

Anti-MyD88 Picoband Antibody
Catalog # ABO11846

Specification

Anti-MyD88 Picoband Antibody - Product Information

Application	WB, IHC
Primary Accession	P35354
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

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 Na₂HPO₄, 0.05mg Na₃.

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, PubMed:19540099). 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:27642067). Metabolizes 2-arachidonoyl glycerol yielding the glyceryl ester of PGH₂, a process that can contribute to pain response (PubMed:22942274). 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:11034610, PubMed:11192938, PubMed:9048568, PubMed:9261177). Plays a role in the generation of resolution phase interaction products (resolvins) during both sterile and infectious inflammation (PubMed:12391014). Metabolizes docosahexaenoate (DHA, C₂₂:6(n-3)) to 17R-HDHA, a precursor of the D-series resolvins (RvDs) (PubMed:12391014). As a component of the biosynthetic pathway of E-series resolvins (RvEs), converts eicosapentaenoate (EPA, C₂₀:5(n-3)) primarily to 18S-HEPE that is further metabolized by ALOX5 and LTA4H to generate 18S-RvE1 and 18S-RvE2 (PubMed:21206090). In vascular endothelial cells, converts docosapentaenoate (DPA, C₂₂:5(n-3)) to 13R-HDPA, a precursor for 13-series resolvins (RvTs) shown to activate macrophage phagocytosis during bacterial infection (PubMed:26236990). In activated leukocytes, contributes to oxygenation of hydroxyeicosatetraenoates (HETE) to diHETES (5,15-diHETE and 5,11-diHETE) (PubMed:22068350, PubMed:26282205). Can also use linoleate (LA, (9Z,12Z)-octadecadienoate, C₁₈:2(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 A₄ that regulates phagocytic microglia (By similarity).

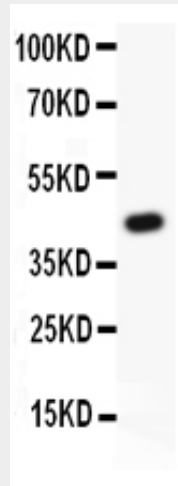
Cellular Location

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

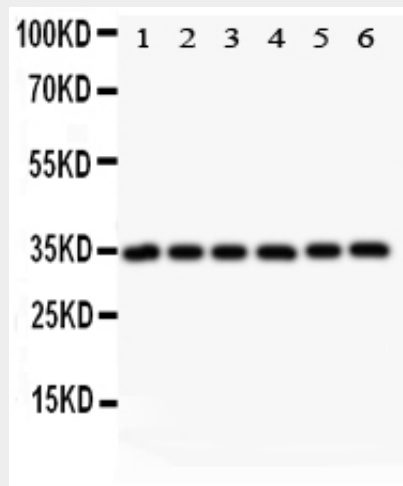
Anti-MyD88 Picoband Antibody - Protocols

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

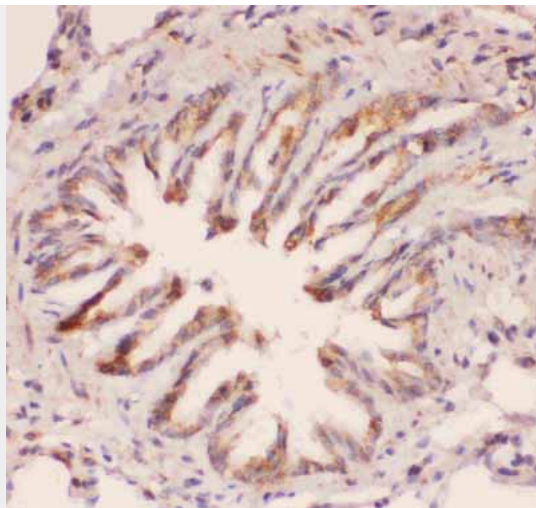
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-MyD88 Picoband Antibody - Images

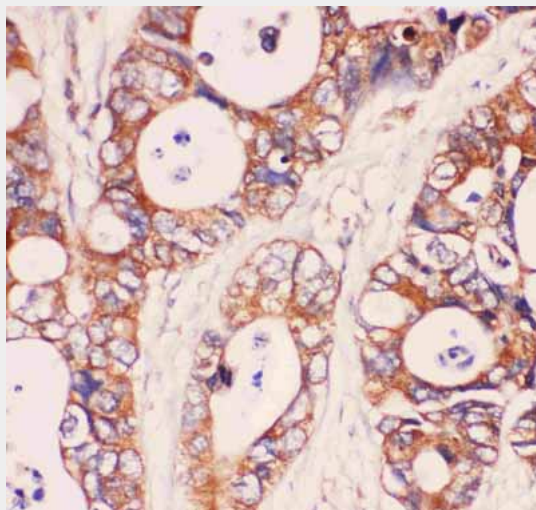
Anti-MyD88 Picoband antibody, ABO11846-1.jpg All lanes: Anti MYD88 (ABO11846) at 0.5ug/ml WB: Recombinant Human MYD88 Protein 0.5ng Predicted bind size: 49KD Observed bind size: 49KD



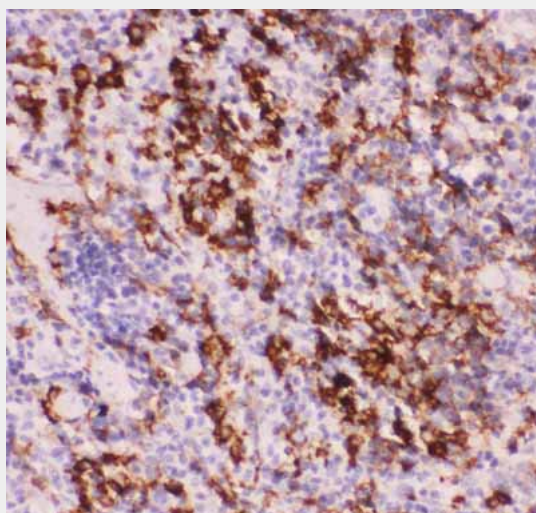
Anti-MyD88 Picoband antibody, ABO11846-2.jpg All lanes: Anti MYD88 (ABO11846) at 0.5ug/ml Lane 1: Rat Cardiac Muscle Tissue Lysate at 50ug Lane 2: HELA Whole Cell Lysate at 40ug Lane 3: MCF Whole Cell Lysate at 40ug Lane 4: HEPG2 Whole Cell Lysate at 40ug Lane 5: JURKAT Whole Cell Lysate at 40ug Lane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