**Technical Data Sheet**

**BV510 Rat Anti-Mouse Ly-6G and Ly-6C**

**Product Information**

<table>
<thead>
<tr>
<th>Material Number:</th>
<th>563040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternate Name:</td>
<td>Ly6c, Lymphocyte antigen 6C2; Lymphocyte antigen 6G, Ly6g, Gr-1</td>
</tr>
<tr>
<td>Size:</td>
<td>50 µg</td>
</tr>
<tr>
<td>Concentration:</td>
<td>0.2 mg/ml</td>
</tr>
<tr>
<td>Clone:</td>
<td>RB6-8C5</td>
</tr>
<tr>
<td>Immunogen:</td>
<td>Not Reported</td>
</tr>
<tr>
<td>Isotype:</td>
<td>Rat IgG2b, κ</td>
</tr>
<tr>
<td>Reactivity:</td>
<td>QC Testing: Mouse</td>
</tr>
<tr>
<td>Storage Buffer:</td>
<td>Aqueous buffered solution containing BSA and ≤0.09% sodium azide.</td>
</tr>
</tbody>
</table>

**Description**

The RB6-8C5 antibody reacts with a common epitope on Ly-6G and Ly-6C, previously known as the myeloid differentiation antigen Gr-1. In the bone marrow, the level of antigen expression is directly correlated with granulocyte differentiation and maturation. The antigen is also expressed on the monocyte lineage in the bone marrow, but not on erythroid cells. In the periphery, RB6-8C5 antibody recognizes granulocytes (neutrophils and eosinophils) and monocytes. The RB6-8C5 mAb is a component of the "lineage cocktail" used in studies of hematopoietic lineages. The mAb 1A8 (Cat. No. 551461) specifically recognizes Ly-6G, but not Ly-6C.

Based on the comparison of the staining patterns of mAbs clones 1A8 and RB6-8C5 on total blood leukocytes, it is evident that mAb 1A8 stains the RB6-8C5-bright population, corresponding to Ly-6G-expressing granulocytes; whereas, the RB6-8C5-dim population is 1A8-negative and corresponds to Ly-6C-expressing lymphocytes and monocytes. Please refer to the TDS Cat. No. 551459 and 553128 for more detail information.

The antibody was conjugated to BD Horizon™ BV510 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 405-nm and Em Max at 510-nm, BD Horizon™ BV510 can be excited by the violet laser and detected in the BD Horizon V500 (525/50-nm) filter set. BD Horizon™ BV510 conjugates are useful for the detection of dim markers off the violet laser.

**Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The antibody was conjugated with BD Horizon™ BV510 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV510 were removed.

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Two-parameter flow cytometric analysis of Ly-6G and Ly-6C expression on mouse bone-marrow cells. BALB/c bone-marrow leukocytes were stained with either BD Horizon™ BV510 Rat IgG2b, κ Isotype Control (Cat. No. 562951, Left Panel) or BD Horizon™ BV510 Rat Anti-Mouse Ly-6G and Ly-6C antibody (Cat. No. 563040, Right Panel) in the presence of Purified Rat Anti-Mouse CD16/CD32 antibody (Mouse BD Fc Block™) (Cat. No. 553141/553142). Two-parameter flow cytometric dot plots show the correlated side scattered-light characteristics and Ly-6G and Ly-6C (or Ig Isotype Control) staining profiles for events with the light scattering properties of viable leukocytes. Flow cytometry was performed on a BD™ LSR II Flow Cytometry System.

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Application Notes

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>
</tr>
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<tbody>
<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 ml</td>
<td>(none)</td>
</tr>
<tr>
<td>562951</td>
<td>BV510 Rat IgG2b, κ Isotype Control</td>
<td>50 µg</td>
<td>R35-38</td>
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<tr>
<td>553141</td>
<td>Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)</td>
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<tr>
<td>553142</td>
<td>Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)</td>
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<td>2.4G2</td>
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<tr>
<td>555899</td>
<td>Lysing Buffer</td>
<td>100 ml</td>
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</table>

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Brilliant Violet™ 510 is a trademark of Sirigen.

References


Conlan JW, North RJ. Neutrophils are essential for early anti-Listeria defense in the liver, but not in the spleen or peritoneal cavity, as revealed by a granulocyte-depleting monoclonal antibody. J. Exp. Med. 1994; 179(1):259-268. (Clone-specific: Depletion, Western blot)


Fleming TJ, Fleming ML, Malek TR. Selective expression of Ly-6G on myeloid lineage cells in mouse bone marrow. RB6-8C5 mAb to granulocyte-differentiation antigen (Gr-1) detects members of the Ly-6 family. J. Immunol. 1993; 151(5):2399-2408. (Clone-specific: Immunoprecipitation)


