

Anti-CD79a Antibody Picoband™

Catalog Number: PB9168

About CD79A

Cluster of differentiation CD79A also known as B-cell antigen receptor complex-associated protein alpha chain and MB-1 membrane glycoprotein, is a protein that in humans is encoded by the CD79A gene. It is mapped to 19q13.2. CD79A is a membrane protein with an extracellular immunoglobulin domain, a single span transmembrane region and a short cytoplasmic domain. Genetic deletion of the transmembrane exon of CD79A results in loss of CD79A protein and a complete block of B cell development at the pro to pre B cell transition. Similarly, humans with homozygous splice variants in CD79A predicted to result in loss of the transmembrane region and a truncated or absent protein display agammaglobulinemia and no peripheral B cells.

Overview

Product Name	Anti-CD79a Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-CD79a Antibody Picoband™ catalog # PB9168. Tested in Flow Cytometry, IF, IHC, WB applications. This antibody reacts with Human.
Application	Flow Cytometry, IF, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	P11912

Technical Details

Immunogen	E.coli-derived human CD79a recombinant protein (Position: T121-P226). Human CD79a shares 91% amino acid (aa) sequence identity with mouse CD79a.
Predicted Reactive Species	Hamster
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 IHC(P).
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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human</p> <p>Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, By Heat</p> <p>Immunofluorescence, 5 ug/ml, Human</p> <p>Flow Cytometry, 1-3 ug/1x10⁶ cells, Human</p>

Anti-CD79a Antibody Picoband™ (PB9168) Images

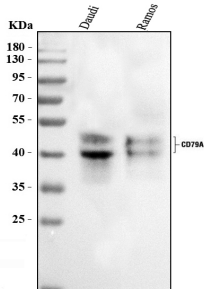


Figure 1. Western blot analysis of CD79A using anti-CD79A antibody (PB9387).

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 Daudi whole cell lysates,

Lane 2: human Ramos 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-CD79A antigen affinity purified polyclonal antibody (Catalog # PB9387) 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 CD79A at approximately 44 kDa. The expected band size for CD79A is at 25 kDa.

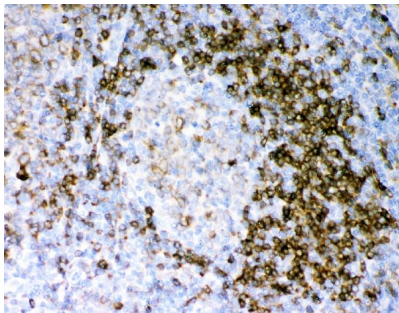


Figure 2. IHC analysis of CD79A using anti-CD79A antibody (PB9168).

CD79A 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-CD79A Antibody (PB9168) 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.

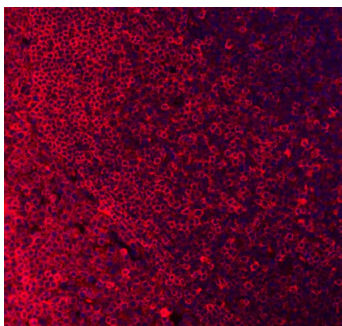
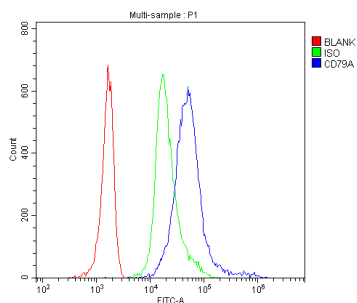


Figure 3. IF analysis of CD79A using anti-CD79A antibody (PB9168).

CD79A 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 5 ug/mL rabbit anti-CD79A Antibody (PB9168) overnight at 4°C. DyLight®550 conjugated goat anti-rabbit IgG (BA1135) was used as secondary antibody 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.

Figure 4. Flow Cytometry analysis of human PBMC cells using anti-CD79A antibody (PB9168).



Overlay histogram showing human PBMC cells stained with PB9168 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD79A Antibody (PB9168, 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 (Red line) was also used as a control.

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