**Technical Data Sheet**

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

**Product Information**

- Material Number: 550291
- Alternate Name: Gr-1
- Size: 1.0 ml
- Concentration: 62.5 µg/ml
- Clone: RB6-8C5
- Isotype: Rat IgG2b, κ
- Reactivity: QC Testing: Mouse
- Storage Buffer: Aqueous buffered solution containing BSA, goat serum, and ≤0.09% sodium azide.

**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.

**Preparation and Storage**

Store undiluted at 4°C.

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

**Application Notes**

**Application**

<table>
<thead>
<tr>
<th>Flow cytometry</th>
<th>Routinely Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunohistochemistry-frozen</td>
<td>Tested During Development</td>
</tr>
<tr>
<td>Immunohistochemistry-zinc-fixed</td>
<td>Tested During Development</td>
</tr>
<tr>
<td>Immunohistochemistry-formalin (antigen retrieval required)</td>
<td>Not Recommended</td>
</tr>
</tbody>
</table>

**Recommended Assay Procedure:**

For optimal indirect immunohistochemical staining, the RB6-8C5 antibody should be titrated (1:10 to 1:50 diluent) and visualized via a three-step staining procedure in combination with Biotin Anti-Rat IgG2b (Cat. No. 550327) as the secondary antibody and Streptavidin-HRP (Cat. No. 550946) together with the DAB detection system (Cat. No. 550880). Alternatively, Anti-Rat Ig HRP Detection Kit (Cat. No. 551013) containing...
all secondary reagents, may be used. An appropriate isotype control is Purified Rat IgG2b κ Isotype Control, (Cat. No. 559478).

### Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>559478</td>
<td>Purified Rat IgG2b, κ Isotype Control</td>
<td>0.25 mg</td>
<td>A95-1</td>
</tr>
<tr>
<td>550327</td>
<td>Biotin Mouse Anti-Rat IgG2b</td>
<td>1.0 ml</td>
<td>G15-337</td>
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<tr>
<td>550946</td>
<td>Streptavidin HRP</td>
<td>50 ml</td>
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<tr>
<td>550880</td>
<td>DAB Substrate Kit</td>
<td>500 tests</td>
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<tr>
<td>551013</td>
<td>Anti-Rat Ig HRP Detection Kit</td>
<td>200 tests</td>
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</table>

### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. This antibody has been developed for the immunohistochemistry application. However, a routine immunohistochemistry test is not performed on every lot. Researchers are encouraged to titrate the reagent for optimal performance.
5. An isotype control should be used at the same concentration as the antibody of interest.
6. Please refer to wwwbdbiosciences.com/pharmingen/protocols for technical protocols.

### References

- 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)

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