BOSTER BIOLOGICAL TECHNOLOGY
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Anti-PLCG 2/PLCG2 Antibody Picoband®

Catalog Number: A03572-1

About PLCG2

1-Phosphatidylinositol-4,5-bisphosphate phosphodiesterase gamma-2 is an enzyme that in humans is encoded by the PLCG2 gene. The protein encoded by this gene is a transmembrane signaling enzyme that catalyzes the conversion of 1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate to 1D-myo-inositol 1,4,5-trisphosphate (IP3) and diacylglycerol (DAG) using calcium as a cofactor. IP3 and DAG are second messenger molecules important for transmitting signals from growth factor receptors and immune system receptors across the cell membrane. Mutations in this gene have been found in autoinflammation, antibody deficiency, and immune dysregulation syndrome and familial cold autoinflammatory syndrome 3.

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Overview

Product Name	Anti-PLCG 2/PLCG2 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-PLCG 2/PLCG2 Antibody Picoband® catalog # A03572-1. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, 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	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	P16885

Technical Details

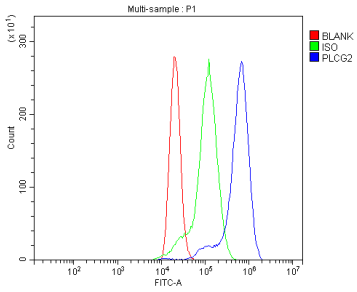
Immunogen	E. coli-derived human PLCG 2 recombinant protein (Position: R1201-V1258).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

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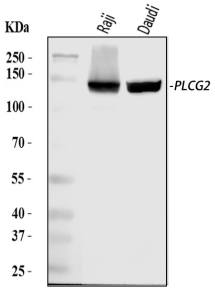
	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot,0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section),2-5ug/ml Immunocytochemistry/Immunofluorescence, 5 ug/ml Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells ELISA,0.1-0.5ug/ml 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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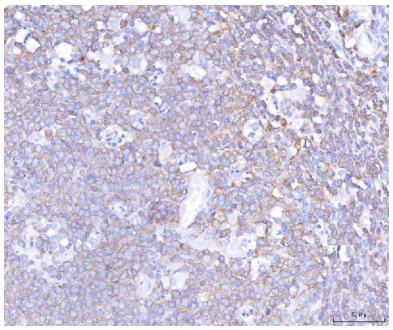
Anti-PLCG 2/PLCG2 Antibody Picoband® (A03572-1) Images



Flow Cytometry analysis of THP-1 cells using anti-PLCG 2/PLCG2 antibody (A03572-1). Overlay histogram showing THP-1 cells stained with A03572-1 (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-PLCG 2/PLCG2 Antibody (A03572-1, 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.



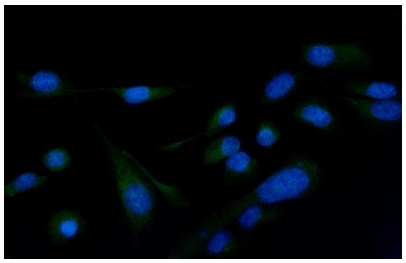
Western blot analysis of PLCG 2/PLCG2 using anti-PLCG 2/PLCG2 antibody (A03572-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Raji whole cell lysates, Lane 2: human Daudi 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-PLCG 2/PLCG2 antigen affinity purified polyclonal antibody (Catalog # A03572-1) 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 Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PLCG 2/PLCG2 at approximately 148 kDa. The expected band size for PLCG 2/PLCG2 is at 148 kDa.



IHC analysis of PLCG 2/PLCG2 using anti-PLCG 2/PLCG2 antibody (A03572-1). PLCG 2/PLCG2 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-PLCG 2/PLCG2 Antibody (A03572-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

IF analysis of PLCG 2/PLCG2 using anti-PLCG 2/PLCG2

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antibody (A03572-1). PLCG 2/PLCG2 was detected in an immunocytochemical section of U20S 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-PLCG 2/PLCG2 Antibody (A03572-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 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.

1 Publications Citing This Product

1. PubMed ID: 10.1080/10520295.2017.1355475, Enhancement or inhibition of PLCgamma2 expression in rat hepatocytes by recombinant adenoviral vectors that contain full-length gene or siRNA

Visit bosterbio.com/anti-plcg-2-picoband-trade-antibody-a03572-1-boster.html to see all 1 publications.

Anti-PLCG 2/PLCG2 Antibody

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