

## Anti-POLD4 Antibody Picoband®

Catalog Number: A08778-1

### About POLD4

This gene encodes the smallest subunit of DNA polymerase delta. DNA polymerase delta possesses both polymerase and 3' to 5' exonuclease activity and plays a critical role in DNA replication and repair. The encoded protein enhances the activity of DNA polymerase delta and plays a role in fork repair and stabilization through interactions with the DNA helicase Bloom syndrome protein. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene.

### Overview

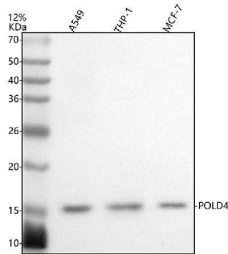
Product Name	Anti-POLD4 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-POLD4 Antibody Picoband® catalog # A08778-1. Tested in WB, ICC/IF, Flow Cytometry, ELISA applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees 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	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q9HCU8

### Technical Details

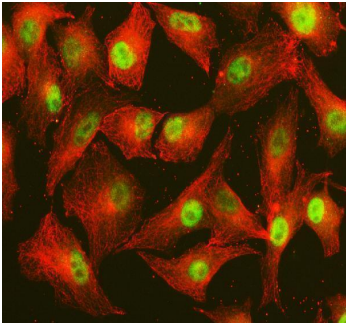
Immunogen	E.coli-derived human POLD4 recombinant protein (Position: M1-L107). Human POLD4 shares 83.2% amino acid (aa) sequence identity with mouse POLD4.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
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, 0.25-0.5 ug/ml, Human

Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human  
Flow Cytometry (Fixed), 1-3 ug/1x10<sup>6</sup> cells, Human  
ELISA, 0.1-0.5 ug/ml

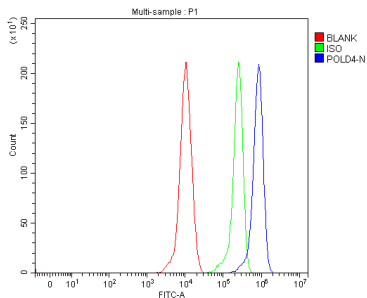
## Anti-POLD4 Antibody Picoband® (A08778-1) Images



Western blot analysis of POLD4 using anti-POLD4 antibody (A08778-1). Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A549 whole cell lysates, Lane 2: human THP-1 whole cell lysates, Lane 3: human MCF-7 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-POLD4 antigen affinity purified polyclonal antibody (A08778-1) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for POLD4 at approximately 16 kDa. The expected band size for POLD4 is at 12 kDa.



IF analysis of POLD4 using anti-POLD4 antibody (A08778-1) and anti-Beta Tubulin antibody (M01857-3). POLD4 was detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-POLD4 Antibody (A08778-1) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of THP-1 cells using anti-POLD4 antibody (A08778-1). Overlay histogram showing THP-1 cells stained with A08778-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-POLD4 Antibody (A08778-1, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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## Anti-POLD4 Antibody

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