

# TdT (N-20): sc-19441

## BACKGROUND

Terminal deoxynucleotidyltransferase (TdT) is a DNA polymerase which catalyzes the addition of deoxyribonucleotides onto the 3'-hydroxyl end of DNA primers without template direction. The enzyme thus provides a unique method for the labeling of the 3' termini of DNA. The human TdT gene maps to chromosome 10q24.1 and encodes a 510 amino acid protein. Human TdT is synthesized as a single chain peptide that elicits a minor preference for incorporation of deoxyribonucleotides over ribonucleotides forming DNA strands. TdT is present in immature thymocytes, some bone marrow cells, transformed pre-B and pre-T cell lines, and leukemia cells.

## REFERENCES

1. Bentolila, L.A., et al. 1997. Constitutive expression of terminal deoxynucleotidyl transferase in transgenic mice is sufficient for N region diversity to occur at any Ig locus throughout B cell differentiation. *J. Immunol.* 158: 715-723.
2. Marshall, A.J., et al. 1998. Terminal deoxynucleotidyl transferase expression during neonatal life alters D(H) reading frame usage and Ig-receptor-dependent selection of V regions. *J. Immunol.* 161: 6657-6663.

## CHROMOSOMAL LOCATION

Genetic locus: DNNT (human) mapping to 10q24.1; Dntt (mouse) mapping to 19 C3.

## SOURCE

TdT (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TdT 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-19441 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TdT (N-20) is recommended for detection of TdT of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

TdT (N-20) is also recommended for detection of TdT in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TdT siRNA (h): sc-44143, Tdt siRNA (m): sc-72058, TdT shRNA Plasmid (h): sc-44143-SH, Tdt shRNA Plasmid (m): sc-72058-SH, TdT shRNA (h) Lentiviral Particles: sc-44143-V and Tdt shRNA (m) Lentiviral Particles: sc-72058-V.

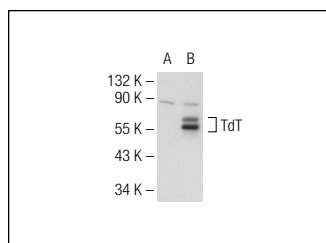
Molecular Weight of TdT: 58 kDa.

Positive Controls: TdT (h2): 293T Lysate: sc-170212.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



TdT (N-20): sc-19441. Western blot analysis of TdT expression in non-transfected: sc-117752 (A) and human TdT transfected: sc-170212 (B) 293T whole cell lysates.

## STORAGE

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

## 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.



Try **TdT (B-9): sc-398238** or **TdT (C-11): sc-393710**, our highly recommended monoclonal alternatives to TdT (N-20).