Polyclonal Anti- Terminal Deoxynucleotidyl Transferase, *TDTv (*Sepharose Bead Conjugate)

Catalogue No. PA1227-S

Lot No. 09C01

Ig type: rabbit IgG

Size: 100µg/vial

Specificity

Human. No cross reactivity with other proteins.

Recommended application

(Immunoprecipitation(IP)

Immunogen

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

Purification

Immunogen affinity purified.

Formulation

50% slurry in PBS pH 7.2 with 0.01mg NaN_3a_3 preservative.

Storage

Store at 4˚C for frequent use.

Description:

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays

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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