**Anti-hTLR5-IgA**

Neutralizing IgA monoclonal antibody to human TLR5

Catalog # maba2-htlr5

For research use only, not for diagnostic or therapeutic use

Version # 15C27-MM

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**PRODUCT INFORMATION**

**Content**

100 µg purified anti-hTLR5-IgA antibody, provided azide-free and lyophilized

**Clone:** Q2G4

**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. lipoproteins and endotoxins) is confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

**BACKGROUND**

Toll-like receptor 5 (TLR5) recognizes flagellin from both Gram-positive and Gram-negative bacteria. Activation of the receptor stimulates the production of proinflammatory cytokines, such as TNF-α, through signaling via the adaptor protein MyD88 and the serine kinase IRAK1, 2. TLR5 can generate a proinflammatory signal as a homodimer suggesting that it might be the only TLR participating in flagellin recognition1. However, TLR5 may require the presence of a co-receptor or adaptor molecule for efficient ligand recognition and/or signaling2.


**DESCRIPTION**

Anti-hTLR5-IgA is a chimeric monoclonal antibody specific for human Toll-like receptor 5 (TLR5). It was generated by combining the constant domains of the human IgA molecule with murine variable regions. Anti-hTLR5-IgA has been selected for its ability to efficiently neutralize the biological activity of TLR5. The neutralizing activity of this IgA antibody was determined using HEK-Blue™ TLR5 cells.

**APPLICATIONS**

Anti-hTLR5-IgA is a neutralizing antibody, it blocks flagellin-induced cellular activation. It can also be used for flow cytometry.

**Neutralization**

The exact concentration of antibody required to neutralize human TLR5 activity is dependent on the TLR5 agonist used and its concentration, cell type and growth conditions. InvivoGen has determined the neutralization dose for this antibody using recombinant flagellin from *Salmonella typhimurium* (RecFLA-ST) and HEK293 cells expressing human TLR5 and an NF-κB-inducible SEAP reporter gene (HEK-Blue™ TLR5 cells).

Anti-hTLR5-IgA dilution (1 ng to 10 µg/ml) and a negative control antibody (e.g. Human IgA2 Control which targets *E. coli* β-galactosidase) were incubated with RecFLA-ST (5 ng/ml) for 30 min prior to the addition of the HEK-Blue™ TLR5 cells. Neutralization of TLR5-induced signaling by anti-hTLR5-IgA was determined after 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™ TLR5 cells.

**RELATED PRODUCTS**

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<td>Human IgA2 Control</td>
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<td>QUANTI-Blue™</td>
<td>rep-qb-1</td>
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<tr>
<td>RecFLA-ST</td>
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