abcam

ab28763

Anti-MyD88 antibody

Key facts

Isotype	IgG
Host species	Goat
Storage buffer	pH: 7.3 Preservative: 0.02% Sodium azide Constituents: 0.5% BSA, 0.5% Tris buffered saline
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human MYD88 aa 250-300. The exact immunogen used to generate this antibody is proprietary information. Database link Q99836
Purification technique	Affinity purification Immunogen
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	This antibody was purified from goat serum by ammonium sulphate precipitation, followed by antigen affinity chromatography using the immunizing peptide.

Reactivity data

ICC

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Predicted

Species	Mouse, Rat, Sheep, Cow, Dog
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Predicted

Species	Mouse, Rat, Sheep, Cow, Dog
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	0.1-0.3 µg/mL
Notes	1 hour primary incubation is recommended for this product.

Predicted

Species	Mouse, Rat, Sheep, Cow, Dog
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	4-6 µg/mL
Notes	-

Predicted

Species	Mouse, Rat, Sheep, Cow, Dog
Dilution info	-
Notes	-

Target data

See full target information MYD88

Function	Adapter protein involved in the Toll-like receptor and IL-1 receptor signaling pathway in the innate immune response (PubMed:15361868, PubMed:18292575, PubMed:33718825, PubMed:37971847). Acts via IRAK1, IRAK2, IRF7 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:15361868, PubMed:19506249, PubMed:24316379, PubMed:40638072). Increases IL-8 transcription (PubMed:9013863). Involved in IL-18-mediated signaling pathway. Activates IRF1 resulting in its rapid migration into the nucleus to mediate an efficient induction of IFN-beta, NOS2/INOS, and IL12A genes. Upon TLR8 activation by GU-rich single-stranded RNA (GU-rich RNA) derived from viruses such as SARS-CoV-2, SARS-CoV and HIV-1, induces IL1B release through NLRP3 inflammasome activation (PubMed:33718825). MyD88-mediated signaling in intestinal epithelial cells is crucial for maintenance of gut homeostasis and controls the expression of the antimicrobial lectin REG3G in the small intestine (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	MyD88 standing for myeloid differentiation primary response 88 is a cytoplasmic adaptor protein with a molecular weight of approximately 33 kDa. This protein is expressed widely in immune cells including monocytes macrophages and dendritic cells. MyD88 serves a major role in the signaling pathways for the innate immune system. It acts as a linker transmitting signals from toll-like receptors (TLRs) and interleukin-1 receptors (IL-1Rs) to downstream signaling molecules ultimately activating transcription factors.
Biological function summary	MyD88 plays a significant role in mediating immune responses by forming part of a complex that includes IRAK kinases and TRAF6. When TLRs or IL-1Rs activate MyD88 this adaptor protein recruits IRAK4 which then phosphorylates IRAK1 or IRAK2. This cascade promotes the activation of NF-κB and MAPK pathways leading to the production of inflammatory cytokines. The MyD88-dependent pathway is integral to innate immunity influencing how the body responds to pathogen infection and inflammation.
Pathways	MyD88 integrates into both the TLR signaling and IL-1R signaling pathways. Key related proteins in these pathways include interleukin-1 receptor-associated kinase (IRAK) and tumor necrosis factor receptor-associated factor 6 (TRAF6). MyD88 initiates the recruitment and activation of IRAK1 and IRAK4 following receptor engagement leading to subsequent activation of downstream signals. As part of these pathways MyD88 mediates cellular responses important for immune system signaling and inflammatory response regulation.
Associated diseases and disorders	MyD88 involvement is notable in the context of oncological and autoimmune diseases. Mutations or dysregulation of MyD88 are implicated in conditions like lymphoma and rheumatoid arthritis. In lymphoma the mutation usually results in constant activation of NF-κB leading to unchecked cell growth. As for rheumatoid arthritis an overactive immune response due to MyD88 can cause additional inflammation affecting joint tissues. In these conditions MyD88 interaction with IRAK4 is significant given their mutual role in immune and inflammatory pathways.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

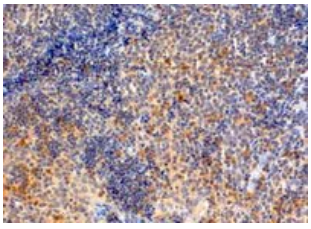
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

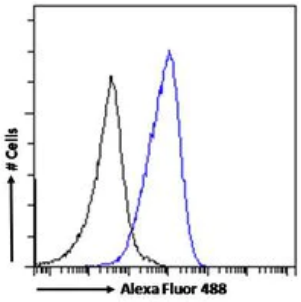
4 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MyD88 antibody (ab28763)

MyD88 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using goat Anti-MyD88 antibody

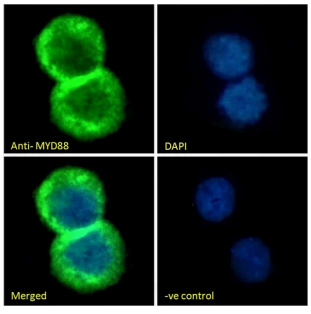
ab28763 (4µg/ml) staining of paraffin embedded Human Tonsil shows staining of clusters of cells some of which are likely plasma cells. Steamed antigen retrieval with Tris/EDTA buffer pH 9, HRP-staining.



Flow Cytometry - Anti-MyD88 antibody (ab28763)

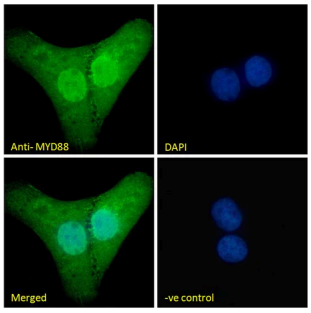
MyD88 Flow Cytometry staining using goat Anti-MyD88 antibody

Flow cytometric analysis of paraformaldehyde fixed Jurkat cells (blue line), permeabilized with 0.5% Triton using ab28763 at 10ug/ml followed by Alexa Fluor 488 secondary antibody at 1ug/ml. IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-MyD88 antibody (ab28763)

Immunofluorescence analysis of paraformaldehyde fixed Jurkat cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).



Immunocytochemistry/ Immunofluorescence - Anti-MyD88 antibody (ab28763)

Immunofluorescence analysis of paraformaldehyde fixed U2OS cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing nuclear and cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.