Technical Data Sheet

# PE-Cy™7 Mouse Anti-Human MIP-1β

## Product Information

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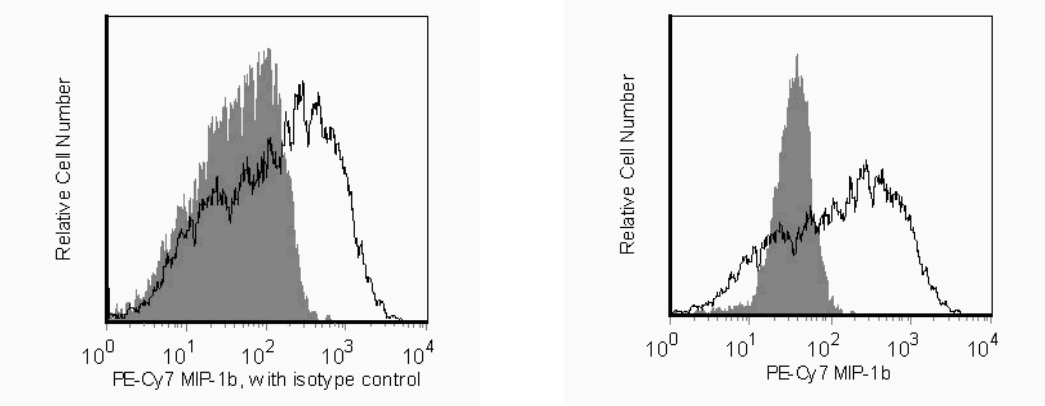
| **Material Number:** | **560687** |
| **Size:** | 50 tests |
| **Vol. per Test:** | 5 µl |
| **Clone:** | D21-1351 |
| **Immunogen:** | Recombinant Human MIP-1β |
| **Isotype:** | Mouse IgG1, κ |
| **Reactivity:** | QC Testing: Human |
| **Storage Buffer:** | Aqueous buffered solution containing BSA and ≤0.09% sodium azide. |

## Description

The D21-1351 monoclonal antibody specifically binds to the human CC chemokine, MIP-1β (macrophage inflammatory protein-1β). Human MIP-1β shares approximately 75% homology with mouse MIP-1β at the amino acid level. Expression of MIP-1β in human peripheral blood cells is induced by proinflammatory and mitogenic stimuli. MIP-1β is a chemoattractant for monocytes and lymphocytes. Human MIP-1β binds to receptors, CCR5 and CCR8. The human MIP-1β gene has been mapped to chromosome 17q11. The immunogen used to generate D21-1351 hybridoma was recombinant human MIP-1β.




***Flow cytometric analysis of MIP-1β on human PBMC.*** *Human PBMC were stimulated with 20 ng/mL human IFN-γ (Cat. No. 554616) for one hour followed by overnight incubation with 1 µg/mL LPS (Sigma-Aldrich, Cat. No. L-8272) in the presence of 2 µM BD GolgiStop™ (Cat. No. 554724).* ***Left Panel:*** *The PBMC were harvested, fixed, permeabilized, and stained with either a PE-Cy™7 Mouse IgG1, κ isotype control (shaded) or with the PE-Cy™7 Mouse Anti-Human MIP-1β antibody (unshaded).* ***Right Panel:*** *Both unstimulated (shaded) and stimulated PBMC (unshaded) were harvested, fixed, permeabilized, and stained with the PE-Cy™7 Mouse Anti-Human MIP-1β antibody. Histograms were derived from gated events based on light scattering characteristics for monocytes. Flow cytometry was performed on a BD™ LSR II flow cytometry 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 PE-Cy7 under optimum conditions, and unconjugated antibody and free PE-Cy7 were removed.

## Application Notes

**Application**

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| Intracellular staining (flow cytometry) | Routinely Tested |

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 557872 | PE-Cy™7 Mouse IgG1 κ Isotype Control | 100 tests | MOPC-21 |
| 554715 | BD Cytofix/Cytoperm Plus Kit (with BD GolgiStop) | 250 tests | (none) |
| 554724 | Protein Transport Inhibitor (Containing Monensin) | 0.7 ml | (none) |
| 554616 | Recombinant Human IFN-γ | 25 µg | (none) |

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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. Warning: Some APC-Cy7 and PE-Cy7 conjugates show changes in their emission spectrum with prolonged exposure to formaldehyde. If you are unable to analyze fixed samples within four hours, we recommend that you use BD™ Stabilizing Fixative (Cat. No. 338036).
4. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.
5. This product is subject to proprietary rights of Amersham Biosciences Corp. and Carnegie Mellon University and made and sold under license from Amersham Biosciences Corp. This product is licensed for sale only for research. It is not licensed for any other use. If you require a commercial license to use this product and do not have one return this material, unopened to BD Biosciences, 10975 Torreyana Rd, San Diego, CA 92121 and any money paid for the material will be refunded.
6. PE-Cy7 is a tandem fluorochrome composed of R-phycoerythrin (PE), which is excited by 488-nm light and serves as an energy donor, coupled to the cyanine dye Cy7, which acts as an energy acceptor and fluoresces maximally at 780 nm. PE-Cy7 tandem fluorochrome emission is collected in a detector for fluorescence wavelengths of 750 nm and higher. Although every effort is made to minimize the lot-to-lot variation in the efficiency of the fluorochrome energy transfer, differences in the residual emission from PE may be observed. Therefore, we recommend that individual compensation controls be performed for every PE-Cy7 conjugate. PE-Cy7 is optimized for use with a single argon ion laser emitting 488-nm light, and there is no significant overlap between PE-Cy7 and FITC emission spectra. When using dual-laser cytometers, which may directly excite both PE and Cy7, we recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
7. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
8. 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.
9. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
10. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
11. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

## References


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