# Anti-TdT Antibody [PD01-00]

## HA721211

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| **Product Type:** | Recombinant Rabbit monoclonal IgG, primary antibodies |
| **Species reactivity:** | Human |
| **Applications:** | WB, IHC-P |
| **Molecular Wt:** | Predicted band size: 59 kDa |
| **Clone number:** | PD01-00 |

**Description:** Terminal deoxynucleotidyl transferase (TdT) is a unique DNA polymerase that changes the addition of deoxynucleoside 5'-triphosphate to the 3'-end of a DNA initiator without template direction. TdT contributes to the generation of junctional diversity in antigen receptors of immature lymphocytes. TdT is expressed in lymphoid precursors of B- and T-cell lineage in thymus and bone marrow. Foci of TdT positive cells maybe observed in peripheral lymphoid tissues. TdT is also present in malignant tumors of lymphoblastic lineage and thymoma. It is a sensitive and specific marker for lymphoblastic lymphoma/leukemia. Anti-TdT is a useful marker for lymphoblastic lymphomas and has been observed in some cases of acute myeloid leukemia.

**Immunogen:** Recombinant protein within Human TdT aa 1-509.

**Positive control:** Jurkat cell lysate, MOLT-4 cell lysate, human thymus tissue.

**Subcellular location:** Nucleus.

**Database links:** SwissProt: P04053 Human

**Recommended Dilutions:**

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| **WB** | 1:1,000 |
| **IHC-P** | 1:200 |

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

**Purity:** Protein A affinity purified.

## Images

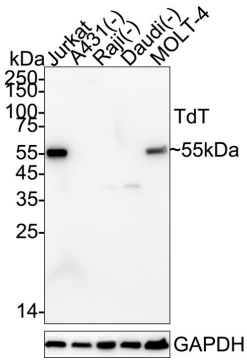


**Fig1:** Western blot analysis of TdT on different lysates with Rabbit anti-TdT antibody (HA721211) at 1/1,000 dilution.

Lane 1: Jurkat cell lysate (20 µg/Lane)
Lane 2: A431 cell lysate (negative) (20 µg/Lane)
Lane 3: Raji cell lysate (negative) (20 µg/Lane)
Lane 4: Daudi cell lysate (negative) (20 µg/Lane)
Lane 5: MOLT-4 cell lysate (20 µg/Lane)

Predicted band size: 59 kDa
Observed band size: 55 kDa

Exposure time: 1 minute; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721211) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

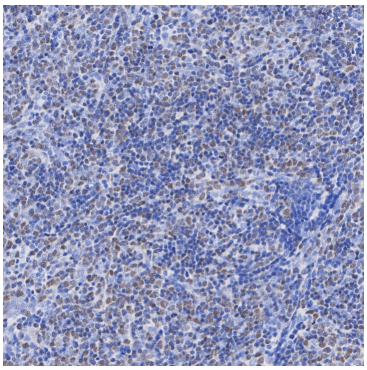

**Fig2:** Immunohistochemical analysis of paraffin-embedded human thymus tissue with Rabbit anti-TdT antibody (HA721211) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with $ddH_2O$ and PBS, and then probed with the primary antibody (HA721211) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

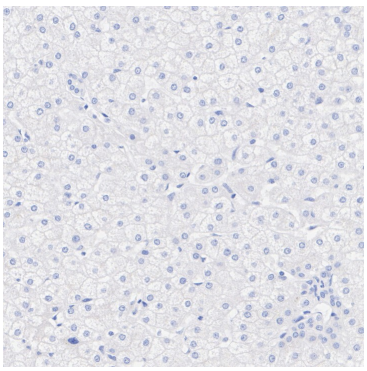

**Fig3:** Immunohistochemical analysis of paraffin-embedded human liver tissue (negative) with Rabbit anti-TdT antibody (HA721211) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with $ddH_2O$ and PBS, and then probed with the primary antibody (HA721211) at 1/50 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Musallam KM et al. Revisiting the non-transfusion-dependent (NTDT) vs. transfusion-dependent (TDT) thalassemia classification 10 years later. Am J Hematol. 2021 Feb
2. Ali M et al. T cells targeted to TdT kill leukemic lymphoblasts while sparing normal lymphocytes. Nat Biotechnol. 2022 Apr