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MD-2 Antibody [9F1B1]

Catalog # ASC11995

Specification

MD-2 Antibody [9F1B1] - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q9Y6Y9
Other Accession	NP_056179, 223555998
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Application Notes	**MD-2 antibody can be used for detection of MD-2 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

MD-2 Antibody [9F1B1] - Additional Information

Gene ID	**23643**

Target/Specificity
LY96;

Reconstitution & Storage
MD-2 monoclonal antibody can be stored at -20℃, stable for one year.

Precautions
MD-2 Antibody [9F1B1] is for research use only and not for use in diagnostic or therapeutic procedures.

MD-2 Antibody [9F1B1] - Protein Information

Name LY96

Synonyms ESOP1, MD2

Function
Binds bacterial lipopolysaccharide (LPS) (PubMed:17803912, PubMed:17569869). 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 (PubMed:11160242, PubMed:11593030). Enhances TLR4-dependent activation of NF-kappa-B (PubMed:10359581). Cells

expressing both LY96 and TLR4, but not TLR4 alone, respond to LPS (PubMed:10359581).

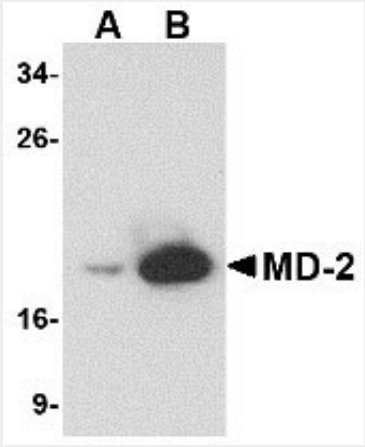
Cellular Location
Secreted, extracellular space. Secreted Note=Retained in the extracellular space at the cell surface by interaction with TLR4 (PubMed:10359581).

MD-2 Antibody [9F1B1] - Protocols

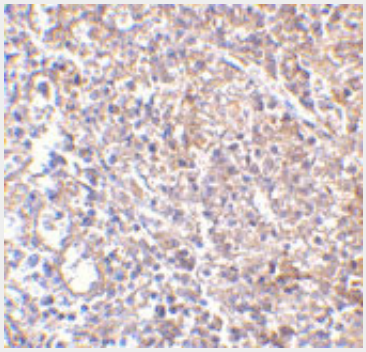
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MD-2 Antibody [9F1B1] - Images

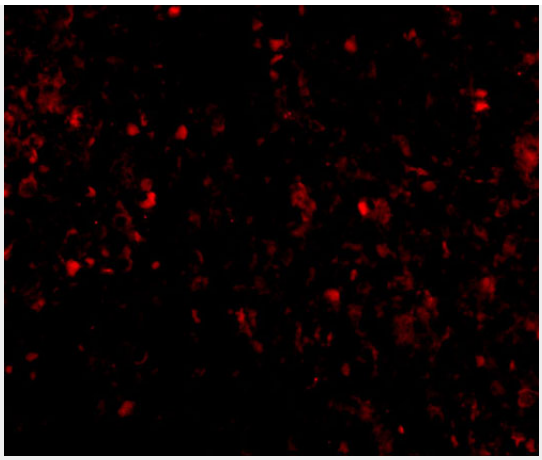


Western blot analysis of (A) 25 and (B) 125 ng of MD-2 recombinant protein with MD-2 antibody at 1 µg/mL.



Immunohistochemistry of MD-2 in human spleen with MD-2 antibody at 2.5 µg/mL.

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Immunofluorescence of MD2 in human spleen tissue with MD2 antibody at 20 µg/mL.

MD-2 Antibody [9F1B1] - Background

MD-2 Monoclonal Antibody: MD-2 is a member of the Toll/interleukin-1 receptor (TIR) family, a group of proteins that include the Toll-like receptors (TLRs). TLRs are signaling molecules that recognize different pathogen-associated molecular patterns (PAMPs) and serve as an important link between the innate and adaptive immune responses. TLR4, the major signaling receptor for lipopolysaccharide (LPS), requires the binding of MD-2 to its extracellular region for maximal response to LPS. The specificity of this response is determined by the species of MD-2; e.g., human MD-2 transfected into mouse cells can cause mouse TLR4 to react to LPS analogs that are normally antagonistic to human but not mouse TLR4.

MD-2 Antibody [9F1B1] - References

O'Neill LAJ, Fitzgerald FA, and Bowie AG. The Toll-IL-1 receptor adaptor family grows to five members. Trends in Imm. 2003; 24:286-9.
Vogel SN, Fitzgerald KA, and Fenton MJ. TLRs: differential adapter utilization by toll-like receptors mediates TLR-specific patterns of gene expression. Mol. Interv. 2003; 3:466-77.
Takeda K, Kaisho T, and Akira S. Toll-like receptors. Annu. Rev. Immunol. 2003; 21:335-76.
Janeway CA Jr and Medzhitov R. Innate immune recognition. Annu. Rev. Immunol. 2002; 20:197-216.