abcam

ab174606

Anti-TLR4/MD2 antibody [MTS510] - Low endotoxin, Azide free

Key facts

Isotype	IgG2a
Host species	Rat
Storage buffer	pH: 7.2 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Carrier free	Yes
Clone number	MTS510
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1 µg/mL
Notes	-

Target data

See full target information Ly96

Function	Binds bacterial lipopolysaccharide (LPS) (PubMed:22532668). Cooperates with TLR4 in the innate immune response to bacterial lipopolysaccharide (LPS), and with TLR2 in the response to cell wall components from Gram-positive and Gram-negative bacteria. Enhances TLR4-dependent activation of NF-kappa-B. Cells expressing both LY96 and TLR4, but not TLR4 alone, respond to LPS (PubMed:10725698).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
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

Notes

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by the LAL assay.

Supplementary info

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

Activity summary	TLR4/MD2 also known as Toll-like receptor 4 and myeloid differentiation factor 2 acts as a critical component within the immune system. The TLR4/MD2 complex forms through the interaction between the TLR4 protein and the accessory molecule MD2 enabling recognition of lipopolysaccharides (LPS) from Gram-negative bacteria. TLR4 is a transmembrane protein expressed on various immune cells such as macrophages and dendritic cells. The molecular weight of TLR4 is approximately 96 kDa. Its localization on immune cells allows it to respond promptly to pathogens and initiate necessary immune responses.
Biological function summary	TLR4/MD2 plays a major role in the innate immune response by forming part of a receptor complex. This complex recognizes pathogen-associated molecular

	patterns and triggers immune signaling that results in the production of pro-inflammatory cytokines. The activation of TLR4/MD2 initiates a cascade of events that enhance the immune system's ability to fight infections effectively. By signaling through downstream adaptor proteins like MyD88 and TRIF TLR4/MD2 mediates the activation of NF-κB and interferon-regulatory factors leading to gene expression changes and immune activation.
Pathways	The TLR4/MD2 complex aligns with critical signaling pathways involved in inflammation and immune regulation. It holds a significant position in the MyD88-dependent and TRIF-dependent pathways impacting the NF-κB signaling cascade. The interaction with proteins like MyD88 links TLR4/MD2 to the inflammatory response. These pathways reinforce TLR4/MD2's central role in modulating the immune response to protect the host from pathogens while maintaining homeostasis.
Associated diseases and disorders	TLR4/MD2 exhibits a connection to conditions involving excessive inflammation such as sepsis and rheumatoid arthritis. In sepsis the overactivation of TLR4/MD2 leads to systemic inflammation and potential organ failure. Rheumatoid arthritis manifests chronic inflammation in part due to altered TLR4 signaling. The interaction with other proteins like TRIF is integral to understanding the mechanisms by which TLR4/MD2 contributes to these diseases. Studies target these pathways for therapeutic intervention aiming to modulate TLR4/MD2 activity to alleviate disease symptoms.

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

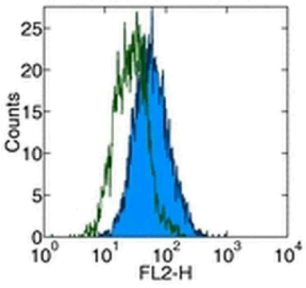
We do not recommend this combination. It is not covered by our product promise.

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.

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Terms & Conditions.

1 product image



Flow Cytometry - Anti-TLR4/MD2 antibody [MTS510] - Low endotoxin, Azide free (ab174606)

TLR4/MD2 Flow Cytometry staining using rat Anti-TLR4/MD2 antibody

Staining of thioglycolate induced PECs with Anti-Mouse TLR4/MD-2 Complex PE Appropriate isotype controls were used (open histogram). Cells in the large scatter population were used for analysis.

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