

Biotin anti-mouse Ly-6G/Ly-6C (Gr-1)

Catalog # / Size: 1142020 / 500 µg
1142015 / 50 µg

Clone: RB6-8C5

Isotype: Rat IgG2b, κ

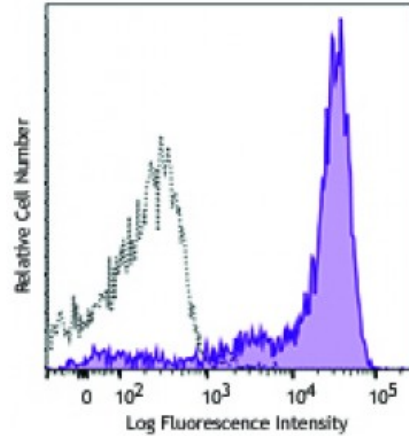
Immunogen: Raised against granulocytes of mouse origin

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5



C57BL/6 mouse bone marrow stained with biotinylated Ly-6G/Ly-6C (clone RB6-8C5, filled histogram) or biotinylated Rat IgG2b, κ isotype control (open histogram), followed by streptavidin PE.

Applications:

Applications: Other

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. The suggested use of this reagent is ≤ 0.25 microg per 10⁶ 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-6C¹⁹. Clone RB6-8C5 impairs the binding of anti-mouse Ly-6G clone 1A8¹⁹. However, clone RB6-8C5 is able to stain in the presence of anti-mouse Ly-6C clone HK1.4²⁰.

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^{3-5,9}, immunoprecipitation¹, immunohistochemical staining⁶ (including paraffin-embedded sections^{9,16}, acetone-fixed frozen sections¹¹ and zinc-fixed sections¹⁵), and Western blotting⁷. RB6-8C5 is not suitable for depletion of hepatic myeloid derived suppressor cells (MDSCs)²⁰.

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. Roderick JE, *et al.* 2014. *PNAS.* 111:14436. [PubMed](#)
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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.