BOSTER BIOLOGICAL TECHNOLOGY
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# Anti-PLS3 Antibody Picoband®

**Catalog Number:** A04134-1

## About PLS3

Plastin-3 is a highly conserved protein that in humans is encoded by the PLS3 gene on the X chromosome. Plastins are a family of actin-binding proteins that are conserved throughout eukaryote evolution and expressed in most tissues of higher eukaryotes. In humans, two ubiquitous plastin isoforms (L and T) have been identified. Plastin 1 (otherwise known as Fimbrin) is a third distinct plastin isoform which is specifically expressed at high levels in the small intestine. The L isoform is expressed only in hemopoietic cell lineages, while the T isoform has been found in all other normal cells of solid tissues that have replicative potential (fibroblasts, endothelial cells, epithelial cells, melanocytes, etc.). The C-terminal 570 amino acids of the T-plastin and L-plastin proteins are 83% identical. It contains a potential calcium-binding site near the N terminus. Alternate splicing results in multiple transcript variants.

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## Overview

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| Product Name | Anti-PLS3 Antibody Picoband® |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-PLS3 Antibody Picoband® catalog # A04134-1. Tested in WB, ICC/IF, IP, FCM, ELISA applications. This antibody reacts with Human, Mouse, Rat. 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, IP, IF, ICC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4. |
| 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 | P13797 |

## Technical Details

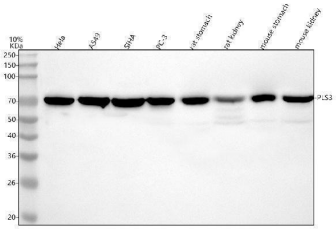
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|---|---|
| Immunogen | E.coli-derived human PLS3 recombinant protein (Position: M1-D580). Human PLS3 shares 99% and |

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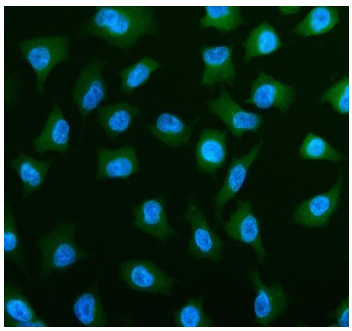
| | |
|---|---|
| | 97.9% amino acid (aa) sequence identity with mouse and rat PLS3, respectively. |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for 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, 0.1-0.25 ug/ml, Human, Mouse, Rat<br>Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human<br>Immunoprecipitation, 2-4 ug/ml, Human<br>Flow Cytometry (Fixed), 1-3 ug/1x$10^6$ cells, Human<br>ELISA, 0.1-0.5 ug/ml, -<br><br>Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells. |

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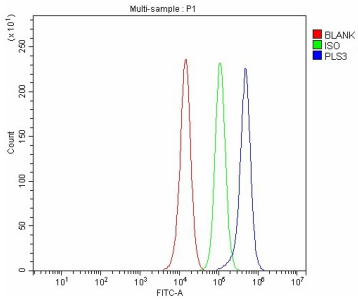
# Anti-PLS3 Antibody Picoband® (A04134-1) Images




Western blot analysis of PLS3 using anti-PLS3 antibody (A04134-1). 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 Hela whole cell lysates, Lane 2: human A549 whole cell lysates, Lane 3: human Siha whole cell lysates, Lane 4: human PC-3 whole cell lysates, Lane 5: rat stomach tissue lysates, Lane 6: rat kidney tissue lysates, Lane 7: mouse stomach tissue lysates, Lane 8: mouse kidney tissue 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-PLS3 antigen affinity purified polyclonal antibody (Catalog # A04134-1) at 0.25 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 PLS3 at approximately 71 kDa. The expected band size for PLS3 is at 71,69,66 kDa.

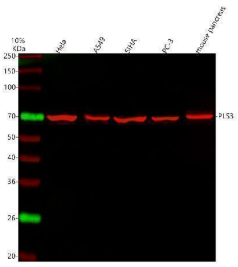


IF analysis of PLS3 using anti-PLS3 antibody (A04134-1). PLS3 was detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-PLS3 Antibody (A04134-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

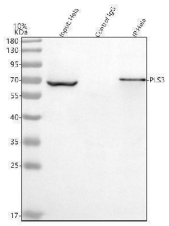



Flow Cytometry analysis of PC-3 cells using anti-PLS3 antibody (A04134-1). Overlay histogram showing PC-3 cells stained with A04134-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PLS3 Antibody (A04134-1, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) 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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Western blot analysis of PLS3 using anti-PLS3 antibody (A04134-1). 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 Hela whole cell lysates, Lane 2: human A549 whole cell lysates, Lane 3: human SiHa whole cell lysates, Lane 4: human PC-3 whole cell lysates, Lane 5: mouse pancreas tissue 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-PLS3 antigen affinity purified polyclonal antibody (A04134-1) at 0.25 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-DyLight 647 Conjugated secondary antibody at a dilution of 1:2000 for 1.5 hour at RT. A specific band was detected for PLS3 at approximately 71 kDa. The expected band size for PLS3 is at 71 kDa.



Immunoprecipitating PLS3 in Hela whole cell lysate.Western blot analysis of PLS3 using anti-PLS3 antibody (A04134-1).Lane 1: Hela whole cell lysates (30ug)Lane 2: Rabbit control IgG instead of anti-PLS3 antibody in Hela whole cell lysate.Lane 3: anti-PLS3 antibody (2ug) + Hela whole cell lysate (500ug)After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-PLS3 antigen affinity purified polyclonal antibody (A04134-1) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for PLS3 at approximately 71 kDa. The expected band size for PLS3 is at 71 kDa.

## Anti-PLS3 Antibody

For Research Use Only. Not for use in diagnostic procedures.