abcam

ab93550

APC Anti-Ly6c antibody [HK1.4]

Anti-Ly6c antibody [HK1.4] conjugated to APC - suitable for flow cytometry, and reacts with mouse samples. Clone [HK1.4] 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	IgG2c
Host species	Rat
Conjugation	APC
Excitation/Emission	Ex: 650nm, Em: 660nm
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide
Form	Liquid
Clonality	Monoclonal
Clone number	HK1.4
Purification technique	Affinity purification Protein G
Concentration	0.2 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	0.125 µg for 10^5-10^8 Cells

Notes	0.125µg for 105 to 108 cells in a final volume of 100 µl. ab154435 - Rat monoclonal IgG2c, is suitable for use as an isotype control with this antibody.

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

Notes

In vitro addition of clone HK1.4 monoclonal antibody can increase proliferation and stimulate cytokine release.

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

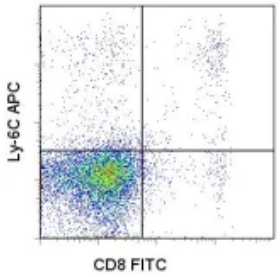
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - APC Anti-Ly6c antibody [HK1.4] (ab93550)

Ly6c Flow Cytometry staining using rat Anti-Ly6c antibody

Staining of BALB/c splenocytes with FITC anti-mouse CD8 and 0.06 µg of ab93550. Total viable cells were used for analysis.

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