## PE/Cy7 anti-mouse Ly-6G/Ly-6C (Gr-1)

Catalog # / Size: 1142075 / 25 µg

1142080 / 100 µg

Clone: **RB6-8C5** 

Rat IgG2b, ĸ

Raised against granulocytes of mouse Immunogen:

origin

**Reactivity:** Mouse

Isotype:

The antibody was purified by affinity **Preparation:** 

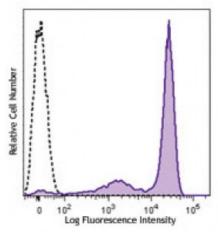
> chromatography, and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7

and unconjugated antibody.

Phosphate-buffered solution, pH 7.2, Formulation:

containing 0.09% sodium azide.

Concentration: 0.2



C57BL/6 mouse bone marrow cells were stained with Ly-6G/Ly-6C (clone RB6-8C5) PE/Cy7 (filled histogram) or rat IgG2b, K PE/Cv7 isotype control (open histogram). Data shown was gated on myeloid cell population.

## **Applications:**

**Applications:** Flow Cytometry

Recommended

Usage:

Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is  $\leq 0.25$  microg per  $10^6$  cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each

application.

**Application** Notes: Clone RB6-8C5 binds with high affinity to mouse Ly-6G molecules and to a lower extent to Ly-6C<sup>19</sup>. Clone RB6-8C5 impairs the binding of anti-mouse Ly-6G clone 1A8<sup>19</sup>. However, clone RB6-8C5 is able to stain in the presence of anti-mouse Ly-6C clone HK1.4<sup>20</sup>.

The RB6-8C5 antibody has been used to identify peripheral blood neutrophils and deplete granulocytes in vivo. Additional reported applications (for relevant formats of this clone) include: in vitro complement-mediated cytotoxicity2, in vivo depletion<sup>3-5,9</sup>, immunoprecipitation1, immunohistochemical staining<sup>6</sup> (including paraffin-embedded sections<sup>9,16</sup>, acetone-fixed frozen sections<sup>11</sup> and zinc-fixed sections<sup>15</sup>), and Western blotting<sup>7</sup>. RB6-8C5 is not suitable for depletion of hepatic myeloid derived suppressor cells (MDSCs)<sup>20</sup>.

**Special Note:** The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 108414). For in vivo studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 108436) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin < 0.01 EU/microg).

**Application** References:

- 1. Fleming TJ, et al. 1993. J. Immunol. 151:2399. (IP)
- 2. Brummer E, et al. 1984. J. Leukocyte Biol. 36:505. (CMCD)
- 3. Stoppacciaro A, et al. 1993. J. Exp. Med. 178:151. (Deplete)
- 4. Tumpey TM, et al. 1996. J. Virol. 70:898. (Deplete)

- 5. Czuprynski CJ, et al. 1994. J. Immunol. 152:1836. (Deplete)
- 6. Nitta H, et al. 1997. Cell Vision 4:73. (IHC)
- 7. Jutila MA, et al. 1988. Eur. J. Immunol. 18:1819. (WB)
- 8. Engwerda CR, et al. 2004. Am. J. Pathol. 165:2123.
- 9. Brown CR, et al. 2004. Infect. Immun. 72:4956. (Deplete, IHC)
- 10. Andoniou CE, et al. 2005. Nature Immunology 6:1011. (FC) PubMed
- 11. Li M, et al. 2006. P. Natl. Acad. Sci USA 103:11736. (IHC)
- 12. Dzhagalov I, et al. 2007. Blood 109:1620. (FC) PubMed
- 13. Fazilleau N, et al. 2007. Nature Immunol. 8:753. (FC) PubMed
- 14. Heuser M, et al. 2007. Blood 110:1639. (FC) PubMed
- 15. Wang T, et al. 2007. Infect. Immun. 75:1144. (IHC)
- 16. Bosio CM, et al. 2007. J. Immunol. 178:4538. (IHC)
- 17. Boehme SA, et al. 2009. Int. Immunol. 21:81. (IHC)
- 18. Piao Y, et al. 2012. Neuro Oncol. 14:1379. PubMed
- 19. Ribechini E, et al. 2009. Eur. J. Immunol. 39:3538.
- 20. Ma C, et al. 2012. J. Leukoc. Biol. 92:1199.
- 21. Hoffmann O, et al. 2015. Infect Immun. 83:259. PubMed
- 22. Esser-von Bieren J, et al. 2015. J Immunol. 194:1154. PubMed
- 23. Davis MJ, et al. 2015. J Immunol. 194:2219. PubMed
- 24. Gritsina G, et al. 2015. Mol Cancer Ther. 14:1035. PubMed

## **Description:** Gr-1 is a 21-25 kD protein also known as Ly-6G/Ly-6C. This myeloid differentiation

antigen is a glycosylphosphatidylinositol (GPI)-linked protein expressed on granulocytes and macrophages. In bone marrow, the expression levels of Gr-1 directly correlate with granulocyte differentiation and maturation; Gr-1 is also transiently expressed on bone marrow cells in the monocyte lineage. Immature Myeloid Gr-1+ cells play a role in the development of antitumor immunity.

## Antigen References:

- 1. Fleming TJ, et al. 1993. J. Immunol. 151:2399.
- 2. Jutila MA, et al. 1988. Eur. J. Immunol. 18:1819.
- 3. Goni O, et al. 2002. Int. Immunol. 14:1125.