

## Alexa Fluor® 647 anti-mouse Ly-6G/Ly-6C (Gr-1) Antibody

<b>Catalog# / Size</b>	108420 / 25 µg 108418 / 100 µg
<b>Clone</b>	RB6-8C5
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Gr-1
<b>Isotype</b>	Rat IgG2b, κ
<b>Description</b>	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.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Raised against granulocytes of mouse origin
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per 10 <sup>6</sup> cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.  * Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.  Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.  <a href="#">View full statement regarding label licenses</a>
<b>Excitation Laser</b>	Red Laser (633 nm)
<b>Application Notes</b>	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 <i>in vivo</i> . Additional reported applications (for relevant formats of this clone) include: <i>in vitro</i> complement-mediated cytotoxicity <sup>2</sup> , <i>in vivo</i> depletion <sup>3-5,9</sup> , immunoprecipitation <sup>1</sup> , immunohistochemical staining <sup>6</sup> (including paraffin-embedded sections <sup>9,16,33-35</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> .  <b>Special Note:</b> For <i>in vivo</i> studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 108436).

## 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. Li J, *et al.* 2012. *Arthritis Rheum.* 64:1098. [PubMed](#)
22. Fan Q, *et al.* 2014. *Cancer Res.* 74:471. [PubMed](#)
23. Korror MJ, *et al.* 2014. *PLoS One.* 9:91370. [PubMed](#)
24. Morshed M, *et al.* 2014. *J Immunol.* 192:5314. [PubMed](#)
25. Collins C, *et al.* 2014. *PNAS.* 111:9899. [PubMed](#)
26. Madireddi S, *et al.* 2014. *J Exp Med.* 211:1433. [PubMed](#)
27. Bianchi G, *et al.* 2014. *Cell Death Dis.* 5:1135. [PubMed](#)
28. Guo H, *et al.* 2014. *J Leukoc Biol.* 96:419. [PubMed](#)
29. Roderick JE, *et al.* 2014. *PNAS.* 111:14436. [PubMed](#)
30. Distel E, *et al.* 2014. *Circ Res.* 115:759. [PubMed](#)
31. Iwai H, *et al.* 2015. *Tuberculosis.* 95:246. [PubMed](#)
32. Charmsaz S, *et al.* 2015. *PLoS One.* 10:130692. [PubMed](#)
33. Whiteland J, *et al.* 1994 *J Histochem Cytochem* 43:3 (IHC-P)
34. Brown C, *et al.* 2003 *J Immunology* 171:2 (IHC-P)
35. Obregon-Henao A, *et al.* PLoS One 8:11 (IHC-P)

## Product Citations

1. Tan L, *et al.* 2022. *Biochem Biophys Rep.* 32:101351. [PubMed](#)
2. Tarban N, *et al.* 2022. *Cells.* 11:. [PubMed](#)
3. Wang J, *et al.* 2012. *Blood.* 120:1489. [PubMed](#)
4. Ni J, *et al.* 2022. *Mol Med.* 28:65. [PubMed](#)
5. Demars A, *et al.* 2021. *PLoS Pathog.* 17:e1009887. [PubMed](#)
6. Shaw O, Harper J 2011. *Biochem Biophys Res Commun.* 416:266. [PubMed](#)
7. Zhang H, *et al.* 2017. *Leukemia.* 10.1128/mBio.00226-17. [PubMed](#)
8. Koliaraki V *et al.* 2019. *Cell reports.* 26(3):536-545 . [PubMed](#)
9. Bittner–Eddy PD, *et al.* 2017. *Front Immunol.* 1.304166667. [PubMed](#)
10. Chen G, *et al.* 2015. *Sci Rep.* 5: 14780. [PubMed](#)
11. Meraz I, *et al.* 2014. *PLoS One.* 9:94703. [PubMed](#)
12. Wheeler R, Gull E 2015. *Nat Commun.* 6: 8964. [PubMed](#)
13. Bouchery T, *et al.* 2020. *Cell Host & Microbe.* 27(2):277-289. [PubMed](#)
14. Biburger M, Nimmerjahn F 2012. *Immunol Lett.* 143:53. [PubMed](#)
15. Tummers B, *et al.* 2020. *Immunity.* 52(6):994-1006.e8. [PubMed](#)
16. Kim K, *et al.* 2013. *J Vis Exp.* 74: 50329. [PubMed](#)
17. Budai Z, *et al.* 2021. *Cells.* 10:. [PubMed](#)
18. Hahm E, *et al.* 2016. *Nat Med.* 23:100-106. [PubMed](#)
19. Hendrikx S *et al.* 2019. *Cell reports.* 26(5):1227-1241 . [PubMed](#)
20. Rosznagl S, *et al.* 2016. *PLoS Biol.* 14: 1002562. [PubMed](#)
21. Al-Zaeed N, *et al.* 2021. *Cell Death Dis.* 12:611. [PubMed](#)

## RRID

AB\_493481 (BioLegend Cat. No. 108420)  
AB\_389331 (BioLegend Cat. No. 108418)

## Antigen Details

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<b>Structure</b>	21-25 kD
<b>Distribution</b>	Granulocytes, monocytes
<b>Cell Type</b>	Granulocytes, Monocytes, Neutrophils
<b>Biology Area</b>	Immunology, Innate 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.

Gene ID [17067](#)  
[546644](#)

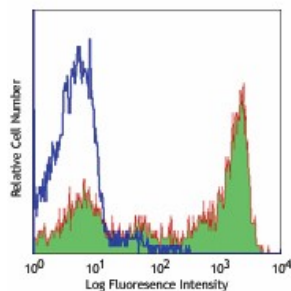
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

APC anti-mouse Ly-6G/Ly-6C (Gr-1), Biotin anti-mouse Ly-6G/Ly-6C (Gr-1), FITC anti-mouse Ly-6G/Ly-6C (Gr-1), PE anti-mouse Ly-6G/Ly-6C (Gr-1), PE/Cyanine5 anti-mouse Ly-6G/Ly-6C (Gr-1), Purified anti-mouse Ly-6G/Ly-6C (Gr-1), PE/Cyanine7 anti-mouse Ly-6G/Ly-6C (Gr-1), Alexa Fluor® 488 anti-mouse Ly-6G/Ly-6C (Gr-1), Alexa Fluor® 647 anti-mouse Ly-6G/Ly-6C (Gr-1), Alexa Fluor® 700 anti-mouse Ly-6G/Ly-6C (Gr-1), Brilliant Violet 711™ anti-mouse Ly-6G/Ly-6C (Gr-1), APC/Cyanine7 anti-mouse Ly-6G/Ly-6C (Gr-1), Pacific Blue™ anti-mouse Ly-6G/Ly-6C (Gr-1), PerCP/Cyanine5.5 anti-mouse Ly-6G/Ly-6C (Gr-1), PerCP anti-mouse Ly-6G/Ly-6C (Gr-1), Brilliant Violet 421™ anti-mouse Ly-6G/Ly-6C (Gr-1), Brilliant Violet 570™ anti-mouse Ly-6G/Ly-6C (Gr-1), Ultra-LEAF™ Purified anti-mouse Ly-6G/Ly-6C (Gr-1), Brilliant Violet 510™ anti-mouse Ly-6G/Ly-6C (Gr-1), Brilliant Violet 605™ anti-mouse Ly-6G/Ly-6C (Gr-1), Brilliant Violet 650™ anti-mouse Ly-6G/Ly-6C (Gr-1), Alexa Fluor® 594 anti-mouse Ly-6G/Ly-6C (Gr-1), Purified anti-mouse Ly-6G/Ly-6C (Gr-1) (Maxpar® Ready), PE/Dazzle™ 594 anti-mouse Ly-6G/Ly-6C (Gr-1), APC/Fire™ 750 anti-mouse Ly-6G/Ly-6C (Gr-1), TotalSeq™-A0116 anti-mouse Ly-6G/Ly-6C (Gr-1), TotalSeq™-C0116 anti-mouse Ly-6G/Ly-6C (Gr-1), TotalSeq™-B0116 anti-mouse Ly-6G/Ly-6C (Gr-1), Spark Blue™ 550 anti-mouse Ly-6G/Ly-6C (Gr-1), APC/Fire™ 810 anti-mouse Ly-6G/Ly-6C (Gr-1), Spark Violet™ 423 anti-mouse Ly-6G/Ly-6C (GR-1) Antibody, Spark UV™ 387 anti-mouse Ly-6G/Ly-6C (GR-1)

## Product Data



C57BL/6 mouse bone marrow (gated on myeloid cell population) stained with Ly-6G/Ly-6C (clone RB6-8C5) Alexa Fluor® 647 (filled histogram) or rat IgG2b, κ Alexa Fluor® 647 isotype control (open histogram).

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