abcam

Product datasheet

Anti-MyD88 antibody [EPR21824] ab219413

KO VALIDATED Recombinant RabMAb

24 References 5 Images

Overview

Product name	Anti-MyD88 antibody [EPR21824]
Description	Rabbit monoclonal [EPR21824] to MyD88
Host species	Rabbit
Tested applications	**Suitable for:** IP, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Wild-type HAP1 whole cell lysate. HepG2 and Ramos whole cell lysate. Rat and mouse liver lysate. RAW 264.7 and A20 whole cell lysate. Mouse lung, Wild-type A549 and HEK-293 cell lysate. IP: RAW 264.7 whole cell lysate.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21824

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab219413 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		1/30.
WB		1/1000. Predicted molecular weight: 33 kDa.

Target

Function Adapter protein involved in the Toll-like receptor and IL-1 receptor signaling pathway in the innate immune response. Acts via IRAK1, IRAK2, IRF7 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. Increases IL-8 transcription. Involved in IL-18-mediated signaling pathway.

Tissue specificity Ubiquitous.

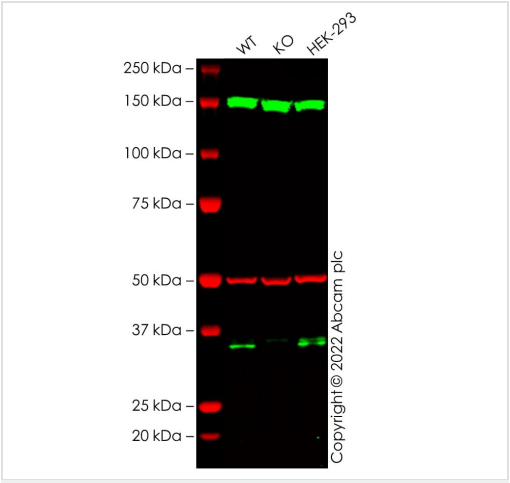
Involvement in disease Defects in MYD88 are the cause of MYD88 deficiency (MYD88D) [MIM:612260]; also known as recurrent pyogenic bacterial infections due to MYD88 deficiency. Patients suffer from autosomal recessive, life-threatening, often recurrent pyogenic bacterial infections, including invasive pneumococcal disease, and die between 1 and 11 months of age. Surviving patients are otherwise healthy, with normal resistance to other microbes, and their clinical status improved with age.

Sequence similarities Contains 1 death domain.
Contains 1 TIR domain.

Domain The intermediate domain (ID) is required for the phosphorylation and activation of IRAK.

Cellular localization Cytoplasm.

Images



Western blot - Anti-MyD88 antibody [EPR21824] (ab219413)

All lanes : Anti-MyD88 antibody [EPR21824] (ab219413) at 1/1000 dilution

Lane 1 : Wild-type A549 cell lysate
Lane 2 : MYD88 knockout A549 cell lysate
Lane 3 : HEK-293 cell lysate

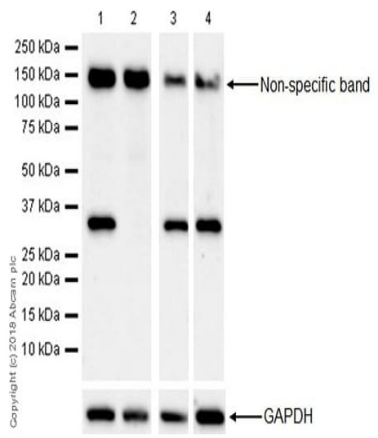
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 33 kDa
Observed band size: 35 kDa

False colour image of Western blot: Anti-MyD88 antibody [EPR21824] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (**ab7291**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab219413 was shown to bind specifically to MyD88. A band was observed at 35 kDa in wild-type A549 cell lysates with no signal observed at this size in MYD88 knockout cell line **ab286715** (knockout cell lysate **ab290793**). To generate this image, wild-type and MYD88 knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



Western blot - Anti-MyD88 antibody [EPR21824] (ab219413)

All lanes : Anti-MyD88 antibody [EPR21824] (ab219413) at 1/1000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : MyD88 knockout HAP1 whole cell lysate
Lane 3 : HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate
Lane 4 : Ramos (Human Burkitt's lymphoma B lymphocyte) whole cell lysate

Lysates/proteins at 20 µg per lane.

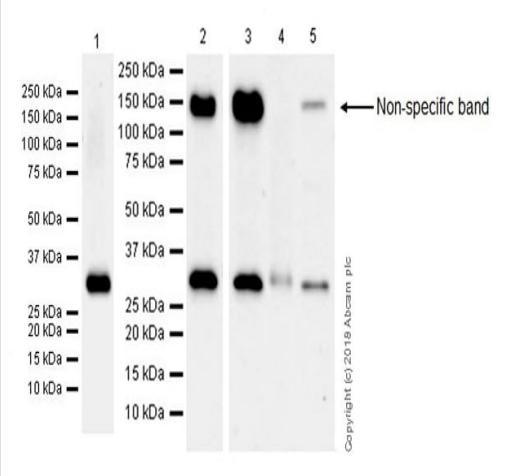
Secondary
All lanes : Rabbit monoclonal [EPR21824] to MyD88 (ab219413) at 1/100000 dilution

Predicted band size: 33 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

ab219413 was shown to specifically react with MyD88 in wild-type HAP1 cells as signal was lost in MyD88 knockout cells. Wild-type and MyD88 knockout samples were subjected to SDS-PAGE. ab219413 and **ab181602** (Rabbit anti-GAPDH loading control) were incubated 1 hour at room temperature at 1/1000 dilution and 1/200,000 dilution respectively. Blots were developed with Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) secondary antibody at 1/100,000 dilution for 1 hour at room temperature before imaging. The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument using the ECL technique



Western blot - Anti-MyD88 antibody [EPR21824] (ab219413)

All lanes : Anti-MyD88 antibody [EPR21824] (ab219413) at 1/1000 dilution

Lane 1 : Rat liver lysate
Lane 2 : RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate
Lane 3 : A20 (Mouse reticulum sarcoma B lymphocyte) cell lysate
Lane 4 : Mouse liver lysate
Lane 5 : Mouse lung lysate

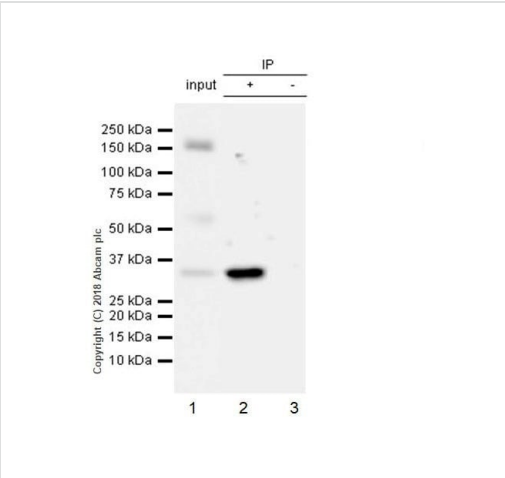
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 33 kDa

Exposure time: 3 minutes

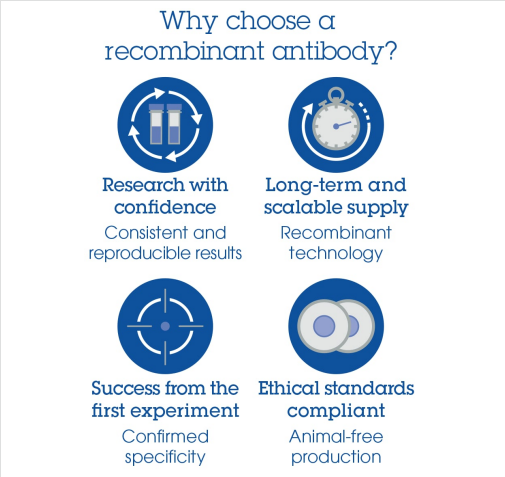
Blocking/Dilution buffer: 5% NFDM/TBST



Immunoprecipitation - Anti-MyD88 antibody [EPR21824] (ab219413)

MyD88 was immunoprecipitated from 0.35 mg RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate with ab219413 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab219413 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/5000 dilution.

Lane 1: RAW 264.7 whole cell lysate 10 µg (Input).
Lane 2: ab219413 IP in RAW 264.7 whole cell lysate (+).
Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab219413 in RAW 264.7 whole cell lysate (-).
Blocking/Dilution buffer: 5% NFDM/TBST.
Exposure time: 3 minutes.



Anti-MyD88 antibody [EPR21824] (ab219413)

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