

Product Datasheet

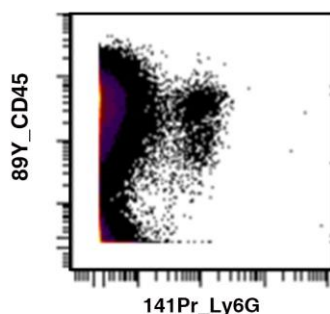
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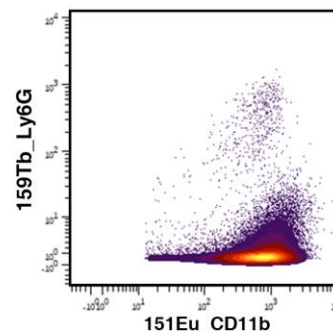
Anti-Mouse Ly6G Antibody Purified *in vivo* GOLD™ Functional Grade Monoclonal Antibody

Product Information

Product No.: L280
Clone: 1A8
RRID: AB_2737551
Isotype: Rat IgG2a κ
Storage: Sterile 2-8°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 protein¹. 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 bonds². Ly6G is expressed by murine neutrophils regardless of location and activation^{1,4,5}. Eosinophils may also express low levels of Ly6G⁵. 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 neutropenia⁶. Although the exact function and ligand of Ly6G remain unknown, Ly6G ligation may impair neutrophil migration to sites of inflammation via a β 2-integrin-dependent mechanism⁷.

Known Reactivity Species

Mouse

Format

in vivo GOLD™, Purified *in vivo* Functional Grade

Immunogen

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

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.**

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

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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 $\leq 0.25 \mu\text{g}$ 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

1. Fleming TJ, *et al.* (1993) *J Immunol.* **151**(5):2399-408
2. Tsetlin VI, *et al.* (2015) *Trends Pharmacol Sci.* **36**(2):109-23
3. Daley JM, *et al.* (2008) *J Leukoc Biol.* **83**(1):64-70
4. Lee PY, *et al.* (2013) *J Leukoc Biol.* **94**(4):585-594

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