Product Datasheet
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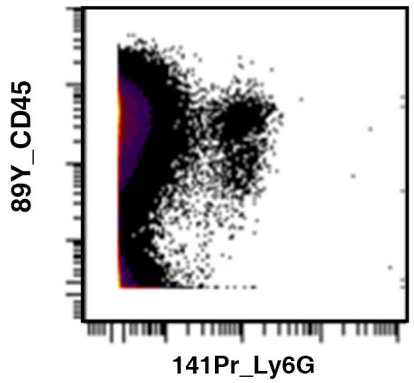
Leinco Technologies, Inc.
excellence in early discovery research™

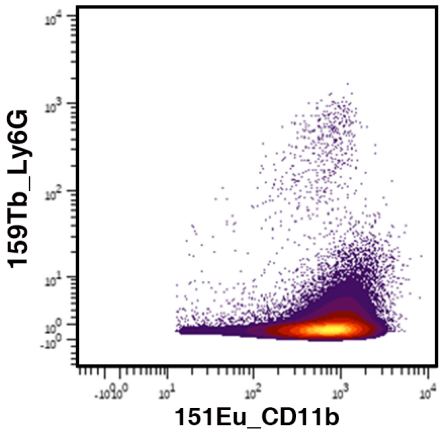
Mouse Ly6G Antibody
Purified in vivo Gold™ Functional Grade
Monoclonal Antibody

Product Information

Product No.:	L280
Clone:	1A8
RRID:	AB_2737551
Isotype:	Rat IgG2a κ
Storage:	Sterile 2 to 8°C



CyTof™ Data: A single cell suspension from a 129 S6 murine tumor were stained after using Fluidigm Metal Labeling Kits to conjugate antibody clone 1A8 (mouse Ly-6G) & Clone I3/2.3 (mouse CD45) above. Total CD45+ viable cells are displayed in the analysis.



CyTOF™ Data: Staining of Murine MCA Sarcoma was stained after using a metal conjugation kit to clone 1a8, Anti-Mouse Ly6G above.

Product Description

Specificity:
Ly6G antibody (clone 1A8) recognizes an epitope on mouse Ly6G. Clone 1A8 does not cross react with Ly6C.

Antigen Distribution:
Ly6G is expressed by neutrophils.

Background:
Ly6G antibody (clone 1A8) recognizes lymphocyte antigen 6 complex locus G6D (Ly6G; also called Gr-1), a 21-25 kDa glycosylphosphatidylinositol (GPI)-anchored protein[1]. Ly6G belongs to the lymphocyte antigen-6 (Ly6)/urokinase-type plasminogen activator receptor (uPAR) superfamily, characterized by a Ly6/uPAR (LU) domain-containing a three-fingered structural motif stabilized by disulfide bonds[2]. Ly6G is expressed by murine neutrophils regardless of location and activation[1,4,5]. Eosinophils may also express low levels of Ly6G[5]. There is no human ortholog for Ly6G; however, a structurally related L76/uPAR protein, CD177 (also known as HNA-2a, NB1, or PRV-1) is expressed in human neutrophils and is implicated in neutropenia[6]. Although the exact function and ligand of Ly6G remain unknown, Ly6G ligation may impair neutrophil migration to sites of inflammation via a β2-integrin-dependent mechanism[7].

Known Reactivity Species:
Mouse

Format:
Purified *in vivo* GOLD™ Functional Grade

Immunogen:
Mouse Ly-6G transfected EL-4J cell line

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Formulation
This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

Purity
≥95% monomer by analytical SEC, >95% by SDS Page

Endotoxin
< 1.0 EU/mg as determined by the LAL method

Storage and Stability
Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C.
Avoid Repeated Freeze Thaw Cycles.

Product Preparation
Functional grade preclinical antibodies are manufactured in an animal free facility using *in vitro* cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Applications
Applications and Recommended Usage (Quality Tested By Leinco):

FC The suggested concentration for this Ly6G antibody (clone 1a8) for staining cells in flow cytometry is ≤ 0.25 µg per 10^6 cells in a volume of 100 µl. Titration of the reagent is recommended for optimal performance for each application.

Other Applications Reported in Literature:
CyTOF®
Depletion
IHC (Frozen)
IHC (Paraffin)
WB

Country of Origin
USA

References
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4) Lee PY, *et al.* (2013) *J Leukoc Biol.* 94(4):585-594
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6) Stroncek DF. *et al.* (2007) *Curr Opin Hematol.* 14(6):688-93
7) Wang JX, *et al.* (2012) *Blood.* 120(7):1489-1498
8) Gubin, M. *et al.* (2018) *Cell.* 175(4):1014–1030.e19 Journal Link
9) Lebratti, T.*et al.* (2021) *eLife* 10: e65762 Journal Link
10) Tzetzo, S. L., Kramer, E. D., Mohammadpour, H., Kim, M., Rosario, S. R., Yu, H., Dolan, M., Oturkar, C. C., Morreale, B., Bogner, P. N., Stablewski, A., Benavides, F., Brackett, C. M., Ebos, J. M., Das, G. M., Opyrchal, M., Nemeth, M. J., Evans, S. S., & Abrams, S. I. (2024). Downregulation of IRF8 in alveolar macrophages by G-CSF promotes metastatic tumor progression. *iScience*, 109187. https://doi.org/10.1016/j.isci.2024.109187