abcam

ab24910

FITC Anti-CD8 alpha antibody [3-298]

Anti-CD8 alpha antibody [3-298] conjugated to FITC - suitable for flow cytometry, and reacts with chicken samples. Clone [3-298] is a mouse monoclonal antibody cited in 2 publications.

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Key facts

Isotype	IgG2b
Host species	Mouse
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.1% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Clone number	3-298
Purification technique	Affinity purification
Specificity	This antibody recognises CD8a.
Light chain type	kappa
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Chicken
Dilution info	-
Notes	-

Predicted

Species	Turkey
Dilution info	-
Notes	-

Target data

See full target information CD8A

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

Notes

In chicken, the CD8 molecule is present in two forms: (i) a homodimer of two alpha chains, and (ii) a heterodimer of an alpha chain and a beta chain. Chicken CD8 is expressed on approximately 80% of thymocytes, 45% of blood mononuclear cells and 50% of spleen cells, but <1% of cells in the bursa and bone marrow. While the vast majority of CD8+ cells in the thymus, spleen, and blood of adult chickens express both CD8 alpha and CD8 beta chains, a relatively large proportion of the CD8+ TCR gamma delta cells in the spleens of embryos and young chicks express only the alpha chain of CD8. Among intestinal epithelial lymphocytes, the major CD8+ T cell populations present in mice are conserved, but there is a population of TCR gamma delta CD8 alpha beta cells in the chicken that is not found in rodents.

Supplementary info

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

Activity summary	CD8 alpha also known as CD8A or CD8 protein is a glycoprotein subunit expressed on the surface of cytotoxic T lymphocytes. It has a mass of approximately 32 kDa. Found on the surface cell membrane CD8 alpha functions primarily in the immune response specifically in the recognition of antigens bound to major histocompatibility complex (MHC) class I molecules. Often scientists use CD8 antibodies for detection and CD8 IHC or immunohistochemistry for localization studies.
Biological function summary	The CD8 alpha protein plays a critical role in T-cell mediated immune responses. It forms a heterodimer with the CD8 beta chain creating the CD8 alpha-beta complex that strengthens T-cell interaction with antigen-presenting cells. CD8 alpha also helps in signaling processes that activate T cells equipping them to destroy infected or malignant cells. Researchers often study CD8 alpha peptides to understand its interactions better.
Pathways	CD8 alpha is integral to the T-cell receptor signaling pathway and the cytotoxic T lymphocyte (CTL) pathway. The T-cell receptor complex which includes the CD8 molecule transmits signals that are important for T-cell activation and function. CD8 interacts with key proteins such as the T-cell receptor (TCR) and MHC class I molecules facilitating targeted responses against pathogens. These pathways highlight CD8 alpha's role in adaptive immunity.
Associated diseases and disorders	CD8 alpha is most prominently associated with viral infections and cancer. Conditions like HIV and some forms of leukemia show altered CD8 function highlighting the protein's role in immune surveillance. In HIV infection for instance CD8 T cells reduce in number impairing the immune response. CD8 alpha's connection to the immune system places it alongside other immune proteins such as CD4 and MHC molecules in the context of immune dysfunction.

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

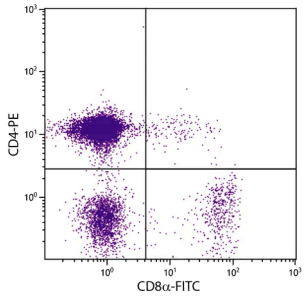
We do not recommend this combination. It is not covered by our product promise.

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In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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1 product image



Flow Cytometry - FITC Anti-CD8 alpha antibody [3-298] (ab24910)

CD8 alpha Flow Cytometry staining using mouse Anti-CD8 alpha antibody

Chicken peripheral blood lymphocytes were costained using CD8 alpha-FITC and CD4-PE to distinguish cell subpopulations. Cells were incubated with anti-CD8 alpha antibody [3-298] (FITC) (ab24910) at 1 µg/10^6 cells.

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