

# TFPT (G-13): sc-103900

## 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-remodeling 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-remodeling, 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.
5. Franchini, C., et al. 2006. Apoptosis promoted by up-regulation of TFPT (TCF3 fusion partner) appears p53 independent, cell type restricted and cell density influenced. *Apoptosis* 11: 2217-2224.
6. Jiang, F., et al. 2007. FB1, an E2A fusion partner in childhood leukemia, interacts with U19/EAF2 and inhibits its transcriptional activity. *Cancer Lett.* 253: 265-272.
7. Sowa, M.E., et al. 2009. Defining the human deubiquitinating enzyme interaction landscape. *Cell* 138: 389-403.

## CHROMOSOMAL LOCATION

Genetic locus: TFPT (human) mapping to 19q13.42; Tfpt (mouse) mapping to 7 A1.

## SOURCE

TFPT (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TFPT of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103900 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

TFPT (G-13) is recommended for detection of TFPT of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TFPT siRNA (h): sc-97751, TFPT siRNA (m): sc-106611, TFPT shRNA Plasmid (h): sc-97751-SH, TFPT shRNA Plasmid (m): sc-106611-SH, TFPT shRNA (h) Lentiviral Particles: sc-97751-V and TFPT shRNA (m) Lentiviral Particles: sc-106611-V.

Molecular Weight of TFPT: 28 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.