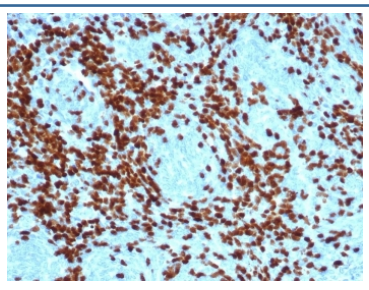
TdT Antibody Recombinant Rabbit MAb / DNA nucleotidylexotransferase [clone DNTT/4617R] (V8860)

Catalog No.	Formulation	Size
V8860-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8860-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8860SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

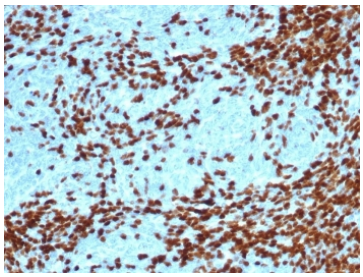
Recombinant RABBIT MONOCLONAL

Bulk quote request

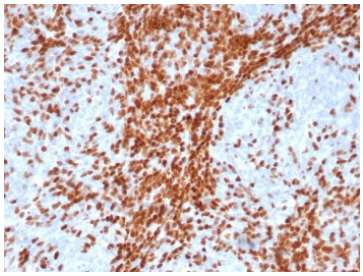
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	DNTT/4617R
Purity	Protein A/G affinity
UniProt	P04053
Localization	Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 2-4ug/ml
Limitations	This recombinant TdT antibody recombinant rabbit mAb is available for research use only.



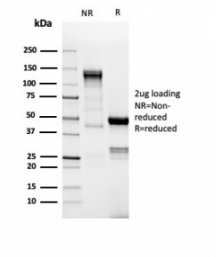
Immunohistochemistry of TdT antibody in human thymus tissue. Formalin-fixed, paraffin-embedded human thymus demonstrates strong nuclear staining in immature cortical thymocytes, consistent with Terminal deoxynucleotidyl transferase expression in developing T lymphoblasts. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to staining. The recombinant rabbit monoclonal TdT antibody clone DNTT/4617R was used as the primary antibody, showing distinct nuclear localization in thymic precursor cells.



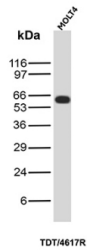
IHC staining of FFPE human thymoma tissue with recombinant TdT antibody recombinant rabbit mAb clone DNTT/4617R. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human thymus tissue with recombinant TdT antibody (clone DNTT/4617R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free recombinant TdT antibody recombinant rabbit mAb clone DNTT/4617R as confirmation of integrity and purity.



TdT Antibody MOLT4 WB. Western blot analysis of human MOLT4 cell lysate using TdT antibody detecting terminal deoxynucleotidyl transferase (DNTT), clone TDT/4617R. A band is observed at approximately 58-65 kDa, consistent with the expected molecular weight of TdT, a nuclear DNA polymerase expressed in immature lymphoid cells and commonly associated with lymphoblastic leukemia models

Description

TdT antibody, also known as Terminal deoxynucleotidyl transferase antibody, recognizes a specialized nuclear DNA polymerase encoded by the DNTT gene on chromosome 10q23-q24. The TdT Antibody Recombinant Rabbit MAb Clone DNTT/4617R detects Terminal deoxynucleotidyl transferase, commonly referred to as TdT, a member of the DNA polymerase X family selectively expressed in immature lymphoid cells. TdT antibody, also referred to as DNTT antibody and Terminal transferase antibody in the literature, is widely used in research focused on lymphoid development and hematologic malignancies.

Terminal deoxynucleotidyl transferase catalyzes the template-independent addition of deoxynucleotides to the 3-prime hydroxyl ends of DNA during V(D)J recombination. This unique enzymatic activity introduces N-region nucleotide diversity within immunoglobulin and T cell receptor gene segments, significantly expanding antigen receptor repertoire complexity. TdT functions within nuclear recombination centers in coordination with RAG1 and RAG2 complexes and other components of the non-homologous end joining pathway. Its catalytic core contains conserved polymerase domains characteristic of the Pol X family, enabling nucleotide incorporation without requiring a DNA template. A TdT antibody therefore supports studies of adaptive immune system development and antigen receptor assembly.

DNTT expression is tightly regulated and largely restricted to early B and T lymphoblasts within bone marrow and thymus.

In thymic cortex, TdT-positive cells represent developing T cell precursors undergoing receptor rearrangement. Expression decreases as lymphocytes mature, making TdT a well-established marker of lymphoid immaturity. Elevated nuclear TdT expression is frequently observed in acute lymphoblastic leukemia and lymphoblastic lymphoma, where TdT antibody detection supports investigation of leukemic blast populations and lymphoid neoplasia biology.

Structurally, TdT contains regulatory regions that influence substrate selection and protein-protein interactions within recombination complexes. Alternative splicing of DNTT can generate isoforms with subtle biochemical differences that may affect catalytic efficiency and regulation. Persistent or dysregulated expression of DNTT contributes to genomic variability and is implicated in lymphoid malignancy development. Through its central role in immune receptor diversification, Terminal deoxynucleotidyl transferase remains essential to both normal lymphopoiesis and disease-oriented research applications.

This recombinant rabbit monoclonal antibody clone DNTT/4617R is suitable for detecting TdT expression in research applications focused on lymphoid differentiation, immune repertoire formation, and leukemia biology. It can be compared with our TdT Antibody (clone TDT/1393) for detection of terminal deoxynucleotidyl transferase in lymphoid precursor cells and hematologic malignancy studies.

Application Notes

Optimal dilution of the recombinant TdT antibody recombinant rabbit mAb should be determined by the researcher.

Immunogen

A portion of amino acids 52-192 was used as the immunogen for the recombinant TdT antibody recombinant rabbit mAb.

Storage

Aliquot the recombinant TdT antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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