

# TLR4/MD-2 Complex Monoclonal Antibody (MTS510)

Catalog NumberMA5-16210

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Mouse
Host/Isotope	Rat / IgG2a, kappa	Published species	Mouse, Human
Class	Monoclonal	Tested Applications	
Type	Antibody	Flow Cytometry (Flow)	1-2 µg per million cells
Clone	MTS510	Immunoprecipitation (IP)	1:10-1:500
Immunogen	Ba/F3 cell line expressing mouse TLR4 and MD-2	Immunocytochemistry (ICC/IF)	Assay-Dependent
Conjugate	Unconjugated	Published Applications	
Form	Liquid	Flow Cytometry (Flow)	See 2 publications below
Concentration	0.5 mg/mL	Blocking Assay (BLOCK)	See 1 publications below
Purification	Protein G	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Storage buffer	PBS with 0.05% BSA		
Contains	0.05% sodium azide		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

## Product specific information

Suggested positive control: Raw or thioglycolate-elicited mouse macrophage cells.

## Background/Target Information

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.

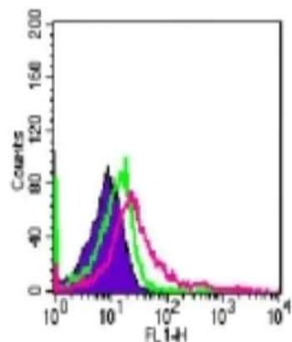
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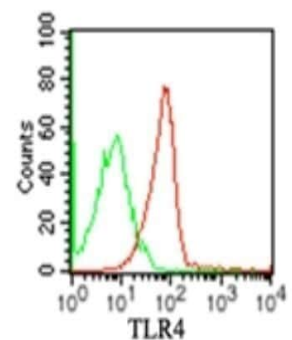
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## Product Images For TLR4/MD-2 Complex Monoclonal Antibody (MTS510)



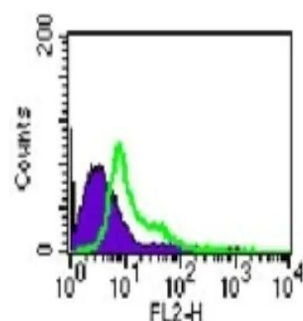
### TLR4/MD-2 Complex Antibody (MA5-16210) in Flow

Flow cytometry of TLR4/MD-2 Complex in mouse peritoneal cells. Samples were incubated in TLR4/MD-2 Complex monoclonal antibody (Product # MA5-16210) using a dilution of 1  $\mu$ g. Shaded histogram: Cells without antibody; green represents isotype control; red represents anti-TLR4 antibody.



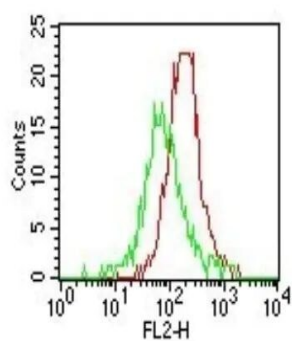
### TLR4/MD-2 Complex Antibody (MA5-16210) in Flow

Flow cytometry of TLR4/MD-2 Complex in mouse RAW cells. Samples were incubated in TLR4/MD-2 Complex monoclonal antibody (Product # MA5-16210) using a dilution of 0.5  $\mu$ g/ $10^6$  cells followed by anti-rat APC conjugated secondary antibody. Green: isotype control. Red: TLR4 antibody.



### TLR4/MD-2 Complex Antibody (MA5-16210) in Flow

Flow cytometry of TLR4/MD-2 Complex in Raw cells (pretreated with anti-CD16/32). Samples were incubated in TLR4/MD-2 Complex monoclonal antibody (Product # MA5-16210) using a dilution of 0.625  $\mu$ g/ $10^6$  cells. Shaded histogram: isotype control.



### TLR4/MD-2 Complex Antibody (MA5-16210) in Flow

Flow cytometry of TLR4/MD-2 Complex in mouse peritoneal cells. Samples were incubated in TLR4/MD-2 Complex monoclonal antibody (Product # MA5-16210). Green: isotype control. Red: anti-TLR4 antibody (azide free).

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PubMed References For TLR4/MD-2 Complex Monoclonal Antibody (MTS510)

2 Flow Cytometry References

Species / Dilution	Summary
Mouse / Not Cited	MA516210 was used in flow cytometry to discover structural elements that distinguish Grp94 from Hsp90
	PloS one ( 2017; 11: ) <b>"Exploring the Functional Complementation between Grp94 and Hsp90."</b> Author(s):Maharaj KA,Que NL,Hong F,Huck JD,Gill SK,Wu S,Li Z,Gewirth DT PubMed Article URL: <a href="http://dx.doi.org/10.1371/journal.pone.0166271">http://dx.doi.org/10.1371/journal.pone.0166271</a>
Mouse / Not Cited	MA516210 was used in flow cytometry to show that TLR4 signals through the BCR leading to activation of SYK, ERK, and AKT as well as through MYD88 leading to activation of NFkappaB
	The Journal of experimental medicine ( 2017; 214: 1269) <b>"TLR4 signals in B lymphocytes are transduced via the B cell antigen receptor and SYK."</b> Author(s):Schweighoffer E,Nys J,Vanes L,Smithers N,Tybulewicz VLJ PubMed Article URL: <a href="http://dx.doi.org/10.1084/jem.20161117">http://dx.doi.org/10.1084/jem.20161117</a>

1 Blocking Assay References

Species / Dilution	Summary
Human / Not Cited	MA516210 was used in blocking or activating experiment to implicate myeloid differentiation factor-2 as the high-affinity soluble CD83 binding partner
	Journal of immunology (Baltimore, Md. : 1950) ( 2017; 198: 2286) <b>"Soluble CD83 Inhibits T Cell Activation by Binding to the TLR4/MD-2 Complex on CD14&lt;sup&gt;+&lt;/sup&gt; Monocytes."</b> Author(s):Horvatinovich JM,Grogan EW,Norris M,Steinkasserer A,Lemos H,Mellor AL,Tcherepanova IY,Nicolette CA,DeBenedette MA PubMed Article URL: <a href="http://dx.doi.org/10.4049/jimmunol.1600802">http://dx.doi.org/10.4049/jimmunol.1600802</a>

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