



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

#53170 store at +4C

## Ly-6G/Ly-6C (Gr-1) (RB6-8C5) Rat mAb (APC Conjugate)

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-L	M	Endogenous	Rat IgG2b	#P35461	546644

### Product Usage Information

For optimal flow cytometry results, we recommend 0.125 µg of antibody per test.

#### Application

Flow Cytometry (Live)

#### Dilution

1:160

### Storage

Supplied in 10 mM NaH<sub>2</sub>PO<sub>4</sub>, 150 mM NaCl, 0.09% NaN<sub>3</sub>, 0.1% gelatin, pH 7.2. This product is stable for 12 months when stored at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

### Specificity/Sensitivity

Ly-6G/Ly-6C (Gr-1) (RB6-8C5) Rat mAb (APC Conjugate) recognizes endogenous levels of total Ly-6G/Ly-6C (Gr-1) protein. This antibody detects an epitope within the extracellular domain.

### Source / Purification

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.

### Description

This Cell Signaling Technology antibody is conjugated to APC and tested in-house for direct flow cytometric analysis in mouse cells.

### Background

The Ly-6 complex is a series of genes found on chromosome 15. These genes code for a number of different proteins that can be used as surface markers. The family members vary in their biologic expression and have been shown to be involved in cell signaling and cell adhesion (1). The structure of these proteins includes a motif known as the LU domain that has three loops comprised of disulfide bonds. These bonds are formed by 8 to 10 cysteines that can cause differences in the length of the loops as well as the sequences at each tip (2,4). There are 11 known Ly-6 genes on murine chromosome 15 that code for different proteins. These family members, excluding secreted Ly6/Plaur domain containing 1 coded by the *Slurp1* gene, are attached to the cell surface by a GPI anchor near the C terminus. The structure of these proteins may play a role in transmembrane interactions, and downstream signaling cascades (1,2). Ly-6 proteins have been widely used as differentiation markers on hematopoietic cells. The ability to isolate and express specific Ly-6 antibodies through hybridoma technology has allowed researchers to identify unique proteins (1). These proteins are expressed on subsets of immune cells at different stages of development, such as T cells, B cells, monocytes, granulocytes, and macrophages (1-5).

The 1A8 clone is specific to Ly-6G, which is used as a marker for mouse neutrophils (2,3). It is also expressed by mouse polymorphonuclear myeloid-derived suppressor cells (PMN-MDSCs) (6). The RB6-8C5 clone recognized both Ly-6G and Ly-6C, also known as Gr-1, and has been found to express on neutrophils, monocytes, dendritic cells, and T cells (2,3).

### Background References

1. Bamezai, A. *Arch Immunol Ther Exp (Warsz)* 52, 255-66.
2. Lee, P.Y. et al. (2013) *J Leukoc Biol* 94, 585-94.
3. Fleming, T.J. et al. (1993) *J Immunol* 151, 2399-408.
4. Tsetlin, V. (1999) *Eur J Biochem* 264, 281-6.
5. Pflugh, D.L. et al. (2000) *J Immunol* 165, 313-21.
6. Bronte, V. et al. (2016) *Nat Commun* 7, 12150.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Applications Key

**FC-L:** Flow Cytometry (Live)

### Cross-Reactivity Key

**M:** Mouse

### Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit [cellsignal.com/trademarks](http://cellsignal.com/trademarks) for more information.

## Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.