

**APC-Cy7 Anti-Mouse CD3 (17A2) Antibody**  
**Catalog # ATB10058****Specification**

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**APC-Cy7 Anti-Mouse CD3 (17A2) Antibody - Product Information**

Application	FC
Isotype	Rat IgG2b, kappa
Concentration	0.2 mg/mL
Reactivity	Mouse
Formulation	10 mM NaH <sub>2</sub> PO <sub>4</sub> , 150 mM NaCl, 0.09% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , 0.1% gelatin, pH7.2
Host	Rat

**APC-Cy7 Anti-Mouse CD3 (17A2) Antibody - Additional Information**

Gene ID	12502
Gene Name	Cd3g
Alternative Name(s)	
CD3 epsilon	

**Format**  
APC-Cy7**Preparation**

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

**Application Notes**

This antibody preparation has been quality-tested for flow cytometry using mouse spleen cells, or an appropriate cell type (where indicated). The amount of antibody required for optimal staining of a cell sample should be determined empirically in your system.

**Storage Conditions**

2-8°C protected from light

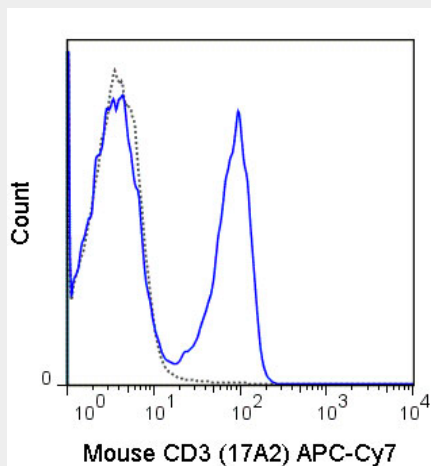
**APC-Cy7 Anti-Mouse CD3 (17A2) Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

## APC-Cy7 Anti-Mouse CD3 (17A2) Antibody - Images



C57Bl/6 splenocytes were stained with 0.5 ug APC-Cy7 Anti-Mouse CD3 (ATB10058) (solid line) or 0.5 ug APC-Cy7 Rat IgG2b isotype control (dashed line).

## APC-Cy7 Anti-Mouse CD3 (17A2) Antibody - Background

The 17A2 antibody reacts with the mouse CD3 complex, comprised of CD3 epsilon, CD3 gamma and CD3 delta. These integral membrane protein chains assemble with additional chains of the T cell receptor (TCR), as well as CD3 zeta chain, to form the T cell receptor - CD3 complex. Together with co-receptors CD4 or CD8, the complex serves to recognize antigens bound to MHC molecules on antigen-presenting cells. Such interactions promote T cell receptor signaling (T cell activation) and can result in a number of cellular responses including proliferation, differentiation, production of cytokines or activation-induced cell death. CD3 is differentially expressed during thymocyte-to-T cell development and on all mature T cells. The 17A2 antibody is a widely used phenotypic marker for mouse T cells. In addition, as the CD3e chain within the TCR complex contains intracellular signaling domains, binding of 17A2 antibody to CD3 can induce cell activation. A recent publication of the crystal structure of a murine CD3e-mitogenic antibody complex provides further insight into the action of commonly used agonist antibodies (Fernandes, R.A. et al. 2012. Journal of Biological Chemistry. 287: 13324-13335).