

# TdTIF1 (H-72): sc-98407

## BACKGROUND

Terminal deoxynucleotidyltransferase (TdT) is a DNA polymerase which catalyzes the addition of deoxyribonucleotides onto the 3'-hydroxyl end of DNA primers without a DNA template. TdT activity can be positively or negatively regulated by association with certain TdT-interacting factors. TdTIF1 (terminal deoxynucleotidyltransferase-interacting factor 1), also called DNNTIP1 or Tdf1, localizes to the nucleus and functions to repress TdT activity. *In vitro*, TdTIF1 binds to the Pol  $\beta$ -like region of TdT, thus masking its DNA-binding region and blocking its access to the DNA. Expressed throughout the body with highest expression in the thymus, TdTIF1 contains N-terminal AT-hook motifs through which it binds to TdT. In addition to inhibiting TdT-DNA interaction, TdTIF1 can bind to TReP-132, a transcriptional co-activator of steroidogenic factor 1 (SF-1). When bound to SF-1, TdTIF1 enhances gene expression in steroid-producing cells.

## CHROMOSOMAL LOCATION

Genetic locus: DNNTIP1 (human) mapping to 20q13.12; Dnntip1 (mouse) mapping to 2 H3.

## SOURCE

TdTIF1 (H-72) is a rabbit polyclonal antibody raised against amino acids 228-297 mapping near the C-terminus of TdTIF1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

TdTIF1 (H-72) is recommended for detection of TdTIF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TdTIF1 (H-72) is also recommended for detection of TdTIF1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TdTIF1 siRNA (h): sc-76640, TdTIF1 siRNA (m): sc-154171, TdTIF1 shRNA Plasmid (h): sc-76640-SH, TdTIF1 shRNA Plasmid (m): sc-154171-SH, TdTIF1 shRNA (h) Lentiviral Particles: sc-76640-V and TdTIF1 shRNA (m) Lentiviral Particles: sc-154171-V.

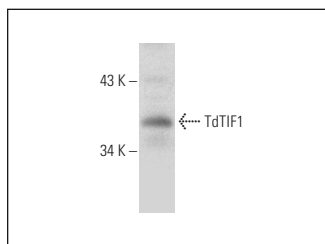
Molecular Weight of TdTIF1: 37 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, PC-3 nuclear extract: sc-2152 or PC-3 cell lysate: sc-2220.

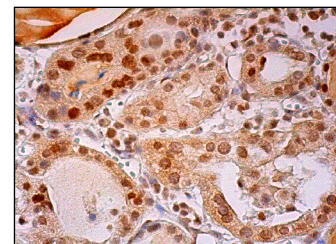
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



TdTIF1 (H-72): sc-98407. Western blot analysis of TdTIF1 expression in Jurkat whole cell lysate.



TdTIF1 (H-72): sc-98407. Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing nuclear and cytoplasmic staining of glandular cells.

## RESEARCH USE

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

## PROTOCOLS

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

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Try **TdTIF1 (G-2): sc-166296**, our highly recommended monoclonal alternative to TdTIF1 (H-72).