

PRODUCT INFORMATION



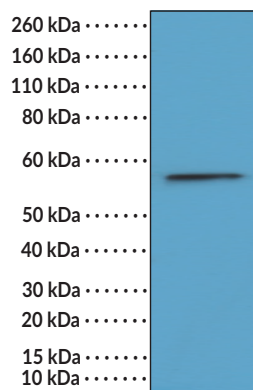
Terminal Deoxynucleotidyl Transferase Rabbit Monoclonal Antibody (Clone RM379)

Item No. 32304

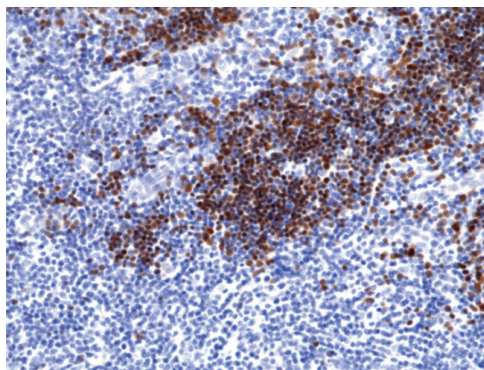
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	DNA Nucleotidyltransferase, DNNT, Terminal Transferase, TdT
Immunogen:	Peptide corresponding to human TdT
Cross Reactivity:	(+) TdT
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS, with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM379
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution for IHC is 1:100-1:200 and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



WB of Jurkat cell lysate using Terminal Deoxynucleotidyl Transferase Rabbit Monoclonal Antibody (Clone RM379) at a 1:2,000 dilution.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human thymus tissue using Terminal Deoxynucleotidyl Transferase Rabbit Monoclonal Antibody (Clone RM379) at a 1:200 dilution.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Terminal deoxynucleotidyl transferase (TdT) is a template-independent member of the X family of DNA polymerases and encoded by *DNTT* in humans.^{1,2} It is composed of finger, thumb, palm, and index finger subdomains, as well as a lariat-like loop that prevents interaction with the DNA template strand.² TdT is expressed in lymphoid tissues, such as the thymus and bone marrow, as well as lymphocyte progenitor cells, and localized to the nucleus.^{2,3} During V(J)D recombination, TdT randomly adds nucleotides to sites of double-strand DNA breaks, prior to non-homologous end-joining, increasing the variability of the non-templated nucleotide region of the recombined gene segments.^{1,2} *DNTT* expression is associated with remission and increased median survival in patients with acute lymphoblastic leukemia.³ Cayman's Terminal Deoxynucleotidyl Transferase Rabbit Monoclonal Antibody (Clone RM379) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Sarac, I. and Hollenstein, M. Terminal deoxynucleotidyl transferase in the synthesis and modification of nucleic acids. *ChemBiochem* **20(7)**, 860-871 (2018).
2. Motea, E.A. and Berdis, A.J. Terminal deoxynucleotidyl transferase: The story of a misguided DNA polymerase. *Biochim Biophys Acta*. **1804(5)**, 1151-1166 (2010).
3. Rambotti, P. and Davis, S. Biochemical markers in lymphoproliferative diseases. *Crit. Rev. Oncol. Hematol.* **2(4)**, 297-321 (1985).

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