Technical Data Sheet

BV786 Rat Anti-Human IL-4

**Product Information**
- **Material Number:** 564113
- **Alternate Name:** Interleukin-4; IL4; BCGF-1; BSF-1; Lymphocyte stimulatory factor 1
- **Size:** 100 tests
- **Vol. per Test:** 5 µl
- **Clone:** MP4-25D2
- **Immunogen:** Purified Recombinant Human IL-4
- **Isotype:** Rat IgG1
- **Reactivity:** QC Testing: Human
- **Storage Buffer:** Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**
The MP4-25D2 antibody reacts with human interleukin-4 (IL-4). The immunogen used to generate the MP4-25D2 hybridoma was purified recombinant human IL-4. This is a neutralizing antibody. The MP4-25D2 antibody has been reported to cross react with IL-4 from rhesus monkeys. The use of the MP-25D2 antibody for epitope mapping of human IL-4 has been described.

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 Cy7™-like dyes (eg, 780/60-nm filter).

**Expression of IL-4 by stimulated human peripheral blood mononuclear cells.** Human PBMC were stimulated with immobilized Purified NA/LE Mouse Anti-Human CD3 (Cat. No. 555329; 10 µg/ml for plate coating) and soluble Purified NA/LE Mouse Anti-Human CD28 (Cat. No. 555725; 2 µg/ml) antibodies, recombinant human IL-2 (10 µg/ml final concentration; Cat. No. 554605) and human IL-4 (25 ng/ml final concentration; Cat. No. 554605) for 2 days. The cells were subsequently cultured in medium containing recombinant human IL-2 and human IL-4 for 3 days. Finally, the cells were harvested and stained with BD Pharmingen™ Stain Buffer (FBS) (Cat. No. 554656) and fixed and permeabilized with BD Cytofix/Cytoperm™ Fixation and Permeabilization Solution (554722).

The cells were then stained with BD Perm/Wash™ Buffer (Cat. No. 554723) with FITC Mouse Anti-Human CD4 (Cat. No. 555346/561005/561842) and either BD Horizon™ BV786 Rat IgG1 κ Isotype Control (Cat. No. 563847; Left Panel) or BD Horizon™ BV786 Mouse Anti-Human IL-4 antibody (Cat. No. 564113; Right Panel) using BD Biosciences Intracellular Cytokine Staining protocol. Two-color flow cytometric dot plots show the correlated expression patterns of IL-4 (or Ig Isotype control staining) versus CD4 for gated events with the forward and side light-scatter characteristics of intact stimulated lymphocytes. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.

**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

Intracellular staining (flow cytometry) Routinely Tested

Suggested Companion Products

<table>
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<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tr>
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<td>Stain Buffer (FBS)</td>
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<td>563847</td>
<td>BV786 Rat IgG1, κ Isotype Control</td>
<td>50 µg</td>
<td>R3-34</td>
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<tr>
<td>555346</td>
<td>FITC Mouse Anti-Human CD4</td>
<td>100 tests</td>
<td>RPA-T4</td>
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<td>561005</td>
<td>FITC Mouse Anti-Human CD4</td>
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<td>RPA-T4</td>
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<td>561842</td>
<td>FITC Mouse Anti-Human CD4 500 tests</td>
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<td>Purified NA/LE Mouse Anti-Human CD3</td>
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<td>UCHT1</td>
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<td>555725</td>
<td>Purified NA/LE Mouse Anti-Human CD28</td>
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<td>CD28.2</td>
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<td>554723</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 $1 \times 10^6$ 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. Cy is a trademark of Amersham Biosciences Limited.
6. Brilliant Violet™ 421 is a trademark of Sirigen.
7. Brilliant Violet™ 786 is a trademark of Sirigen.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References

Abbreviations: Clonotypic antibodies (Clone-specific: ELISA, Neutralization), HLA-DR (Clone-specific: Flow cytometry), IgG (Immunoglobulin G), IL (Interleukin), TNF (Tumor Necrosis Factor), T-cell (T lymphocyte), FACS (Fluorescence-activated cell sorter), and iFAC (Immunofluorescence-activated cell sorting).

4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

For country contact information, visit bdbiosciences.com/contact

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