

TLR4/MD-2 Complex Monoclonal Antibody (MTS510), Super Bright 436, eBioscience™

| Product Details | |
|-----------------------------|---|
| Size | 100 µg |
| Species Reactivity | Mouse |
| Host/Isotype | Rat / IgG2a, kappa |
| Recommended Isotype Control | Rat IgG2a kappa Isotype Control (eBR2a), Super Bright 436, eBioscience™ |
| Class | Monoclonal |
| Type | Antibody |
| Clone | MTS510 |
| Conjugate | Super Bright 436 |
| Form | Liquid |
| Concentration | 0.2 mg/mL |
| Purification | Affinity chromatography |
| Storage buffer | PBS, pH 7.2, with BSA |
| Contains | 0.09% sodium azide |
| Storage conditions | 4° C, store in dark, DO NOT FREEZE! |
| RRID | AB_2762765 |

| Applications | Tested Dilution | Publications |
|-----------------------|-----------------|---------------|
| Flow Cytometry (Flow) | 0.5 µg/test | 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: 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 bone marrow derived dendritic 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.

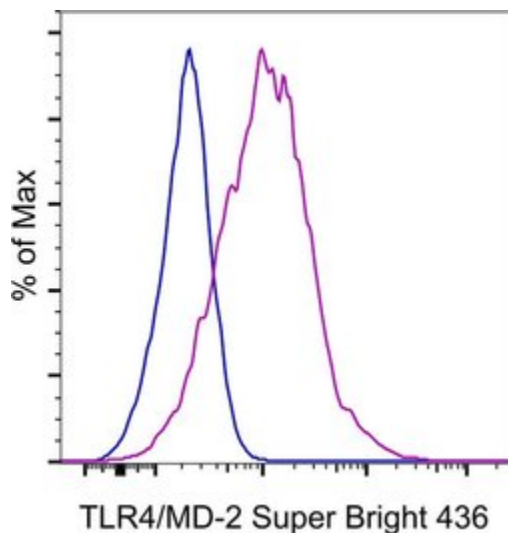
Super Bright 436 can be excited with the violet laser line (405 nm) and emits at 436 nm. We recommend using a 450/50 bandpass filter, or equivalent. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

Excitation: 405 nm; Emission: 436 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For TLR4/MD-2 Complex Monoclonal Antibody (MTS510), Super Bright 436, eBioscience™



TLR4/MD-2 Complex Antibody (62-9924-82) in Flow

Swiss Webster mouse bone marrow-derived dendritic cells were stained with 0.25 µg of Rat IgG2a kappa Isotype Control, Super Bright 436 (Product # 62-4321-82) (blue histogram) or 0.25 µg of TLR4/MD-2 Monoclonal Antibody, Super Bright 436 (purple histogram). Total viable cells were used for analysis, as determined by Fixable Viability Dye eFluor 780 (Product # 65-0865-18).

[View more figures on thermofisher.com](#)

1 Reference

Flow Cytometry (1)

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 # 62-9924-82) in Flow Cytometry"

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Species
Not Applicable

Dilution
Not Cited

Year
2017

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