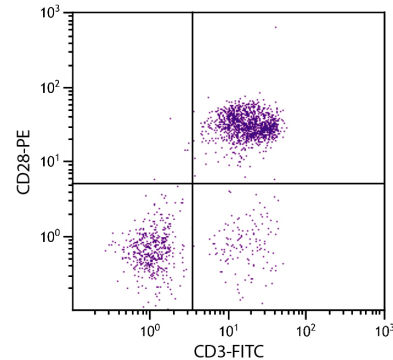




## Mouse Anti-Chicken CD28

Cat. No.	Format	Size
8260-01	Purified (UNLB)	0.5 mg
8260-02	Fluorescein (FITC)	0.5 mg
8260-08	Biotin (BIOT)	0.5 mg
8260-09	R-phycoerythrin (PE)	0.1 mg



Chicken peripheral blood lymphocytes were stained with Mouse Anti-Chicken CD28-PE (SB Cat. No. 8260-09) and Mouse Anti-Chicken CD3-FITC (SB Cat. No. 8200-02).

### Overview

<b>Clone</b>	AV7
<b>Isotype</b>	Mouse (BALB/c) IgG <sub>1</sub> κ
<b>Immunogen</b>	Chicken peripheral blood lymphocytes
<b>Specificity</b>	Chicken/Turkey CD28; Mr 40-44 kDa
<b>Alternate Name(s)</b>	N/A

### Description

Chicken CD28 antigen is a type I transmembrane monomeric glycoprotein which does not contain the cysteine residues that form disulfide-linked covalent homodimers found in the mammalian counterpart. This may reduce the avidity of binding to individual ligand molecules expected to be present on antigen presenting cells. Peripheral  $\gamma\delta^+$  T cells are CD28 negative. Monoclonal antibodies against CD28 have a costimulatory effect on T cells stimulated by phorbol myristate acetate (PMA), concanavalin A, or monoclonal antibodies against the avian T cell receptor (TCR). Both  $V\beta_1$ - and  $V\beta_2$ -expressing cells respond equally well to stimulation with anti-CD28 in combination with PMA. These responses are resistant to cyclosporin A but inhibited by herbimycin A suggesting that CD28 employs a signaling pathway at least partly distinct from that triggered by TCR/CD3. The monoclonal antibody AV7 also reacts with turkey CD28 as demonstrated by flow cytometry.

### Applications

FC – Quality tested <sup>1,5-7</sup>  
 IHC-FS – Reported in literature <sup>2</sup>  
 ICC – Reported in literature <sup>3</sup>  
 IP – Reported in literature <sup>1</sup>  
 Costim – Reported in literature <sup>4</sup>

### Working Dilutions

<b>Flow Cytometry</b>	FITC and BIOT conjugates	$\leq 1 \mu\text{g}/10^6 \text{ cells}$
	PE conjugate	$\leq 0.2 \mu\text{g}/10^6 \text{ cells}$
	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 dilution for the product that is appropriate for your specific need.

**For Research Use Only. Not for Diagnostic or Therapeutic Use.**

## Handling and Storage

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- 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

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

## References

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1. Young JR, Davison TF, Tregaskes CA, Rennie MC, Vainio O. Monomeric homologue of mammalian CD28 is expressed on chicken T cells. *J Immunol.* 1994;152:3848-51. (Immunogen, FC, IP)
2. Powell FL, Rothwell L, Clarkson MJ, Kaiser P. The turkey, compared to the chicken, fails to mount an effective early immune response to *Histomonas meleagridis* in the gut. *Parasite Immunol.* 2009;31:312-27. (IHC-FS, Turkey Reactivity)
3. Powell F, Lawson M, Rothwell L, Kaiser P. Development of reagents to study the turkey's immune response: Identification and molecular cloning of turkey CD4, CD8 $\alpha$  and CD28. *Dev Comp Immunol.* 2009;33:540-6. (ICC, Turkey Reactivity)
4. Peters MA, Browning GF, Washington EA, Crabb BS, Kaiser P. Embryonic age influences the capacity for cytokine induction in chicken thymocytes. *Immunology.* 2003;110:358-67. (Costim)
5. Meyerhoff RR, Ali RA, Liu K, Huang G, Koci MD. Comprehensive analysis of commercially available mouse antichickens monoclonal antibodies for cross-reactivity with peripheral blood leukocytes from commercial turkeys. *Poult Sci.* 2012;91:383-92. (FC, Turkey Reactivity)
6. Fernandes Filho T, Fávoro C Jr, Ingberman M, Beirão BC, Inoue A, Gomes L, et al. Effect of spray *Escherichia coli* vaccine on the immunity of poultry. *Avian Dis.* 2013;57:671-6. (FC)
7. Machado PC Jr, Beirão BC, Filho TF, Lourenço MC, Joineau ML, Santin E, et al. Use of blends of organic acids and oregano extracts in feed and water of broiler chickens to control *Salmonella* Enteritidis persistence in the crop and ceca of experimentally infected birds. *J Appl Poult Res.* 2014;23:671-82. (FC)