

# TLR4/MD-2 Complex Monoclonal Antibody (MTS510), Biotin, eBioscience™

Product Details	
Size	50 µg
Species	Mouse
Published Species	Mouse, Human
Expression System	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), Biotin, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	MTS510
Conjugate	Biotin
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage Conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_466991

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	11 Publications
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	1 Publication
Immunocytochemistry (ICC)	-	1 Publication
Immunofluorescence (IF)	-	3 Publications
Immunohistochemistry (IHC)	-	1 Publication
Neutralization (Neu)	-	1 Publication
Western Blot (WB)	-	2 Publications

## Product Specific Information

Description: The MTS510 monoclonal antibody reacts with the mouse Toll-like receptor 4 (TLR4)/MD-2 complex. At least ten members of the Toll family have been identified. This family of type I transmembrane proteins is characterized by an extracellular domain with leucine-rich repeats and a cytoplasmic domain with homology to the type I IL-1 receptor. Two of these receptors, TLR2 and TLR4, are pattern recognition receptors and signaling molecules in response to bacterial lipoproteins and have been implicated in innate immunity and inflammation. TLR4 physically associates with MD-2, and together with CD14, this complex is responsible for LPS recognition and signaling. In the mouse, TLR4 is expressed by thioglycolate-elicited peritoneal macrophages. Incubation of peritoneal macrophages with LPS results in down regulation of surface TLR4/MD-2. The TLR4 gene is defective in C3H/HeJ and C57BL/10ScCr mice, both of which have been well characterized as hyporesponders to LPS.

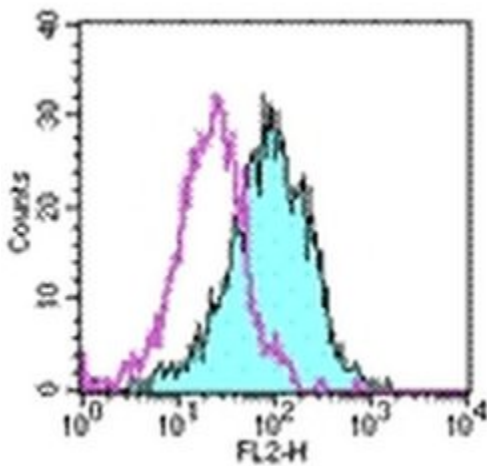
The MTS510 monoclonal antibody co-immunoprecipitates MD-2 (~30 kDa) and TLR4 (~100 kDa), and preferentially reacts with TLR4 that is associated with MD-2. In comparison, binding of the UT41 monoclonal antibody occurs with and without formation of the TLR4/MD-2 complex. Please contact eBioscience Technical Support for further information.

Applications Reported: MTS510 has been reported for use in flow cytometric analysis and immunohistochemical staining of frozen tissue sections.

Applications Tested: The MTS510 antibody has been tested by flow cytometric analysis of mouse thioglycolate-elicited peritoneal exudate cells. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells /test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Filtration: 0.2 µm post-manufacturing filtered.

## Product Images For TLR4/MD-2 Complex Monoclonal Antibody (MTS510), Biotin, eBioscience™



### TLR4/MD-2 Complex Antibody (13-9924-81) in Flow

Staining of 3 day thioglycolate-induced peritoneal macrophages with 0.25 µg of Rat IgG2a Isotype Control Biotin (Product # 13-4321-82) (open histogram) or 0.25 µg of Anti-Mouse CD284 (TLR4) Biotin (filled histogram) followed by Streptavidin PE (Product # 12-4317-87). Cells were pre-incubated with Anti-Mouse CD16/32 Purified (Product # 14-0161-82) to block Fc binding. Total viable cells were used for analysis.

[View more figures on thermofisher.com](http://thermofisher.com)

## 20 References

### Immunocytochemistry (1)

Frontiers in immunology

#### Alarmin S100A8 Activates Alveolar Epithelial Cells in the Context of Acute Lung Injury in a TLR4-Dependent Manner.

"13-9924 was used in Immunocytochemistry-immunofluorescence to show that S100A8 promotes acute lung injury via Toll-like receptor 4-dependent activation of AECs."

Authors: Chakraborty D,Zenker S,Rossaint J,Hölscher A,Pohlen M,Zarbock A,Roth J,Vogl T

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2019

### Immunofluorescence (3)

Frontiers in immunology

#### Alarmin S100A8 Activates Alveolar Epithelial Cells in the Context of Acute Lung Injury in a TLR4-Dependent Manner.

"13-9924 was used in Immunocytochemistry-immunofluorescence to show that S100A8 promotes acute lung injury via Toll-like receptor 4-dependent activation of AECs."

Authors: Chakraborty D,Zenker S,Rossaint J,Hölscher A,Pohlen M,Zarbock A,Roth J,Vogl T

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2019

EMBO molecular medicine

#### Identification of a novel mechanism of blood-brain communication during peripheral inflammation via choroid plexus-derived extracellular vesicles.

"Published figure using TLR4/MD-2 Complex monoclonal antibody (Product # 13-9924-81) in Immunofluorescence"

Authors: Balusu S, Van Wonterghem E, De Rycke R, Raemdonck K, Stremersch S, Gevaert K, Brkic M, Demeestere D, Vanhooren V, Hendrix A, Libert C, Vandenbroucke RE

**Species**  
Mouse  
Not Applicable

**Dilution**  
1:200  
Not Cited

**Year**  
2016

[View more IF references on thermofisher.com](#)

### Flow Cytometry (11)

Immunity

#### Chanzyme TRPM7 Mediates the Ca<sup>2+</sup> Influx Essential for Lipopolysaccharide-Induced Toll-Like Receptor 4 Endocytosis and Macrophage Activation.

"Published figure using TLR4/MD-2 Complex monoclonal antibody (Product # 13-9924-81) in Flow Cytometry"

Authors: Schappe MS, Sztayn K, Stremaska ME, Mendu SK, Downs TK, Seegren PV, Mahoney MA, Dixit S, Krupa JK, Stipes EJ, Rogers JS, Adamson SE, Leitinger N, Desai BN

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2018

[View more Flow references on thermofisher.com](#)

### More applications with references on thermofisher.com

[Neu \(1\)](#) [IHC \(1\)](#) [WB \(2\)](#) [IHC \(F\) \(1\)](#)

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