

TLR4/MD-2 Complex Monoclonal Antibody (MTS510), PE-Cyanine7, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Human, Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PE-Cyanine7, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	MTS510
Conjugate	PE-Cyanine7
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_469689

Applications	Tested Dilution	Publications
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Flow Cytometry (Flow)	2 µg/test	6 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: This MTS510 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This MTS510 antibody has been tested by flow cytometric analysis of mouse peritoneal-exudate cells. This

can be used at less than or equal to 2 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.

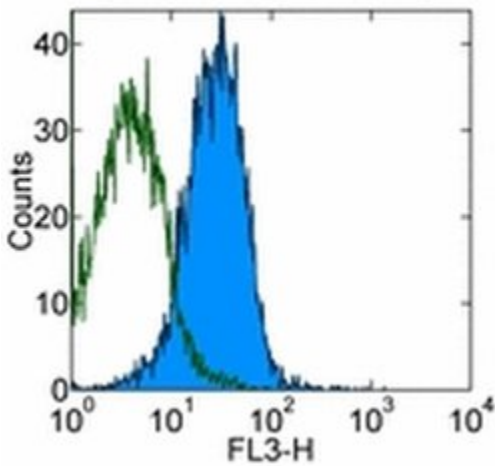
Light sensitivity: This tandem dye is sensitive photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step Fix /Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488-561 nm; Emission: 775 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-Cyanine7, eBioscience™



TLR4/MD-2 Complex Antibody (25-9924-82) in Flow

Staining of thioglycolate-induced peritoneal exudate cells with 0.5 µg of Rat IgG2a K Isotype Control PE-Cyanine7 (Product # 25-4321-82) (open histogram) or 0.5 µg of Anti-Mouse TLR4/MD-2 Complex PE-Cyanine7 (filled histogram). Total viable cells were used for analysis.

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

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

Flow Cytometry (6)

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 # 25-9924-82) in Flow Cytometry"

Authors: Schappe MS,Szteyn K,Stremska 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

The Journal of biological chemistry

Green Tea Polyphenol Epigallocatechin-3-gallate Suppresses Toll-like Receptor 4 Expression via Up-regulation of E3 Ubiquitin-protein Ligase RNF216.

"Published figure using TLR4/MD-2 Complex monoclonal antibody (Product # 25-9924-82) in Flow Cytometry"

Authors: Kumazoe M,Nakamura Y,Yamashita M,Suzuki T,Takamatsu K,Huang Y,Bae J,Yamashita S,Murata M,Yamada S,Shinoda Y,Yamaguchi W,Toyoda Y,Tachibana H

Species
Not Applicable

Dilution
Not Cited

Year
2017

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

More applications with references on thermofisher.com

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