Anti-TLR4 antibody [HTA125] (FITC) ab8378

Overview

Product name: Anti-TLR4 antibody [HTA125] (FITC)
Description: Mouse monoclonal [HTA125] to TLR4 (FITC)
Host species: Mouse
Conjugation: FITC. Ex: 493nm, Em: 528nm
Specificity: This antibody recognises the human Toll like receptor 4 (TLR4) cell surface antigen. TLR4 has been demonstrated to act as alpha receptor for LPS on human monocytes and macrophages. TLR4 signalling of LPS stimulation requires the presence of the MD-2 molecule. TLR4 is weakly expressed by resting cells, but is upregulated following stimulation with LPS. This antibody has been demonstrated to block activation of monocytes with LPS.

Tested applications: Suitable for: Flow Cyt
Species reactivity: Reacts with: Guinea pig, Human
Immunogen: Ba/F3 cell line expressing TLR4

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at +4°C.
Storage buffer: Preservative: 0.1% Sodium azide
Constituent: PBS
Purity: Protein G purified
Clonality: Monoclonal
Clone number: HTA125
Myeloma: Sp2/0
Isotype: IgG2a

Applications

Our Abpromise guarantee covers the use of ab8378 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
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. Contains 18 LRR (leucine-rich) repeats. Contains 1 LRRCT domain. 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.

### Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Cyt</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Use at an assay dependent concentration. Use 10 µl of this concentration to label 106 cells or 100µl whole blood.</td>
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</tbody>
</table>

**ab91362** - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
Flow Cytometry - Anti-TLR4 antibody [HTA125] (FITC) (ab8378)

ab8378 staining TLR4 (FITC) in human peripheral blood monocytes by Flow Cytometry analysis.

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