

**Anti-MyD88 Picoband Antibody**  
Catalog # ABO11846

**Specification**

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**Anti-MyD88 Picoband Antibody - Product Information**

Application	<b>WB, IHC</b>
Primary Accession	<a href="#">P35354</a>
Host	<b>Rabbit</b>
Reactivity	<b>Human, Mouse, Rat</b>
Clonality	<b>Polyclonal</b>
Format	<b>Lyophilized</b>

**Description**

Rabbit IgG polyclonal antibody for Myeloid differentiation primary response protein MyD88(MYD88) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-MyD88 Picoband Antibody - Additional Information**

**Gene ID** 5743

**Other Names**

Prostaglandin G/H synthase 2, 1.14.99.1, Cyclooxygenase-2, COX-2, PHS II, Prostaglandin H2 synthase 2, PGH synthase 2, PGHS-2, Prostaglandin-endoperoxide synthase 2, PTGS2, COX2

**Calculated MW**

68996 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat  
Western blot, 0.1-0.5 µg/ml, Human, Rat

**Subcellular Localization**

Microsome membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein.

**Tissue Specificity**

Ubiquitous.

**Protein Name**

Myeloid differentiation primary response protein MyD88

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**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.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage****At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.****Sequence Similarities**

Contains 1 death domain.

**Anti-MyD88 Picoband Antibody - Protein Information****Name** PTGS2 ([HGNC:9605](#))**Function**

Dual cyclooxygenase and peroxidase in the biosynthesis pathway of prostanoids, a class of C20 oxylipins mainly derived from arachidonate ((5Z,8Z,11Z,14Z)-eicosatetraenoate, AA, C20:4(n-6)), with a particular role in the inflammatory response (PubMed:[11939906](http://www.uniprot.org/citations/11939906)), PubMed:[16373578](http://www.uniprot.org/citations/16373578)), PubMed:[19540099](http://www.uniprot.org/citations/19540099)), PubMed:[22942274](http://www.uniprot.org/citations/22942274)), PubMed:[26859324](http://www.uniprot.org/citations/26859324)), PubMed:[27226593](http://www.uniprot.org/citations/27226593)), PubMed:[7592599](http://www.uniprot.org/citations/7592599)), PubMed:[7947975](http://www.uniprot.org/citations/7947975)), PubMed:[9261177](http://www.uniprot.org/citations/9261177)). The cyclooxygenase activity oxygenates AA to the hydroperoxy endoperoxide prostaglandin G2 (PGG2), and the peroxidase activity reduces PGG2 to the hydroxy endoperoxide prostaglandin H2 (PGH2), the precursor of all 2-series prostaglandins and thromboxanes (PubMed:[16373578](http://www.uniprot.org/citations/16373578)), PubMed:[22942274](http://www.uniprot.org/citations/22942274)), PubMed:[26859324](http://www.uniprot.org/citations/26859324)), PubMed:[27226593](http://www.uniprot.org/citations/27226593)), PubMed:[7592599](http://www.uniprot.org/citations/7592599)), PubMed:[7947975](http://www.uniprot.org/citations/7947975)), PubMed:[9261177](http://www.uniprot.org/citations/9261177)). This complex transformation is initiated by abstraction of hydrogen at carbon 13 (with S- stereochemistry), followed by insertion of molecular O2 to form the endoperoxide bridge between carbon 9 and 11 that defines prostaglandins. The insertion of a second molecule of O2 (bis-oxygenase activity) yields a hydroperoxy group in PGG2 that is then reduced to PGH2 by two electrons (PubMed:[16373578](http://www.uniprot.org/citations/16373578)), PubMed:[22942274](http://www.uniprot.org/citations/22942274)), PubMed:[26859324](http://www.uniprot.org/citations/26859324)), PubMed:[27226593](http://www.uniprot.org/citations/27226593)), PubMed:[7592599](http://www.uniprot.org/citations/7592599)), PubMed:[7947975](http://www.uniprot.org/citations/7947975)), PubMed:[9261177](http://www.uniprot.org/citations/9261177)). Similarly catalyzes successive cyclooxygenation and peroxidation of dihomo-gamma-linoleate (DGLA, C20:3(n-6)) and eicosapentaenoate (EPA, C20:5(n-3)) to corresponding PGH1 and PGH3, the precursors of 1- and 3-series prostaglandins (PubMed:[16373578](http://www.uniprot.org/citations/16373578)), PubMed:[22942274](http://www.uniprot.org/citations/22942274)), PubMed:[26859324](http://www.uniprot.org/citations/26859324)), PubMed:[27226593](http://www.uniprot.org/citations/27226593)), PubMed:[7592599](http://www.uniprot.org/citations/7592599)), PubMed:[7947975](http://www.uniprot.org/citations/7947975)), PubMed:[9261177](http://www.uniprot.org/citations/9261177)).

href="http://www.uniprot.org/citations/11939906" target="\_blank">11939906</a>, PubMed:<a href="http://www.uniprot.org/citations/19540099" target="\_blank">19540099</a>). In an alternative pathway of prostanoid biosynthesis, converts 2-arachidonoyl lysophospholipids to prostanoid lysophospholipids, which are then hydrolyzed by intracellular phospholipases to release free prostanoids (PubMed:<a href="http://www.uniprot.org/citations/27642067" target="\_blank">27642067</a>). Metabolizes 2-arachidonoyl glycerol yielding the glyceryl ester of PGH<sub>2</sub>, a process that can contribute to pain response (PubMed:<a href="http://www.uniprot.org/citations/22942274" target="\_blank">22942274</a>). Generates lipid mediators from n-3 and n-6 polyunsaturated fatty acids (PUFAs) via a lipoxygenase-type mechanism. Oxygenates PUFAs to hydroperoxy compounds and then reduces them to corresponding alcohols (PubMed:<a href="http://www.uniprot.org/citations/11034610" target="\_blank">11034610</a>, PubMed:<a href="http://www.uniprot.org/citations/11192938" target="\_blank">11192938</a>, PubMed:<a href="http://www.uniprot.org/citations/9048568" target="\_blank">9048568</a>, PubMed:<a href="http://www.uniprot.org/citations/9261177" target="\_blank">9261177</a>). Plays a role in the generation of resolution phase interaction products (resolvins) during both sterile and infectious inflammation (PubMed:<a href="http://www.uniprot.org/citations/12391014" target="\_blank">12391014</a>). Metabolizes docosahexaenoate (DHA, C<sub>22</sub>:6(n-3)) to 17R-HDHA, a precursor of the D-series resolvins (RvDs) (PubMed:<a href="http://www.uniprot.org/citations/12391014" target="\_blank">12391014</a>). As a component of the biosynthetic pathway of E-series resolvins (RvEs), converts eicosapentaenoate (EPA, C<sub>20</sub>:5(n-3)) primarily to 18S-HEPE that is further metabolized by ALOX5 and LTA4H to generate 18S-RvE1 and 18S-RvE2 (PubMed:<a href="http://www.uniprot.org/citations/21206090" target="\_blank">21206090</a>). In vascular endothelial cells, converts docosapentaenoate (DPA, C<sub>22</sub>:5(n-3)) to 13R-HDPA, a precursor for 13-series resolvins (RvTs) shown to activate macrophage phagocytosis during bacterial infection (PubMed:<a href="http://www.uniprot.org/citations/26236990" target="\_blank">26236990</a>). In activated leukocytes, contributes to oxygenation of hydroxyeicosatetraenoates (HETE) to diHETES (5,15-diHETE and 5,11-diHETE) (PubMed:<a href="http://www.uniprot.org/citations/22068350" target="\_blank">22068350</a>, PubMed:<a href="http://www.uniprot.org/citations/26282205" target="\_blank">26282205</a>). Can also use linoleate (LA, (9Z,12Z)-octadecadienoate, C<sub>18</sub>:2(n-6)) as substrate and produce hydroxyoctadecadienoates (HODEs) in a regio- and stereospecific manner, being (9R)-HODE ((9R)-hydroxy-(10E,12Z)-octadecadienoate) and (13S)-HODE ((13S)-hydroxy-(9Z,11E)-octadecadienoate) its major products (By similarity). During neuroinflammation, plays a role in neuronal secretion of specialized preresolving mediators (SPMs) 15R-lipoxin A<sub>4</sub> that regulates phagocytic microglia (By similarity).

#### Cellular Location

Microsome membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein. Nucleus inner membrane; Peripheral membrane protein. Nucleus outer membrane; Peripheral membrane protein. Note=Detected on the luminal side of the endoplasmic reticulum and nuclear envelope

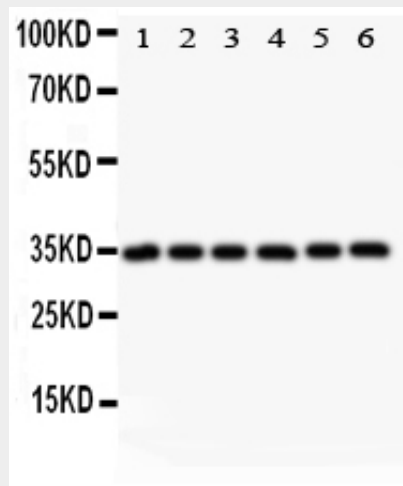
#### Anti-MyD88 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

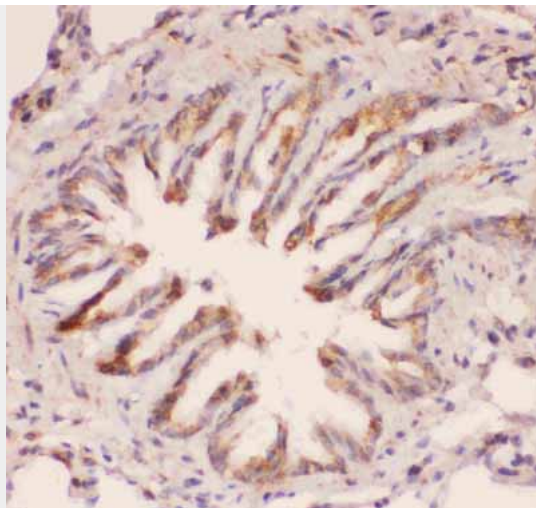
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-MyD88 Picoband Antibody - Images**

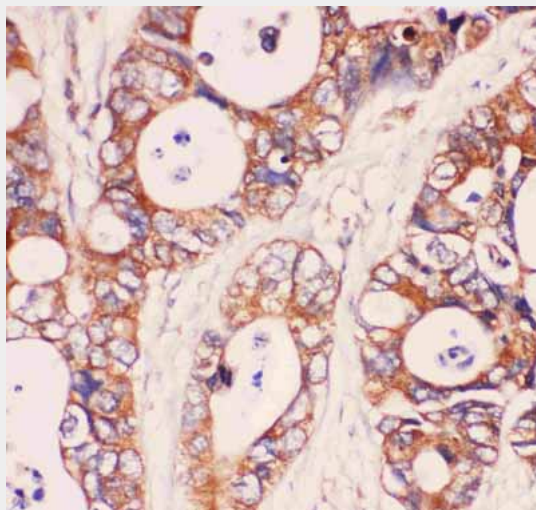
Anti-MyD88 Picoband antibody, ABO11846-1.jpg All lanes: Anti MYD88 (ABO11846) at 0.5ug/ml WB: Recombinant Human MYD88 Protein 0.5ng Predicted bind size: 49KD Observed bind size: 49KD



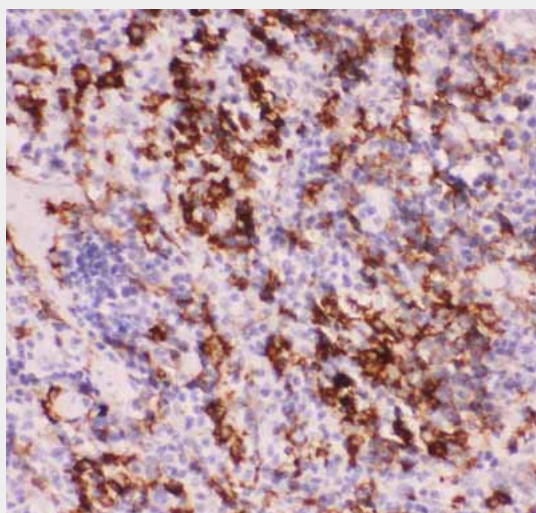
Anti-MyD88 Picoband antibody, ABO11846-2.jpg All lanes: Anti MYD88 (ABO11846) at 0.5ug/ml Lane 1: Rat Cardiac Muscle Tissue Lysate at 50ug Lane 2: HELA Whole Cell Lysate at 40ug Lane 3: MCF Whole Cell Lysate at 40ug Lane 4: HEPG2 Whole Cell Lysate at 40ug Lane 5: JURKAT Whole Cell Lysate at 40ug Lane 6: RAJI Whole Cell Lysate at 40ug Predicted bind size: 33KD Observed bind size: 33KD



Anti-MyD88 Picoband antibody, ABO11846-3.JPGIHC(P): Rat Lung Tissue



Anti-MyD88 Picoband antibody, ABO11846-4.JPGIHC(P): Human Intestinal Cancer Tissue



Anti-MyD88 Picoband antibody, ABO11846-5.JPGIHC(P): Mouse Spleen Tissue

**Anti-MyD88 Picoband Antibody - Background**

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.