abcam

ab238132

Anti-Ly6g antibody [EPR22909-135]

Anti-Ly6g antibody [EPR22909-135] (ab238132) is a rabbit monoclonal antibody detecting Ly6g in **Flow Cytometry, IHC-P**. Suitable for **Mouse**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 40 publications

Lab Essentials | Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR22909-135
Purification technique	Affinity purification Protein A
Concentration	0.69 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Mouse, Transfected cell line
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Transfected cell line
Dilution info	1/600
Notes	-

Species	Mouse
Dilution info	1/600
Notes	-

WB

Not recommended

Species	Mouse, Transfected cell line
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Mouse, Transfected cell line
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse

Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Transfected cell line
Dilution info	-
Notes	-

Target data

See full target information Ly6g

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Product Specifications

Anti-Ly6g antibody [EPR22909-135] (ab238132) was developed by Abcam using patented rabbit monoclonal antibody technology and is validated for use in Flow Cyt, IHC-P in mouse samples.
Anti-Ly6g antibody [EPR22909-135] (ab238132) specifically detects Ly6g (UniProt ID: P35461; Molecular weight: 14kDa) and is sold in a convenient trial size to enable initial testing (20 µL) and larger sizes for subsequent scaling up experiments (100 µL and 1 mL).

Quality and Validation

Abcam's high quality manufacturing and validation processes ensure Anti-Ly6g antibody [EPR22909-135] (ab238132) has high sensitivity and specificity alongside high lot-to-lot consistency and reproducibility.
Anti-Ly6g antibody [EPR22909-135] (ab238132) has been cited over 45 times in peer reviewed journals and is trusted by the scientific community.

Related Products
Conjugation-ready, carrier free format available for antibody clone EPR22909-135 - ab261916.
Antibody clone EPR22909-135 is also available pre-conjugated to a variety of labels for your convenience - Alexa Fluor® 488, Alexa Fluor® 647, PE, APC, Alexa Fluor® 594, FITC (ab283276, ab303467, ab303605, ab303606, ab307167, ab322293).

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

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.

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

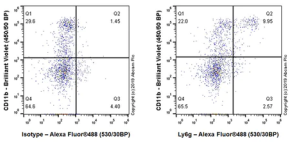
We do not recommend this combination. It is not covered by our product promise.

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.

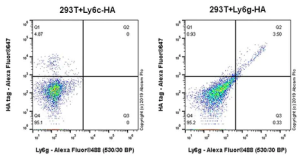
7 product images



Flow Cytometry - Anti-Ly6g antibody [EPR22909-135] (ab238132)

Ly6g Flow Cytometry staining using rabbit Anti-Ly6g antibody

Flow cytometric analysis of mouse peripheral blood mononuclear cell (PBMC) cells labeling Ly6g with ab238132 at 1/600 dilution. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
Cells were stained with isotype control rabbit monoclonal IgG ab172730 (Left) or ab238132 (Right), then stained with anti-CD11b conjugated to BV421.
Gated on viable cells.



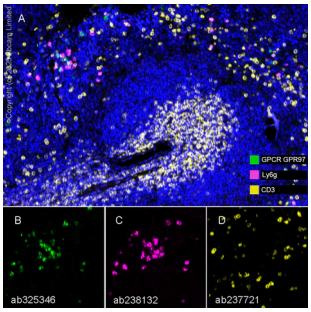
Flow Cytometry - Anti-Ly6g antibody [EPR22909-135] (ab238132)

Ly6g Flow Cytometry staining using rabbit Anti-Ly6g antibody

Flow cytometric analysis of HEK-293T (Human embryonic kidney epithelial cell) transfected with HA-tagged Ly6c overexpression construct (Left) / HEK-293T transfected with HA-tagged Ly6g overexpression construct (Right) cells, labeling Ly6g with ab238132 at 1/600 dilution. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody. Ly6c (Left) and Ly6g (Right) overexpression cells were surface stained with ab238132 and anti-HA tag conjugated to Alexa Fluor®647.

ab238132 does not cross-react with Ly6c.

Gated on viable cells.



Multiplex immunohistochemistry - Anti-Ly6g antibody [EPR22909-135] (ab238132)

Ly6g Multiplex immunohistochemistry staining of Mouse spleen using rabbit Anti-Ly6g antibody

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded mouse spleen tissue staining with ab325346 at a 1:5000 (0.099 µg/ml) dilution, ab238132 anti-Ly6g used at 1:100 (0.29 µg/ml) dilution and ab237721 anti-CD3 used at a 1:2000 (0.26 µg/ml) dilution.

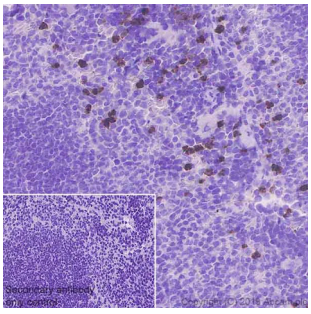
Panel A: anti-GPCR GPR97 (green; Opal™520), anti-Ly6g (magenta; Opal™690) and anti-CD3 (yellow; Opal™570) on mouse spleen.
Panel B: anti-GPCR GPR97 staining granulocytes in mouse spleen.
Panel C: anti-Ly6g staining neutrophils in mouse spleen.
Panel D: anti-CD3 staining T lymphocytes in mouse spleen.
Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab325346, ab238132 and ab237721 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Nuclear counter stain with DAPI.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



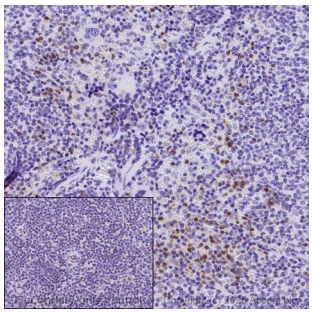
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ly6g antibody [EPR22909-135] (ab238132)

Ly6g Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Ly6g antibody

Immunohistochemical analysis of paraffin-embedded mouse spleen tissue labeling Ly6g with ab238132 at 1/2000 dilution (0.32 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on neutrophils in mouse spleen (PMID: 21976773) is observed. The section was incubated with ab238132 for 30 mins at RT. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

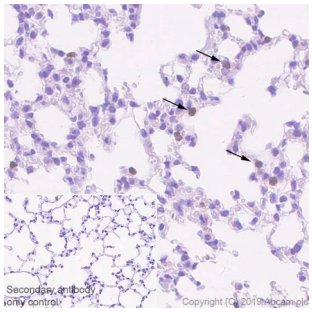
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ly6g antibody [EPR22909-135] (ab238132)

Ly6g Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Ly6g antibody

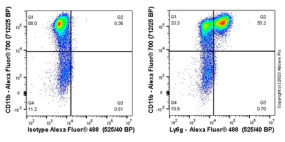
Immunohistochemical analysis of formalin fixed paraffin embedded mouse spleen labelling Ly6g with ab238132 at a concentration of 2µg/ml. The immunostaining was performed on a Ventana DISCOVERY ULTRA (Roche Tissue Diagnostics) instrument with a ChromoMap DAB kit and anti-rabbit HQ and anti-HQ HRP detection. Heat mediated antigen retrieval was performed with DISCOVERY cell conditioning solution (CC1) 100°C, pH8.5 for 32 mins. ab238132 Anti-Ly6g antibody [EPR22909-135] was incubated for 16 mins at 37°C. Sections were counterstained with Hematoxylin II. Image inset shows absence of staining in secondary antibody only control. Customers are encouraged to optimise antigen retrieval conditions, antibody concentration, incubation times and temperature for best results in their own IHC assay workflow (automated and manual).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ly6g antibody [EPR22909-135] (ab238132)

Immunohistochemical analysis of paraffin-embedded mouse lung tissue labeling Ly6g with ab238132 at 1/2000 dilution (0.32 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on neutrophils in mouse lung (PMID: 22434870) is observed. The section was incubated with ab238132 for 30 mins at RT. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Flow Cytometry - Anti-Ly6g antibody [EPR22909-135] (ab238132)

Ly6g Flow Cytometry staining using rabbit Anti-Ly6g antibody

Flow cytometry staining of C57 BL/6 mouse bone marrow cells with ab238132 (right) or Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control (left). Cells were incubated for 30 min on ice in 1x PBS containing 10µg/ml anti CD16/CD32 and 10% normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody ab238132 or Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control (1x 106 in 100 µl at 0.04 µg/ml (1/58750)) for 30min on ice. The cells were simultaneously stained with CD11b.

The secondary antibody Goat Anti-Rabbit 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 viable cells.

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