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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

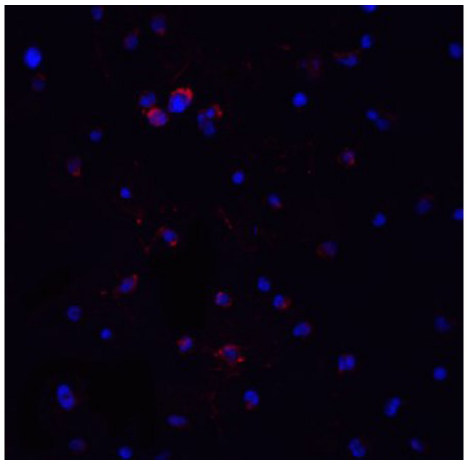
Physical State:	Liquid (sterile filtered)
Concentration:	1.0mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

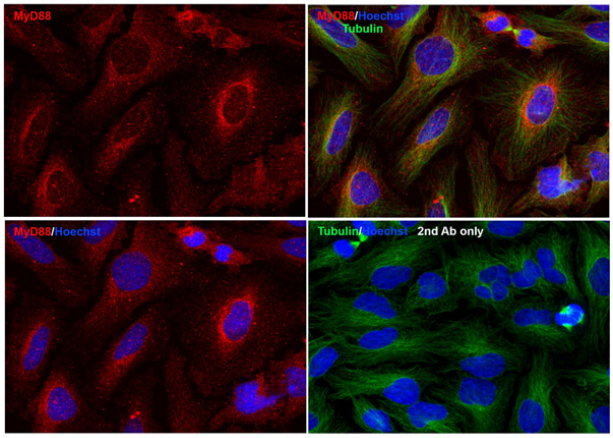
Shipping & Handling

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.

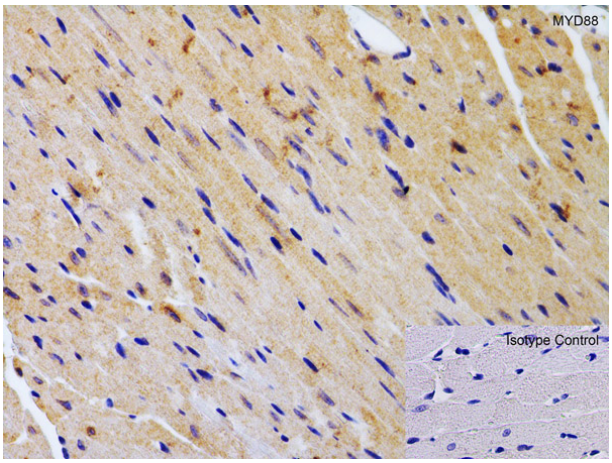
Images



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).

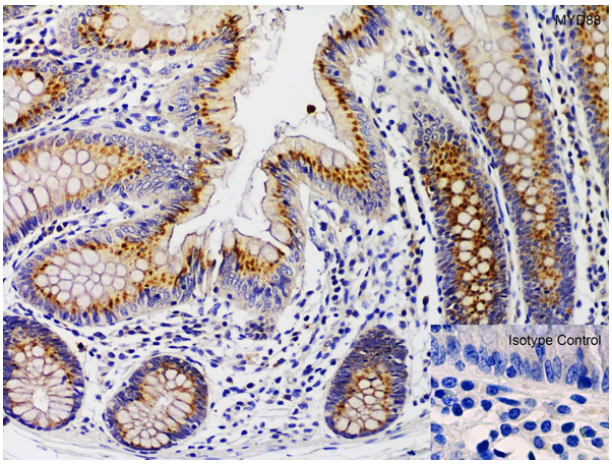


Immunofluorescence Microscopy
Immunofluorescence Validation of MyD88.
Cell: HeLa Cells.
Fixation: methanol-fixed.
Labeling: MyD88 at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1:1000 dilution (red) and Hoechst staining (blue). Alpha tubulin was stained with anti-alpha tubulin antibody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



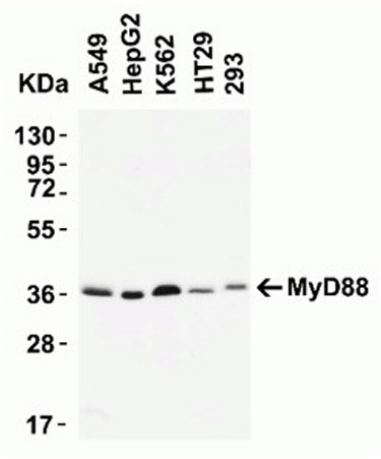
Immunohistochemistry
Immunohistochemistry Validation of MyD88.
Tissue: Mouse Heart.
Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.
Antigen retrieval: heat mediation with a citrate buffer (pH6).

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.

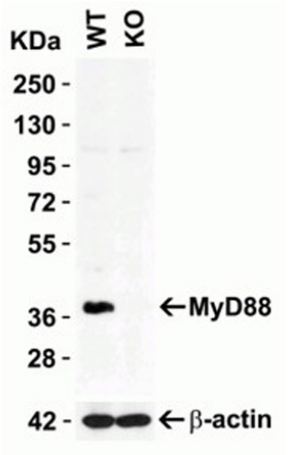


Immunohistochemistry
Immunohistochemistry Validation of MyD88.
Tissue: Human Colon.
Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.
Antigen retrieval: heat mediation with a citrate buffer (pH6).

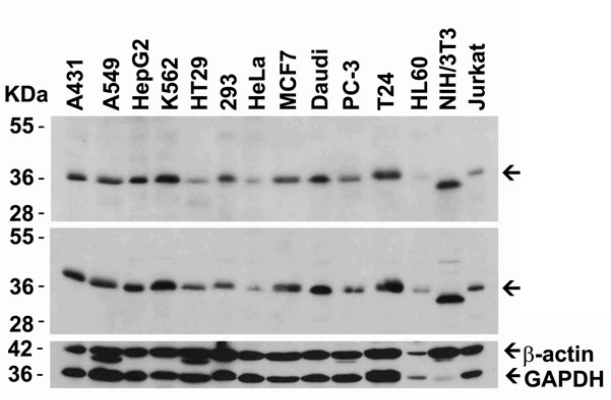
Primary Antibody: anti-MYD88 antibody at 1 µg/ml overnight at 4°C.
Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



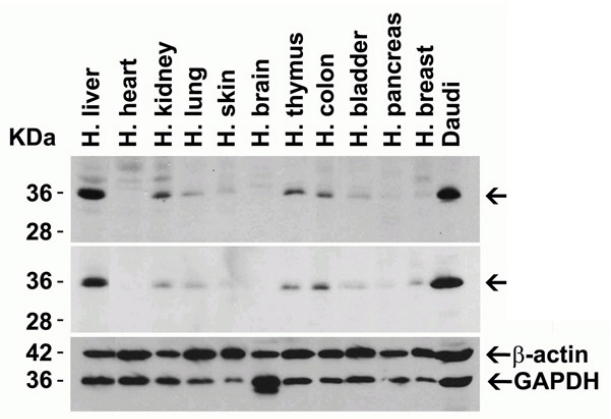
Western Blot
Western Blot Validation of MyD88.
Load: 15 µg of human lysates per lane. Lane 1: A549, Lane 2: HepG2, Lane 3: K562, Lane 4: HT29, Lane 5: 293.
Primary antibody: MyD88 at 2 µg/mL for 1 hr incubation at RT in 5% NFDM/TBST.
Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Predicted band size: 35 kDa



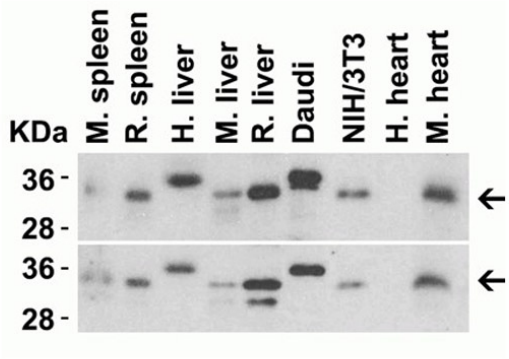
Western Blot
KO Western Blot Validation of MyD88.
Load: 10 µg of HeLa WT cell lysate or MyD88 KO cell lysate.
Primary antibody: MyD88 at 2 µg/mL and beta-actin 1 µg/mL for 1 hr incubation at RT in 5% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



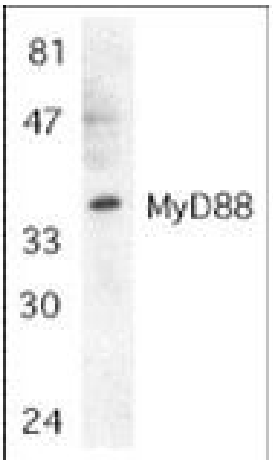
Western Blot
Western Blot Validation of MyD88.
Load: 15 µg of lysates per lane.
Lane 1: A431, Lane 2: A549, Lane 3: HepG2, Lane 4: K562, Lane 5: HT29, Lane 6: 293, Lane 7: HeLa, Lane 8: MCF7, Lane 9: Daudi, Lane 10: PC3, Lane 11: T24, Lane 12: HL60, Lane 13: 3T3/NIH, Lane 14: Jurkat.
Primary antibody: 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 2µg/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% NFDM/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-kB 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)

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