abcam

ab253070

violetFluor™ 450 Anti-Ly6g antibody [RB6-8C5]

Anti-Ly6g antibody [RB6-8C5] conjugated to violetFluor™ 450 - suitable for flow cytometry, and reacts with mouse samples. Clone [RB6-8C5] is a rat monoclonal antibody and one of the most commonly used clones for flow cytometry.

Design your panel with our interactive flow cytometry panel builder. Click here.

Key facts

Isotype	IgG2b
Host species	Rat
Conjugation	violetFluor™ 450
Excitation/Emission	Ex: 405nm, Em: 450nm
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide Constituents: 0.87% Sodium chloride, 0.16% Sodium phosphate, 0.1% Gelatin
Form	Liquid
Clonality	Monoclonal
Clone number	RB6-8C5
Purification technique	Affinity purification
Specificity	In the mouse, the RB6-8C5 antibody is typically used in combination with the macrophage labeling antibody M1/70 (Anti-CD11b) for phenotypic analysis of monocytes, macrophages and granulocytes. Note: The RB6-8C5 antibody has been reported to cross-react with Ly-6C on cells expressing this antigen (Fleming et al. 1993. J. Immunol. 151:2399-2408 and Sasmono et al. 2007. J. Leukoc. Biol. 82: 111-123) and has been cited in the literature for identification of Ly-6G/Ly-6C. Other reports suggest that this antibody is specific for Ly-6G, without cross-reactivity for Ly-6C (Nagendra S. and Schlueter AJ. 2003. Cytometry A, 58(2): 195-200.
Light chain type	kappa
Concentration	0.2 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Purification notes	Purified from tissue culture supernatant. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	Use at 0.06 µg per reaction.

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
Storage information	Store in the dark

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

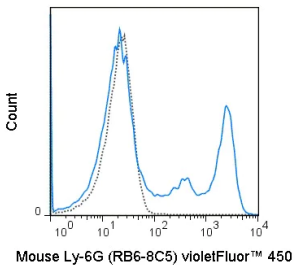
We do not recommend this combination. It is not covered by our product promise.

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.

1 product image



Flow Cytometry - violetFluor™ 450 Anti-Ly6g antibody [RB6-8C5] (ab253070)

Ly6g Flow Cytometry staining using rat Anti-Ly6g antibody

Flow cytometric analysis of mouse C57Bl/6 bone marrow cells stained for Ly6g using ab253070 at 0.06 µg per reaction (blue) or a rat IgG2b violetFluor™ 450 isotype control (black dashed line).

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