abcam

Product datasheet

# Anti-TLR4 antibody [HTA125] - Low endotoxin, Azide free ab30667

1 Abreviews 51 References 2 Images

## Overview

| | |
|---|---|
| **Product name** | Anti-TLR4 antibody [HTA125] - Low endotoxin, Azide free |
| **Description** | Mouse monoclonal [HTA125] to TLR4 - Low endotoxin, Azide free |
| **Host species** | Mouse |
| **Specificity** | ab30667 recognises the human Toll like receptor 4 (TLR4) cell surface antigen. This antibody has been demonstrated to block activation of monocytes with LPS. TLR4 expression levels and cleavage or degradation products can vary between different cell and tissue samples. Customers have observed this variability in WB band size and our laboratory has confirmed this variability as well observing lower molecular weight cleavage and degradation products and in some samples a lack of the full length TLR4 band. The TLR4 cleavage and degradation products and potential lack of full length TLR4 are well documented in the literature, including PMID 16885150 and 22927440. We recommend running a positive control human intestine tissue lysate. |
| **Tested applications** | **Suitable for:** ICC, Flow Cyt |
| **Species reactivity** | **Reacts with:** Rat, Human |
| **Immunogen** | Tissue, cells or virus corresponding to TLR4. Ba/F3 cell line expressing TLR4. |
| **General notes** | Endotoxin Level: <0.01 EU/ug<br>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.<br>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As |

## Properties

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| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. |
| **Storage buffer** | Constituent: PBS |
| **Carrier free** | Yes |

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| **Purity** | Immunogen affinity purified |
| **Clonality** | Monoclonal |
| **Clone number** | HTA125 |
| **Myeloma** | Sp2/0 |
| **Isotype** | IgG2a |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab30667 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|---|---|---|
| **ICC** | | Use at an assay dependent concentration. |
| **Flow Cyt** | | 1/10 - 1/50.<br>Use 10µl of the suggested working dilution to label $10^6$ cells or 100µl whole blood.<br>**ab170191** - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody. |

## Target

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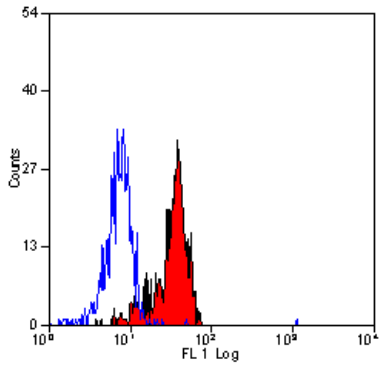
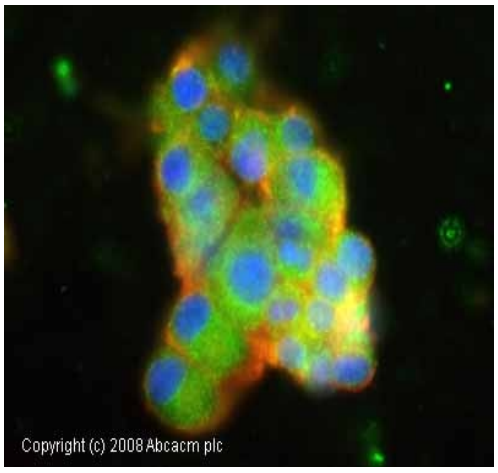
|---|---|
| **Function** | Cooperates with LY96 and CD14 to mediate the innate immune response to bacterial lipopolysaccharide (LPS). Acts via MYD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. Also involved in LPS-independent inflammatory responses triggered by Ni(2+). These responses require non-conserved histidines and are, therefore, species-specific. |
| **Tissue specificity** | Highly expressed in placenta, spleen and peripheral blood leukocytes. Detected in monocytes, macrophages, dendritic cells and several types of T-cells. |
| **Involvement in disease** | Genetic variation in TLR4 is associated with age-related macular degeneration type 10 (ARMD10) [MIM:611488]. ARMD is a multifactorial eye disease and the most common cause of irreversible vision loss in the developed world. In most patients, the disease is manifest as ophthalmoscopically visible yellowish accumulations of protein and lipid that lie beneath the retinal pigment epithelium and within an elastin-containing structure known as Bruch membrane. |
| **Sequence similarities** | Belongs to the Toll-like receptor family.<br>Contains 18 LRR (leucine-rich) repeats.<br>Contains 1 LRRCT domain.<br>Contains 1 TIR domain. |
| **Domain** | The TIR domain mediates interaction with NOX4. |
| **Post-translational modifications** | N-glycosylated. Glycosylation of Asn-526 and Asn-575 seems to be necessary for the expression of TLR4 on the cell surface and the LPS-response. Likewise, mutants lacking two or more of the other N-glycosylation sites were deficient in interaction with LPS. |
| **Cellular localization** | Membrane. |

## Images




Flow Cytometry - Anti-TLR4 antibody [HTA125] - Low endotoxin, Azide free (ab30667)

ab30667 staining TLR4 in human peripheral blood monocytes by Flow Cytometry analysis.




Immunocytochemistry - Anti-TLR4 antibody [HTA125] - Low endotoxin, Azide free (ab30667)

ICC/IF image of ab30667 stained rat adrenal medulla PC12 cells. The cells were 4% PFA and 100% Methanol fixed (10 min) and then incubated in 1% BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab30667, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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