

MD-2 Antibody [1A2E3]
Catalog # ASC11996**Specification****MD-2 Antibody [1A2E3] - Product Information**

Application	WB, IHC
Primary Accession	Q9Y6Y9
Other Accession	NP_056179 , 223555998
Reactivity	Human, Mouse, Rat
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.

MD-2 Antibody [1A2E3] - Additional Information

Gene ID	23643
Target/Specificity	
LY96;	

Reconstitution & Storage

MD-2 monoclonal antibody can be stored at -20°C, stable for one year.

Precautions

MD-2 Antibody [1A2E3] is for research use only and not for use in diagnostic or therapeutic procedures.

MD-2 Antibody [1A2E3] - Protein Information

Name LY96

Synonyms ESOP1, MD2

Function

Binds bacterial lipopolysaccharide (LPS) (PubMed:[17803912](http://www.uniprot.org/citations/17803912), PubMed:[17569869](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/11160242), PubMed:[11593030](http://www.uniprot.org/citations/11593030)). Enhances TLR4-dependent activation of NF-kappa-B (PubMed:[10359581](http://www.uniprot.org/citations/10359581)). Cells expressing both LY96 and TLR4, but not TLR4 alone, respond to LPS (PubMed:[10359581](#)).

href="http://www.uniprot.org/citations/10359581" target="_blank">10359581).

Cellular Location

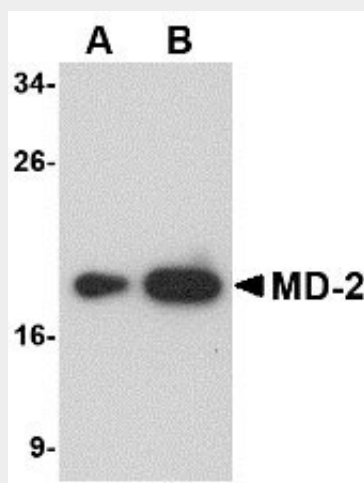
Secreted, extracellular space. Secreted Note=Retained in the extracellular space at the cell surface by interaction with TLR4 (PubMed:10359581).

MD-2 Antibody [1A2E3] - Protocols

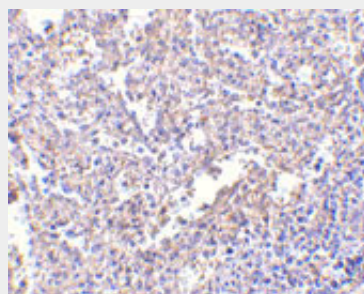
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

MD-2 Antibody [1A2E3] - 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.

MD-2 Antibody [1A2E3] - 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 [1A2E3] - 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.