

Anti-hTLR6-IgG

Neutralizing monoclonal antibody against human TLR6

Catalog code: mabg-htlr6-2

<https://www.invivogen.com/anti-htlr6-igg>

For research use only, not for diagnostic or therapeutic use

Version 23L11-MM

PRODUCT INFORMATION

Contents

- 2 x 100 µg of purified anti-hTLR6-IgG antibody, provided azide-free and lyophilized

Specificity: Human TLR6 (hTLR6)

Source: Hybridoma cells

Clone: C5C8

Isotype: Mouse IgG1

Light chain type: Kappa

Clonality: Monoclonal

Purification: By affinity chromatography

Formulation: 0.2 µm filtered solution in a sodium phosphate buffer with glycine, saccharose, and stabilizing agents

Antibody resuspension (0.1 mg/ml)

Add 1 ml of sterile water per 100 µg vial.

Storage and stability

- Product is shipped at room temperature. Upon receipt, store at -20°C.
- Reconstituted antibody is stable for 1 month when stored at 4 °C and for 1 year when stored at -20 °C. Avoid repeated freeze-thaw cycles.

Quality control

- This product has been validated for neutralization.
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells

BACKGROUND

Toll-like receptor 6 (TLR6), which is closely related to TLR1, is expressed predominantly in spleen, thymus, ovary and lung¹. TLR6 cooperates with TLR2 to recognize diacylated lipoproteins (LPs) found in mycoplasma but is not required in the recognition of triacylated LPs found in bacteria². This suggests that TLR6 is able to discriminate between the N-terminal lipoylated structures of LPs derived from mycoplasma and bacteria. TLR6 collaboration with TLR2 is essential for the recognition and signal transduction of diacylated LPs, such as MALP-2 and FSL-1^{2,3}, as well as heat-killed mycoplasma, indicating that TLR6 and TLR2 play a central role in recognizing mycoplasma².

1. Takeuchi O. et al., 1999. TLR6: A novel member of an expanding toll-like receptor family. *Gene*. 231(1-2):59-65. 2. Takeuchi O. et al., 2001. Discrimination of bacterial lipoproteins by Toll-like receptor 6. *Int Immunol*, 13(7):933-40. 3. Fujita M. et al., 2003. Involvement of leucine residues at positions 107, 112, and 115 in a leucine-rich repeat motif of human Toll-like receptor 2 in the recognition of diacylated lipoproteins and lipopeptides and Staphylococcus aureus peptidoglycans. *J Immunol*. 171(7):3675-83.

DESCRIPTION

Anti-hTLR6-IgG can be used for neutralization of hTLR6, it blocks cellular activation induced by agonists that are recognized by TLR6 and TLR2, such as FSL-1. 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.

APPLICATIONS

Anti-hTLR6-IgG can be used for neutralization as described below.

Neutralization

The exact concentration of antibody required to neutralize hTLR6 activity is dependent on the cell type and growth conditions. InvivoGen has determined the neutralization dose for this antibody using FSL-1 and HEK-Blue™ hTLR2 cells, HEK239 cells expressing hTLR2, human CD14 and an NF-κB-inducible secreted embryonic alkaline phosphatase (SEAP) reporter gene. These cells express endogenous levels of human TLR1 and TLR6.

For more information, visit www.invivogen.com/hek-blue-trlr2.

Procedure for neutralization using HEK-Blue™ hTLR2 cells

1. Add 50 µl of Anti-hTLR6-IgG or control antibody (10 ng/ml-10 µg/ml final concentration) per well of a 96-well plate.

Note: We recommend using Mouse IgG1 Control (which targets E. coli β-galactosidase) as a negative control antibody.

2. Add 100 µl of HEK-Blue™ hTLR2 cell suspension (~50,000 cells) per well.

4. Incubate for 1 hour at 37°C in a 5% CO₂ incubator.

5. Add 50 µl FSL-1 (1 ng/ml final concentration).

6. Incubate the plate at 37°C in a 5% CO₂ incubator for 18-24 h.

7. Monitor SEAP production using a SEAP detection assay such as QUANTI-Blue™ Solution.

RELATED PRODUCTS

Product	Description	Cat.Code
FSL-1	TLR2 agonist	tlr1-fsl
HEK-Blue™ hTLR2 Cells	hTLR2 reporter cells	hkb-htlr2
Mouse Control IgG1	Isotype control	mabg1-ctrlm
QUANTI-Blue™ Solution	SEAP detection reagent	rep-qbs

TECHNICAL SUPPORT

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