**Anti-hTLR2-IgA**

Neutralizing IgA monoclonal antibody to human TLR2

Catalog # maba2-htrlr2

For research use only, not for diagnostic or therapeutic use

Version # 15C27-MM

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**PRODUCT INFORMATION**

**Content**

100 µg purified anti-hTLR2-IgA antibody, provided azide-free and lyophilized

**Clone:** B4H2

**Isotype:** Human IgA2

**Formulation:** 0.2 mM filtered solution in Tris HCl buffer with saccharose, glycine and stabilizing agents

**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 antibody at -20 °C. Product is stable for at least 1 year.
- Reconstituted antibody is stable for 1 month when stored at 4 °C and for 1 year when aliquoted and stored at -20 °C. Avoid repeated freeze-thaw cycles.

**Quality control**

- This product has been validated for neutralization and flow cytometry.
- The absence of bacterial contamination (e.g. lipopolysaccharides) is confirmed using HEK-Blue™ TLR2 and HEK-Blue™ hTLR4 cells.

**BACKGROUND**

TLR2 is involved in the recognition of a wide array of microbial molecules. TLR2 recognizes peptidoglycan, lipoteichoic acid and lipoprotein from gram-positive bacteria, lipoarabinomannan from mycobacteria, and zymosan from yeast cell wall. TLR2 cooperates with TLR6 in response to diacylated mycoplasmal lipopeptide, and associates with TLR1 to recognize triacylated lipopetides. Simultaneous expression of the extracellular and intracellular domains of both TLR1 and TLR2 is essential for ligand recognition and subsequent ligand-induced signal activation. Moreover, pathogen recognition by TLR2 is strongly enhanced by CD14.


**DESCRIPTION**

Anti-hTLR2-IgA is a chimeric monoclonal antibody specific for human Toll-like receptor 2 (TLR2, CD282). It was generated by combining the constant domains of the human IgA molecule with murine variable regions. Anti-hTLR2-IgA has been selected for its ability to efficiently neutralize the biological activity of TLR2. The neutralizing activity of this IgA antibody was determined using HEK-Blue™ hTLR2 cells.

**APPLICATIONS**

Anti-hTLR2-IgA is a neutralizing antibody, it blocks TLR2 agonists induced cellular activation. It can also be used for flow cytometry.

**Neutralization**

The exact concentration of antibody required to neutralize human TLR2 activity is dependent on the TLR2 agonist used and its concentration, cell type and growth conditions. InvivoGen has determined the neutralization dose for this antibody using the ligand FSL-1 and HEK-Blue™ hTLR2 cells. These cells are engineered HEK293 cells stably expressing the human TLR2 and an NF-κB-inducible SEAP (secreted embryonic alkaline phosphatase) reporter gene.

Anti-hTLR2-IgA dilution (1 ng to 10 mg/ml) and a negative control antibody (e.g. Human IgA2 Control which targets E. coli β-galactosidase) were incubated with FSL-1 (10 ng/ml) for 30 min prior to the addition of the HEK-Blue™ TLR2 cells. Neutralization of TLR2-induced signaling by anti-hTLR2-IgA was determined after a 24 hour incubation by assessing SEAP production using QUANTI-Blue™. QUANTI-Blue™ is a SEAP detection medium that turns blue following cytokine 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.

**Flow Cytometry**

This antibody was used at 500 - 2000 ng/10^6 cells with a goat F(ab’)2 anti-human IgA-FITC secondary antibody for indirect immunofluorescence staining of HEK-Blue™ hTLR2 cells.

**RELATED PRODUCTS**

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<td>HEK-Blue™ hTLR2 Cells</td>
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<td>maba2-ctrl</td>
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<td>QUANTI-Blue™</td>
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