

Datasheet: MCA2387PB

## **BATCH NUMBER 161125**

RAT ANTI MOUSE Gr-1:Pacific Blue®		
Gr-1		
y-6G		
acific Blue®		
lonoclonal Antibody		
RB6-8C5		
gG2b		
JOZD		

# **Product Details**

## **Applications**

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry				Neat

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Mouse		
Product Form	Purified IgG conjuga	ted to Pacific Blue® - li	quid
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm
	Pacific Blue®	410	455
Buffer Solution	supernatant  Phosphate buffered s	d by affinity chromatogo	
Preservative Stabilisers	0.09% Sodium Azide		
Approx. Protein		05 mg/ml	

#### Concentrations

			en	

Normal murine bone marrow cells.

# External Database Links

#### **UniProt:**

P35461 Related reagents

### **Entrez Gene:**

546644 Ly6g Related reagents

### **Specificity**

Rat anti Mouse Gr-1 antibody, clone RB6-8C5 recognizes the mouse Gr-1 antigen, a ~21–25 kDa GPI anchored cell surface protein bearing a single uPAR/Ly6 domain that belongs to the Ly-6 family of proteins (Lee *et al.* 2013). Rat anti Mouse Gr-1 antibody, clone RB6-8C5 reacts predominantly with the Ly-6G protein but weaker reactivity with the Ly-6C protein has been reported (Fleming *et al.* 1993). However, other observations dispute the cross-reactivity of clone RB6-8C5 with the Ly-6C protein with the alternative explanation that certain sub-populations of bone marrow cells simultaneously express both Ly-6C and Ly-6G (Nagendra *et al.* 2007)

The Gr-1 antigen is primarily a marker of myeloid differentiation. In the bone marrow the level of Gr-1 expression is low on immature myeloblasts and increases as the myeloid cells mature to granulocytes. Gr-1 is also expressed on macrophages and transiently on differentiating monocytes.

Rat anti Mouse Gr-1 antibody, clone RB6-8C5 has been used successfully for the depletion of mature neutrophils *in vivo* (Czuprynski *et al* 1994, Daley *et al*. 2008).

### Flow Cytometry

Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul

#### References

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- 3. Czuprynski, C.J. *et al.* (1994) Administration of anti-granulocyte mAb RB6-8C5 impairs the resistance of mice to *Listeria monocytogenes* infection. J Immunol. 152 (4): 1836-46.
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- 6. Giroux, M. *et al.* (2011) SMAD3 prevents graft-versus-host disease by restraining Th1 differentiation and granulocyte-mediated tissue damage. Blood.117: 1734-44.
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- 9. Kanda, N. *et al.* (2011) Visfatin Enhances CXCL8, CXCL10, and CCL20 Production in Human Keratinocytes. <u>Endocrinology</u>. 152: 3155-64.
- 10. Conlan, J. and North, R. (1994) Neutrophils are essential for early anti-*Listeria* defense in the liver, but not in the spleen or peritoneal cavity, as revealed by a granulocyte-depleting monoclonal antibody. <u>J Exp Med. 179:259-68.</u>
- 11. Takebe, M. *et al.* (2014) Inhibition of histone deacetylases protects septic mice from lung and splenic apoptosis. <u>J Surg Res. 187 (2): 559-70.</u>
- 12. Francke, A. *et al.* (2011) Generation of mature murine monocytes from heterogeneous bone marrow and description of their properties. J Histochem Cytochem. 59: 813-25.
- 13. Sharp, P.E. *et al.* (2013) FcγRIIb on myeloid cells and intrinsic renal cells rather than B cells protects from nephrotoxic nephritis. J Immunol.190: 340-8.
- 14. Hamers, A.A. *et al.* (2014) Limited role of nuclear receptor Nur77 in *Escherichia coli*-induced peritonitis. Infect Immun. 82 (1): 253-64.
- 15. Roche, J.A. *et al.* (2015) Myofiber damage precedes macrophage infiltration after *in vivo* injury in dysferlin-deficient a/j mouse skeletal muscle. <u>Am J Pathol. 185 (6): 1686-98.</u>
- 16. Lee, Y.S. *et al.* (2015) Interleukin-1 (IL-1) signaling in intestinal stromal cells controls KC/ CXCL1 secretion, which correlates with recruitment of IL-22- secreting neutrophils at early stages of *Citrobacter rodentium* infection. Infect Immun. 83 (8): 3257-67.
- 17. Heckelsmiller, K. *et al.* (2002) Combined dendritic cell- and CpG oligonucleotide-based immune therapy cures large murine tumors that resist chemotherapy. <u>Eur J Immunol. 32</u> (11): 3235-45.
- 18. Zhang, M.Z. *et al.* (2015) Inhibition of cyclooxygenase-2 in hematopoietic cells results in salt-sensitive hypertension. J Clin Invest. 125 (11): 4281-94.
- 19. Leblond, A.L. *et al.* (2015) Systemic and Cardiac Depletion of M2 Macrophage through CSF-1R Signaling Inhibition Alters Cardiac Function Post Myocardial Infarction. PLoS One. 10 (9): e0137515.
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- 22. Wang, Y. *et al.* (2015) Proximal tubule-derived colony stimulating factor-1 mediates polarization of renal macrophages and dendritic cells, and recovery in acute kidney injury. Kidney Int. 88 (6): 1274-1282.
- 23. Cousins, F.L. *et al.* (2016) Evidence for a dynamic role for mononuclear phagocytes during endometrial repair and remodelling. <u>Sci Rep. 6: 36748.</u>
- 24. Cotrina ML *et al.* (2017) Direct comparison of microglial dynamics and inflammatory profile in photothrombotic and arterial occlusion evoked stroke. <u>Neuroscience</u>. 343: 483-94.
- 25. Kamata, M. *et al.* (2019) Role of the high-affinity leukotriene B<sub>4</sub> receptor signaling in fibrosis after unilateral ureteral obstruction in mice. PLoS One. 14 (2): e0202842.
- 26. Natanov, R. *et al.* (2018) Blood cytokine expression correlates with early multi-organ damage in a mouse model of moderate hypothermia with circulatory arrest using cardiopulmonary bypass. <u>PLoS One. 13 (10): e0205437.</u>
- 27. Idowu, T.O. et al. (2020) Identification of specific Tie2 cleavage sites and therapeutic

modulation in experimental sepsis. Elife. 9: e59520.

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

12 months from date of despatch

Acknowledgements

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**Health And Safety** Information

Material Safety Datasheet documentation #10041 available at:

https://www.bio-rad-antibodies.com/SDS/MCA2387PB

10041

Regulatory

For research purposes only

# Related Products

### **Recommended Negative Controls**

RAT IgG2b NEGATIVE CONTROL:Pacific Blue® (MCA6006PB)

## **Recommended Useful Reagents**

MOUSE SEROBLOCK FcR (BUF041A) MOUSE SEROBLOCK FcR (BUF041B)

North & South Tel: +1 800 265 7376

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Europe

Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50

America Fax: +1 919 878 3751

Email: antibody\_sales\_us@bio-rad.com

Email: antibody\_sales\_uk@bio-rad.com

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M366764:200529'

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