BOSTER BIOLOGICAL TECHNOLOGY
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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.

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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	Flow Cytometry, IF, IHC, IHC-F, ICC, WB, ELISA (Cap)
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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

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antibody and ELISA experts

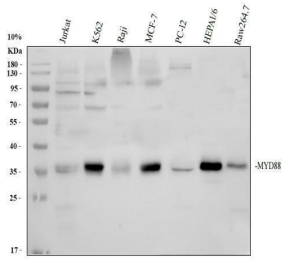
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Technical Details

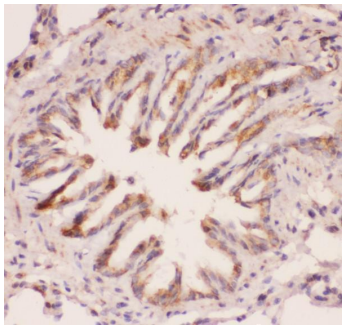
Immunogen	E.coli-derived human MyD88 recombinant protein (Position: A44-F264). Human MyD88 shares 84% and 83% amino acid (aa) sequences identity with mouse and rat MyD88, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western 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
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), 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 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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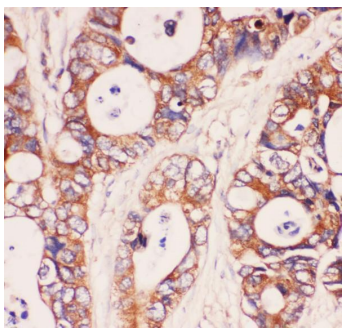
Anti-MyD88 Antibody Picoband® (PB9148) Images



Western blot analysis of MyD88 using anti-MyD88 antibody (PB9148). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Jurkat whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human Raji whole cell lysates, Lane 4: human MCF-7 whole cell lysates, Lane 5: rat PC-12 whole cell lysates, Lane 6: mouse HEPA1-6 whole cell 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-MyD88 antigen affinity purified polyclonal antibody (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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for MyD88 at approximately 36 kDa. The expected band size for MyD88 is at 33 kDa.



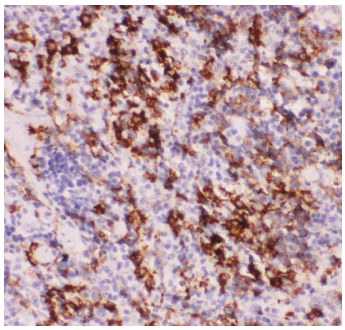
IHC analysis of MYD88 using anti-MYD88 antibody (PB9148). MYD88 was detected in paraffin-embedded section of rat lung tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section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



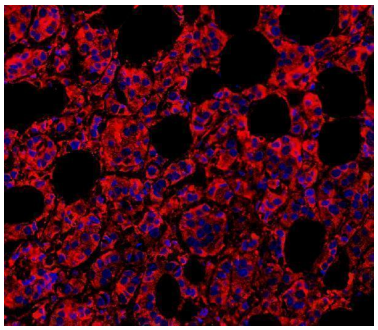
IHC analysis of MYD88 using anti-MYD88 antibody (PB9148). MYD88 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum.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

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

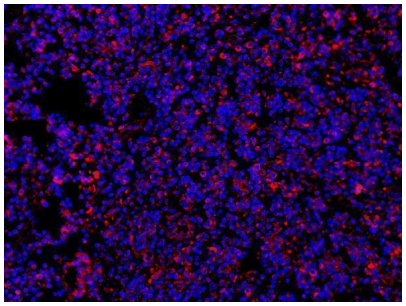
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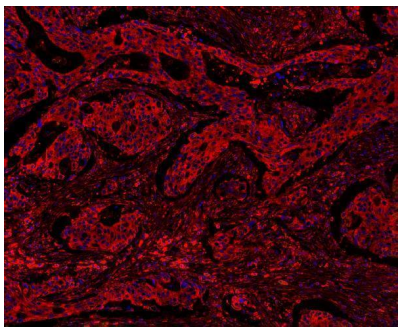
performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MYD88 Antibody (PB9148) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



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.



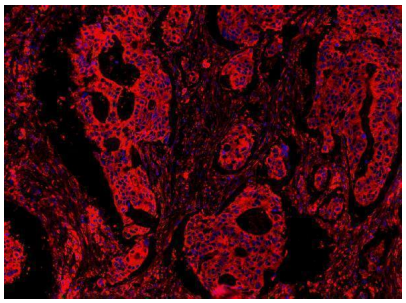
IF analysis of MYD88 using anti-MYD88 antibody (PB9148) MYD88 was detected in paraffin-embedded section of human tonsil tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue 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 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



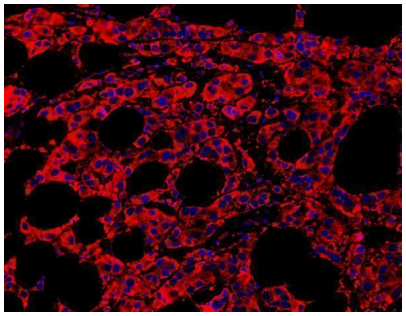
IF analysis of MYD88 using anti-MYD88 antibody (PB9148) MYD88 was detected in paraffin-embedded section of human colon cancar tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The 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.

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

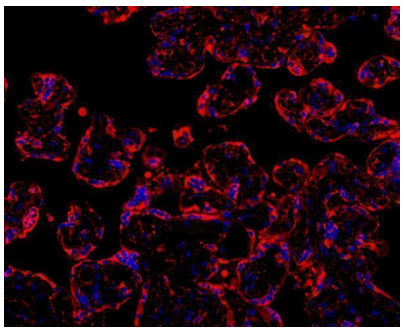
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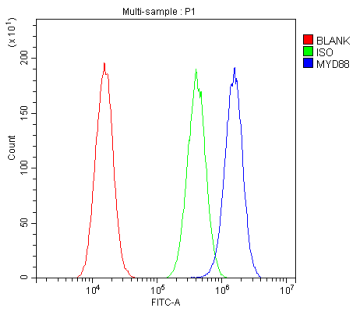
serum. The tissue section was then incubated with 1ug/mL rabbit anti-MYD88 Antibody (PB9148) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



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.



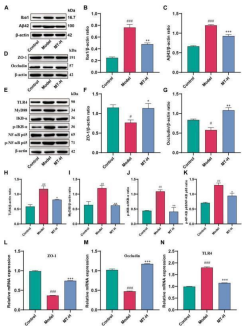
IF analysis of MYD88 using anti-MYD88 antibody (PB9148) MYD88 was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue 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 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 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/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

MT regulated brain barrier function and TLR4/MyD88/NF-kappaB signaling pathway in sleep-deprived rats. (A) Western blot bands showing the protein expression levels of

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Iba1 and Abeta42 in the HP, respectively. (B, C) Relative protein expression level of Iba1 and Abeta42 in the HP, respectively. (D) Western blot brands showing the protein expression levels of ZO-1 and occludin in the HP, respectively. (E) Western blot brands showing the protein expression levels of TLR4, MyD88, IKB-alpha, p-IKB-alpha, NF-kappaB p65, and p-NF-kappaB p65 in the HP, respectively. (F, G) Relative protein expression level of ZO-1 and occludin in the HP, respectively. (H–K) Relative protein expression level of TLR4, MyD88, p-IKB-alpha/IKB-alpha, and p-NF-kappaB p65/NF-kappaB p65, respectively. (L–N) Relative mRNA expression of ZO-1, occluding, and TLR4 in the HP, respectively. The data are expressed as the means ± SEM. # $p < 0.05$, ## $p < 0.01$, ### $p < 0.001$ vs. Control group; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ vs. Model group.Source: Chao Yin et al. Licensed under CC BY 4.0.
PMID: 39101143

23 Publications Citing This Product

1. 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.

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

3. PubMed ID: 25297608, Liu H, Yan Zq, Li B, Yin Sy, Sun Q, Kou Jj, Ye D, Ferns K, Liu Hy, Liu Sl. J Ovarian Res. 2014 Sep 5;7:87. Doi: 10.1186/S13048-014-0087-1. Reduced Expression Of Sox7 In Ovarian Cancer: A Novel Tumor Suppressor Through The Wnt/??-Catenin Signaling ...

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