# Product Datasheet

## MyD88 Antibody - BSA Free
## NB100-56698

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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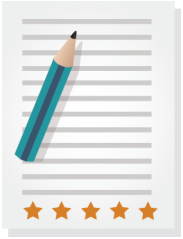
**Publications: 24**

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB100-56698

Updated 10/23/2024 v.20.1





# NB100-56698

MyD88 Antibody - BSA Free

## Product Information

| | |
|---|---|
| **Unit Size** | 0.1 mg |
| **Concentration** | 1.0 mg/ml |
| **Storage** | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles. |
| **Clonality** | Polyclonal |
| **Preservative** | 0.02% Sodium Azide |
| **Isotype** | IgG |
| **Purity** | Immunogen affinity purified |
| **Buffer** | PBS |

## Product Description

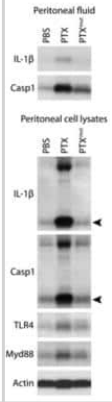
| | |
|---|---|
| **Host** | Rabbit |
| **Gene ID** | 4615 |
| **Gene Symbol** | MYD88 |
| **Species** | Human, Mouse, Rat, Chicken |
| **Reactivity Notes** | Chicken reactivity reported in scientific literature (PMID: 31437523). |
| **Specificity/Sensitivity** | Because of high sequence homology, this antibody is expected to detect multiple isoforms of MyD88 protein. |
| **Immunogen** | A synthetic peptide corresponding to human MyD88 (between amino acids 200-270). |

## Product Application Details

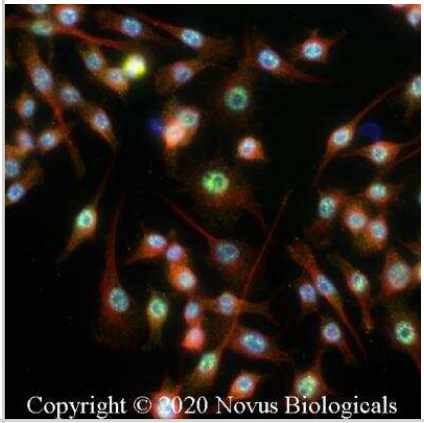
| | |
|---|---|
| **Applications** | Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin |
| **Recommended Dilutions** | Western Blot 0.5-2 ug/ml, Immunohistochemistry 2-5 ug/ml, Immunocytochemistry/ Immunofluorescence 1:100, Immunohistochemistry-Paraffin 2-5 ug/ml |

## Images

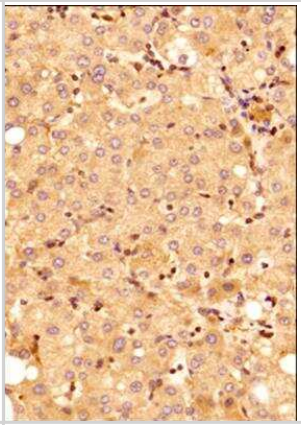
Western Blot: MyD88 Antibody [NB100-56698] - The ability of PTX to induce the IL-1 Beta IL-6 cascade depends on the integrity of its multimeric structure and enzymatic activity. Western blots revealing the presence of mature IL-1 Beta, cleaved Casp1, TLR4 and Myd88 in peritoneal fluid or peritoneal cell lysates from mice killed 6 h after injection of PBS, wild-type PTX or PTXmut. Arrowheads indicate the cleaved forms. Beta-actin was used as loading control. Sample size: 8 per group. Image collected and cropped by CiteAb from the following publication (//doi.org/10.1371/journal.ppat.1004150) licensed under a CC-BY license.



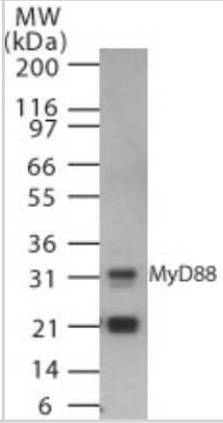
Immunocytochemistry/Immunofluorescence: MyD88 Antibody [NB100-56698] - Raw264.7 cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.5% Triton-X100. The cells were incubated with anti-MyD88 at 2 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Alpha tubulin (DM1A) NB100-690 was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse Dylight 550 (Red) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.




Immunohistochemistry-Paraffin: MyD88 Antibody [NB100-56698] - Tissue section of human liver using at 1:100 dilution. This antibody generated a very specific cytoplasmic staining in the hepatocytes as well as the Kupffer cells (hepatic macrophages), and the latter showed the most intense staining among all other cell types in the section.



Western Blot: MyD88 Antibody [NB100-56698] - Analysis of MyD88 in human spleen cell lysate using 0.5 ug/ml of NB100-56698.

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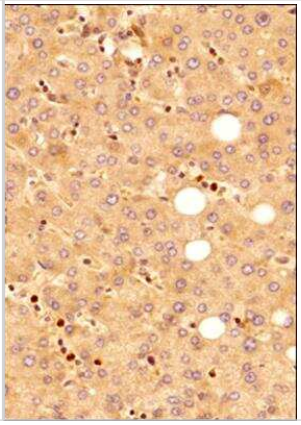
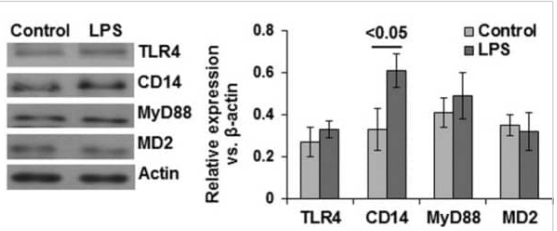


Western Blot: MyD88 Antibody - BSA Free [NB100-56698] - TLR & other LPS-response elements in LPS-stimulated HSCs.(A) Microarray data show time-dependent changes in the indicated transcripts. For clarity control gene expression at 1 & 24h is offset to 0.5h & 24.5h respectively. (B) A representative Western blot (left pane) & densitometric analysis (right panel) of the indicated molecules at 24h following stimulation with 10 ng/ml LPS. (C) qPCR analysis of the indicated molecules with p values showing statistical differences. The values (B,C) shown are form 3 separate determinations from different batches of HSCs. Statistical significance was derived from student's t-test using Microsoft-excel program. Image collected & cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0082159), licensed under a CC0-1.0 license. Not internally tested by Novus Biologicals.




## Publications

Chen J, Wang X, Li S et al. Effect of Echinacea Purpurea (L.) Moench And its Extracts on the Immunization Outcome of Avian Influenza Vaccine in Broilers RRSN 2023-09-21 [PMID: 37839770] (WB, Chicken)

Huang D, Wang P, Chen J et al. Selective targeting of MD2 attenuates intestinal inflammation and prevents neonatal necrotizing enterocolitis by suppressing TLR4 signaling Frontiers in Immunology 2022-11-01 [PMID: 36389716]

Shen J, Yang F, Wang G et al. Paeoniflorin alleviates inflammation in bovine mammary epithelial cells induced by Staphylococcus haemolyticus through TLR2/NF-?B signaling pathways Research in veterinary science 2023-03-01 [PMID: 36796241] (WB, Bovine)

Yoshikawa T, Takeichi T, Hirabayashi T et al. IL-17 axis is a significant driver of skin inflammation in Card14 mutant pityriasis rubra pilaris model mice Research Square 2023-02-02 (IHC, Mouse)

Vendidandala NR, Yin TP, Nelli G Et al. Gallocatechin silver nanoparticle impregnated cotton gauze patches enhance wound healing in diabetic rats by suppressing oxidative stress and inflammation via modulating the Nrf2/HO-1 and TLR4/NF-kappa B pathways Life sciences 2021-10-06 [PMID: 34624322] (IHC-P, Rat)

Arigela CS, Nelli G, Gan SH Et al. Bitter Gourd Honey Ameliorates Hepatic and Renal Diabetic Complications on Type 2 Diabetes Rat Models by Antioxidant, Anti-Inflammatory, and Anti-Apoptotic Mechanisms Foods (Basel, Switzerland) 2021-11-20 [PMID: 34829154] (IF/IHC, Rat)

Wladis EJ, Arunachalam T, LaJoie JE et al. Myeloid differentiation factor 88 expression in eyelid specimens of rosacea Orbit (Amsterdam, Netherlands) 2021-03-31 [PMID: 33789561] (IF/IHC, Human)

Davis S, Cirone A M et al. Phagocytosis-mediated M1 activation by chitin but not by chitosan. Am J Physiol Cell Physiol 2018-01-07 [PMID: 29719169] (WB, Mouse)

Hong Y, Lee J, Vu TH et al. Exosomes of lipopolysaccharide-stimulated chicken macrophages modulate immune response through the MyD88/NF-kappa B signaling pathway Dev Comp Immunol 2020-10-25 [PMID: 33115603]

Ji S, Xiao J, Liu J, Tang S Human Umbilical Cord Mesenchymal Stem Cells Attenuate Ocular Hypertension-Induced Retinal Neuroinflammation via Toll-Like Receptor 4 Pathway Stem Cells Int. 2019-10-15 [PMID: 31737079] (WB, Rat)

Pham TT, Ban J, Lee K et al. MicroRNA gga-miR-10a-mediated transcriptional regulation of the immune genes in necrotic enteritis afflicted chickens Dev. Comp. Immunol. 2019-08-19 [PMID: 31437523] (WB, Chicken)

Russell Marsha S, Creskey Marybeth, Muralidharan Abenaya et al. Unveiling Integrated Functional Pathways Leading to Enhanced Respiratory Disease Associated With Inactivated Respiratory Syncytial Viral Vaccine. Frontiers in Immunology 2019-03-29 [PMID: 30984178] (IHC-P, Rat)

More publications at http://www.novusbio.com/NB100-56698

## Procedures

**Western Blot protocol for MyD88 Antibody (NB100-56698)**

Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 10-25 ug of total protein per lane.
2. Transfer proteins to PVDF membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain the membrane with Ponceau S (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot TBS -0.05% Tween 20 (TBST).
5. Block the membrane in 5% Non-fat milk in TBST (blocking buffer) for at least 1 hour.
6. Wash the membrane in TBST three times for 10 minutes each.
7. Dilute primary antibody in 1% BSA and incubate overnight at 4C with gentle rocking.
8. Wash the membrane in TBST three times for 10 minutes each.
9. Incubate the membrane in diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) for 1 hour at room temperature.
10. Wash the blot in TBST three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

**Immunocytochemistry/Immunofluorescence protocol for MyD88 Antibody (NB100-56698)**

Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and wash the cells briefly in PBS.  Add 10% formalin to the dish and fix at room temperature for 10 minutes.
2. Remove the formalin and wash the cells in PBS.
3. Permeablize the cells with 0.1% Triton X100 or other suitable detergent for 10 min.
4. Remove the permeablization buffer and wash three times for 10 minutes each in PBS. Be sure to not let the specimen dry out.
5. To block nonspecific antibody binding, incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
6. Add primary antibody at appropriate dilution and incubate overnight at 4C.
7. Remove primary antibody and replace with PBS. Wash three times for 10 minutes each.
8. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
9. Remove secondary antibody and replace with PBS.  Wash three times  for 10 minutes each.
10. Counter stain DNA with DAPi if required.

**Immunohistochemistry-Paraffin protocol for MyD88 Antibody (NB100-56698)**

Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:
Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes.

Staining:
1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in wash buffer for 5 minutes.
3. Block each section with 100-400 ul blocking solution for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul biotinylated diluted secondary antibody. Incubate 30 minutes at room temperature.
7. Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
8. Add 100-400 ul Streptavidin-HRP reagent to each section and incubate for 30 minutes at room temperature.
9. Wash sections three times in wash buffer for 5 minutes each.
10. Add 100-400 ul DAB substrate to each section and monitor staining closely.
11. As soon as the sections develop, immerse slides in deionized water.
12. Counterstain sections in hematoxylin.
13. Wash sections in deionized water two times for 5 minutes each.
14. Dehydrate sections.
15. Mount coverslips.

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## Products Related to NB100-56698

| | |
|---|---|
| NBP2-29328 | MyD88 Inhibitor Peptide Set |
| HAF008 | Goat anti-Rabbit IgG Secondary Antibody [HRP] |
| NB7160 | Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP] |
| NBP2-24891 | Rabbit IgG Isotype Control |

### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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