Product Information Sheet

## **Polyclonal Anti-** Terminal Deoxynucleotidyl Transferase, ***TDT***

**Catalogue No.** PA1227

**Lot No.** 09C01

**Ig type** rabbit IgG

**Size** 100µg/vial

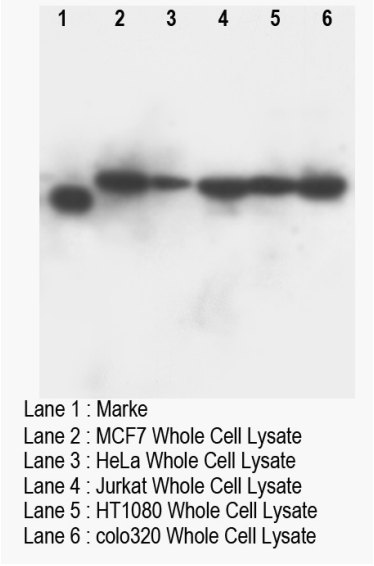
**Specificity**

Human.

No cross reactivity with other proteins.

**Recommended application**

*Western blot*




Lane 1 : Marke
Lane 2 : MCF7 Whole Cell Lysate
Lane 3 : HeLa Whole Cell Lysate
Lane 4 : Jurkat Whole Cell Lysate
Lane 5 : HT1080 Whole Cell Lysate
Lane 6 : colo320 Whole Cell Lysate

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminal of human TDT, identical to the related rat and mouse sequence.

**Purity**

Immunogen affinity purified.

**Application**

| | Concen-tration | Tested Species | Concluded Species | Antigen Retrieval |
|---|---|---|---|---|
| WB | 1µg/ml | Hu | - | - |
| IHC-P | - | - | - | - |
| IHC-F | - | - | - | - |
| ICC | - | - | - | - |

*Other applications have not been tested.*

*Optimal dilutions should be determined by end user.*

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg $Na_2HPO_4$, 0.05mg Thimerosal, 0.05mg $NaN_3$.

**Reconstitution**

0.2ml of distilled water will yield a concentration of 500µg/ml.

**Storage**

At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for longer time.

**To reorder contact us at:**
**Antagene, Inc.**
**Toll Free: 1(866)964-2589**
**email: Info@antageneinc.com**

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## BACKGROUND

Terminal Deoxynucleotidyl Transferase, also known as TdT and terminal transferase, is a unique DNA polymerase without template direction catalyzes the addition of deoxyribonucleotides onto the 3-prime-hydroxyl end of DNA primers.[1] Its gene is mapped to the region 10q23-q24.[2] And TDT cDNA contains an open reading frame of 1,530 basepairs corresponding to a protein containing 510 amino acids.[3] TDT may be responsible for inserting nucleotides (N regions) at the V(H)-D and D-J(H) junctions of immunoglobulin genes. The enzyme is present in immature thymocytes, some bone marrow cells, transformed pre-B and pre-T cell lines, and leukemia cells. Additionally, TdT catalyses the addition of nucleotides to the 3' terminus of a DNA molecule. Unlike most DNA polymerases it does not require a template. The preferred substrate of this enzyme is a 3'-overhang, but it can also add nucleotides to blunt or recessed 3' ends. Cobalt is a necessary cofactor.

### *REFERENCE*

1. Landau, N. R.; St. John, T. P.; Weissman, I. L.; Wolf, S. C.; Silverstone, A. E.; Baltimore, D. : Cloning of terminal transferase cDNA by antibody screening. *Proc. Nat. Acad. Sci.* 81: 5836-5840, 1984.

2. Yang-Feng, T. L.; Landau, N. R.; Baltimore, D.; Francke, U. : The terminal deoxynucleotidyltransferase gene is located on human chromosome 10 (10q23-q24) and on mouse chromosome 19. *Cytogenet. Cell Genet.* 43: 121-126, 1986.

3. Riley, L. K.; Morrow, J. K.; Danton, M. J.; Coleman, M. S. : Human terminal deoxyribonucleotidyltransferase: molecular cloning and structural analysis of the gene and 5-prime flanking region. *Proc. Nat. Acad. Sci.* 85: 2489-2493, 1988.

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