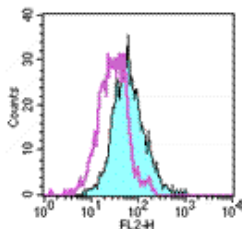


Anti-Mouse TLR4/MD-2 Complex PE

Catalog Number: 12-9924

Also Known As: TLR4/ MD-2, TLR-4/ MD2, toll-like receptor MD2 complex

RUO: For Research Use Only. Not for use in diagnostic procedures.



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

Product Information

Contents: Anti-Mouse TLR4/MD-2 Complex PE


REF **Catalog Number:** 12-9924

Clone: MTS510


Concentration: 0.2 mg/mL

Host/Isotype: Rat IgG2a, kappa

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

 **Temperature Limitation:** Store at 2-8°C. Do not freeze. Light sensitive material.

LOT **Batch Code:** Refer to Vial

 **Use By:** Refer to Vial

 **Caution, contains Azide**

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 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.

References

Chabot S, Wagner JS, Farrant S, Neutra MR. TLRs regulate the gatekeeping functions of the intestinal follicle-associated epithelium. *J Immunol.* 2006 Apr 1;176(7):4275-83. (MTS510, IHC frozen, PubMed)

Mortaz E, Redegeld FA, Nijkamp FP, Wong HR, Engels F. Acetylsalicylic acid-induced release of HSP70 from mast cells results in cell activation through TLR pathway. *Exp Hematol.* 2006 Jan;34(1):8-18. (MTS510, FA, PubMed)

Qi HY, Shelhamer JH. Toll-like receptor 4 signaling regulates cytosolic phospholipase A2 activation and lipid generation in lipopolysaccharide-stimulated macrophages. *J Biol Chem.* 2005 Nov 25;280(47):38969-75. (MTS510, FA, PubMed)

Ortega-Cava CF, Ishihara S, Rumi MA, Kawashima K, Ishimura N, Kazumori H, Udagawa J, Kadowaki Y, Kinoshita Y. Strategic compartmentalization of Toll-like receptor 4 in the mouse gut. *J Immunol.* 2003 Apr 15;170(8):3977-85. (MTS510, IHC frozen, PubMed)

Sato S, Nomura F, Kawai T, Takeuchi O, Mühlradt PF, Takeda K, Akira S. Synergy and cross-tolerance between toll-like receptor (TLR) 2- and TLR4-mediated signaling pathways. *J Immunol.* 2000 Dec 15;165(12):7096-101.

Akashi S, Shimazu R, Ogata H, Nagai Y, Takeda K, Kimoto M, Miyake K. Cutting edge: cell surface expression and lipopolysaccharide signaling via the toll-like receptor 4-MD-2 complex on mouse peritoneal macrophages. *J Immunol.* 2000 Apr 1;164(7):3471-5.

Nomura F, Akashi S, Sakao Y, Sato S, Kawai T, Matsumoto M, Nakanishi K, Kimoto M, Miyake K, Takeda K, Akira S. Cutting edge: endotoxin tolerance in mouse peritoneal macrophages correlates with down-regulation of surface toll-like receptor 4 expression. *J Immunol.* 2000 Apr 1;164(7):3476-9.

Related Products

12-4321 Rat IgG2a K Isotype Control PE (eBR2a)

12-9041 Anti-Mouse CD284 (TLR4) PE (UT41)

14-0161 Anti-Mouse CD16/CD32 Purified (93)

14-8185 B18R Recombinant Protein

34-8185 B18R Recombinant Protein Carrier-Free

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