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antibody and ELISA experts

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Anti-MyD88 Antibody Picoband®

Catalog Number: PB9148

About PTGS2

MYD88 (MYELOID DIFFERENTIATION PRIMARY RESPONSE GENE 88), is a protein that, in humans, is encoded by the MYD88 gene. MyD88 is a key downstream adapter for most Toll-like receptors (TLRs) and interleukin-1 receptors (IL1Rs). And it is mapped on 3p22.2. MYD88 encodes a cytosolic adapter protein that plays a central role in the innate and adaptive immune response. This protein functions as an essential signal transducer in the interleukin-1 and Toll-like receptor signaling pathways. Overexpression of MYD88 caused an increase in the level of transcription from the interleukin-8 promoter. The C-terminal domain of MYD88 has significant sequence similarity to the cytoplasmic domain of IL1RAP. Inhibiting the IL1R-MYD88 pathway in vivo could block the damage from acute inflammation that occurs in response to sterile cell death, and do so in a way that might not compromise tissue repair or host defense against pathogens.

Overview

Product Name	Anti-MyD88 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MyD88 Antibody Picoband® catalog # PB9148. Tested in ELISA, Flow Cytometry, IF, IHC, IHC-F, ICC, WB 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, IF, IHC, IHC-F, ICC, 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	P35354

Technical Details

Immunogen	E.coli-derived human MyD88 recombinant protein (Position: A44-F264). Human MyD88 shares 84% and 83% amino acid (aa) sequences identity with mouse and rat MyD88, 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 IHC(P), IHC(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins

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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	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 Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunohistochemistry (Frozen Section), 0.5-1ug/ml Immunocytochemistry, 0.5-1ug/ml Immunofluorescence, 2ug/ml Flow Cytometry (Fixed), 1-3ug/1x10^6 cells ELISA (Cap), 1-5ug/ml

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Anti-MyD88 Antibody Picoband® (PB9148) Images

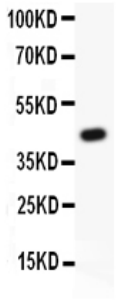

Figure 1. Western blot analysis of MYD88 using anti-MYD88 antibody (PB9148).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.
Lane 1: Recombinant Human MYD88 Protein 0.5ng.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-MYD88 antigen affinity purified polyclonal antibody (Catalog # PB9148) 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 1:10000 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 MYD88 at approximately 49KD. The expected band size for MYD88 is at 49KD.

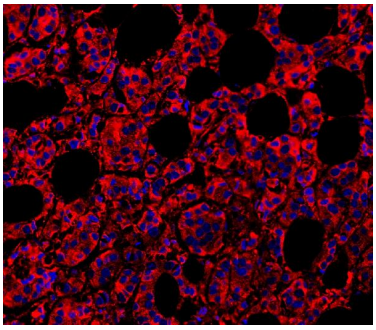

Figure 10. IF analysis of MYD88 using anti-MYD88 antibody (PB9148)
MYD88 was detected in paraffin-embedded section of human mammary cancar tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-MYD88 Antibody (PB9148) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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.

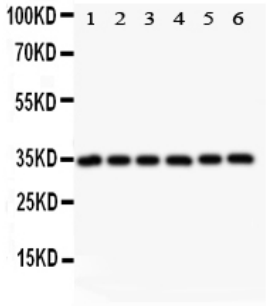

Figure 2. Western blot analysis of MYD88 using anti-MYD88 antibody (PB9148).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: Rat Cardiac Muscle Tissue Lysate
Lane 2: HELA Whole Cell Lysate
Lane 3: MCF Whole Cell Lysate
Lane 4: HEPG2 Whole Cell Lysate
Lane 5: JURKAT Whole Cell Lysate
Lane 6: RAJI Whole Cell Lysate
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-MYD88 antigen affinity purified polyclonal antibody (Catalog # PB9148) 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

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dilution of 1:10000 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 MYD88 at approximately 33KD. The expected band size for MYD88 is at 33KD.

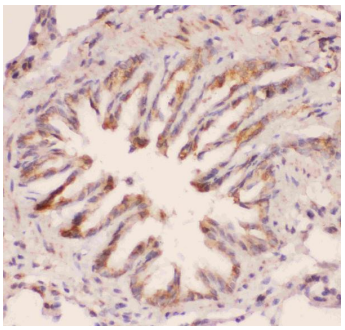

Figure 3. IHC analysis of MYD88 using anti-MYD88 antibody (PB9148).
MYD88 was detected in paraffin-embedded section of rat lung tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MYD88 Antibody (PB9148) 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.

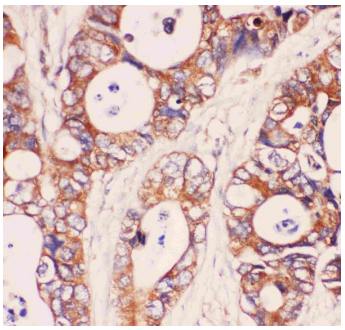

Figure 4. IHC analysis of MYD88 using anti-MYD88 antibody (PB9148).
MYD88 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MYD88 Antibody (PB9148) 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.

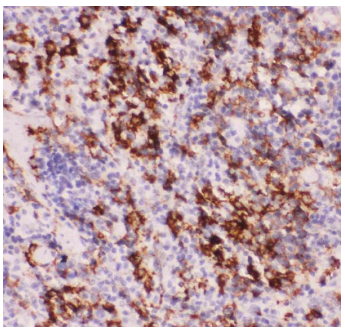

Figure 5. IHC analysis of MYD88 using anti-MYD88 antibody (PB9148).
MYD88 was detected in paraffin-embedded section of mouse spleen tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MYD88 Antibody (PB9148) 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.

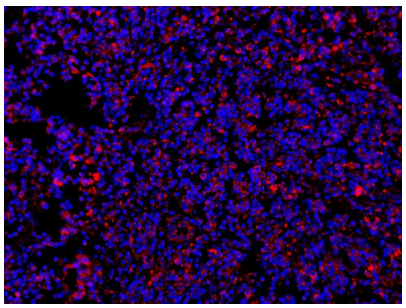

Figure 6. IF analysis of MYD88 using anti-MYD88 antibody (PB9148)
MYD88 was detected in paraffin-embedded section of human tonsil tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-MYD88 Antibody (PB9148) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:100 dilution and incubated for 30

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minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

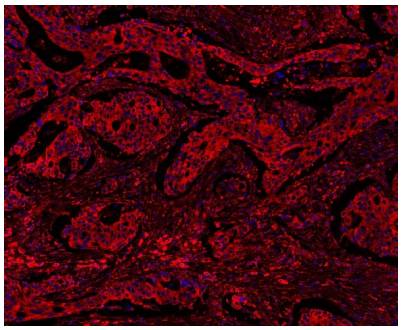

Figure 7. IF analysis of MYD88 using anti-MYD88 antibody (PB9148)
MYD88 was detected in paraffin-embedded section of human colon cancar tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-MYD88 Antibody (PB9148) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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.

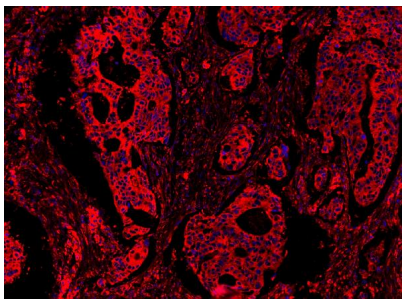

Figure 8. IF analysis of MYD88 using anti-MYD88 antibody (PB9148)
MYD88 was detected in paraffin-embedded section of human colon cancar tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-MYD88 Antibody (PB9148) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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.

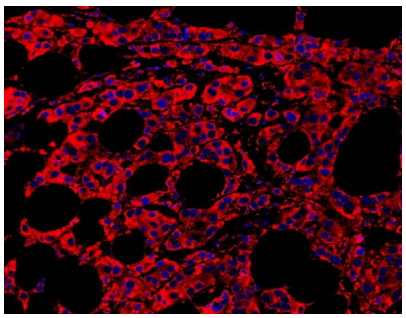

Figure 9. IF analysis of MYD88 using anti-MYD88 antibody (PB9148)
MYD88 was detected in paraffin-embedded section of human mammary cancar tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-MYD88 Antibody (PB9148) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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.

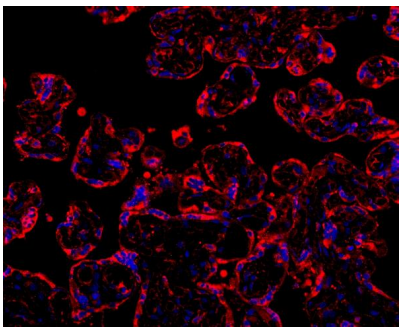

Figure 11. IF analysis of MYD88 using anti-MYD88 antibody (PB9148)
MYD88 was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-MYD88 Antibody (PB9148) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:100 dilution and incubated

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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.

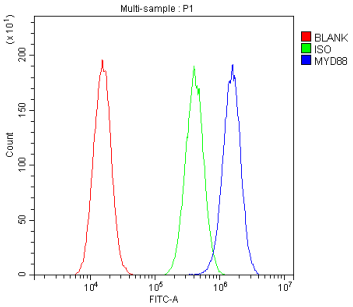

Figure 12. Flow Cytometry analysis of A549 cells using anti-MYD88 antibody (PB9148).
Overlay histogram showing A549 cells stained with PB9148 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MYD88 Antibody (PB9148, 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

23 Publications Citing This Product

1. PubMed ID: 10.4103/1673-5374.147934, Puerarin protects brain tissue against cerebral ischemia/reperfusion injury by inhibiting the inflammatory response

2. PubMed ID: 10.3389/fphar.2021.798421, Gastroprotective Effects of Periplaneta americana L. Extract Against Ethanol-Induced Gastric Ulcer in Mice by Suppressing Apoptosis-Related Pathways.

3. PubMed ID: 26468333, High glucose induces and activates Toll-like receptor 4 in endothelial cells of diabetic retinopathy

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