

MAB mTLR2-FITC

Purified monoclonal antibody to mouse TLR2 labeled with FITC

Catalog # mab-mtlr2f

For research use only, not for diagnostic or therapeutic use

Version # 09C18-MM

PRODUCT INFORMATION

Content

100 µg purified monoclonal anti-mTLR2 antibody labeled with FITC (MAB-mTLR2-FITC), provided lyophilized

Clone: T2.5

Isotype: Mouse IgG1

Formulation: PBS pH 7.4, 0.05% sodium azide, 1% bovine serum albumin

Antibody resuspension

Add 1 ml of sterile water to obtain a concentration of 0.1 mg/ml.

Storage

- Product is shipped at room temperature. Store lyophilized MAB-mTLR2-FITC at -20°C. Product is stable for 1 year. Protect from light.
- Resuspended MAB-mTLR2-FITC should be aliquoted and stored at -20°C. Protect from light. Resuspended product is stable for 1 year when stored correctly.

Description

MAB mTLR2-FITC (T2.5) is a monoclonal antibody that reacts with mouse Toll-like receptor 2 (TLR2, CD282). It has been tested by flow cytometric analysis of RAW264.7 cells. The antibody is cross reactive with human TLR2.

BACKGROUND

Toll-Like receptors (TLRs) play a critical role in early innate immunity to invading pathogens by sensing microorganisms. These evolutionary conserved receptors recognize highly conserved structural motifs only expressed by microbial pathogens, called pathogen-associated microbial patterns (PAMPs). Stimulation of TLRs by PAMPs initiates a signaling cascade leading to the secretion of proinflammatory cytokines following NF-κB activation. To date ten human and twelve murine TLRs have been characterized, TLR1 to TLR10 in humans, and TLR1 to TLR9, TLR11, TLR12 (aka TLR11) and TLR13 in mice, the homolog of TLR10 being a pseudogene.

TLR2 is involved in the recognition of a wide array of microbial molecules. TLR2 recognizes lipoteichoic acid and lipoprotein from gram-positive bacteria, lipoarabinomannan from mycobacteria, and zymosan from yeast cell wall. Moreover, TLR2 participates in the recognition of some types of LPS. TLR2 is known to heterodimerize with other TLRs, a property believed to extend the range of microbial molecules that TLR2 can recognize. TLR2 cooperates with TLR6 in response to diacylated mycoplasmal lipopeptide¹, and associates with TLR1 to recognize triacylated lipopeptides². Furthermore, pathogen recognition by TLR2 is strongly enhanced by CD14³.

APPLICATIONS

MAB mTLR2 (T2.5) can be used for flow cytometry. The utility of this antibody for other applications has not been determined.

Use

For flow cytometry, it is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:100.

References

1. Girard R *et al.*, 2003. Lipopolysaccharides from Legionella and Rhizobium stimulate mouse bone marrow granulocytes via Toll-like receptor 2. *J Cell Sci.* 116(Pt 2):293-302.
2. Ozinsky A. *et al.*, 2000. The repertoire for pattern recognition of pathogens by the innate immune system is defined by cooperation between toll-like receptors. *Proc Natl Acad Sci USA.* 97(25):13766-71.
3. Lotz S. *et al.*, 2004. Highly purified lipoteichoic acid activates neutrophil granulocytes and delays their spontaneous apoptosis via CD14 and TLR2. *J Leukoc Biol.* 75(3):467-77.

RELATED PRODUCTS

Product	Catalog Code
293/mTLR2	293-mtlr2
pUNO-mTLR2	puno-mtlr2
Pam3CSK4	tlr1-pms
TLR2 Agonist Kit	tlr1-kit2

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