

Datasheet for 600-401-955**MyD88 Antibody****Overview**

Description:	Anti-MyD88 (RABBIT) Antibody - 600-401-955
Item No.:	600-401-955
Size:	100 µg
Applications:	ELISA, IF, IHC, IP, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	MyD88 (Myeloid differentiation primary response protein). The pro-inflammatory cytokine IL-1 induced cellular response requires IL-1 receptor complex including IL-1RI and IL-1RAcP. Recently, MyD88 was identified as an adapter molecule in the IL-1 signaling pathway. MyD88 associates with and recruits IRAK to the IL-1 receptor complex in response to IL-1 treatment and the dominant negative form of MyD88 attenuates IL-1R-mediated NF-kB activation. MyD88 is also employed as a regulator molecule by IL-18 receptor and human Toll receptor, both members of the Toll/IL-1R family of receptors. Targeted disruption of the MyD88 gene results in loss of cellular responses to IL-1 and IL-18, and MyD88-deficient mice lack responses to the bacterial product LPS that employs Toll-like receptors 2 and 4 (TLR2 and TLR4) as the signaling receptors. MyD88 is a general adapter protein for the Toll/IL-1R family of receptors and plays an important role in the inflammatory response induced by cytokines IL-1 and IL-18 and endotoxin. The MyD88 gene is expressed in many tissues. Anti-MYD88 Antibody is ideal for investigators involved in NFkappaB, Cytokines and Growth Factor research.
Synonyms:	Myeloid differentiation marker 88 antibody, Myeloid differentiation primary response gene 88 antibody, Myeloid differentiation primary response gene antibody, Myeloid differentiation primary response protein MyD88 antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	MYD88
-------------------	-------

Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide
Immunogen:	MYD88 Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a region near the carboxy terminus of human MyD88 protein. The immunogen is located within the last 50 amino acids of MYD88.
Purity/Specificity:	Anti-MYD88 Antibody was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross-reactivity with MYD88 with Human and Mouse based on 100% homology with the immunizing sequence. Cross-reactivity with MYD88 from Pig (94%), Sheep (82%), Bovine (82%), Chicken (82%); other sources has not been determined. Human MYD88 has 7 isoforms, this antibody detects human isoform 1,2,3,6,7, but not isoform 4,5.
Relevant Links:	NCBI - 18202671 UniProtKB - Q99836 GeneID - 4615

Application Details

Tested Applications:	ELISA, IF, IHC, IP, WB
Application Note:	MYD88 Antibody has been tested for use in ELISA, immunofluorescence/immunocytochemistry, immunohistochemistry-P, immunoprecipitation, and western blot. Expect a band approximately 35 kDa in size corresponding to MyD88 protein by western blotting in the appropriate cell lysate or extract. Positive controls used: A431 cell lysate, A549 cell lysate, K562 cell lysate, HepG2 cell lysate, NIN/3T3 cell lysate. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:20,000
IF:	20 µg/mL
IHC:	1:300 - 1:1000
WB:	1:500 - 1:2,000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative: 0.02% (w/v) Sodium Azide

Stabilizer: None

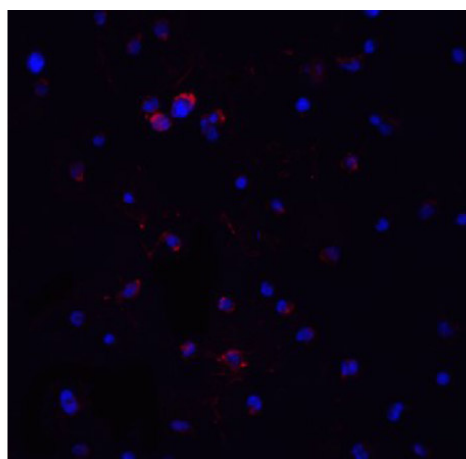
Shipping & Handling

Shipping Condition: Wet Ice

Storage Condition: Antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.

Expiration: Expiration date is one (1) year from date of receipt.

Images



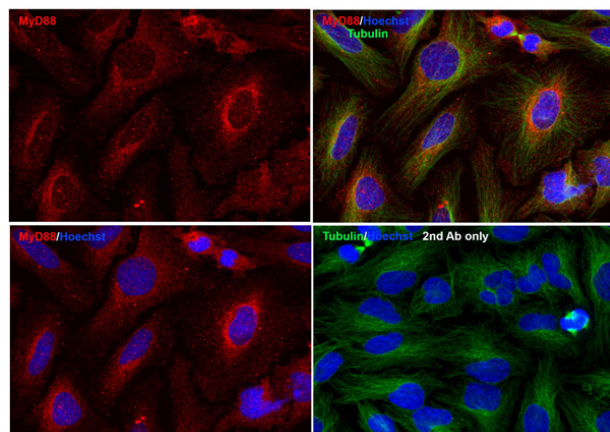
Immunofluorescence Microscopy

Immunofluorescence Validation of MyD88.

Cell: Jurkat Cells.

Fixation: 4% paraformaldehyde-fixed.

Labeling: MyD88 at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1:500 dilution (red) and DAPI staining (blue).



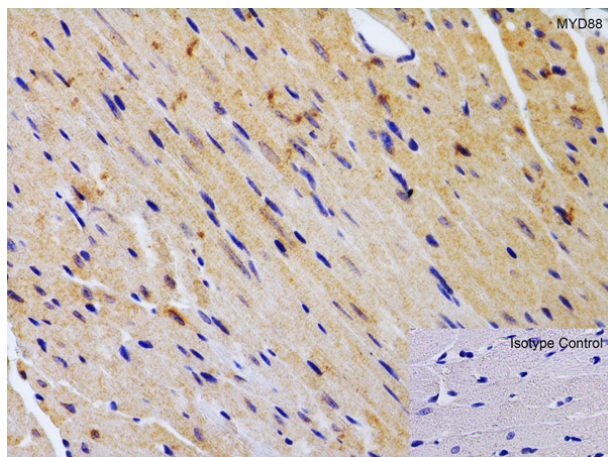
Immunofluorescence Microscopy

Immunofluorescence Validation of MyD88.

Cell: HeLa Cells.

Fixation: methanol-fixed.

Labeling: MyD88 at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1:1000 dilution (red) and Hoechst staining (blue). Alpha tubulin was stained with anti-alpha tubulin antibody following by goat anti-mouse IgG secondary antibody (green). Images were captured with confocal microscopy.



Immunohistochemistry

Immunohistochemistry Validation of MyD88.

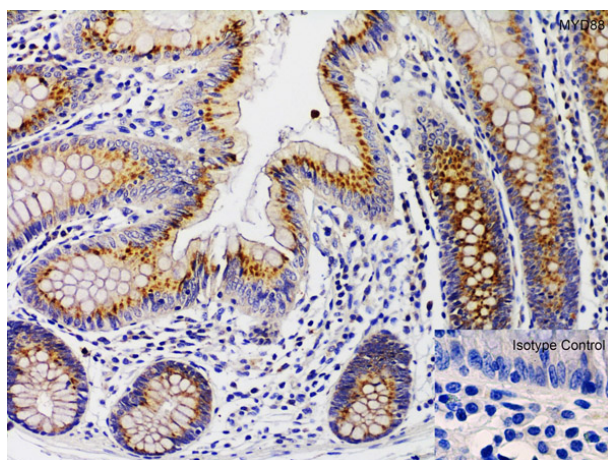
Tissue: Mouse Heart.

Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-MYD88 antibody at 2 µg/ml overnight at 4°C.

Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



Immunohistochemistry

Immunohistochemistry Validation of MyD88.

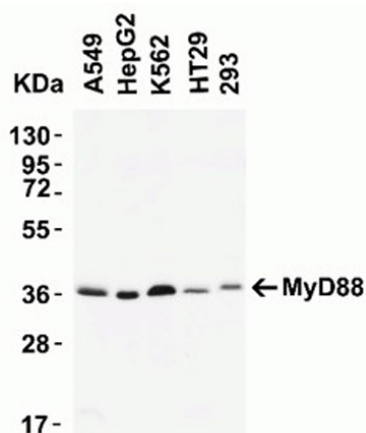
Tissue: Human Colon.

Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-MYD88 antibody at 1 µg/ml overnight at 4°C.

Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



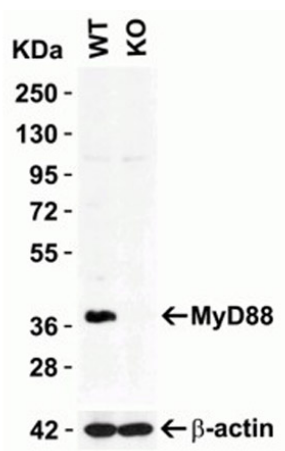
Western Blot

Western Blot Validation of MyD88.

Load: 15 µg of human lysates per lane. Lane 1: A549, Lane 2: HepG2, Lane 3: K562, Lane 4: HT29, Lane 5: 293.

Primary antibody: MyD88 at 2 µg/mL for 1 hr incubation at RT in 5% NFDm/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Predicted band size: 35 kDa



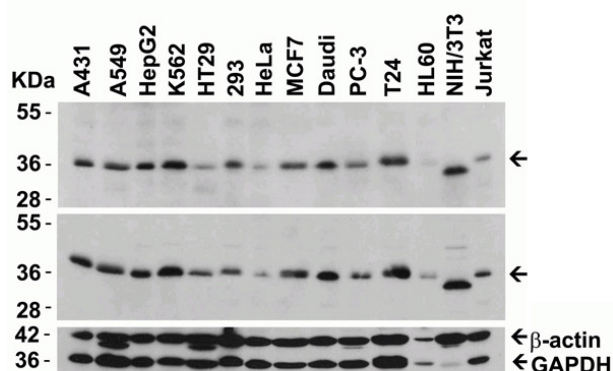
Western Blot

KO Western Blot Validation of MyD88.

Load: 10 µg of HeLa WT cell lysate or MyD88 KO cell lysate.

Primary antibody: MyD88 at 2 µg/mL and beta-actin 1 µg/mL for 1 hr incubation at RT in 5% NFDm/TBST.

Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot

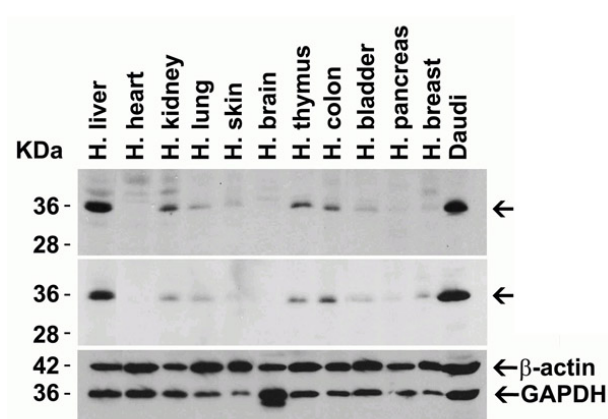
Western Blot Validation of MyD88.

Load: 15 µg of lysates per lane.

Lane 1: A431, Lane 2: A549, Lane 3: HepG2, Lane 4: K562, Lane 5: HT29, Lane 6: 293, Lane 7: HeLa, Lane 8: MCF7, Lane 9: Daudi, Lane 10: PC3, Lane 11: T24, Lane 12: HL60, Lane 13: 3T3/NIH, Lane 14: Jurkat.

Primary antibody: MyD88 [competitor top] at 2 µg/mL, MyD88 [p/n 600-401-955 middle] at 2 µg/mL, beta-actin at 1 µg/mL, and GAPDH at 0.02 µg/mL for 1 hr incubation at RT in 5% NFDm/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



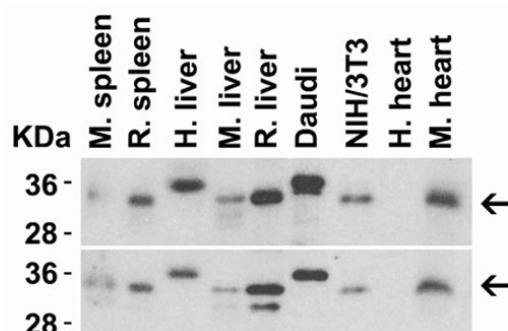
Western Blot

Western Blot Validation of MyD88.

Load: 15 µg of human lysates per lane. Lane 1: liver, Lane 2: heart, Lane 3: kidney, Lane 4: lung, Lane 5: skin, Lane 6: brain, Lane 7: thymus, Lane 8: colon, Lane 9: bladder, Lane 10: pancreas, Lane 11: breast, Lane 12: Daudi.

Primary antibody: MyD88 [competitor top] at 2 µg/mL, MyD88 [p/n 600-401-955 middle] at 2 µg/mL, beta-actin at 1 µg/mL, and GAPDH at 0.02 µg/mL for 1 hr incubation at RT in 5% NFDm/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



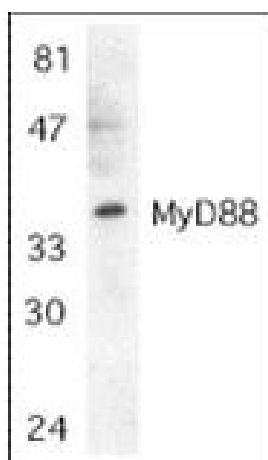
Western Blot

Western Blot Validation of MyD88.

Load: 15 µg mouse, human, or rat lysates per lane. Lane 1: mouse spleen, Lane 2: rat spleen, Lane 3: human liver, Lane 4: mouse liver, Lane 5: rat liver, Lane 6: Daudi, Lane 7: NIH/3T3, Lane 8: human heart, Lane 9: mouse heart.

Primary antibody: MyD88 [competitor top] at 2 µg/mL or MyD88 [p/n 600-401-955 bottom] at 2 µg/mL for 1 h incubation at RT in 5% NFDN/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot

Western blot using Rockland's affinity purified anti-MyD88 antibody shows detection of MyD88 in Jurkat whole cell lysate. The membrane was probed with the primary antibody diluted to 1:500. Background Information: MyD88 (Myeloid differentiation primary response protein). The pro-inflammatory cytokine IL-1 induced cellular response requires IL-1 receptor complex including IL-1RI and IL-1RAcP. Recently, MyD88 was identified as an adapter molecule in the IL-1 signaling pathway (1). MyD88 associates with and recruits IRAK to the IL-1 receptor complex in response to IL-1 treatment and the dominant negative form of MyD88 attenuates IL-1R-mediated NF-κB activation. MyD88 is also employed as a regulator molecule by IL-18 receptor and human Toll receptor (2,3), both members of the Toll/IL-1R family of receptors. Targeted disruption of the MyD88 gene results in loss of cellular responses to IL-1 and IL-18, and MyD88-deficient mice lack responses to the bacterial product LPS that employs Toll-like receptors 2 and 4 (TLR2 and TLR4) as the signaling receptors. MyD88 is a general adapter protein for the Toll/IL-1R family of receptors and plays an important role in the inflammatory response induced by cytokines IL-1 and IL-18 and endotoxin. The MyD88 gene is expressed in many tissues.

References

- Tan Y et al. Biochemical Isolation of the Myddosome from Murine Macrophages. *Methods Mol Biol.* (2018)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.