Brilliant Violet 605™ anti-mouse Ly-6G/Ly-6C (Gr-1)

Catalog # / Size: 1142195 / 125 μl

1142200 / 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 Brilliant Violet 605™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 605™ and

unconjugated antibody.

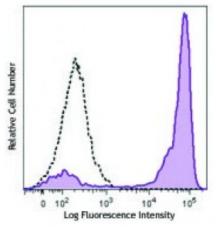
Formulation: Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide and BSA

(origin USA).

Concentration: microg sizes: 0.2 mg/ml

microL sizes: lot-specific



C57BL/6 mouse bone marrow cells were stained with Ly-6G/Ly-6C (clone RB6-8C5) Brilliant Violet 605™ (filled histogram) or rat IgG2b, κ Brilliant Violet 605™ isotype control (open histogram). Data shown was gated on myeloid

cell populati

Applications:

Applications: Flow Cytometry

Recommended

Usage:

Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining using the microg size, the suggested use of this reagent is ≤ 0.5 microg per million cells in 100 microL volume. For immunofluorescent staining using the microL size, the suggested use of this reagent is ≤ 5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 605^{TM} excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 605^{TM} is a trademark of Sirigen Group Ltd.

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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 $1A8^{19}$. 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.

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.