

MD-1 Antibody
Catalog # ASC10431

Specification

MD-1 Antibody - Product Information

Application	WB, IHC
Primary Accession	O95711
Other Accession	NP_004262 , 4758708
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	MD-1 antibody can be used for the detection of MD-1 by Western blot at 0.5 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2 µg/mL.

MD-1 Antibody - Additional Information

Gene ID	9450
Other Names	
MD-1 Antibody: MD-1, MMD-1, dj80N2.1, MD1, Lymphocyte antigen 86, Protein MD-1, Ly-86, lymphocyte antigen 86	

Target/Specificity
LY86;

Reconstitution & Storage

MD-1 antibody can be stored at 4°C for three months and -20°C, 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-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MD-1 Antibody - Protein Information

Name LY86

Synonyms MD1

Function

May cooperate with CD180 and TLR4 to mediate the innate immune response to bacterial lipopolysaccharide (LPS) and cytokine production. Important for efficient CD180 cell surface expression (By similarity).

Cellular Location

Secreted, extracellular space. Note=Associated with CD180 at the cell surface

Tissue Location

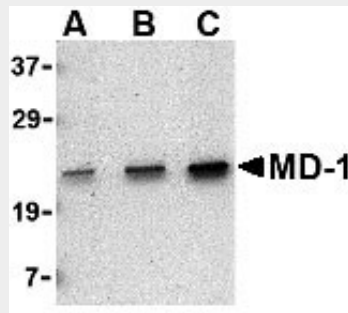
Highly expressed in B-cells, monocytes and tonsil.

MD-1 Antibody - Protocols

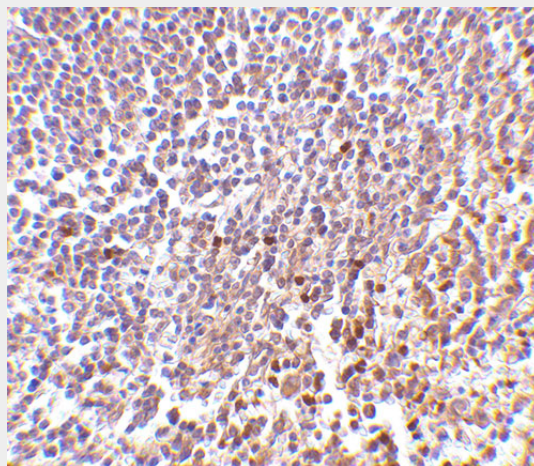
Provided below are standard protocols that you may find useful for product applications.

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

MD-1 Antibody - Images



Western blot analysis of MD-1 in Daudi cell lysate with MD-1 antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL.



Immunohistochemistry of MD-1 in human spleen tissue with MD-1 antibody at 2 µg/mL.

MD-1 Antibody - Background

MD-1 Antibody: Toll-like receptors (TLRs) are evolutionarily conserved pattern-recognition molecules that recognize different microbial products during infection and serve as an important

link between the innate and adaptive immune responses. The signaling of these TLRs is kept under tight control by the expression of endogenous inhibiting proteins such as RP105, a recently identified homolog of TLR4. This protein, in association with MD-1, interacts with and inhibits the TLR4/MD-2 signaling pathway. While MD-2 can directly bind to LPS, one of the activating molecules of TLR4, the function of MD-1 is less well-known. It has been suggested however, that the RP105/MD-1 complex influences antibody production mediated by both TLR4/MD-2 and TLR2 receptor complexes.

MD-1 Antibody - References

Takeda K, Kaisho T, and Akira S. Toll-like receptors. *Annu. Rev. Immunol.* 2003; 21:335-76.

Divanovic S, Trompette A, Atabani SF, et al. Inhibition of TLR-4/MD-2 signaling by RP105/MD-1. *J. Endotoxin Res.* 2005; 11:363-8.

Tsuneyoshi N, Fukudome K, Kohara J, et al. The functional and structural properties of MD-2 required for liposaccharide binding are absent in MD-1. *J. Immunol.* 2005; 174:340-4.

Nagai Y, Kobayashi T, Motoi Y, et al. The radioprotective 105/MD-1 complex links TLR2 and TLR4/MD-2 in antibody response to microbial membranes. *J. Immunol.* 2005; 174:7043-9.