**Anti-mTLR2-IgG**

Purified monoclonal IgG antibody to mouse TLR2

Catalog # mabg-mlr2

For research use only, not for diagnostic or therapeutic use

Version # 10C05-MM

**PRODUCT INFORMATION**

**Content**
100 µg purified monoclonal anti-mTLR2 IgG antibody (anti-mTLR2-IgG), provided lyophilized

**Clone:** C9A12  
**Isotype:** Mouse IgG2a  
**Formulation:** 0.2 mM filtered solution in PBS with 5% saccharose

**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 anti-mTLR2-IgG at -20°C. Lyophilized anti-mTLR2-IgG is stable for 1 year at -20°C.  
- Resuspended anti-mTLR2-IgG is stable up to 3 months when stored at -20°C.

**Description**
Anti-mTLR2-IgG (C9A12) is a monoclonal IgG isotype 2a antibody specific for mouse Toll-like receptor 2.

**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 lipopeptide, and associates with TLR1 to recognize triacylated lipopetides. Furthermore, pathogen recognition by TLR2 is strongly enhanced by CD14.

**APPLICATIONS**

Anti-mTLR2-IgG can be used for neutralization of mTLR2, it blocks cellular activation induced by agonists that are recognized by TLR2, such as Pam3CSK4. Although this product has not been tested for use in other applications, this does not necessarily exclude its use in other techniques, such as flow cytometry.

**Application tested**
Anti-mTLR2-IgG has been tested in neutralizing experiments. Neutralization experiments were performed in cells that naturally express or were transfected to express mouse TLR2, such as 293/mTLR2 cells. These cells were further transfected with pNiFty-SEAP, a plasmid that expresses a secreted embryonic alkaline phosphatase (SEAP) gene under the control of an NF-κB-inducible ELAM-1 (E-selectin) promoter. Transfected cells were incubated with 10-1000 ng/ml anti-mTLR2-IgG (C9A12) and a control MAb TLR1 for 1 hour prior to the addition of 5 ng/ml Pam3CSK4. Neutralization of mTLR2 signaling by anti-mTLR2-IgG was determined after 24 hour incubation by assessing NF-κB-induced SEAP production using QUANTI-Blue. QUANTI-Blue is a SEAP detection medium that turns blue following TLR stimulation but remains pink if neutralization occurs. SEAP levels can be assessed by the naked eye or spectrophotometrically by reading the OD at 620-655 nm.

**References**


**RELATED PRODUCTS**

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