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MD-2 Antibody
Catalog # ASC10237

Specification

MD-2 Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	Q9Y6Y9
Other Accession	NP_056179, 223555998
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**MD-2 antibody can be used for detection of MD-2 by Western blot at 0.5 to 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2 µg/mL. For immunofluorescence start at 10 µg/mL.**

MD-2 Antibody - Additional Information

Gene ID **23643**

Other Names
MD-2 Antibody: MD2, MD-2, ly-96, ESOP-1, ESOP1, MD2, Lymphocyte antigen 96, Ly-96, lymphocyte antigen 96

Target/Specificity
LY96;

Reconstitution & Storage
MD-2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

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

MD-2 Antibody - Protein Information

Name LY96

Synonyms ESOP1, MD2

Function
Binds bacterial lipopolysaccharide (LPS) (PubMed:17569869, PubMed:17803912). 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:<a

href="http://www.uniprot.org/citations/11160242" target="_blank">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).

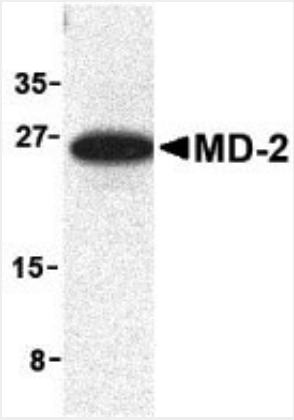
Cellular Location
Secreted, extracellular space. Secreted Note=Retained in the extracellular space at the cell surface by interaction with TLR4 (PubMed:10359581).

MD-2 Antibody - Protocols

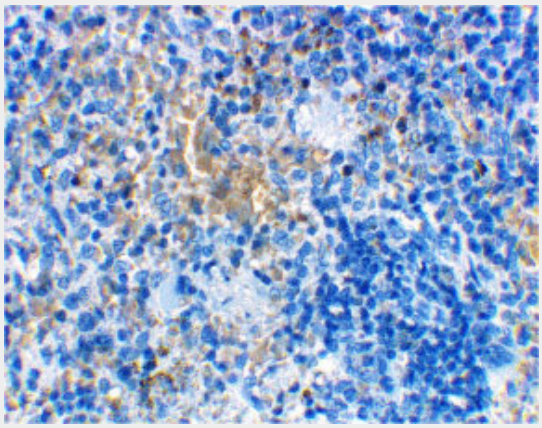
Provided below are standard protocols that you may find useful for product applications.

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

MD-2 Antibody - Images



Western blot analysis of MD-2 in mouse spleen cell lysate with MD-2 antibody at 1 µg/mL.



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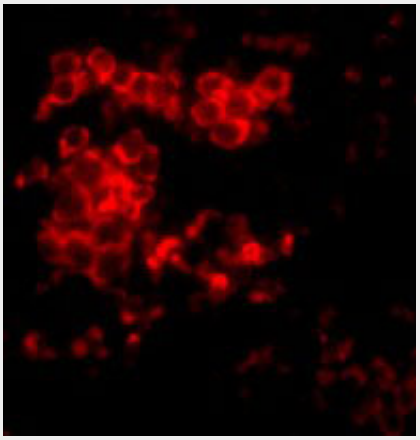
Immunohistochemical staining of rat spleen cells using MD-2 antibody at 2 µg/mL.



Immunofluorescence of MD-2 in Rat Spleen tissue with MD-2 antibody at 10 µg/mL.

MD-2 Antibody - Background

MD-2 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 can cause mouse TLR4 to react to LPS analogs that are normally antagonistic to human but not mouse TLR4.

MD-2 Antibody - 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.