Technical Data Sheet

**BV786 Mouse Anti-Human TLR4 (CD284)**

**Product Information**

- **Material Number:** 564402
- **Alternate Name:** TLR4; CD284; 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.

The antibody was conjugated to BD Horizon BV786 which is part of the BD Horizon Brilliant™ Violet family of dyes. This dye is a tandem fluorochrome of BD Horizon BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 786-nm. BD Horizon BV786 can be excited by the violet laser and detected in a filter used to detect Cy™7-like dyes (e.g., 780/60-nm filter).

**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 BD Horizon™ BV786 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV786 were removed.
Application Notes

Application

Flow cytometry Routinely Tested

Recommended Assay Procedure:
For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes (including BD OptiBuild Brilliant reagents) are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794/566349) or the BD Horizon Brilliant Stain Buffer Plus (Cat. No. 566385).

Suggested Companion Products

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<th>Name</th>
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<td>Stain Buffer (BSA)</td>
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<tr>
<td>566385</td>
<td>Brilliant Stain Buffer Plus</td>
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Product Notices
1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.
7. Cy is a trademark of GE Healthcare.
8. BD Horizon Brilliant Violet 786 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,455,613; 8,575,303; 8,354,239.

References