Technical Data Sheet

PE Mouse Anti-Human TLR4 (CD284)

Product Information

Material Number: 564215
Alternate Name: Toll-like receptor 4; ARMD10
Size: 100 tests
Vol. per Test: 5 µl
Clone: TF901
Immunogen: Human TLR4 Transfected Cell Line
Isotype: Mouse (BALB/c) IgG1, κ
Reactivity: QC Testing: Human
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The TF901 monoclonal antibody specifically binds to TLR4 (Toll-like receptor 4) which is also known as CD284. TLR4 is a 110 kDa type I transmembrane glycoprotein that belongs to the Toll-like receptor (TLR) family. TLR4 is expressed on monocytes, macrophages, granulocytes, dendritic cells and endothelial cells. TLR4 binds lipopolysaccharide (LPS) which is a major membrane component of Gram-negative bacteria. It thus acts as an innate immune recognition receptor against many pathogens. In association with MD-2, LPS binds to and signals through TLR4 receptors by MyD88-dependent and MyD88-independent pathways to induce the cellular production of proinflammatory cytokines. TF901 antibody binding is not influenced by the human TLR4 D299G/T399I polymorphism. Preincubation of TLR4-positive cells with the TF901 antibody blocks the subsequent binding of the HTA125 antibody which is also specific for human TLR4.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application
Flow cytometry Routinely Tested

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tbody>
<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 ml</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
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<tr>
<td>554680</td>
<td>PE Mouse IgG1, κ Isotype Control</td>
<td>0.1 mg</td>
<td>MOPC-21</td>
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<tr>
<td>555899</td>
<td>Lysing Buffer</td>
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Flow cytometric analysis of TLR4 (CD284) expression on human peripheral blood monocytes. Human whole blood was stained with either PE Mouse IgG1, κ Isotype Control (Cat. No. 554680; dashed line histogram) or PE Mouse Anti-Human TLR4 (CD284) antibody (Cat. No. 564215; solid line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable monocytes. Flow cytometric analysis was performed using a BD LSRFortessa™ Cell Analyzer System.
Product Notices

2. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use $1 \times 10^6$ cells in a 100-µl experimental sample (a test).
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. An isotype control should be used at the same concentration as the antibody of interest.

References