POLYCLONAL
Rabbit Anti-Terminal Deoxynucleotidyl Transferase (TdT)
CODE NO. A3524
LOT NO. 041

For In Vitro Diagnostic Use

Synonyms
TdT

Immunogen
Purified TdT isolated from calf thymus

Presentation
Rabbit anti-bovine TdT is immunoaffinity purified rabbit antiserum in 0.05M Tris-HCl, pH 7.6, 15mM sodium azide and carrier protein.

Total Protein Concentration: 10.1 mg/mL (Refractometry)

Specificity
TdT is a nuclear enzyme which catalyzes the template independent polymerization of deoxynucleotidyl triphosphates to the 3' OH end of single-stranded DNA. TdT is involved in the generation of T-cell receptor and antibody diversity. Rabbit anti-TdT detects a major peptide of 58,000 to 60,000 daltons on Western Blots of calf, rat, mouse, chicken and cat thymus extracts. A 58,000 dalton immunoreactive peptide has also been demonstrated in human and mouse lymphoblastoid cell lines. Rabbit anti-TdT has been found to react with lower molecular weight forms of the enzyme.

Reactivity
Normal cells:
In the adult, TdT is expressed by a small population of bone marrow lymphocytes and by the majority of cortical thymocytes. TdT has been found only in rare cells of reactive lymph node and spleen; whereas, medullary thymocytes and cells of normal peripheral blood have not been shown to contain the enzyme.

Tumor cells:
Elevated levels of TdT have been demonstrated in neoplasms derived from immature lymphoid cells. High TdT activity has been reported in tumor cells of lymphoblastic lymphomas (MLLB), lymphoid blast crisis of chronic myeloid leukemias (CML), and the majority of acute lymphoblastic leukemias (ALL).

Staining Procedure
Paraffin Sections:
Rabbit anti-TdT can be used on formalin-fixed, paraffin-embedded tissue sections.

The deparaffinized tissue sections must be treated with heat prior to the immunohistochemical (IHC) staining procedure. For greater adherence of tissue sections to glass slides, the use of silanized slides (DAKO® Code No. S3003) is recommended.

When using the water bath method, preheat a Coplin jar containing DAKO® Target Retrieval Solution, High pH (Code No. S3307 or S3308), as well as a water bath to 95-99°C. When the temperature has stabilized, place tissue sections in the Coplin jar containing the preheated buffer. Heat the tissue sections for 20 minutes. After thermal treatment, allow the jar with buffer and slides to cool for 20 minutes at room temperature. Rinse well with distilled water and place slides in buffer (Tris, PBS, etc.).
For this antibody to perform optimally in paraffin-embedded tissues, a high sensitivity detection system is required, such as DAKO LSAB®+ HRP (Code No. K0679).

Rabbit anti-TdT may be used at a dilution range of 1:10 to 1:40 in the LSAB®+ HRP (Code No. K0679) method, determined on formalin-fixed, paraffin-embedded tissue. These are guidelines only; optimal dilutions should be determined by the individual laboratory.

Cryostat Sections and Cell Smears:
Rabbit anti-bovine TdT can also be used to label cryostat sections or cell smears.

Storage
Store at 2-8°C or -20°C. Avoid repeated freeze-thaw cycles.

References
1. Bollum FJ. Antibody to terminal deoxynucleotidyl transferase. Proc Natl Acad Sci USA 1975; 72(10):4119