BOSTER
antibody and ELISA experts

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Anti-CD23/FCER2 Antibody Picoband™

Catalog Number: PB9051

About Fcer2

CD23, also known as Fc epsilon RII, or FcepsilonRII, is the "low-affinity" receptor for IgE, an antibody isotype involved in allergy and resistance to parasites, and is important in regulation of IgE levels. There are two forms of CD23: CD23a and CD23b. CD23a is present on follicular B cells, whereas CD23b requires IL-4 to be expressed on T-cells, monocytes, Langerhans cells, eosinophils, and macrophages. As part of a mapping of multiple probes to specific bands on chromosome 19 by fluorescence in situ hybridization, the FCE2 gene was assigned to 19p13.3. CD23 (FCE2) is a key molecule for B-cell activation and growth. It is the low-affinity receptor for IgE. The truncated molecule can be secreted, then functioning as a potent mitogenic growth factor.

Overview

Product Name	Anti-CD23/FCER2 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CD23/FCER2 Antibody Picoband™ catalog # PB9051. Tested in ELISA, Flow Cytometry, IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, IF, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg NaN_3.
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	P20693

Technical Details

Immunogen	E.coli-derived mouse CD23 recombinant protein (Position: E50-P331). Mouse CD23 shares 52% amino acid (aa) sequence identity with human CD23.
Predicted Reactive Species	Bovine, Horse
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), IHC(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

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Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Mouse, Rat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Mouse Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat Immunocytochemistry, 0.5-1ug/ml, Human Immunofluorescence, 2ug/ml, Mouse, Rat Flow Cytometry, 1-3ug/1x10^6 cells, Mouse ELISA (Cap), 1-5ug/ml, Mouse

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Anti-CD23/FCER2 Antibody Picoband™ (PB9051) Images

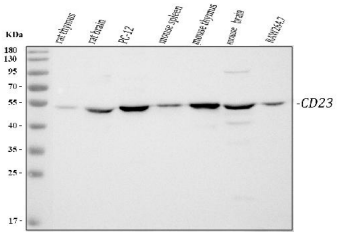

Figure 1. Western blot analysis of CD23 using anti-CD23 antibody (PB9051).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: rat thymus tissue lysates,
Lane 2: rat brain tissue lysates,
Lane 3: rat PC-12 whole cell lysates,
Lane 4: mouse spleen tissue lysates,
Lane 5: mouse thymus tissue lysates,
Lane 6: mouse brain tissue lysates,
Lane 7: mouse RAW264.7 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-CD23 antigen affinity purified polyclonal antibody (Catalog # PB9051) 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 CD23 at approximately 49 kDa. The expected band size for CD23 is at 36 kDa.

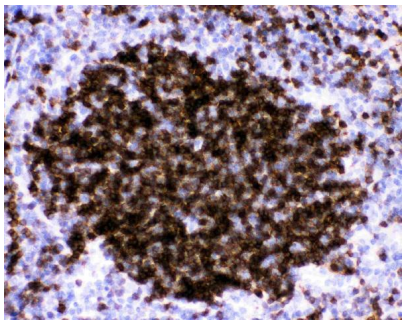

Figure 2. IHC analysis of CD23 using anti-CD23 antibody (PB9051).
CD23 was detected in paraffin-embedded section of Mouse Spleen Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CD23 Antibody (PB9051) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

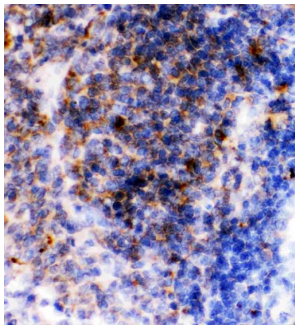

Figure 3. IHC analysis of CD23 using anti-CD23 antibody (PB9051).
CD23 was detected in paraffin-embedded section of Rat Spleen Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CD23 Antibody (PB9051) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

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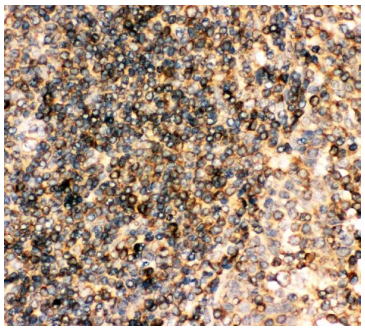

Figure 4. IHC analysis of CD23 using anti-CD23 antibody (PB9051).
CD23 was detected in paraffin-embedded section of Human Tonsil Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CD23 Antibody (PB9051) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

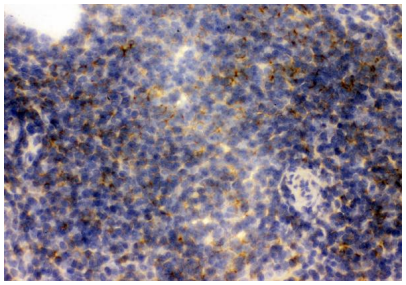

Figure 5. IHC analysis of CD23 using anti-CD23 antibody (PB9051).
CD23 was detected in frozen section of mouse spleen tissues. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CD23 Antibody (PB9051) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

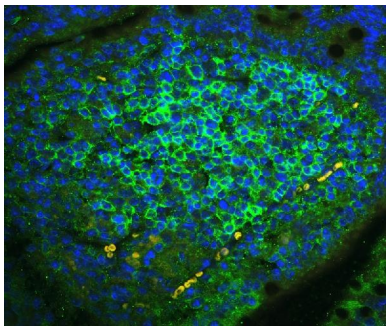

Figure 6. IF analysis of CD23 using anti-CD23 antibody (PB9051)
CD23 was detected in paraffin-embedded section of mouse lymphaden tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-CD23 Antibody (PB9051) 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.

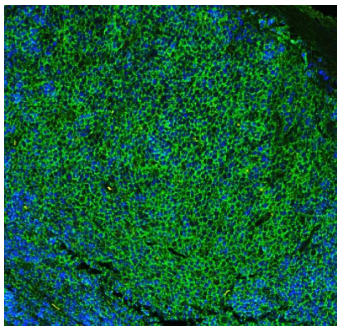

Figure 7. IF analysis of CD23 using anti-CD23 antibody (PB9051)
CD23 was detected in paraffin-embedded section of rat lymphaden tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-CD23 Antibody (PB9051) 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.

Figure 8. Flow Cytometry analysis of mouse PBMC cells using anti-CD23 antibody (PB9051). Overlay histogram showing

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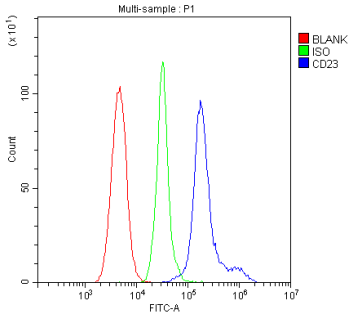

mouse PBMC cells stained with PB9051 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD23 Antibody PB9051,1ug/1x10^6 cells) for 30 min at 20°C. DyLight488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

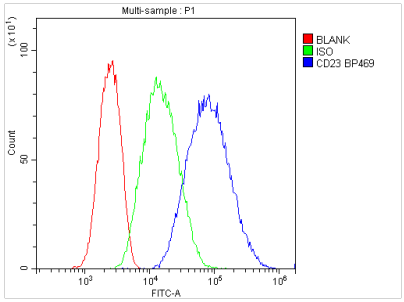

Figure 9. Flow Cytometry analysis of mouse BMC cells using anti-CD23 antibody (PB9051).
Overlay histogram showing mouse BMC cells stained with PB9051 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD23 Antibody (PB9051,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

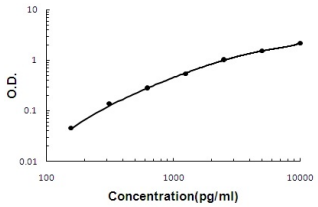

Figure 10. Sandwich ELISA - Recombinant mouse CD23/FCER2 protein standard curve.
Use in combination with reagents from Mouse CD23/FCER2 ELISA Kit EZ-Set (DIY Antibody Pairs) (EZ0924).