Technical Data Sheet

PE Mouse Anti-Human MIG (CXCL9)

Product Information

Material Number: 566013
Alternate Name: C-X-C motif chemokine 9; CMK; erg-10; Humig; SCYB9
Size: 50 Tests
Vol. per Test: 5 µl
Clone: B8-11
Immunogen: Recombinant Human MIG Protein
Isotype: Mouse IgG1, κ
Reactivity: QC Testing: Human
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The B8-11 monoclonal antibody specifically recognizes monokine induced by gamma interferon (MIG), which is also known as chemokine (C-X-C motif) ligand 9 (CXCL9). MIG is a chemotactic cytokine that belongs to the CXC subfamily of chemokines. MIG is predominantly expressed by monocytes, macrophages, hepatocytes, and endothelial cells in response to interferon-gamma (IFN-γ) stimulation. It is primarily involved in the recruitment of activated T cells. MIG/CXCL9, and the closely-related IP10/CXCL10 and I-TAC/CXCL11 chemokines, exert their biological activities by binding to and signaling through the CXCR3 (CD183) chemokine receptor. CXCR3 is expressed on multiple cell types but predominantly on memory and effector T cells. The CXCL9 and CXCR3 interaction plays an important role in the onset of inflammation and is implicated in the pathogenesis of T-cell mediated immunity in several disease models.

Flow cytometric analysis of MIG (CXCL9) expression in activated human peripheral blood mononuclear cells. Human peripheral blood mononuclear cells (PBMC) were cultured overnight without (Unstimulated; Left Panel) or with (IFN-γ and TNF Stimulated; Right Panel) BD Pharmingen™ Recombinant Human IFN-γ (50 ng/mL; Cat. No. 554616) and Recombinant Human TNF (50 ng/mL; Cat. No. 554618) proteins. BD GolgiStop™ Protein Transport Inhibitor (containing Monensin) (Cat. No. 554724) was added to the cell cultures four hours before fixing and permeabilizing the cells with BD Cytofix/Cytoperm™ Fixation and Permeabilization Solution (Cat. No. 554722). The cells were then stained with either PE Mouse IgG1, κ Isotype Control (Cat. No. 554680; dashed line histograms) or PE Mouse Anti-Human MIG (CXCL9) antibody (Cat. No. 566013; solid line histograms). The overlaid histograms showing the expression of MIG (CXCL9) or Ig Isotype control staining were derived from gated events with forward and side light-scatter characteristics of intact monocytes. Flow cytometric analysis was performed using a BD LSRFortessa™ Cell Analyzer 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 R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

<table>
<thead>
<tr>
<th>Application</th>
<th>Routine Tested</th>
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<tbody>
<tr>
<td>Intracellular staining (flow cytometry)</td>
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BD Biosciences

566013 Rev. 1
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>554657</td>
<td>Stain Buffer (BSA)</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
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<td>554724</td>
<td>Protein Transport Inhibitor (Containing Monensin)</td>
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<td>554722</td>
<td>Fixation and Permeabilization Solution</td>
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<tr>
<td>554616</td>
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<tr>
<td>554618</td>
<td>Recombinant Human TNF</td>
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<td>554680</td>
<td>PE Mouse IgG1, κ Isotype Control</td>
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<td>MOPC-21</td>
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<tr>
<td>554723</td>
<td>Perm/Wash Buffer</td>
<td>100 mL</td>
<td>(none)</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).
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


Farber JM. A macrophage mRNA selectively induced by gamma-interferon encodes a member of the platelet factor 4 family of cytokines. *Proc Natl Acad Sci U S A.* 1990; 87(14):5238-5242. (Biology)


