

MD-2 Antibody [1A2E3]

Catalog # ASC11996

Specification

MD-2 Antibody [1A2E3] - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes

WB, IHC-P, E <u>O9Y6Y9</u> NP_056179, 223555998 Human, Mouse, Rat Mouse Monoclonal IgG1 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 Target/Specificity LY96; 23643

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: 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:11160242, PubMed:1160242, PubMed:11593030). Enhances TLR4-dependent activation of NF-kappa-B (PubMed:10359581). Cells

href="http://www.uniprot.org/citations/10359581" target="_blank">10359581). Cells expressing both LY96 and TLR4, but not TLR4 alone, respond to LPS (PubMed:<a



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

Cellular Location

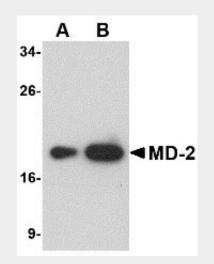
Secreted, extracellular space. Secreted Note=Retained in the extracellular space at the cell surface by interaction with TLR4 (PubMed:10359581).

MD-2 Antibody [1A2E3] - Protocols

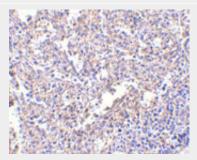
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

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 μ g/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.