abcam

ab245730

Anti-TdT antibody [SP150] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	SP150
Purification technique	Affinity purification Protein A/G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS by protein A/G.

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	Boil tissue section in 1mM EDTA buffer, pH 8.0 for 10 min followed by cooling at room temperature for 20 min.

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information DNTT

Function	Template-independent DNA polymerase which catalyzes the random addition of deoxynucleoside 5'-triphosphate to the 3'-end of a DNA initiator. One of the in vivo functions of this enzyme is the addition of nucleotides at the junction (N region) of rearranged Ig heavy chain and T-cell receptor gene segments during the maturation of B- and T-cells.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab245730 is the carrier-free version of ab183341.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The target protein TdT also known as terminal deoxynucleotidyl transferase or DNTT is an enzyme with a mass of approximately 58 kDa. TdT is specifically expressed in the thymus and bone marrow during early B and T lymphocyte development. This enzyme adds nucleotides to the 3’ ends of DNA contributing to the diversity of the immune response by introducing variability at the junctions of gene segments.
Biological function summary	Terminal deoxynucleotidyl transferase plays an important role in the adaptive immune system. By adding random nucleotides to the V(D)J regions during the development of T and B cells it enhances the variability of antigen receptors. Although TdT does not form part of a larger protein complex its activity directly influences the effectiveness of antigen recognition by lymphocytes important for immune surveillance and response.
Pathways	Terminal deoxynucleotidyl transferase fits into the V(D)J recombination pathway which is essential for the assembly of diverse antigen receptor genes in immature lymphocytes. This enzyme works in conjunction with proteins like RAG1/RAG2 which initiate the DNA cleavage process necessary for recombination and with

	DNA ligase IV for the joining stage. Enhanced diversity generated by TdT's activity substantiates an effective and adaptable immune response.
Associated diseases and disorders	TdT is associated with lymphoid malignancies such as acute lymphoblastic leukemia (ALL) where its expression acts as a diagnostic marker. Overexpression or dysregulation of TdT often found in these leukemias correlates with abnormal lymphocyte proliferation. TdT involvement in these disorders is linked to abnormal p53 pathways as p53 mutation frequently occurs alongside abnormal TdT activity suggesting a connection to cellular growth and survival dysregulation in affected cells.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

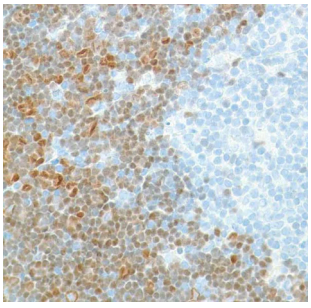
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

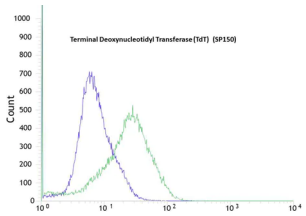
3 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TdT antibody [SP150] - BSA and Azide free (ab245730)

TdT Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TdT antibody

Immunohistochemical analysis of paraffin-embedded human thymus tissue labeling TdT with ab183341 at a 1/100 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (ab183341).

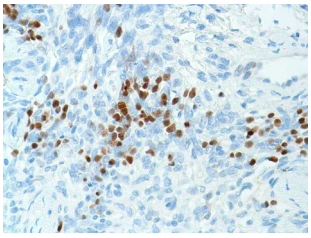


Flow Cytometry (Intracellular) - Anti-TdT antibody [SP150] - BSA and Azide free (ab245730)

TdT Flow Cytometry (Intracellular) staining using rabbit Anti-TdT antibody

Immunohistochemical analysis of paraffin-embedded Human thymus tissue, labeling TdT with ab183341 at 1/100 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, and sodium azide (ab183341)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TdT antibody [SP150] - BSA and Azide free (ab245730)

Immunohistochemical analysis of paraffin-embedded human thymoma tissue labeling TdT with ab183341 at a 1/100 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (ab183341).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.