



Product Information Sheet

Polyclonal Anti- Terminal Deoxynucleotidyl Transferase, *TdT* **(Magnetic Bead Conjugate)**

Catalogue No. PA1227-M	Immunogen
Lot No. 09C01	A synthetic peptide corresponding to a sequence at the C-terminal of human TdT, identical to the related rat and mouse sequence.
Ig type: rabbit IgG1	Purification Immunogen affinity purified
Size: 100µg/Vial	Contents Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN ₃ .
Specificity Zebrafish. No cross reactivity with other proteins.	Storage Store at 4°C for frequent use.
Recommended application <i>Immunoprecipitation(IP)</i>	Description: This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation

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

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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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