

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

Product Details	
Size	100 µg
Species	Mouse
Published Species	Rat, Mouse, Human
Expression System	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	MTS510
Conjugate	PE
Form	Liquid
Concentration	0.2 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_466264

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	27 Publications
Immunofluorescence (IF)	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	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.

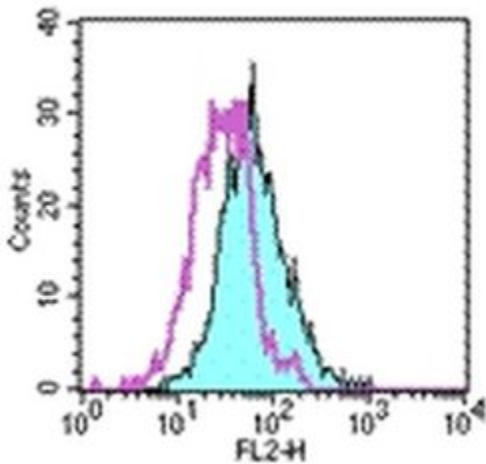
Applications Reported: MTS510 has been reported for use in flow cytometric analysis.

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.

Excitation: 488-561 nm; Emission: 578 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

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



TLR4/MD-2 Complex Antibody (12-9924-82) in Flow

Staining of 3-day thioglycolate-induced BALB/c macrophages with 0.25 µg of Rat IgG2a kappa Isotype Control PE (Product # 12-4321-80) (open histogram) or 0.25 µg of Anti-Mouse TLR4/MD-2 Complex PE (filled histogram). Cells were pre-incubated with Anti-Mouse CD16/CD32 Purified (Product # 14-0161-82). Total viable cells were used for analysis.

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

Flow Cytometry (27)

Journal of the American Heart Association

Sphingomyelin Synthase 2 Inhibition Ameliorates Cerebral Ischemic Reperfusion Injury Through Reducing the Recruitment of Toll-Like Receptor 4 to Lipid Rafts.

"12-9924 was used in Flow cytometry/Cell sorting to investigate the role of SMS2 in a mouse model of cerebral I/R."

Authors: Xue J,Yu Y,Zhang X,Zhang C,Zhao Y,Liu B,Zhang L,Wang L,Chen R,Gao X,Jiao P,Song G,Jiang XC,Qin S

Species
Mouse

Dilution
1:40

Year
2019

Immunity

Chanzyme TRPM7 Mediates the Ca²⁺ Influx Essential for Lipopolysaccharide-Induced Toll-Like Receptor 4 Endocytosis and Macrophage Activation.

"Published figure using TLR4/MD-2 Complex monoclonal antibody (Product # 12-9924-82) in Flow Cytometry"

Authors: Schappe MS,Szteyn 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](#)

Immunofluorescence (1)

Scientific reports

IL-33/ST2 signalling and crosstalk with FcRI and TLR4 is targeted by the parasitic worm product, ES-62.

"12-9924 was used in Flow cytometry/Cell sorting to investigate whether ES62 targets the MyD88-IL-33 signalling network by subverting ST2-signalling to exhibit therapeutic potential in allergy."

Authors: Ball DH,Al-Riyami L,Harnett W,Harnett MM

Species
Mouse

Dilution
Not Cited

Year
2018

Immunohistochemistry (Frozen) (1)

Journal of immunology (Baltimore, Md. : 1950)

TLRs regulate the gatekeeping functions of the intestinal follicle-associated epithelium.

Authors: Chabot S,Wagner JS,Farrant S,Neutra MR

Species
Not Applicable

Dilution
Not Cited

Year
2006

More applications with references on thermofisher.com

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