



CELL LAB Mouse Anti-Chicken CD8 α

<u>Cat. No.</u>	<u>Form</u>	<u>Quantity</u>
733139	Purified (UNLB) Antibody	0.5 mg
733140	Fluorescein (FITC) Conjugate	0.5 mg
733141	Biotin (BIOT) Conjugate	0.5 mg
733142	Phycoerythrin (PE) Conjugate	0.1 mg

For Laboratory Use Only

DESCRIPTION

Clone: 3-298
Isotype: IgG2b κ
Specificity: α chain of chicken CD8 (Mr 34 kDa)

In the chicken, the CD8 molecule is present in two forms: (i) a homodimer of two α chains, and (ii) a heterodimer of an α chain and a β chain.^{1,2} 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.¹ While the vast majority of CD8⁺ cells in the thymus, spleen, and blood of adult chickens express both CD8 α - and CD8 β -chains, a relatively large proportion of the CD8⁺ TCR- $\gamma\delta$ cells in the spleens of embryos and young chicks express only the α -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.³ Monoclonal antibody 3-298 recognizes the CD8 α chain of both the chicken and turkey.⁴

APPLICATIONS

- Flow cytometry⁴
- Immunohistochemistry (acetone-fixed, frozen tissue sections)
- Purification of CD8⁺ T cells by positive cell sorting
- Immunoprecipitation⁴

CHARACTERIZATION

To ensure lot-to-lot consistency, each batch of product is tested to conform with characteristics of a standard reference reagent using flow cytometry.

WORKING DILUTIONS

Flow Cytometry:

FITC conjugate	$\leq 1 \mu\text{g}/10^6$ cells
BIOT conjugate	$\leq 1 \mu\text{g}/10^6$ cells
PE conjugate	$\leq 0.2 \mu\text{g}/10^6$ cells

Other Applications: Since applications vary, determine the optimum working dilution of the product that is appropriate for your specific needs.

HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.0. No preservatives or amine-containing buffer salts added.

- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃.
- The phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent.
- Protect fluorochrome-conjugated forms from light. Do not freeze.
- Reagent is stable until the expiration date on the vial when stored at 2-8°C.

STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use reagent beyond the expiration date on the vial label.
4. Minimize exposure of reagent to light during storage or incubation.
5. Avoid microbial contamination of reagent or erroneous results may occur.
6. Use Good Laboratory Practice (GLP) when handling this reagent.
7. Harmful if swallowed.
8. After contact with skin, wash immediately with plenty of water.
9. Contains sodium azide. Sodium azide under acidic conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, immediately wash excessively with water.

TRADEMARKS

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For additional information or if damaged product is received, contact your local Beckman Coulter Representative.

REFERENCES

1. Chan MM, Chen CL, Ager LL and Cooper MD. 1988. Identification of the avian homologues of mammalian CD4 and CD8 antigens. *J Immunol*, 140:2133-2138.
2. Cooper MD, Bucy RP and Chen CL. Published in *The Avian Model in Developmental Biology: From Organism to Genes*, eds., N LeDouarin, F Dieterlen-Lievre and J Smith (Paris: Editions du Centre National de la Recherche Scientifique. pp. 239-249, 1990).
3. Tregaskes CA, Kong FK, Paramithiotis E, Chen CL, Ratcliffe MJ, Davison TF and Young JR. 1995. Identification and analysis of the expression of CD8 alpha beta and CD8 alpha alpha isoforms in chickens reveals a major TCR-gamma delta CD8 alpha beta subset of intestinal intraepithelial lymphocytes. *J Immunol*, 154:4485-4494.
4. Li Z, Nestor KE, Saif YM, Fan Z, Luhtala M and Vainio O. 1999. Cross-reactive anti-chicken CD4 and CD8 monoclonal antibodies suggest polymorphism of the turkey CD8alpha molecule. *Poult Sci*, 78:1526-1531.



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