abcam

ab320708

Anti-Ly6g antibody [1A8]- mouse IgG2c (Chimeric)- Low endotoxin, Azide free

Mouse Recombinant Monoclonal Ly6g antibody. Carrier free. Suitable for Flow Cyt, FuncS and reacts with Mouse samples. This clone shows superior depletion activity compared to the Rat Monoclonal Ly6g antibody.

Recombinant

Key facts

Isotype	IgG2c
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	1A8
Purification technique	Affinity purification
Concentration	0.65 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Mouse

Dilution info	1 µg/mL
Notes	Evaluation pack.

FuncS (Depl)

Tested

Species	Mouse
Dilution info	-
Notes	Use at 500 µg.

FuncS (Neut/Block)

Tested

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information Ly6g

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

This mouse monoclonal chimeric antibody has been engineered from a rat parent antibody (ab210204). By necessity, some rat sequence is retained as part of the variable domain. When multiplexing with other rat-derived antibodies, using cross absorbed Fc-reactive secondary antibodies are recommended.

Endotoxin Level: Less than or equal to 0.01 EU/µg, as determined by the LaL assay.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

What does low endotoxin mean?
Our low endotoxin, azide-free formats have low endotoxin level (1 EU/mg, determined by the TAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Ly6G also known as lymphocyte antigen 6 complex locus G6D 1A8 or 8C5 is a glycosylphosphatidylinositol (GPI)-anchored cell surface protein. The molecule has a molecular weight of about 25-30 kDa. Its expression is mainly on neutrophils and a subpopulation of eosinophils in mice. It plays a role in the innate immune system marking these immune cells for differentiation and response to infection. Researchers consider it a specific marker for detecting and isolating mouse neutrophils often using methods such as Ly6G staining or anti-Ly6G antibodies for identification.
Biological function summary	Ly6G functions in the immune response by facilitating the migration and adhesion of neutrophils to the site of infection or injury. It is part of a protein complex on the cell surface that includes other Ly6 proteins. This group of proteins helps to modulate signal transduction for immune cell functions. Ly6G serves as an anchor through its GPI linkage aiding cell-to-cell communication and signal amplification in inflammation processes.
Pathways	Ly6G is significantly integrated into the immune signaling pathways notably the toll-like receptor (TLR) signaling pathway. Through these pathways Ly6G influences

	neutrophil migration and activation. Closely associated proteins include CD11b and CD18 which interact with Ly6G in neutrophil functions including adhesion and transmigration. These pathways are essential for orchestrating the body's defense mechanisms against pathogens.
Associated diseases and disorders	Ly6G plays an essential role in inflammatory conditions and autoimmune diseases such as rheumatoid arthritis and systemic lupus erythematosus. Aberrant expression or function of Ly6G can alter neutrophil behavior which contributes to disease pathology. Researchers are investigating the relationship between Ly6G and other immune-related proteins like myeloperoxidase (MPO) and elastase as these protein interactions may impact the development and progression of inflammatory diseases.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

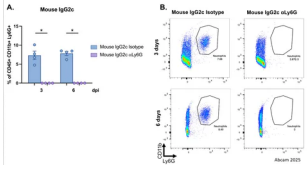
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

3 product images



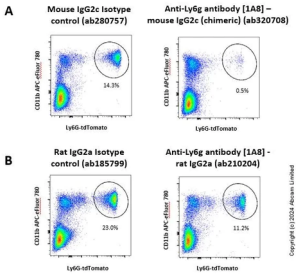
Functional Studies (Neut/Block) - Anti-Ly6g antibody [1A8]- mouse IgG2c (Chimeric)- Low endotoxin, Azide free (ab320708)

C57BL/6 WT mice were administered Anti-Ly6g antibody [1A8]- mouse IgG2c (Chimeric) -Low endotoxin, Azide free ab320708 and the corresponding isotype control ab280757 intraperitoneally

This image is courtesy of an anonymous customer review

at a dose of 200 µg per mouse every three days (72h). Peripheral blood was collected on days 3 and 6 to assess neutrophil depletion efficiency by gating CD11b+ Ly6G+ cells.
Figure A: Quantification of CD11b+ Ly6G+ cells in blood samples at different time point over the course treatment. Live cells CD45+ gated.

Figure B: Representative FACS plot of flow cytometric analysis of CD11b+ Ly6G+ over the course treatment.

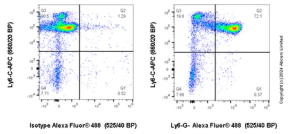


Functional Studies (Depl) - Anti-Ly6g antibody [1A8]- mouse IgG2c (Chimeric)- Low endotoxin, Azide free (ab320708)

Flow cytometric analysis of peripheral blood samples from neutrophil Ly6G-Tomato reporter mice 48h post intraperitoneal injection with 500 µg of anti-Ly6G [1A8] antibody mouse IgG2c (chimeric) (ab320708) (A) or Anti-Ly6g [1A8] antibody – rat IgG2a (ab210204) (B) and corresponding isotype controls.
ab320708 injections result in prolonged neutrophils depletion compared to ab210204.

Cells were stained with CD45 conjugated to PE-Cy7 and CD11b conjugated to APC-eFluor 780. Gated on viable CD45+ population for analysis of CD11+ Ly6G-tdTomato+ neutrophils.

Developed in collaboration with Tatyana Chtanova lab, Garvan Institute of Medical Research and UNSW Sydney, Australia.



Flow Cytometry - Anti-Ly6g antibody [1A8]- mouse IgG2c (Chimeric)- Low endotoxin, Azide free (ab320708)

Ly6g Flow Cytometry staining of C57 BL/6 mouse bone marrow cells using mouse Anti-Ly6g antibody

Flow cytometry staining of C57 BL/6 mouse bone marrow cells with ab320708 (right) or Mouse IgG2c, kappa monoclonal (ab170191), isotype control (left). Cells were incubated for 30 min on ice in 1x PBS containing 10%rat serum 10% normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody ab320708 or Mouse IgG2c, kappa monoclonal (ab170191), isotype control (1x 10e6 in 100 µl at 1.0 µg/ml) for 30min on ice. The cells were simultaneously stained with APC anti-mouse Ly-6C Antibody.

The secondary antibody Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min on ice.

Acquisition of >30000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter. Events were gated on live cells.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.