

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

Product Details	
Size	50 µg
Species Reactivity	Mouse
Published Species	Mouse, Human
Host/Isotype	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
Western Blot (WB)	-	2 Publications
Immunohistochemistry (IHC)	-	3 Publications
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	1 Publication
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	0.5 µg/test	11 Publications
Neutralization (Neu)	-	1 Publication

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.

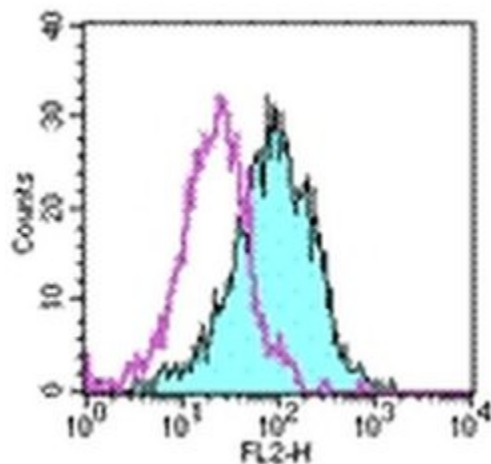
The MTS510 monoclonal antibody co-immunoprecipitates MD-2 (~30 kDa) and TLR4 (~100 kDa), and preferentially reacts with TLR4 that is associated with MD-2. In comparison, binding of the UT41 monoclonal antibody occurs with and without formation of the TLR4/MD-2 complex. Please contact eBioscience Technical 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 10⁵ to 10⁸ 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)

19 References

Western Blot (2)

Physiology & behavior

Chronic exposure to low dose bacterial lipopolysaccharide inhibits leptin signaling in vagal afferent neurons.

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

Authors: de La Serre CB, de Lartigue G, Raybould HE

Species
Not Applicable

Dilution
Not Cited

Year
2015

PloS one

Toll-like receptor 4 mediates inflammatory cytokine secretion in smooth muscle cells induced by oxidized low-density lipoprotein.

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

Authors: Yang K, Zhang XJ, Cao LJ, Liu XH, Liu ZH, Wang XQ, Chen QJ, Lu L, Shen WF, Liu Y

Species
Not Applicable

Dilution
Not Cited

Year
2015

Immunohistochemistry (3)

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, Vandembroucke RE

Species
Mouse

Dilution
1:200

Year
2016

Physiology & behavior

Chronic exposure to low dose bacterial lipopolysaccharide inhibits leptin signaling in vagal afferent neurons.

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

Authors: de La Serre CB, de Lartigue G, Raybould HE

Species
Not Applicable

Dilution
Not Cited

Year
2015

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IHC (F) (1)

ICC/IF (1)

Flow (11)

Neu (1)

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