

Anti-TdT/DNTT Antibody Picoband®

Catalog Number: PB9162

About DNTT

Terminal Deoxynucleotidyl Transferase, also known as TdT and terminal transferase, is a unique DNA polymerase without template direction catalyzes the addition of deoxyribonucleotides onto the 3-prime-hydroxyl end of DNA primers. Its gene is mapped to the region 10q23-q24. And TdT cDNA contains an open reading frame of 1,530 basepairs corresponding to a protein containing 510 amino acids. TdT may be responsible for inserting nucleotides (N regions) at the V (H)-D and D-J (H) junctions of immunoglobulin genes. The enzyme is present in immature thymocytes, some bone marrow cells, transformed pre-B and pre-T cell lines, and leukemia cells. Additionally, TdT catalyses the addition of nucleotides to the 3' terminus of a DNA molecule. Unlike most DNA polymerases it does not require a template. The preferred substrate of this enzyme is a 3'-overhang, but it can also add nucleotides to blunt or recessed 3' ends. Cobalt is a necessary cofactor.

Overview

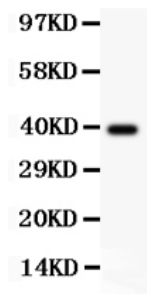
Product Name	Anti-TdT/DNTT Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-TdT/DNTT Antibody Picoband® catalog # PB9162. Tested in WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P04053

Technical Details

Immunogen	E.coli-derived human TdT recombinant protein (Position: K316-A509). Human TdT shares 81% amino acid (aa) sequence identity with mouse TdT.
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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human

Anti-TdT/DNTT Antibody Picoband® (PB9162) Images



Western blot analysis of TdT using anti-TdT antibody (PB9162). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: recombinant human TdT protein 0.5 ng. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TdT antigen affinity purified polyclonal antibody (Catalog # PB9162) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for TdT at approximately 39 kDa. The expected band size for TdT is at 39 kDa.



Western blot analysis of TdT using anti-TdT antibody (PB9162). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Jurkat whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TdT antigen affinity purified polyclonal antibody (Catalog # PB9162) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for TdT at approximately 58 kDa. The expected band size for TdT is at 58 kDa.

10 Publications Citing This Product

1. PubMed ID: 28186502, Jiang Y, Yu M, Hu X, Han L, Yang K, Ba H, Zhang Z, Yin B, Yang XP, Li Z, Wang J. Cell Death Differ. 2017 Apr;24(4):660-671. doi: 10.1038/cdd.2016.162. Epub 2017 Feb 10. STAT1 mediates transmembrane TNF-alpha-induced formation of death-inducing sig...
2. PubMed ID: 23131582, Tochinai R, Ando M, Suzuki T, Suzuki K, Nagata Y, Hata C, Uchida K, Kobayashi T, Kado S, Kaneko K. Exp Toxicol Pathol. 2013 Sep;65(6):737-43. Doi: 10.1016/J.Etp.2012.09.008. Epub 2012 Nov 4. Histopathological Studies Of Microtubule Disassembling A...
3. PubMed ID: 16790636, Luo T, Xia Z. Anesth Analg. 2006 Jul;103(1):110-6, Table Of Contents. A Small Dose Of Hydrogen Peroxide Enhances Tumor Necrosis Factor-Alpha Toxicity In Inducing Human Vascular Endothelial Cell Apoptosis: Reversal With Propofol.

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