# SouthernBiotech



# Mouse Anti-Chicken CD8 $\alpha$

Cat. No.	Format	Size
8390-01	Purified (UNLB)	0.5 mg
8390-02	Fluorescein (FITC)	0.5 mg
8390-08	Biotin (BIOT)	0.5 mg
8390-09	R-phycoerythrin (PE)	0.1 mg



Chicken peripheral blood lymphocytes were stained with Mouse Anti-Chicken CD8 $\alpha$ -PE (SB Cat. No. 8390-09) and Mouse Anti-Chicken CD4-FITC (SB Cat. No. 8210-02).

#### **Overview**

Clone	EP72
Isotype	Mouse (BALB/c) IgG <sub>2b</sub> κ
Immunogen	Chicken splenocytes
Specificity	Chicken CD8α; Mr 34 kDa
Alternate Name(s)	N/A

#### **Description**

In the 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, 15% of blood mononuclear cells and 50% of spleen cells but less than 1% of cells in the bursa and bone marrow. While the vast majority of CD8<sup>+</sup> 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<sup>+</sup> 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<sup>+</sup> 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. The monoclonal antibody EP72 recognizes the CD8 $\alpha$  chain.

## **Applications**

FC – Quality tested <sup>4-7</sup> IHC-FS – Reported in literature <sup>2,3</sup>

## **Working Dilutions**

Flow Cytometry	FITC and BIOT conjugates	$\leq$ 1 $\mu$ g/10 <sup>6</sup> cells	
	PE conjugates	$\leq$ 0.2 $\mu$ g/10 <sup>6</sup> cells	
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 $\mu\text{L}$		
Other Applications	Since applications vary, you should determine the optimum working appropriate for your specific need.	rmine the optimum working dilution for the product that is	

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# Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. No preservatives or amine-containing buffer salts added. Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN<sub>3</sub> and a stabilizing agent. Store at 2-8°C. **Do not** freeze!
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

#### Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

#### References

- 1. Paramithiotis E, Tkalec L, Ratcliffe MJ. High levels of CD45 are coordinately expressed with CD4 and CD8 on avian thymocytes. J Immunol. 1991;147:3710-7. (Immunogen)
- 2. Reemers SS, van Haarlem D, Groot Koerkamp MJ, Vervelde L. Differential gene-expression and host-response profiles against avian influenza virus within the chicken lung due to anatomy and airflow. J Gen Virol. 2009;90:2134-46. (IHC-FS)
- 3. Reemers SS, Jansen C, Groot Koerkamp MJ, van Haarlem D, van de Haar P, Degen WG, et al. Reduced immune reaction prevents immunopathology after challenge with avian influenza virus: a transcriptomics analysis of adjuvanted vaccines. Vaccine. 2010;28:6351-60. (IHC-FS)
- Marmor MD, Benatar T, Ratcliffe MJ. Retroviral transformation in vitro of chicken T cells expressing either α/β or γ/δ T cell receptors by reticuloendotheliosis virus strain T. J Exp Med. 1993;177:647-56. (FC)
- 5. Choi KD, Lillehoj HS, Song KD, Han JY. Molecular and functional characterization of chicken IL-15. Dev Comp Immunol. 1999;23:165-77. (FC)
- Chen KL, Tsay SM, Chiou PW, Sun CP, Weng BC. Effects of caponization and different forms of exogenous androgen implantation on immunity in male chicks. Poult Sci. 2010;89:887-94. (FC)
- 7. Norup LR, Dalgaard TS, Pedersen AR, Juul-Madsen HR. Assessment of Newcastle disease-specific T cell proliferation in different inbred MHC chicken lines. Scand J Immunol. 2011;74:23-30. (FC)