abcam

ab41323

FITC Anti-CD8 antibody [12C7]

Anti-CD8 antibody [12C7] conjugated to FITC - suitable for flow cytometry, and reacts with rabbit samples. Clone [12C7] is a mouse monoclonal antibody.

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Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.09% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Clone number	12C7
Purification technique	Affinity purification Protein G
Specificity	Ab41323 recognises the rabbit CD8 cell surface antigen, expressed by a subset of T lymphocytes with cytotoxic/suppressor activity.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant.

Reactivity data

Flow Cyt

Expected

Species	Rabbit
Dilution info	-
Notes	ab91356 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target data

See full target information T-cell surface glycoprotein CD8 alpha chain

Storage

Shipped at conditions	Blue Ice
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, Store in the dark

Supplementary info

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

Activity summary	CD8 also known as CD8a or Leu-2 is a glycoprotein with a molecular weight of approximately 32 kDa. It is prominently expressed on the surface of cytotoxic T lymphocytes. These CD8 molecules facilitate the interaction between T cells and antigen-presenting cells by binding to major histocompatibility complex (MHC) class I molecules. This interaction is essential for the immune system to recognize and destroy infected or cancerous cells. CD8 is often identified using various markers like CD8 FITC CD8 APC and CD8 PerCP which are used in flow cytometry for cell sorting and analysis.
Biological function summary	CD8 plays a significant role in the adaptive immune response. It is not part of a multimeric complex but functions as a co-receptor that enhances the recognition of antigens by the T cell receptor (TCR). The presence of CD8 molecules aids the

	activation of T cells leading to their proliferation and the effective targeting and elimination of pathogens or abnormal cells. The ability of CD8 to bind to MHC class I molecules allows cytotoxic T cells to detect and respond to nearly all nucleated cells in the body.
Pathways	CD8 is integral in both the T cell receptor signaling pathway and the induction of apoptosis. In the T cell receptor signaling pathway CD8 works closely with other proteins like Lck and ZAP-70 to transmit signals upon TCR-MHC class I engagement. This promotes T cell activation cytokine production and cell division. Furthermore CD8's interaction with Fas ligand pathways contributes to the initiation of programmed cell death which is important for maintaining immune homeostasis and preventing overreaction of the immune system.
Associated diseases and disorders	CD8 T cells are significant in the context of viral infections and autoimmune diseases. For example during HIV infection the depletion of CD8 T cells impairs the immune response allowing the virus to evade the immune system. Additionally in autoimmune disorders like Type 1 diabetes CD8 T cells mistakenly target and destroy insulin-producing beta cells in the pancreas. These pathological processes also involve proteins such as MHC class I and other immune modulators like interleukins that modulate CD8 T cell activity and differentiation.

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.

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