa subunit 5L), also known as PAF65B, is a 589 amino acid protein that localizes to the nucleus and contains six WD repeats. Existing as a component of the PCAF histone acetylase complex, TAF5L interacts with a number of TAFs and, vis this interaction, plays a role in histone acetylation and transcription initiation. Defects in the gene encoding TAF5L, which is expressed as multiple alternatively spliced isoforms, are associated with the pathogenesis of type I diabetes.

REFERENCES

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3. Brand, M., et al. 1999. Identification of TATA-binding protein-free TAFII-containing complex subunits suggests a role in nucleosome acetylation and signal transduction. J. Biol. Chem. 274: 18285-18289.
4. Martinez, E., et al. 2001. Human STAGA complex is a chromatin-acetylating transcription coactivator that interacts with pre-mRNA splicing and DNA damage-binding factors *in vivo*. Mol. Cell. Biol. 21: 6782-6795.
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6. Chistiakov, D.A., et al. 2005. The TAF5L gene on chromosome 1q42 is associated with type 1 diabetes in Russian affected patients. Autoimmunity 38: 283-293.
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8. Okumura, K., et al. 2006. PCAF modulates PTEN activity. J. Biol. Chem. 281: 26562-26568.
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CHROMOSOMAL LOCATION

Genetic locus: TAF5L (human) mapping to 1q42.13.

PROTOCOLS

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

PRODUCT

TAF5L siRNA (h) is a pool of 2 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 TAF5L shRNA Plasmid (h): sc-88360-SH and TAF5L shRNA (h) Lentiviral Particles: sc-88360-V as alternate gene silencing products.

For independent verification of TAF5L (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-88360A and sc-88360B.

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

TAF5L siRNA (h) is recommended for the inhibition of TAF5L 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TAF5L gene expression knockdown using RT-PCR Primer: TAF5L (h)-PR: sc-88360-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.