abcam

ab305230

Anti-LY6C antibody [EPR27220-67] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
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	EPR27220-67
Purification technique	Affinity purification Protein A
Concentration	1.006 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Mouse, Human, Rat
Dilution info	-

Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Target data

See full target information Ly6c1

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

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.

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.

Supplementary info

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

Activity summary	Ly6c also known as Ly-6C is a protein marker with a molecular weight of approximately 18 kDa. It is part of the Ly6 family of glycosylphosphatidylinositol (GPI)-anchored cell surface proteins. Ly6c is predominantly expressed in mice on the surface of certain immune cells including monocytes macrophages dendritic cells and subsets of T cells. The expression levels can vary depending on the cell type and the activation or developmental stage of the cell. Ly6c serves as a useful marker in immunological studies to distinguish between different subsets of monocytes commonly identified as Ly6c^high and Ly6c^low populations.
Biological function summary	Ly6c is involved in the differentiation and trafficking of immune cells. It is not known to be part of a larger protein complex. In the immune system the Ly6c marker is critical for distinguishing between classical and non-classical monocytes in mice. Classical monocytes expressing high levels of Ly6c are involved in rapid response to inflammatory stimuli while non-classical monocytes with lower Ly6c expression help in patrolling blood vessels. This distinction is important in understanding how the immune system responds to various infections and how the body maintains immune homeostasis.
Pathways	Ly6c plays a role in the monocyte recruitment and differentiation pathways. It is closely related to the chemokine signaling pathway influencing how immune cells migrate towards sites of inflammation or injury. The presence of the Ly6c2 protein an isoform of Ly6c helps modulate these responses by interacting with cytokines and chemokines that guide the trafficking of immune cells. The presence of Ly6c influences the activity of proteins like CCR2 which plays a significant role in chemotaxis in response to inflammation.
Associated diseases and disorders	Ly6c is associated with inflammatory and autoimmune conditions. For example high Ly6c expression has been linked to inflammatory bowel disease (IBD) and atherosclerosis. In IBD the ability of Ly6c^high monocytes to migrate to the gut and promote inflammation is well-documented. Similarly in atherosclerosis the recruitment of Ly6c^high monocytes to blood vessels contributes to plaque formation. In these contexts proteins like MCP-1 (also known as CCL2) interact with Ly6c-expressing cells facilitating their movement and function in disease processes. Understanding the role of Ly6c in these conditions might help develop targeted therapies to mitigate chronic inflammation and related 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.

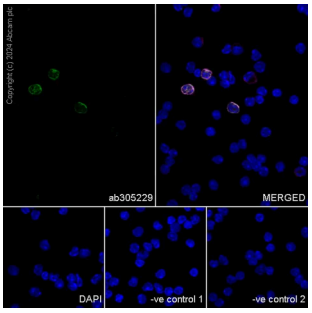
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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4 product images



Immunocytochemistry/ Immunofluorescence - Anti-LY6C antibody [EPR27220-67] - BSA and Azide free (ab305230)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Tween-20 permeabilized Mouse splenocyte cells labelling LY6C with ab305229 at a 1/100 dilution, followed by Goat Anti-Rabbit (Alexa Fluor® 488) (ab150081) secondary antibody at a 1/1000 dilution. Confocal image showing cytoplasmic staining in subsets of mouse splenocytes (shown in green), which is partially co-located with CD11b. Nuclear DNA was labeled with DAPI (shown in blue).

Counterstained with Anti-CD11b Rat monoclonal antibody (ab8878) at a 1/1000 dilution, followed by Goat Anti-Rat IgG H&L (Alexa Fluor® 594) (ab150160) at a 1/1000 dilution (shown in magenta).

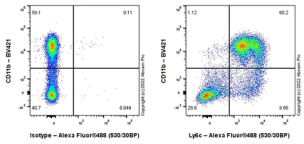
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

The negative controls are as follows:

-ve control 1: LY6C (ab305229) at a 1/100 dilution, followed by Goat anti-Rat IgG H&L (Alexa Fluor® 594) (ab150160) secondary at a 1/1000 dilution.

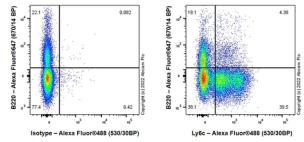
-ve control 2: Anti-CD11b Rat monoclonal antibody (ab8878) at a 1/200 dilution, followed by Goat anti-Rabbit (Alexa Fluor® 488) (ab150081) at a 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab305229).



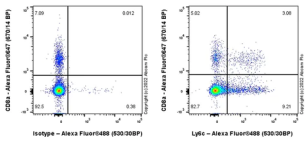
Flow Cytometry - Anti-LY6C antibody [EPR27220-67] - BSA and Azide free (ab305230)

This data was developed using ab305229, the same antibody clone in a different buffer formulation. Flow cytometric analysis of mouse bone marrow cells labeling Ly6c with ab305229 at 1/500 dilution (0.1ug) (Right panel) compared with a Rabbit monoclonal IgG (ab172730) (Left panel). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody. Cells were stained with rabbit IgG or ab305229, then stained with anti-CD11b conjugated to BV421. Gated on viable cells.



Flow Cytometry - Anti-LY6C antibody [EPR27220-67] - BSA and Azide free (ab305230)

This data was developed using ab305229, the same antibody clone in a different buffer formulation. Flow cytometric analysis of mouse bone marrow cells labeling Ly6c with ab305229 at 1/500 dilution (0.1ug) (Right panel) compared with a Rabbit monoclonal IgG isotype control (ab172730) (Left panel). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody. Cells were stained with rabbit IgG or ab305229. Then stained with anti-B220 conjugated to Alexa Fluor®647. Gated on viable cells.



Flow Cytometry - Anti-LY6C antibody [EPR27220-67] - BSA and Azide free (ab305230)

This data was developed using ab305229, the same antibody clone in a different buffer formulation. Flow cytometric analysis of mouse splenocytes labeling Ly6c with ab305229 at 1/500 dilution (0.1ug) (Right panel) compared with a Rabbit monoclonal IgG isotype control (ab172730) (Left panel). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody. Cells were stained with rabbit IgG or ab305229. Then stained with anti-CD8a conjugated to Alexa Fluor® 647. Gated on viable cells.

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