SANTA CRUZ BIOTECHNOLOGY, INC.

# TFPT siRNA (h): sc-97751

## BACKGROUND

TFPT (TCF3 fusion partner), also known as INO80F or protein FB1, is a 253 amino acid nuclear protein. TFPT is a component of the chromatin-remoldeling INO80 complex, which is composed of proteins such as BAF53, ACTR5, ACTR8, INOC1, INO80B, INO80C, INO80D and INO80E. The INO80 complex, in addition to chromatin-remoldeling, plays a role in DNA repair, DNA replication, checkpoint regulation, telomere maintenance and chromosome segregation. TFPT interacts with ARC and appears to promote apoptosis in a TP53/p53-independent manner. It is also thought that a chromosomal aberration involving the genes that encode TFPT and E2A is a cause of pre-B-cell acute lymphoblastic leukemia (B-ALL).

## REFERENCES


1. Brambillasca, F., et al. 1999. Identification of a novel molecular partner of the E2A gene in childhood leukemia. Leukemia 13: 369-375.
2. Irie, Y., et al. 2000. Molecular cloning and characterization of Amida, a novel protein which interacts with a neuron-specific immediate early gene product arc, contains novel nuclear localization signals, and causes cell death in cultured cells. J. Biol. Chem. 275: 2647-2653.
3. Boosen, M., et al. 2005. Par-4-mediated recruitment of Amida to the actin cytoskeleton leads to the induction of apoptosis. Exp. Cell Res. 311: 177-191.
4. Jin, J., et al. 2005. A mammalian chromatin remodeling complex with similarities to the yeast INO80 complex. J. Biol. Chem. 280: 41207-41212.


## CHROMOSOMAL LOCATION

Genetic locus: TFPT (human) mapping to 19q13.42.

## PRODUCT

TFPT 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 TFPT shRNA Plasmid (h): sc-97751-SH and TFPT shRNA (h) Lentiviral Particles: sc-97751-V as alternate gene silencing products.

For independent verification of TFPT (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-97751A and sc-97751B.

## 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

TFPT siRNA (h) is recommended for the inhibition of TFPT 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 TFPT gene expression knockdown using RT-PCR Primer: TFPT (h)-PR: sc-97751-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.

## PROTOCOLS

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