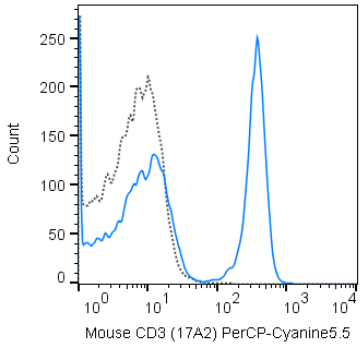
TECHNICAL DATA SHEET

PerCP-Cyanine5.5 Anti-Mouse CD3 (17A2)

Catalog Number: 65-0032

PRODUCT INFORMATION

Contents:	PerCP-Cyanine5.5 Anti-Mouse CD3 (17A2)
Isotype:	Rat IgG2b, kappa
Concentration:	0.2 mg/mL
Clone:	17A2
Reactivity:	Mouse
Use By:	6 months from date of receipt
Storage Conditions:	2-8°C protected from light
Formulation:	10 mM NaH_2PO_4, 150 mM NaCl, 0.09% NaN_3, 0.1% gelatin, pH7.2



C57Bl/6 splenocytes were stained with 0.5 ug PerCP-Cyanine5.5 Anti-Mouse CD3 (65-0032) (solid line) or 0.5 ug PerCP-Cyanine5.5 Rat IgG2b isotype control (dashed line).

DESCRIPTION

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 (use format suitable for functional assays). 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).

PREPARATION & STORAGE

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). Please refer to the figure legend for the optimal concentration used to stain the tissue shown. We recommend titrating the antibody under your specific conditions to determine the optimal concentration of antibody needed in your experimental system.

REFERENCES

Joetham A, Ohnishi H, Okamoto M, Takeda K, Schedel M, Domenico J, Dakhama A, and Gelfand EW. 2012. J. Biol. Chem. 287:17100-17108. (in vitro activation)Kasahara S and Clark, EA. 2012. J. Leukoc. Biol. 91:437-448. (in vitro activation)Xiao J, Julianty A, Wen J, Smith SV, Park PW, Ford ML, Haller CA, and Chaikof EL. 2012. Arterioscler. Thromb. Vasc. Biol. 32:386-396. (in vivo T cell depletion)Bas A, Swamy M, Abeler-Dorner L, Williams G, Pang DJ, Barbee SD, and Hayday AC. 2011 Proc. Natl. Acad. Sci. 108: 4376-4381. (Immunohistochemistry - Paraffin embedded sections)Miescher GC, Schreyer M, and MacDonald HR. 1989. Immunol. Lett. 23: 113-118. (Origination of clone 17A2, Functional Assay, Immunohistochemistry, Immunoprecipitation)

Tonbo Biosciences tests all antibodies by flow cytometry. Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.